UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2021

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to
Commission file number 1-9924

Citigroup Inc.

(Exact name of registrant as specified in its charter)

Delaware	**52-1568099**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
388 Greenwich Street, New York NY	**10013**
(Address of principal executive offices)	(Zip code)

(212) 559-1000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 formatted in Inline XBRL: See Exhibit 99.01

Securities registered pursuant to Section 12(g) of the Act: none

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	**Accelerated filer** ☐	**Non-accelerated filer** ☐	**Smaller reporting company** ☐
			Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes ☐

Indicate by check mark whether the Registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of Citigroup Inc. common stock held by non-affiliates of Citigroup Inc. on June 30, 2021 was approximately $143.2 billion.

Number of shares of Citigroup Inc. common stock outstanding on January 31, 2022: 1,980,894,613

Documents Incorporated by Reference: Portions of the registrant's proxy statement for the annual meeting of stockholders scheduled to be held on April 26, 2022 are incorporated by reference in this Form 10-K in response to Items 10, 11, 12, 13 and 14 of Part III.

Available on the web at www.citigroup.com

FORM 10-K CROSS-REFERENCE INDEX

* For additional information regarding Citigroup's Directors, see "Corporate Governance" and "Proposal 1: Election of Directors" in the definitive Proxy Statement for Citigroup's Annual Meeting of Stockholders scheduled to be held on April 26, 2022, to be filed with the SEC (the Proxy Statement), incorporated herein by reference.

** See "Compensation Discussion and Analysis," "The Personnel and Compensation Committee Report," and "2021 Summary Compensation Table and Compensation Information" and "CEO Pay Ratio" in the Proxy Statement, incorporated herein by reference.

*** See "About the Annual Meeting," "Stock Ownership," and "Equity Compensation Plan Information" in the Proxy Statement, incorporated herein by reference.

**** See "Corporate Governance—Director Independence," "—Certain Transactions and Relationships, Compensation Committee Interlocks and Insider Participation" and "—Indebtedness" in the Proxy Statement, incorporated herein by reference.

***** See "Proposal 2: Ratification of Selection of Independent Registered Public Accountants" in the Proxy Statement, incorporated herein by reference.

CITIGROUP'S 2021 ANNUAL REPORT ON FORM 10-K

OVERVIEW

Citigroup's history dates back to the founding of the City Bank of New York in 1812.

Citigroup is a global diversified financial services holding company whose businesses provide consumers, corporations, governments and institutions with a broad, yet focused, range of financial products and services, including consumer banking and credit, corporate and investment banking, securities brokerage, trade and securities services and wealth management. Citi has approximately 200 million customer accounts and does business in more than 160 countries and jurisdictions.

At December 31, 2021, Citi had approximately 223,400 full-time employees, compared to approximately 210,000 full-time employees at December 31, 2020. For additional information, see "Human Capital Resources and Management" below.

Throughout this report, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries.

For a list of terms and acronyms used in this Annual Report on Form 10-K and other Citigroup presentations, see "Glossary of Terms and Acronyms" at the end of this report.

Additional Information

Additional information about Citigroup is available on Citi's website at www.citigroup.com. Citigroup's recent annual reports on Form 10-K, quarterly reports on Form 10-Q and proxy statements, as well as other filings with the U.S. Securities and Exchange Commission (SEC), are available free of charge through Citi's website by clicking on the "Investors" tab and selecting "SEC Filings," then "Citigroup Inc." The SEC's website also contains current reports on Form 8-K and other information regarding Citi at www.sec.gov.

For a discussion of 2020 versus 2019 results of operations of *ICG*, *GCB* in *North America*, *Latin America* and *Asia*, and *Corporate/Other*, see each respective business's results of operations in Citi's 2020 Annual Report on Form 10-K.

Certain reclassifications have been made to the prior periods' financial statements and disclosures to conform to the current period's presentation.

Please see "Risk Factors" below for a discussion of material risks and uncertainties that could impact Citi's businesses, results of operations and financial condition.

As of December 31, 2021, Citigroup was managed pursuant to two operating segments—*Institutional Clients Group* and *Global Consumer Banking*—with the remaining operations in *Corporate/Other*. (For information on Citi's planned revision to its reporting structure effective for the first quarter of 2022, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" below.)

For a further description of the operating segments and the products and services they provide, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 3 to the Consolidated Financial Statements.

Citigroup Operating Segments

Institutional Clients Group (ICG)

- **Banking**
  - Investment banking
  - Treasury and trade solutions
  - Corporate lending
  - Private bank
- **Markets and securities services**
  - Fixed income markets
  - Equity markets
  - Securities services

Global Consumer Banking (GCB)

- **North America**
- **Latin America**(1)
- **Asia**(2)

Consisting of:

- **Retail banking and wealth management, including**
  - Residential real estate
  - Small business banking
- **Branded cards** in all regions
- **Retail services** in North America

Corporate/Other

- **Corporate Treasury**
- **Operations and technology**
- **Global staff functions and other corporate expenses**
- **Legacy non-core assets:**
  - Consumer loans
  - Certain portfolios of securities, loans and other assets
- **Discontinued operations**

The following are the four regions in which Citigroup operates. The regional results are fully reflected in the segment and *Corporate/Other* results above.

Citigroup Regions(3)

- **North America**
- **Europe, Middle East and Africa (EMEA)**
- **Latin America**
- **Asia**

(1) *Latin America GCB* consists of Citi's consumer banking business in Mexico.
(2) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries for all periods presented.
(3) *North America* includes the U.S., Canada and Puerto Rico, *Latin America* includes Mexico and *Asia* includes Japan.

Strategic Refresh—Market Exits and Planned Revision to Reporting Structure

As part of its strategic refresh, Citi is making management reporting changes to align with its vision and strategy, including to assist Citi in decisions about resources and capital allocation and to assess business performance. In the first quarter of 2022, Citi will revise its financial reporting structure to align with these management reporting changes to enable investors and others to better understand the performance of Citi's businesses (see the table below for additional information on the revised financial reporting structure):

- First, Citi is creating a *Personal Banking and Wealth Management* segment. It will consist of two distinct reporting units: *U.S. Personal Banking* businesses and a *Global Wealth Management* business, which will include the private bank.
- Second, with respect to *Institutional Clients Group (ICG)*, Citi will begin reporting under three reporting units: *Services*, *Banking* and *Markets*. *Services* will include treasury and trade solutions and securities services, reflecting the importance of these businesses to Citi's future.
- Finally, Citi is creating *Legacy Franchises*, a segment that will consist of all the businesses Citi intends to exit (see below), including its remaining Legacy Holdings assets.

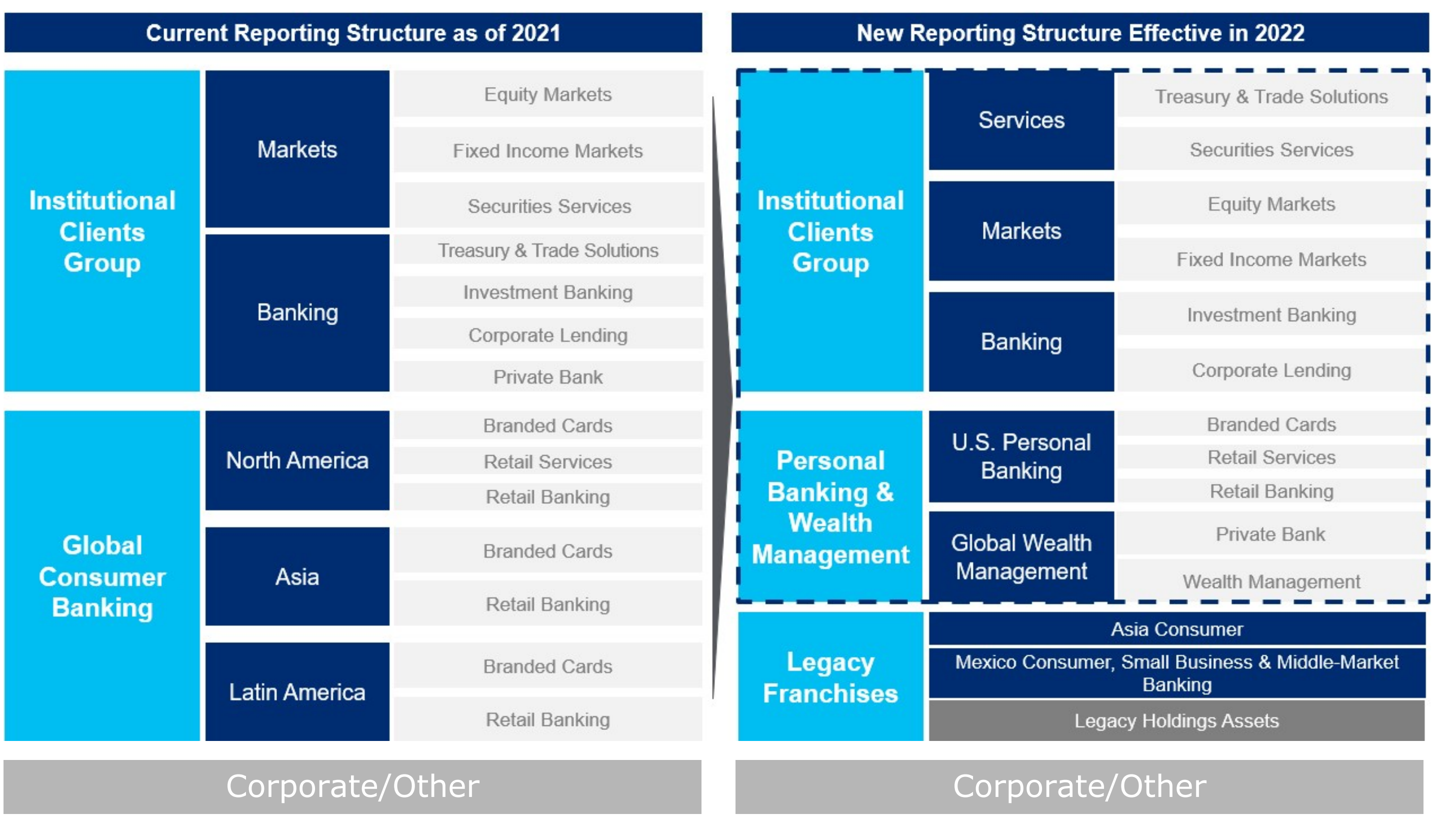
In conjunction with the strategic refresh, in 2021 Citi announced that it will focus its consumer banking franchises in *Asia* and *EMEA* on four wealth centers: Singapore, Hong Kong, the United Arab Emirates (UAE) and London. As a result, Citi is pursuing exits of its consumer franchises in the remaining 13 markets across these two regions.

In 2021 and early 2022, Citi announced sale agreements for or exit of a majority of the 13 markets (for additional information, see "Executive Summary" and "*Asia GCB*" below). *ICG* will continue to serve clients, including its commercial banking clients, in all of these markets.

In addition, in January 2022, Citi announced that it intends to exit the consumer, small business and middle-market banking operations of Citibanamex. The businesses in the intended exit include the Mexico consumer and small business banking operations, reported as part of Citi's *GCB* segment, as well as the Mexico middle-market banking business, reported in Citi's *ICG* segment. These operations represent the entirety of the *Latin America GCB* unit. Citi will continue to operate a locally licensed banking business in Mexico through its global *ICG* (for additional information, see "Executive Summary" and "*Latin America GCB*" below).

For additional information regarding the exit markets, see Note 2 to the Consolidated Financial Statements. For information regarding risks related to the exit markets, see "Risk Factors" below.

The following table summarizes both Citi's reporting structure during 2021 and its planned 2022 financial reporting structure:



EXECUTIVE SUMMARY

As described further throughout this Executive Summary, Citi demonstrated continued progress across the franchise during 2021:

- Citi's earnings increased significantly versus the prior year, largely reflecting an allowance for credit loss (ACL) release of approximately $8.8 billion as a result of continued improvement in both the macroeconomic environment and portfolio credit quality.
- Citi's revenues declined 5% from the prior year. Excluding a pretax loss of approximately $0.7 billion (approximately $0.6 billion after-tax) related to Citi's agreement to sell its Australia consumer banking business in *Asia Global Consumer Banking (GCB)* (see "Citigroup" below), Citi's revenues declined 4%, as strength in investment banking, equity markets, the private bank and securities services in *Institutional Clients Group (ICG)* was more than offset by normalization in market activity in fixed income markets within *ICG*, as well as the impact of lower deposit spreads and card loans across *GCB*.
- Citi's expenses included pretax costs of approximately $1.2 billion ($1.1 billion after-tax) primarily related to charges incurred from the voluntary early retirement program (VERP) in connection with the wind-down of the Korea consumer banking business (for additional information, see "*Asia GCB*" below).
- Citi continued to invest in its transformation, including infrastructure supporting its risk and control environment, and make business-led investments.
- Citi had broad-based deposit growth across *ICG* and *GCB* (up 3% and 5%, respectively), reflecting continued engagement across both corporate and consumer clients.
- Citi returned approximately $11.8 billion of capital to its common shareholders in the form of $4.2 billion in dividends and $7.6 billion in common share repurchases, totaling approximately 105 million common shares, while maintaining robust regulatory capital ratios.
- In addition to the sale announcements related to *Asia GCB*, Citi also announced it intends to exit the consumer, small business and middle-market banking operations of Citibanamex in Mexico. Citi's planned divestitures of its consumer businesses across Mexico, *Asia* and *EMEA* are aligned with the repositioning of its consumer operations to focus on global wealth centers, as well as payments and lending and a targeted retail presence in the U.S. (For additional information on the exit markets and Citi's revised reporting structure effective for the first quarter of 2022, see "Strategic Refresh—Market Exits and Revised Reporting Strategy" above and "*Latin America GCB*" and "*Asia GCB*" below.)

Although economic growth and employment rates have continued to recover from pandemic-related lows, particularly in the U.S., various macroeconomic and other challenges and uncertainties related to, among other things, the duration and severity of the pandemic-related public health crisis, disruptions of global supply chains, inflationary pressures, increasing interest rates and geopolitical tensions involving Eastern Europe, will continue to create uncertainty around Citi's businesses and results.

For a discussion of trends, uncertainties and risks that will or could impact Citi's businesses, results of operations and financial condition during 2022, see "2021 Results Summary," "Risk Factors," each respective business's results of operations and "Managing Global Risk" below.

2021 Results Summary

Citigroup

Citigroup reported net income of $22.0 billion, or $10.14 per share, compared to net income of $11.0 billion, or $4.72 per share, in the prior year. The increase in net income was driven by lower cost of credit, partially offset by higher expenses and lower revenues. Citigroup's effective tax rate was 20%, up modestly from 19% in the prior year. Earnings per share increased significantly, primarily driven by net income.

Citigroup revenues of $71.9 billion decreased 5% from the prior year. Excluding the Australia loss on sale, Citigroup revenues decreased 4%, primarily driven by lower revenues in both *ICG* and *GCB*, partially offset by higher revenues in *Corporate/Other*.

As discussed above, Citi's 2021 results include the impacts of divestitures of Citi's consumer banking businesses in *Asia*. Reported revenues include the Australia loss on sale (approximately $0.7 billion pretax, $0.6 billion after-tax), primarily reflecting the impact of a currency translation adjustment (CTA) loss (net of hedges) already reflected in the *Accumulated other comprehensive income (AOCI)* component of equity. Upon closing, the CTA balance will be removed from the *AOCI* component of equity, resulting in a neutral impact to Citi's Common Equity Tier 1 Capital.

Reported expenses include the impact of the Korea VERP of approximately $1.1 billion (approximately $0.8 billion after-tax) and contract modification costs related to the *Asia* divestitures of approximately $119 million (approximately $98 million after-tax). (As used throughout this Form 10-K, Citi's results of operations and financial condition excluding the impact of the Australia loss on sale, Korea VERP and other *Asia* divestiture-related costs are non-GAAP financial measures. Citi believes the presentation of its results of operations and financial condition excluding the divestiture-related impacts described above provides a meaningful depiction of the underlying fundamentals of its broader results and *Asia GCB* businesses' results for investors, industry analysts and others.)

Citigroup's end-of-period loans decreased 1% from the prior year to $668 billion. Excluding the impact of foreign currency translation into U.S. dollars for reporting purposes (FX translation), Citigroup's end-of-period loans were largely unchanged, as growth in *ICG* was offset by lower loans in *GCB* and *Corporate/Other*. Citigroup's end-of-period deposits increased 3% to $1.3 trillion. Excluding the impact of FX translation, Citigroup's end-of-period deposits increased 4%, reflecting growth in both *GCB* and *ICG*. (As used throughout this Form 10-K, Citi's results of operations excluding the impact of FX translation are non-GAAP financial measures. Citi believes the presentation of its results of operations and financial condition excluding the impact of FX translation provides a meaningful depiction of the underlying fundamentals of its businesses for investors, industry analysts and others.)

Expenses

Citigroup operating expenses of $48.2 billion increased 9% versus the prior year. Excluding the impact of the *Asia* divestitures, expenses of $47.0 billion increased 6%, primarily reflecting investments in Citi's transformation, including infrastructure supporting its risk and control environment, business-led investments and revenue- and transaction-related expenses, partially offset by productivity savings. Citi expects expenses in 2022 to continue to be impacted by its transformation-related and business-led investments.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims were a benefit of $3.8 billion, compared to a cost of $17.5 billion in the prior year primarily related to the pandemic. The decreased cost of credit was driven by a net ACL reserve release of $8.8 billion (versus a build of $9.8 billion in the prior year) as well as lower net credit losses. Citi's net ACL release primarily reflected improvement in Citi's macroeconomic outlook and portfolio credit quality. Citi could experience higher credit costs in 2022, as the level of ACL releases from 2021 are unlikely to continue, and Citi expects to build ACL reserves for new lending volumes.

For further information on the drivers of Citi's ACL, see "Significant Accounting Policies and Significant Estimates—Citi's Allowance for Credit Losses (ACL)" below.

Net credit losses of $4.9 billion declined 36% from the prior year. Consumer net credit losses of $4.5 billion decreased 32%, primarily reflecting lower loan volumes and improved delinquencies in the *North America* cards portfolios. Corporate net credit losses of $395 million decreased 60%, primarily reflecting improvements in portfolio credit quality.

For additional information on Citi's consumer and corporate credit costs and ACL, see each respective business's results of operations and "Credit Risk" below.

Capital

Citigroup's Common Equity Tier 1 Capital ratio was 12.2% as of December 31, 2021, based on the Basel III Standardized Approach framework for determining risk-weighted assets, compared to 11.5% as of December 31, 2020, based on the Basel III Advanced Approaches for determining risk-weighted assets. The increase in the ratio primarily reflected actions to reduce risk-weighted assets (RWA) and a temporary pause in common share repurchases in the fourth quarter of 2021, in preparation for the implementation of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. Citi resumed common share repurchases in January 2022.

Citigroup's Supplementary Leverage ratio was 5.7% as of December 31, 2021, compared to 7.0% as of December 31, 2020. The decrease was primarily driven by the expiration of temporary relief granted by the Federal Reserve Board (FRB) as of the end of the first quarter of 2021. For additional information on SA-CCR and Citi's capital ratios, see "Capital Resources" below.

Institutional Clients Group

ICG net income of $15.7 billion increased 36%, reflecting lower cost of credit, partially offset by higher expenses and lower revenues. *ICG* operating expenses increased 8% to $26.5 billion, reflecting continued investments in Citi's transformation, business-led investments and revenue- and transaction-related expenses, partially offset by productivity savings.

ICG revenues of $43.9 billion decreased 3%, as a 7% increase in *Banking* revenues was more than offset by an 11% decline in *Markets and securities services* revenues. The increase in *Banking* revenues included the impact of $144 million of losses on loan hedges related to corporate lending and the private bank, compared to losses of $51 million in the prior year.

Banking revenues of $23.3 billion (excluding the impact of losses on loan hedges) increased 7%, as higher revenues in investment banking and the private bank were partially offset by lower revenues in treasury and trade solutions and corporate lending. Investment banking revenues of $7.5 billion increased 30%, reflecting growth across products, particularly in advisory and equity underwriting. Advisory revenues increased 78% to $1.8 billion, equity underwriting revenues increased 53% to $2.4 billion and debt underwriting revenues increased 3% to $3.3 billion.

Treasury and trade solutions revenues of $9.4 billion declined 4%, as higher fee revenues, including a recovery in commercial card revenues, as well as growth in trade were more than offset by the impact of lower deposit spreads. Private bank revenues increased 5%. Excluding the impact of gains on loan hedges, private bank revenues of $4.0 billion increased 6%, driven by higher loan volumes and spreads, as well as higher managed investments and deposits, partially offset by lower deposit spreads. Corporate lending revenues decreased 3%. Excluding the impact of losses on loan hedges, corporate lending revenues of $2.3 billion decreased 1%, as lower cost of funds was more than offset by lower loan volumes.

Markets and securities services revenues of $20.8 billion decreased 11%. Fixed income markets revenues of $13.7 billion decreased 22%, reflecting a normalization in market activity across rates and spread products. Equity markets revenues of $4.5 billion increased 25%, driven by growth across all products, reflecting solid client activity and favorable market conditions. Securities services revenues of $2.7 billion increased 6%, as strong fee revenues, driven by higher settlement volumes and higher assets under custody, were partially offset by lower deposit spreads. For additional information on the results of operations of *ICG* in 2021, see "*Institutional Clients Group*" below.

Global Consumer Banking

GCB net income was $6.1 billion, compared to net income of $667 million in the prior year, reflecting lower cost of credit, partially offset by lower revenues and higher expenses. *GCB* operating expenses of $20.0 billion increased 12%. Excluding the impact of FX translation and the *Asia* divestitures, expenses increased 5%, reflecting continued investments in Citi's transformation, as well as business-led investments and volume-related expenses, partially offset by productivity savings.

GCB revenues of $27.3 billion decreased 10% from the prior year. Excluding the impact of FX translation and the Australia loss on sale, revenues decreased 9%, as continued solid deposit growth and growth in assets under management were more than offset by lower card loans and lower deposit spreads. For additional information on *GCB*'s results of operations, including the impact of FX translation, see "*Global Consumer Banking*" below.

North America GCB revenues of $17.5 billion decreased 9%, with lower revenues across branded cards, retail services and retail banking. Branded cards revenues of $8.2 billion decreased 7%, reflecting continued higher payment rates. Retail services revenues of $5.1 billion decreased 15%, reflecting continued higher payment rates and lower average loans as well as higher partner payments. Retail banking revenues of $4.2 billion decreased 7%, as the benefit of stronger deposit volumes was more than offset by lower deposit spreads and lower mortgage revenues.

North America GCB average deposits of $206 billion increased 17% year-over-year and average retail banking loans of $50 billion decreased 4% year-over-year, while assets under management of $87 billion increased 8%. Average branded cards loans of $81 billion decreased 4% and average retail services loans decreased 7%, reflecting higher payment rates. Branded cards spend volume of $411 billion increased 21% and retail services spend volume of $92 billion increased 18%, reflecting a recovery in sales activity from the pandemic-driven low levels in the prior year. For additional information on the results of operations of *North America GCB* in 2021, see "*Global Consumer Banking—North America GCB*" below.

International *GCB* revenues (consisting of *Latin America GCB* and *Asia GCB* (which includes the results of operations in certain *EMEA* countries)) of $9.8 billion declined 11% versus the prior year. Excluding the impact of FX translation and the Australia loss on sale, international *GCB* revenues declined 7%. Excluding the impact of FX translation, *Latin America GCB* revenues decreased 9%, driven by lower average loans and lower deposit spreads. Excluding the impact of FX translation and the Australia loss on sale, *Asia GCB* revenues decreased 6%, reflecting lower spreads, partially offset by higher investment revenues. For additional information on the results of operations of *Latin America GCB* and *Asia GCB* in 2021, including the impacts of FX translation, see "*Global Consumer Banking—Latin America GCB*" and "*Global Consumer Banking—Asia GCB*" below. For additional information on Citi's consumer banking business in Australia, see "*Global Consumer Banking—Asia GCB*" below.

Year-over-year, excluding the impact of FX translation, international *GCB* average deposits of $146 billion increased 5%, average retail banking loans of $72 billion decreased 3% and assets under management of $145 billion increased 5%. On this basis, international *GCB* average card loans of $20 billion decreased 13%, while credit card spend volumes of $100 billion increased 9%, reflecting a continued recovery in credit card spend activity from the pandemic-related low levels in the prior year.

Corporate/Other

Corporate/Other net income was $215 million, compared to a net loss of $1.1 billion in the prior year, reflecting higher revenues, lower expenses, lower cost of credit, and the release of a foreign tax credit (FTC) valuation allowance. Operating expenses of $1.6 billion decreased 14%, reflecting the absence of the prior year's civil money penalty and the wind-down of legacy assets, partially offset by increases related to Citi's transformation.

Corporate/Other revenues of $667 million compared to $71 million in the prior year, primarily driven by higher net revenue from the investment portfolio. For additional information on the results of operations of *Corporate/Other* in 2021, see "*Corporate/Other*" below.

CITI'S CONSENT ORDER COMPLIANCE

Citi has embarked on a multiyear transformation, with the target outcome to change Citi's business and operating models such that they simultaneously strengthen risk and controls and improve Citi's value to customers, clients and shareholders.

This includes efforts to effectively implement the October 2020 FRB and Office of the Comptroller of the Currency (OCC) consent orders issued to Citigroup and Citibank, respectively. In the second quarter of 2021, Citi made an initial submission to the OCC, and submitted its plans to address the consent orders to both regulators during the third quarter of 2021. Citi continues to work constructively with the regulators, and will continue to reflect their feedback in its project plans and execution efforts.

As discussed above, Citi's efforts include continued investments in its transformation, including the remediation of its consent orders. Citi's CEO has made the strengthening of Citi's risk and control environment a strategic priority and has established a Chief Administrative Officer organization to centralize program management. In addition, the Citigroup and Citibank Boards of Directors each formed a Transformation Oversight Committee, an ad hoc committee of each Board, to provide oversight of management's remediation efforts under the consent orders.

For additional information about the consent orders, see "Risk Factors—Compliance Risks" below and Citi's Current Report on Form 8-K filed with the SEC on October 7, 2020.

RESULTS OF OPERATIONS

SUMMARY OF SELECTED FINANCIAL DATA

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts	**2021**	2020	2019	2018	2017
Net interest income[1]	**$ 42,494**	$ 44,751	$ 48,128	$ 46,562	$ 45,061
Non-interest revenue	**29,390**	30,750	26,939	27,474	28,632
Revenues, net of interest expense	**$ 71,884**	$ 75,501	$ 75,067	$ 74,036	$ 73,693
Operating expenses[1]	**48,193**	44,374	42,783	43,023	43,481
Provisions for credit losses and for benefits and claims	**(3,778)**	17,495	8,383	7,568	7,451
Income from continuing operations before income taxes	**$ 27,469**	$ 13,632	$ 23,901	$ 23,445	$ 22,761
Income taxes[2]	**5,451**	2,525	4,430	5,357	29,388
Income (loss) from continuing operations	**$ 22,018**	$ 11,107	$ 19,471	$ 18,088	$ (6,627)
Income (loss) from discontinued operations, net of taxes	**7**	(20)	(4)	(8)	(111)
Net income (loss) before attribution of noncontrolling interests	**$ 22,025**	$ 11,087	$ 19,467	$ 18,080	$ (6,738)
Net income attributable to noncontrolling interests	**73**	40	66	35	60
Citigroup's net income (loss)[2]	**$ 21,952**	$ 11,047	$ 19,401	$ 18,045	$ (6,798)
Earnings per share					
Basic					
Income (loss) from continuing operations	**$ 10.21**	$ 4.75	$ 8.08	$ 6.69	$ (2.94)
Net income (loss)	**10.21**	4.74	8.08	6.69	(2.98)
Diluted					
Income (loss) from continuing operations	**$ 10.14**	$ 4.73	$ 8.04	$ 6.69	$ (2.94)
Net income (loss)	**10.14**	4.72	8.04	6.68	(2.98)
Dividends declared per common share	**2.04**	2.04	1.92	1.54	0.96
Common dividends	**$ 4,196**	$ 4,299	$ 4,403	$ 3,865	$ 2,595
Preferred dividends	**1,040**	1,095	1,109	1,174	1,213
Common share repurchases	**7,600**	2,925	17,875	14,545	14,538

Table continues on the next page, including footnotes.

SUMMARY OF SELECTED FINANCIAL DATA
(Continued)

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts, ratios and direct staff	**2021**	2020	2019	2018	2017
At December 31:					
Total assets	**$ 2,291,413**	$ 2,260,090	$ 1,951,158	$ 1,917,383	$ 1,842,465
Total deposits	**1,317,230**	1,280,671	1,070,590	1,013,170	959,822
Long-term debt	**254,374**	271,686	248,760	231,999	236,709
Citigroup common stockholders' equity(2)	**182,977**	179,962	175,262	177,760	181,487
Total Citigroup stockholders' equity(2)	**201,972**	199,442	193,242	196,220	200,740
Average assets	**2,347,709**	2,226,454	1,978,805	1,920,242	1,875,438
Direct staff *(in thousands)*	**223**	210	200	204	209
Performance metrics					
Return on average assets	**0.94 %**	0.50 %	0.98 %	0.94 %	(0.36)%
Return on average common stockholders' equity(2)(3)	**11.5**	5.7	10.3	9.4	(3.9)
Return on average total stockholders' equity(2)(3)	**10.9**	5.7	9.9	9.1	(3.0)
Return on tangible common equity (RoTCE)(2)(4)	**13.4**	6.6	12.1	11.0	8.1
Efficiency ratio (total operating expenses/total revenues, net)	**67.0**	58.8	57.0	58.1	59.0
Basel III ratios(2)(5)					
Common Equity Tier 1 Capital(6)	**12.25 %**	11.51 %	11.79 %	11.86 %	12.36 %
Tier 1 Capital(6)	**13.91**	13.06	13.33	13.43	14.06
Total Capital(6)	**16.04**	15.33	15.87	16.14	16.30
Supplementary Leverage ratio	**5.73**	6.99	6.20	6.40	6.68
Citigroup common stockholders' equity to assets(2)	**7.99 %**	7.96 %	8.98 %	9.27 %	9.85 %
Total Citigroup stockholders' equity to assets(2)	**8.81**	8.82	9.90	10.23	10.90
Dividend payout ratio(7)	**20**	43	24	23	NM
Total payout ratio(8)	**56**	73	122	109	NM
Book value per common share(2)	**$ 92.21**	$ 86.43	$ 82.90	$ 75.05	$ 70.62
Tangible book value (TBV) per share(2)(4)	**79.16**	73.67	70.39	63.79	60.16

(1) Revenue previously referred to as net interest revenue is now referred to as net interest income. During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each year were $1,207 million for 2021, $1,203 million for 2020, $781 million for 2019, $1,182 million for 2018 and $1,249 million for 2017. See Note 1 to the Consolidated Financial Statements.

(2) 2017 includes the one-time impact related to enactment of the Tax Cuts and Jobs Act (Tax Reform). 2020, 2019 and 2018 reflect the tax rate structure post Tax Reform. RoTCE for 2017 excludes the one-time impact from Tax Reform and is a non-GAAP financial measure. For additional information, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below.

(3) The return on average common stockholders' equity is calculated using net income less preferred stock dividends divided by average common stockholders' equity. The return on average total Citigroup stockholders' equity is calculated using net income divided by average Citigroup stockholders' equity.

(4) RoTCE and TBV are non-GAAP financial measures. For information on RoTCE and TBV, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Returns on Equity" below.

(5) Citi's risk-based capital and leverage ratios for 2017 are non-GAAP financial measures, which reflect full implementation of regulatory capital adjustments and deductions prior to the effective date of January 1, 2018.

(6) Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach, and the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework as of December 31, 2021 and December 31, 2019 to 2017. Citi's reportable Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios were the lower derived under the Basel III Advanced Approaches framework as of December 31, 2020.

(7) Dividends declared per common share as a percentage of net income per diluted share.

(8) Total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders (*Net income*, less preferred dividends). See "Consolidated Statement of Changes in Stockholders' Equity," Note 10 to the Consolidated Financial Statements and "Equity Security Repurchases" below for the component details.

NM Not meaningful

SEGMENT AND BUSINESS—INCOME (LOSS) AND REVENUES

CITIGROUP INCOME

In millions of dollars	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Income (loss) from continuing operations					
Institutional Clients Group					
North America	**$ 5,781**	$ 3,310	$ 3,407	**75 %**	(3)%
EMEA	**4,347**	3,280	3,836	**33**	(14)
Latin America	**2,429**	1,390	2,101	**75**	(34)
Asia	**3,206**	3,573	3,432	**(10)**	4
Total	**$ 15,763**	$ 11,553	$ 12,776	**36 %**	(10)%
Global Consumer Banking					
North America	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM
Latin America	**798**	241	885	**NM**	(73)%
Asia(1)	**(686)**	468	1,537	**NM**	(70)
Total	**$ 6,046**	$ 663	$ 5,579	**NM**	(88)%
Corporate/Other	**209**	(1,109)	1,116	**NM**	NM
Income from continuing operations	**$ 22,018**	$ 11,107	$ 19,471	**98 %**	(43)%
Discontinued operations	**$ 7**	$ (20)	$ (4)	**NM**	NM
Less: Net income attributable to noncontrolling interests	**73**	40	66	**83 %**	(39)%
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401	**99 %**	(43)%

(1) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries.
NM Not meaningful

CITIGROUP REVENUES

In millions of dollars	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Institutional Clients Group					
North America	**$ 16,748**	$ 17,476	$ 13,603	**(4)%**	28 %
EMEA	**13,094**	13,041	12,157	**—**	7
Latin America	**4,946**	4,981	5,275	**(1)**	(6)
Asia	**9,099**	9,590	8,789	**(5)**	9
Total	**$ 43,887**	$ 45,088	$ 39,824	**(3)%**	13 %
Global Consumer Banking					
North America	**$ 17,481**	$ 19,284	$ 20,460	**(9)%**	(6)%
Latin America	**4,250**	4,466	5,334	**(5)**	(16)
Asia(1)	**5,599**	6,592	7,427	**(15)**	(11)
Total	**$ 27,330**	$ 30,342	$ 33,221	**(10)%**	(9)%
Corporate/Other	**667**	71	2,022	**NM**	(96)
Total Citigroup net revenues	**$ 71,884**	$ 75,501	$ 75,067	**(5)%**	1 %

(1) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries.
NM Not meaningful

SEGMENT BALANCE SHEET[1]—DECEMBER 31, 2021

In millions of dollars	Institutional Clients Group	Global Consumer Banking	Corporate/ Other and consolidating eliminations[2]	Citigroup parent company-issued long-term debt and stockholders' equity[3]	Total Citigroup consolidated
Assets					
Cash and deposits with banks, net of allowance	$ 90,714	$ 7,953	$ 163,366	$ —	$ 262,033
Securities borrowed and purchased under agreements to resell, net of allowance	326,937	118	233	—	327,288
Trading account assets	318,495	1,186	12,264	—	331,945
Investments, net of allowance	132,357	1,218	379,247	—	512,822
Loans, net of unearned income and allowance for credit losses on loans	393,681	253,721	3,910	—	651,312
Other assets, net of allowance	112,901	51,480	41,632	—	206,013
Net inter-segment liquid assets[4]	386,448	116,728	(503,176)	—	—
Total assets	$ 1,761,533	$ 432,404	$ 97,476	$ —	$ 2,291,413
Liabilities and equity					
Total deposits	$ 949,522	$ 361,808	$ 5,900	$ —	$ 1,317,230
Securities loaned and sold under agreements to repurchase	188,784	2,498	3	—	191,285
Trading account liabilities	160,353	763	413	—	161,529
Short-term borrowings	27,309	109	555	—	27,973
Long-term debt[3]	89,720	482	(773)	164,945	254,374
Other liabilities, net of allowance	88,443	32,325	15,582	—	136,350
Net inter-segment funding (lending)[3]	257,402	34,419	75,096	(366,917)	—
Total liabilities	$ 1,761,533	$ 432,404	$ 96,776	$ (201,972)	$ 2,088,741
Total stockholders' equity[5]	—	—	700	201,972	202,672
Total liabilities and equity	$ 1,761,533	$ 432,404	$ 97,476	$ —	$ 2,291,413

(1) The supplemental information presented in the table above reflects Citigroup's consolidated GAAP balance sheet by reporting segment. The respective segment information depicts the assets and liabilities managed by each segment.
(2) Consolidating eliminations for total Citigroup and Citigroup parent company assets and liabilities are recorded within *Corporate/Other*.
(3) Total stockholders' equity and the majority of long-term debt of Citigroup are reflected on the Citigroup parent company balance sheet. Citigroup allocates stockholders' equity and long-term debt to its businesses through inter-segment allocations as shown above.
(4) Represents the attribution of Citigroup's liquid assets (primarily consisting of cash, marketable equity securities and available-for-sale debt securities) to the various businesses based on Liquidity Coverage Ratio (LCR) assumptions.
(5) *Corporate/Other* equity represents noncontrolling interests.

INSTITUTIONAL CLIENTS GROUP

As of December 31, 2021, *Institutional Clients Group (ICG)* included *Banking* and *Markets and securities services* (for additional information on these businesses, see "Citigroup Segments" above). *ICG* provided corporate, institutional, public sector and high-net-worth clients around the world with a full range of wholesale banking products and services, including fixed income and equity sales and trading, foreign exchange, prime brokerage, derivative services, equity and fixed income research, corporate lending, investment banking and advisory services, private banking, cash management, trade finance and securities services. *ICG* transacted with clients in both cash instruments and derivatives, including fixed income, foreign currency, equity and commodity products.

For information on Citi's planned revision to its reporting structure, including the reporting of the private bank as part of a new reporting segment, *Personal Banking and Wealth Management*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

ICG revenue is generated primarily from fees and spreads associated with these activities. *ICG* earns fee income for assisting clients with transactional services and clearing and providing brokerage and investment banking services and other such activities. Such fees are recognized at the point in time when Citigroup's performance under the terms of a contractual arrangement is completed, which is typically at the trade/execution date or closing of a transaction. Revenue generated from these activities is recorded in *Commissions and fees* and *Investment banking*. Revenue is also generated from assets under custody and administration, which is recognized as/when the associated promised service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi. Revenue generated from these activities is primarily recorded in *Administration and other fiduciary fees*. For additional information on these various types of revenues, see Note 5 to the Consolidated Financial Statements.

In addition, as a market maker, *ICG* facilitates transactions, including holding product inventory to meet client demand, and earns the differential between the price at which it buys and sells the products. These price differentials and the unrealized gains and losses on the inventory are recorded in *Principal transactions*. Mark-to-market gains and losses on certain credit derivatives (used to hedge the corporate loan portfolio) are also recorded in *Principal transactions* (for additional information on *Principal transactions* revenue, see Note 6 to the Consolidated Financial Statements). *Other* primarily includes realized gains and losses on available-for-sale (AFS) debt securities, gains and losses on equity securities not held in trading accounts and other non-recurring gains and losses. Interest income earned on assets held, less interest paid on long- and short-term debt and to customers on deposits, is recorded as *Net interest income*.

The amount and types of *Markets* revenues are impacted by a variety of interrelated factors, including market liquidity; changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities; investor confidence and other macroeconomic conditions. Assuming all other market conditions do not change, increases in client activity levels or bid/offer spreads generally result in increases in revenues. However, changes in market conditions can significantly impact client activity levels, bid/offer spreads and the fair value of product inventory. For example, a decrease in market liquidity may increase bid/offer spreads, decrease client activity levels and widen credit spreads on product inventory positions.

ICG's management of the *Markets* businesses involves daily monitoring and evaluation of the above factors at the trading desk as well as the country level.

In the *Markets* businesses, client revenues are those revenues directly attributable to client transactions at the time of inception, including commissions, interest or fees earned. Client revenues do not include the results of client facilitation activities (e.g., holding product inventory in anticipation of client demand) or the results of certain economic hedging activities.

ICG's international presence is supported by trading floors in approximately 80 countries and a proprietary network in 95 countries and jurisdictions. At December 31, 2021, *ICG* had $1.8 trillion in assets and $950 billion in deposits. Securities services and issuer services managed $24.0 trillion in assets under custody and administration at December 31, 2021, of which Citi provides both custody and administrative services to certain clients related to $1.9 trillion of such assets. Managed assets under trust were $3.8 trillion at December 31, 2021. For additional information on these operations, see "Administration and Other Fiduciary Fees" in Note 5 to the Consolidated Financial Statements.

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Commissions and fees	**$ 4,750**	$ 4,412	$ 4,462	**8 %**	(1)%
Administration and other fiduciary fees	**3,351**	2,877	2,756	**16**	4
Investment banking	**6,741**	5,009	4,440	**35**	13
Principal transactions	**10,064**	13,308	8,562	**(24)**	55
Other[1]	**1,384**	1,149	1,829	**20**	(37)
Total non-interest revenue	**$ 26,290**	$ 26,755	$ 22,049	**(2)%**	21 %
Net interest income (including dividends)	**17,597**	18,333	17,775	**(4)**	3
Total revenues, net of interest expense	**$ 43,887**	$ 45,088	$ 39,824	**(3)%**	13 %
Total operating expenses[2]	**$ 26,513**	$ 24,617	$ 22,961	**8 %**	7 %
Net credit losses on loans	**$ 396**	$ 987	$ 394	**(60)%**	NM
Credit reserve build (release) for loans	**(2,533)**	3,172	71	**NM**	NM
Provision for credit losses on unfunded lending commitments	**(777)**	1,435	98	**NM**	NM
Provisions for credit losses on HTM debt securities and other assets	**1**	21	—	**(95)**	100 %
Provisions for credit losses	**$ (2,913)**	$ 5,615	$ 563	**NM**	NM
Income from continuing operations before taxes	**$ 20,287**	$ 14,856	$ 16,300	**37 %**	(9)%
Income taxes	**4,524**	3,303	3,524	**37**	(6)
Income from continuing operations	**$ 15,763**	$ 11,553	$ 12,776	**36 %**	(10)%
Noncontrolling interests	**83**	50	40	**66**	25
Net income	**$ 15,680**	$ 11,503	$ 12,736	**36 %**	(10)%
Balance Sheet data and ratios					
EOP assets *(in billions of dollars)*	**$ 1,762**	$ 1,730	$ 1,447	**2 %**	20 %
Average assets *(in billions of dollars)*	**1,812**	1,706	1,493	**6**	14
Return on average assets	**0.87 %**	0.67 %	0.85 %		
Efficiency ratio	**60**	55	58		
Revenues by region					
North America	**$ 16,748**	$ 17,476	$ 13,603	**(4)%**	28 %
EMEA	**13,094**	13,041	12,157	**—**	7
Latin America	**4,946**	4,981	5,275	**(1)**	(6)
Asia	**9,099**	9,590	8,789	**(5)**	9
Total	**$ 43,887**	$ 45,088	$ 39,824	**(3)%**	13 %
Income from continuing operations by region					
North America	**$ 5,781**	$ 3,310	$ 3,407	**75 %**	(3)%
EMEA	**4,347**	3,280	3,836	**33**	(14)
Latin America	**2,429**	1,390	2,101	**75**	(34)
Asia	**3,206**	3,573	3,432	**(10)**	4
Total	**$ 15,763**	$ 11,553	$ 12,776	**36 %**	(10)%
Average loans by region *(in billions of dollars)*					
North America	**$ 202**	$ 201	$ 188	**— %**	7 %
EMEA	**89**	88	87	**1**	1
Latin America	**32**	39	40	**(18)**	(3)
Asia	**73**	71	73	**3**	(3)
Total	**$ 396**	$ 399	$ 388	**(1)%**	3 %
EOP deposits by business *(in billions of dollars)*					
Treasury and trade solutions	**$ 636**	$ 651	$ 536	**(2)%**	21 %
All other *ICG* businesses	**314**	273	232	**15**	18
Total	**$ 950**	$ 924	$ 768	**3 %**	20 %

(1) 2019 includes an approximate $350 million gain on Citi's investment in Tradeweb.
(2) 2020 includes an approximate $390 million operational loss related to certain legal matters.
NM Not meaningful

ICG Revenue Details

In millions of dollars	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Investment banking revenue details					
Advisory	**$ 1,796**	$ 1,010	$ 1,259	**78 %**	(20)%
Equity underwriting	**2,434**	1,593	973	**53**	64
Debt underwriting	**3,283**	3,184	2,984	**3**	7
Total investment banking	**$ 7,513**	$ 5,787	$ 5,216	**30 %**	11 %
Treasury and trade solutions	**9,444**	9,824	10,513	**(4)**	(7)
Corporate lending—excluding gains (losses) on loan hedges[1]	**2,291**	2,310	2,985	**(1)**	(23)
Private bank—excluding gains (losses) on loan hedges[1]	**4,005**	3,794	3,487	**6**	9
Total *Banking* revenues (ex-gains (losses) on loan hedges)[1]	**$ 23,253**	$ 21,715	$ 22,201	**7 %**	(2)%
Losses on loan hedges[1]	**$ (144)**	$ (51)	$ (432)	**NM**	88 %
Total *Banking* revenues (including gains (losses) on loan hedges), net of interest expense	**$ 23,109**	$ 21,664	$ 21,769	**7 %**	— %
Fixed income markets[2]	**$ 13,720**	$ 17,588	$ 13,074	**(22)%**	35 %
Equity markets	**4,545**	3,624	2,908	**25**	25
Securities services	**2,720**	2,562	2,642	**6**	(3)
Other	**(207)**	(352)	(569)	**41**	38
Total *Markets and securities services* revenues, net of interest expense	**$ 20,778**	$ 23,424	$ 18,055	**(11)%**	30 %
Total revenues, net of interest expense	**$ 43,887**	$ 45,088	$ 39,824	**(3)%**	13 %
Commissions and fees	**$ 793**	$ 677	$ 782	**17 %**	(13)%
Principal transactions[3]	**7,692**	11,518	7,661	**(33)**	50
Other[2]	**831**	579	1,117	**44**	(48)
Total non-interest revenue	**$ 9,316**	$ 12,774	$ 9,560	**(27)%**	34 %
Net interest income	**4,404**	4,814	3,514	**(9)**	37
Total fixed income markets[4]	**$ 13,720**	$ 17,588	$ 13,074	**(22)%**	35 %
Rates and currencies	**$ 8,903**	$ 12,162	$ 9,242	**(27)%**	32 %
Spread products/other fixed income	**4,817**	5,426	3,832	**(11)**	42
Total fixed income markets	**$ 13,720**	$ 17,588	$ 13,074	**(22)%**	35 %
Commissions and fees	**$ 1,231**	$ 1,245	$ 1,121	**(1)%**	11 %
Principal transactions[3]	**1,986**	1,281	775	**55**	65
Other	**191**	322	172	**(41)**	87
Total non-interest revenue	**$ 3,408**	$ 2,848	$ 2,068	**20 %**	38 %
Net interest income	**1,137**	776	840	**47**	(8)
Total equity markets[4]	**$ 4,545**	$ 3,624	$ 2,908	**25 %**	25 %

(1) Credit derivatives are used to economically hedge a portion of the private bank and corporate loan portfolio that includes both accrual loans and loans at fair value. Gains (losses) on loan hedges include the mark-to-market on the credit derivatives and the mark-to-market on the loans in the portfolio that are at fair value. The fixed premium costs of these hedges are netted against the private bank and corporate lending revenues to reflect the cost of credit protection. Gains (losses) on loan hedges include $(131) million and $(74) million related to the corporate loan portfolio and $(13) million and $23 million related to the private bank for the years ended December 31, 2021 and 2020, respectively. All of gains (losses) on loan hedges are related to the corporate loan portfolio for the year ended December 31, 2019. Citigroup's results of operations excluding the impact of gains (losses) on loan hedges are non-GAAP financial measures.

(2) 2019 includes an approximate $350 million gain on Citi's investment in Tradeweb.

(3) Excludes principal transactions revenues of *ICG* businesses other than *Markets*, primarily treasury and trade solutions and the private bank.

(4) Citi assesses its *Markets* business performance on a total revenue basis, as offsets may occur across revenue line items. For example, securities that generate *Net interest income* may be risk managed by derivatives that are recorded in *Principal transactions* revenue. For a description of the composition of these revenue line items, see Notes 4, 5 and 6 to the Consolidated Financial Statements.

NM Not meaningful

The discussion of the results of operations for ICG below excludes (where noted) the impact of gains (losses) on hedges of accrual loans, which are non-GAAP financial measures. For a reconciliation of these metrics to the reported results, see the table above.

2021 vs. 2020

Net income of $15.7 billion increased 36% versus the prior year, primarily driven by lower cost of credit, partially offset by higher expenses and lower revenues.

Revenues decreased 3%, reflecting lower *Markets and securities services* revenues, partially offset by higher *Banking* revenues. *Banking* revenues were up 7% (both including and excluding the impact of losses on loan hedges), driven by higher revenues in investment banking and the private bank, partially offset by lower revenues in treasury and trade solutions and corporate lending. *Markets and securities services* revenues were down 11%, primarily reflecting a normalization in fixed income markets revenues, partially offset by growth in equity markets and securities services.

Citi expects that revenues in its markets and investment banking businesses will continue to reflect the overall market environment during 2022.

Within *Banking*:

- *Investment banking* revenues were up 30%, reflecting growth in the overall market wallet. Advisory revenues increased 78%, reflecting strength in *North America* and *EMEA*, driven by growth in the market wallet as well as wallet share gains. Equity underwriting revenues increased 53%, reflecting strength in *North America* and *EMEA*, driven by growth in the market wallet, as well as wallet share gains. Debt underwriting revenues increased 3%, reflecting strength in *EMEA*, as growth in the market wallet was partially offset by a decline in wallet share.
- *Treasury and trade solutions* revenues decreased 4% (both including and excluding the impact of FX translation), reflecting a decline in revenues in the cash business, partially offset by an increase in trade revenues. Cash revenues decreased, driven by the ongoing impact of lower deposit spreads. The decrease was partially offset by strong growth in fee revenues reflecting solid client engagement and growth in transaction volumes, including growth in USD clearing, commercial cards and cross-border solutions. The increase in trade revenues was driven by improved trade spreads and growth in loans, reflecting an increase in trade flows and originations, primarily in *Asia* and *EMEA*. Average trade loans increased 5% (both including and excluding the impact of FX translation).
- *Corporate lending* revenues decreased 3%, including the impact of losses on loan hedges. Excluding the impact of losses on loan hedges, revenues decreased 1%, as lower cost of funds was more than offset by lower loan volumes, reflecting muted demand given strong client liquidity positions. Average loans decreased 20% during the current year.
- *Private bank* revenues increased 5%. Excluding the impact of gains (losses) on loan hedges, revenues increased 6%, driven by strong performance in *North America* and *EMEA*. The higher revenues reflected continued momentum with new and existing clients, resulting in higher loan volumes and spreads, higher managed investments revenues and higher deposit volumes. The increase in revenues was partially offset by lower deposit spreads due to the ongoing low interest rate environment and lower capital markets revenue.

Within *Markets and securities services*:

- *Fixed income markets* revenues decreased 22%, reflecting lower revenues across all regions, largely driven by a comparison to a strong prior year, as well as a normalization in market activity, particularly in rates and currencies, and spread products. Non-interest revenues decreased, reflecting lower investor client activity across rates and currencies and spread products. Net interest income also decreased, largely reflecting a change in the mix of trading positions.

  Rates and currencies revenues decreased 27%, driven by the normalization in market activity, and a comparison to a strong prior year that included elevated levels of volatility related to the pandemic. Spread products and other fixed income revenues decreased 11%, driven by a comparison to a strong prior year and the normalization in market activity, particularly in flow trading and structured products, reflecting lower volatility and spreads, partially offset by strong securitization activity.
- *Equity markets* revenues increased 25%, driven by growth across all products. Equity derivatives revenues increased reflecting higher client activity, particularly in *EMEA* and *North America*. Prime finance revenues increased due to favorable market conditions as well as growth in client balances. Cash equities revenues increased modestly, reflecting higher client activity. Non-interest revenues increased, primarily due to higher principal transactions revenues, reflecting higher client activity.
- *Securities services* revenues increased 6%. Excluding the impact of FX translation, revenues increased 7%, as an increase in fee revenues with both new and existing clients, driven by growth in assets under custody and settlement volumes, was partially offset by lower deposit spreads.

Expenses were up 8%, primarily driven by continued investments in Citi's transformation, business-led investments and higher incentive compensation, as well as transactional related expenses, partially offset by productivity savings.

Provisions reflected a benefit of $2.9 billion compared to costs of $5.6 billion in the prior year, driven by an ACL release and lower net credit losses.

Net credit losses declined to $396 million from $987 million in the prior year, driven by improvements in portfolio credit quality.

The ACL release was $3.3 billion compared to a build of $4.6 billion in the prior year. The release was primarily driven by improvements in portfolio credit quality as well as Citi's improved macroeconomic outlook. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on trends in *ICG*'s deposits and loans, see "Managing Global Risk—Liquidity Risk—Loans" and "—Deposits" below.

For additional information on *ICG*'s corporate credit portfolio, see "Managing Global Risk—Credit Risk—Corporate Credit" below.

For additional information about trends, uncertainties and risks related to *ICG*'s future results, see "Managing Global Risk—Other Risks—Country Risk—Argentina" and "Risk Factors" below.

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GLOBAL CONSUMER BANKING

As of December 31, 2021, *Global Consumer Banking (GCB)* consisted of consumer banking businesses in *North America*, *Latin America* (consisting of Citi's consumer banking business in Mexico) and *Asia*. *GCB* provided traditional banking services to retail customers through retail banking, branded cards and, in the U.S., retail services (for information on consumer market exits related to *Latin America GCB* and *Asia GCB* as well as Citi's planned revision to its reporting structure, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above).

GCB's markets in the U.S., Mexico and *Asia* had a combined 2,154 branches in 19 countries and jurisdictions as of December 31, 2021. At December 31, 2021, *GCB* had $267 billion in loans and $362 billion in retail banking deposits (excluding approximately $10 billion of loans and $8 billion of deposits reclassified to held-for-sale as a result of Citi's agreements to sell its consumer banking businesses in Australia and the Philippines).

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 24,238**	$ 26,551	$ 28,455	**(9)%**	(7)%
Non-interest revenue	**3,092**	3,791	4,766	**(18)**	(20)
Total revenues, net of interest expense	**$ 27,330**	$ 30,342	$ 33,221	**(10)%**	(9)%
Total operating expenses	**$ 20,035**	$ 17,834	$ 18,039	**12 %**	(1)%
Net credit losses on loans	**$ 4,582**	$ 6,646	$ 7,382	**(31)%**	(10)%
Credit reserve build (release) for loans	**(5,174)**	4,951	439	**NM**	NM
Provision for credit losses on unfunded lending commitments	**—**	—	1	**—**	100
Provisions for benefits and claims, and other assets	**96**	105	73	**(9)**	44
Provisions for credit losses and for benefits and claims (PBC)	**$ (496)**	$ 11,702	$ 7,895	**NM**	48 %
Income from continuing operations before taxes	**$ 7,791**	$ 806	$ 7,287	**NM**	(89)%
Income taxes	**1,745**	143	1,708	**NM**	(92)
Income from continuing operations	**$ 6,046**	$ 663	$ 5,579	**NM**	(88)%
Noncontrolling interests	**(11)**	(4)	6	**NM**	NM
Net income	**$ 6,057**	$ 667	$ 5,573	**NM**	(88)%
Balance Sheet data and ratios					
EOP assets *(in billions of dollars)*	**$ 432**	$ 434	$ 407	**— %**	7 %
Average assets *(in billions of dollars)*	**440**	426	389	**3**	10
Return on average assets	**1.38 %**	0.16 %	1.43 %		
Efficiency ratio	**73**	59	54		
Average retail banking deposits *(in billions of dollars)*	**$ 352**	$ 311	$ 277	**13**	12
Net credit losses as a percentage of average loans	**1.72 %**	2.39 %	2.60 %		
Revenue by business					
Retail banking	**$ 10,776**	$ 11,996	$ 12,758	**(10)%**	(6)%
Cards[(1)]	**16,554**	18,346	20,463	**(10)**	(10)
Total	**$ 27,330**	$ 30,342	$ 33,221	**(10)%**	(9)%
Income from continuing operations by business					
Retail banking	**$ (830)**	$ 557	$ 1,741	**NM**	(68)%
Cards[(1)]	**6,876**	106	3,838	**NM**	(97)
Total	**$ 6,046**	$ 663	$ 5,579	**NM**	(88)%

Table continues on the next page, including footnotes.

Foreign currency (FX) translation impact					
Total revenue—as reported	**$ 27,330**	$ 30,342	$ 33,221	**(10)%**	(9)%
Impact of FX translation(2)	**—**	323	(157)		
Total revenues—ex-FX(3)	**$ 27,330**	$ 30,665	$ 33,064	**(11)%**	(7)%
Total operating expenses—as reported	**$ 20,035**	$ 17,834	$ 18,039	**12 %**	(1)%
Impact of FX translation(2)	**—**	212	(80)		
Total operating expenses—ex-FX(3)	**$ 20,035**	$ 18,046	$ 17,959	**11 %**	— %
Total provisions for credit losses and PBC—as reported	**$ (496)**	$ 11,702	$ 7,895	**NM**	48 %
Impact of FX translation(2)	**—**	87	(51)		
Total provisions for credit losses and PBC—ex-FX(3)	**$ (496)**	$ 11,789	$ 7,844	**NM**	50 %
Net income—as reported	**$ 6,057**	$ 667	$ 5,573	**NM**	(88)%
Impact of FX translation(2)	**—**	12	(11)		
Net income—ex-FX(3)	**$ 6,057**	$ 679	$ 5,562	**NM**	(88)%

(1) Includes both branded cards and retail services.
(2) Reflects the impact of FX translation into U.S. dollars at the 2021 average exchange rates for all periods presented.
(3) Presentation of this metric excluding FX translation is a non-GAAP financial measure.
NM Not meaningful

NORTH AMERICA GCB

As of December 31, 2021, *North America GCB* provided traditional retail banking and branded and retail services card products to retail and small business customers in the U.S. *North America GCB*'s U.S. cards product portfolio included its proprietary portfolio (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco) within branded cards, as well as its co-brand and private label relationships (including, among others, The Home Depot, Sears, Best Buy and Macy's) within retail services. For information on Citi's planned revision to its reporting structure, including the reporting of *North America GCB*'s consumer banking businesses as part of a new reporting segment, *Personal Banking and Wealth Management*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

At December 31, 2021, *North America GCB* had 658 retail bank branches concentrated in the six key metropolitan areas of New York, Chicago, Miami, Washington, D.C., Los Angeles and San Francisco. Also, as of December 31, 2021, *North America GCB* had $48.1 billion in retail banking loans and $219.3 billion in retail banking deposits. In addition, *North America GCB* had $133.9 billion in outstanding card loan balances.

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 17,393**	$ 18,938	$ 19,931	**(8)%**	(5)%
Non-interest revenue	**88**	346	529	**(75)**	(35)
Total revenues, net of interest expense	**$ 17,481**	$ 19,284	$ 20,460	**(9)%**	(6)%
Total operating expenses	**$ 10,832**	$ 10,237	$ 10,305	**6 %**	(1)%
Net credit losses on loans	**$ 2,937**	$ 4,990	$ 5,583	**(41)%**	(11)%
Credit reserve build for loans	**(3,974)**	4,115	469	**NM**	NM
Provision for credit losses on unfunded lending commitments	**—**	—	1	**—**	100
Provisions for benefits and claims, and other assets	**19**	17	19	**12**	(11)
Provisions for credit losses and for benefits and claims	**$ (1,018)**	$ 9,122	$ 6,072	**NM**	50 %
Income from continuing operations before taxes	**$ 7,667**	$ (75)	$ 4,083	**NM**	NM
Income taxes	**1,733**	(29)	926	**NM**	NM
Income from continuing operations	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM
Noncontrolling interests	**—**	—	—	**— %**	— %
Net income	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM
Balance Sheet data and ratios					
Average assets *(in billions of dollars)*	**$ 266**	$ 266	$ 232	**— %**	15 %
Return on average assets	**2.23 %**	(0.02)%	1.36 %		
Efficiency ratio	**62**	53	50		
Average retail banking deposits *(in billions of dollars)*	**$ 206**	$ 176	$ 153	**17**	15
Net credit losses as a percentage of average loans	**1.69 %**	2.72 %	2.97 %		
Revenue by business					
Retail banking	**$ 4,211**	$ 4,519	$ 4,558	**(7)%**	(1)%
Branded cards	**8,189**	8,800	9,184	**(7)**	(4)
Retail services	**5,081**	5,965	6,718	**(15)**	(11)
Total	**$ 17,481**	$ 19,284	$ 20,460	**(9)%**	(6)%
Income (loss) from continuing operations by business					
Retail banking	**$ (453)**	$ (232)	$ 145	**(95)%**	NM
Branded cards	**3,903**	12	1,734	**NM**	(99)%
Retail services	**2,484**	174	1,278	**NM**	(86)
Total	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM

NM Not meaningful

2021 vs. 2020

Net income was $5.9 billion, compared to a net loss of $46 million in the prior year, reflecting significantly lower cost of credit, partially offset by lower revenues and higher expenses.

Revenues decreased 9%, reflecting lower revenues in retail banking, branded cards and retail services.

Retail banking revenues decreased 7%, as the benefit of strong deposit growth and growth in assets under management (increase of 8%, reflecting favorable market conditions and strong client engagement) was more than offset by lower deposit spreads, as well as lower mortgage revenues. Average deposits increased 17%, driven by higher levels of consumer liquidity due to government stimulus, as well as continued strategic efforts to drive organic growth.

Cards revenues decreased 10%. Branded cards revenues decreased 7%, primarily driven by continued higher payment rates, reflecting increased customer liquidity from government stimulus and relief programs, partially offset by higher spending-related revenues. Credit card spend volume increased 21%, reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Retail services revenues decreased 15%, primarily driven by lower average loans (down 7%), reflecting higher payment rates from the increased customer liquidity from government stimulus and relief programs, as well as higher partner payments, reflecting higher income sharing as a result of lower net credit losses. For additional information on partner payments, see Note 5 to the Consolidated Financial Statements. Credit card spend volume increased 18%, reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Expenses increased 6%, primarily driven by continued investments in Citi's transformation, as well as business-led investments and higher volume-related expenses, partially offset by productivity savings.

Provisions reflected a benefit of $1.0 billion, compared to costs of $9.1 billion in the prior year, primarily driven by a net ACL release compared to a net ACL build in the prior year, as well as lower net credit losses. Net credit losses decreased 41%, consisting of lower net credit losses in both branded cards (down 39% to $1.7 billion) and retail services (down 46% to $1.2 billion), primarily driven by lower loan volumes and improved delinquencies, primarily as a result of the higher payment rates.

The net ACL release was $4.0 billion, compared to a net build of $4.1 billion in the prior year, reflecting improvement in portfolio credit quality and the continued improvement in the macroeconomic outlook. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *North America GCB*'s retail banking, and its branded cards and retail services portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *North America GCB*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" below.

LATIN AMERICA GCB

As of December 31, 2021, *Latin America GCB* provided traditional retail banking and branded card products to consumer and small business customers in Mexico through Citibanamex.

As discussed above, Citi intends to exit its consumer, small business and middle-market banking operations in Mexico. For additional information, see Citi's Current Report on Form 8-K filed with the SEC on January 11, 2022. For information on Citi's planned revision to its reporting structure, including the reporting of the Mexico consumer, small business and middle-market banking operations as part of a new reporting segment, *Legacy Franchises*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

At December 31, 2021, *Latin America GCB* had 1,276 retail branches in Mexico, with $8.6 billion in retail banking loans and $24.8 billion in deposits. In addition, the business had $4.7 billion in outstanding card loan balances.

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 2,874**	$ 3,172	$ 3,735	**(9)%**	(15)%
Non-interest revenue	**1,376**	1,294	1,599	**6**	(19)
Total revenues, net of interest expense	**$ 4,250**	$ 4,466	$ 5,334	**(5)%**	(16)%
Total operating expenses	**$ 2,949**	$ 2,871	$ 3,001	**3 %**	(4)%
Net credit losses on loans	**$ 920**	$ 866	$ 1,109	**6 %**	(22)%
Credit reserve build (release) for loans	**(825)**	316	(38)	**NM**	NM
Provision for credit losses on unfunded lending commitments	**—**	—	—	**—**	—
Provisions for benefits and claims, and other assets	**80**	87	54	**(8)**	61
Provisions for credit losses and for benefits and claims (PBC)	**$ 175**	$ 1,269	$ 1,125	**(86)%**	13 %
Income from continuing operations before taxes	**$ 1,126**	$ 326	$ 1,208	**NM**	(73)%
Income taxes	**328**	85	323	**NM**	(74)
Income from continuing operations	**$ 798**	$ 241	$ 885	**NM**	(73)%
Noncontrolling interests	**—**	—	—	**— %**	—
Net income	**$ 798**	$ 241	$ 885	**NM**	(73)%
Balance Sheet data and ratios					
Average assets *(in billions of dollars)*	**$ 35**	$ 32	$ 35	**9 %**	(9)%
Return on average assets	**2.28 %**	0.75 %	2.53 %		
Efficiency ratio	**69**	64	56		
Average deposits *(in billions of dollars)*	**$ 24**	$ 23	$ 23	**4**	—
Net credit losses as a percentage of average loans	**6.87 %**	5.97 %	6.45 %		
Revenue by business					
Retail banking	**$ 3,119**	$ 3,103	$ 3,681	**1 %**	(16)%
Branded cards	**1,131**	1,363	1,653	**(17)**	(18)
Total	**$ 4,250**	$ 4,466	$ 5,334	**(5)%**	(16)%
Income from continuing operations by business					
Retail banking	**$ 435**	$ 120	$ 586	**NM**	(80)%
Branded cards	**363**	121	299	**NM**	(60)
Total	**$ 798**	$ 241	$ 885	**NM**	(73)%
FX translation impact					
Total revenues—as reported	**$ 4,250**	$ 4,466	$ 5,334	**(5)%**	(16)%
Impact of FX translation(1)	**—**	211	(246)		
Total revenues—ex-FX(2)	**$ 4,250**	$ 4,677	$ 5,088	**(9)%**	(8)%
Total operating expenses—as reported	**$ 2,949**	$ 2,871	$ 3,001	**3 %**	(4)%
Impact of FX translation(1)	**—**	129	(132)		
Total operating expenses—ex-FX(2)	**$ 2,949**	$ 3,000	$ 2,869	**(2)%**	5 %
Provisions for credit losses and PBC—as reported	**$ 175**	$ 1,269	$ 1,125	**(86)%**	13 %
Impact of FX translation(1)	**—**	66	(58)		
Provisions for credit losses and PBC—ex-FX(2)	**$ 175**	$ 1,335	$ 1,067	**(87)%**	25 %
Net income—as reported	**$ 798**	$ 241	$ 885	**NM**	(73)%
Impact of FX translation(1)	**—**	9	(37)		
Net income—ex-FX(2)	**$ 798**	$ 250	$ 848	**NM**	(71)%

(1) Reflects the impact of FX translation into U.S. dollars at the 2021 average exchange rates for all periods presented.

(2) Presentation of this metric excluding FX translation is a non-GAAP financial measure.
NM Not meaningful

The discussion of the results of operations for Latin America GCB below excludes the impact of FX translation for all periods presented. Presentations of the results of operations, excluding the impact of FX translation, are non-GAAP financial measures. For a reconciliation of certain of these metrics to the reported results, see the table above.

2021 vs. 2020

Net income was $798 million, compared to $250 million in the prior year, reflecting significantly lower cost of credit and modestly lower expenses, partially offset by lower revenues.

Revenues decreased 9%, reflecting lower cards and retail banking revenues, largely due to the continued impact of the pandemic.

Retail banking revenues decreased 4%, primarily driven by lower loan volumes and deposit spreads, partially offset by growth in assets under management. Average loans decreased 13%, reflecting the impact of the pandemic on customer activity. Assets under management increased 8%, reflecting favorable market conditions, as well as strong client engagement.

Cards revenues decreased 21%, primarily driven by lower average loans (down 11%), reflecting higher payment rates. Credit card spend volume increased 16%, reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Expenses decreased 2%, as productivity savings more than offset continued investments in Citi's transformation.

Provisions of $174 million decreased 87%, primarily driven by a net ACL release compared to a net ACL build in the prior year, partially offset by higher net credit losses resulting from pandemic-related charge-offs.

The net ACL release was $826 million, compared to a build of $329 million in the prior year. The release reflected an improvement in portfolio credit quality, as well as continued improvement in the macroeconomic outlook and lower loan volumes. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Latin America GCB*'s retail banking and its branded cards portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *Latin America GCB*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" below.

ASIA GCB

As of December 31, 2021, *Asia GCB* provided traditional retail banking and branded card products to retail and small business customers. Included within *Asia GCB* were traditional retail banking and branded card products provided to retail customers in certain *EMEA* countries, primarily the UAE, Poland and Russia.

As discussed above, Citi is pursuing exits of its consumer franchises in 13 markets across *Asia* and *EMEA* and will focus its consumer banking franchise in the two regions on four wealth centers: Singapore, Hong Kong, the UAE and London. In 2021, Citi entered into agreements to sell its consumer banking businesses in Australia and the Philippines, and made a decision to wind down and close its Korea consumer banking business (for additional information, see Note 2 to the Consolidated Financial Statements).

In addition, in January 2022, Citi entered into agreements to sell its consumer banking businesses in Indonesia, Malaysia, Taiwan, Thailand and Vietnam. For information on Citi's planned revision to its reporting structure, including the reporting of the 13 exit markets as part of a new reporting segment, *Legacy Franchises*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

At December 31, 2021, on a combined basis, the businesses had 220 retail branches, $58.9 billion in retail banking loans and $117.7 billion in deposits. In addition, the businesses had $13.1 billion in outstanding card loan balances. These amounts exclude approximately $10 billion of loans ($7 billion of retail banking loans and $3 billion of credit card loan balances) and $8 billion of deposits reclassified to held-for-sale (HFS) as a result of Citi's agreements to sell its consumer banking businesses in Australia and the Philippines. Australia and the Philippines are the only consumer businesses reclassified as HFS at December 31, 2021. For additional information, see Note 2 to the Consolidated Financial Statements.

In millions of dollars, except as otherwise noted[1]	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 3,971**	$ 4,441	$ 4,789	**(11)%**	(7)%
Non-interest revenue	**1,628**	2,151	2,638	**(24)**	(18)
Total revenues, net of interest expense	**$ 5,599**	$ 6,592	$ 7,427	**(15)%**	(11)%
Total operating expenses	**$ 6,254**	$ 4,726	$ 4,733	**32 %**	— %
Net credit losses on loans	**$ 725**	$ 790	$ 690	**(8)%**	14 %
Credit reserve build for loans	**(375)**	520	8	**NM**	NM
Provisions for other assets	**(3)**	1	—	**NM**	—
Provisions for credit losses	**$ 347**	$ 1,311	$ 698	**(74)%**	88 %
Income (loss) from continuing operations before taxes	**$ (1,002)**	$ 555	$ 1,996	**NM**	(72)%
Income taxes (benefits)	**(316)**	87	459	**NM**	(81)
Income (loss) from continuing operations	**$ (686)**	$ 468	$ 1,537	**NM**	(70)%
Noncontrolling interests	**(11)**	(4)	6	**NM**	NM
Net income (loss)	**$ (675)**	$ 472	$ 1,531	**NM**	(69)%
Balance Sheet data and ratios					
Average assets *(in billions of dollars)*	**$ 139**	$ 129	$ 122	**8 %**	6 %
Return on average assets	**(0.49)%**	0.37 %	1.25 %		
Efficiency ratio	**112**	72	64		
Average deposits *(in billions of dollars)*	**$ 122**	$ 113	$ 101	**8**	12
Net credit losses as a percentage of average loans	**0.92 %**	0.99 %	0.88 %		
Revenue by business					
Retail banking	**$ 3,446**	$ 4,374	$ 4,519	**(21)%**	(3)%
Branded cards	**2,153**	2,218	2,908	**(3)**	(24)
Total	**$ 5,599**	$ 6,592	$ 7,427	**(15)%**	(11)%
Income (loss) from continuing operations by business					
Retail banking	**$ (812)**	$ 669	$ 1,010	**NM**	(34)%
Branded cards	**126**	(201)	527	**NM**	NM
Total	**$ (686)**	$ 468	$ 1,537	**NM**	(70)%
FX translation impact					
Total revenues—as reported	**$ 5,599**	$ 6,592	$ 7,427	**(15)%**	(11)%
Impact of FX translation[2]	**—**	112	89		
Total revenues—ex-FX[3]	**$ 5,599**	$ 6,704	$ 7,516	**(16)%**	(11)%

Total operating expenses—as reported	$	**6,254**	$	4,726	$	4,733	**32 %**	— %
Impact of FX translation[2]		**—**		83		52		
Total operating expenses—ex-FX[3]	$	**6,254**	$	4,809	$	4,785	**30 %**	1 %
Provisions for credit losses—as reported	$	**347**	$	1,311	$	698	**(74)%**	88 %
Impact of FX translation[2]		**—**		21		7		
Provisions for credit losses—ex-FX[3]	$	**347**	$	1,332	$	705	**(74)%**	89 %
Net income (loss)—as reported	$	**(675)**	$	472	$	1,531	**NM**	(69)%
Impact of FX translation[2]		**—**		3		26		
Net income (loss)—ex-FX[3]	$	**(675)**	$	475	$	1,557	**NM**	(69)%

(1) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries for all periods presented.
(2) Reflects the impact of FX translation into U.S. dollars at the 2021 average exchange rates for all periods presented.
(3) Presentation of this metric excluding FX translation is a non-GAAP financial measure.
NM Not meaningful

The discussion of the results of operations for Asia GCB below excludes the impact of FX translation for all periods presented. Presentations of the results of operations, excluding the impact of FX translation, are non-GAAP financial measures. For a reconciliation of certain of these metrics to the reported results, see the table above.

2021 vs. 2020

Net loss was $675 million, compared to net income of $475 million in the prior year. The net loss included the following items related to the 13 exit markets: (i) approximately $1.1 billion (approximately $0.8 billion after-tax) related to charges incurred from the voluntary early retirement program (VERP) in connection with the wind-down of the Korea consumer banking business; (ii) an approximate $0.7 billion pretax loss ($0.6 billion after-tax) related to the agreement to sell the Australia consumer banking business, largely reflecting the impact of a CTA loss (net of hedges); and (iii) contract modification costs related to the *Asia* divestitures of $119 million ($98 million after-tax).

Excluding the above items, *net income* was $807 million compared to net income of $475 million in the prior year, reflecting significantly lower cost of credit, partially offset by higher expenses and lower revenues.

Revenues decreased 16%, including the Australia loss on sale. Excluding the Australia loss on sale, revenues declined 6%, reflecting lower retail banking and cards revenues, largely due to the continued impact of the pandemic, including lower interest rates.

Retail banking revenues decreased 22%, including the Australia loss on sale. Excluding the Australia loss on sale, revenues decreased 7%, as growth in both investment revenues and deposits was more than offset by lower deposit spreads due to lower interest rates and lower FX and insurance revenues. Assets under management increased 3%, reflecting the impact of improved market conditions, as well as client engagement. Average deposits increased 6% and average loans decreased 2%. The decline in retail banking revenues was also impacted by a 3% decrease in retail lending revenues, reflecting a decline in personal loans driven by spread compression.

Cards revenues decreased 5%, as lower average loans (down 14%, including the reclassification to held-for-sale related to Australia and the Philippines and higher payment rates) were partially offset by higher spending-related revenues (credit card spend volume up 8%), reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Expenses increased 30%, including approximately $1.2 billion of costs related to the *Asia* divestitures. Excluding the costs related to the *Asia* divestitures, expenses increased 6%, primarily driven by continued investments in Citi's transformation, as well as business-led investments, partially offset by productivity savings.

Provisions decreased 74%, primarily driven by a net ACL release compared to a net ACL build in the prior year, as well as lower net credit losses. Net credit losses decreased 10%, primarily reflecting lower cards loan volumes and improved delinquencies.

The net ACL release was $376 million, compared to a build of $528 million in the prior year. The release reflected an improvement in portfolio credit quality. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Asia GCB*'s retail banking portfolios and its branded cards portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *Asia GCB*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" and "Significant Accounting Policies and Significant Estimates" below.

CORPORATE/OTHER

Activities not assigned to the operating segments (*ICG* and *GCB*) are included in *Corporate/Other.* As of December 31, 2021, *Corporate/Other* included certain unallocated costs of global staff functions (including certain finance, risk, human resources, legal and compliance), other corporate expenses and unallocated global operations and technology expenses and income taxes, as well as results of Corporate Treasury, certain *North America* legacy consumer loan portfolios, discontinued operations and other legacy assets. For information on Citi's planned revision to its reporting structure, including the reporting of the *North America* legacy consumer loan portfolios, discontinued operations and other legacy assets as part of a new reporting segment, *Legacy Franchises*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above. At December 31, 2021, *Corporate/Other* had $97 billion in assets.

In millions of dollars	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 659**	$ (133)	$ 1,898	**NM**	NM
Non-interest revenue	**8**	204	124	**(96)%**	65 %
Total revenues, net of interest expense	**$ 667**	$ 71	$ 2,022	**NM**	(96)%
Total operating expenses	**$ 1,645**	$ 1,923	$ 1,783	**(14)%**	8 %
Net credit losses (recoveries) on loans	**$ (83)**	$ (22)	$ (8)	**NM**	NM
Credit reserve build (release) for loans	**(291)**	188	(60)	**NM**	NM
Provision (release) for credit losses on unfunded lending commitments	**(11)**	11	(7)	**NM**	NM
Provisions (releases) for benefits and claims, HTM debt securities and other assets	**16**	1	—	**100 %**	— %
Provisions (releases) for credit losses and for benefits and claims	**$ (369)**	$ 178	$ (75)	**NM**	NM
Income (loss) from continuing operations before taxes	**$ (609)**	$ (2,030)	$ 314	**70 %**	NM
Income taxes (benefits)	**(818)**	(921)	(802)	**11**	(15)%
Income (loss) from continuing operations	**$ 209**	$ (1,109)	$ 1,116	**NM**	NM
(Loss) from discontinued operations, net of taxes	**7**	(20)	(4)	**NM**	NM
Net income (loss) before attribution of noncontrolling interests	**$ 216**	$ (1,129)	$ 1,112	**NM**	NM
Noncontrolling interests	**1**	(6)	20	**NM**	NM
Net income (loss)	**$ 215**	$ (1,123)	$ 1,092	**NM**	NM

NM Not meaningful

2021 vs. 2020

Net income was $215 million, compared to a net loss of $1.1 billion in the prior year, reflecting higher revenues, lower expenses and lower cost of credit.

Revenues of $667 million compared to $71 million in the prior year, primarily driven by higher net revenue from the investment portfolio.

Expenses decreased 14%, reflecting the absence of a civil money penalty in the prior year and the wind-down of legacy assets, partially offset by increases related to Citi's transformation.

Provisions reflected a net benefit of $369 million, compared to costs of $178 million in the prior year, primarily driven by a net ACL release in the current year ($286 million compared to a net build of $200 million in the prior year). The release reflected the continued improvement in the macroeconomic outlook.

For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information about trends, uncertainties and risks related to *Corporate/Other*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" below.

CAPITAL RESOURCES

Overview

Capital is used principally to support assets in Citi's businesses and to absorb credit, market and operational losses. Citi primarily generates capital through earnings from its operating businesses. Citi may augment its capital through issuances of common stock and noncumulative perpetual preferred stock, among other issuances. Further, Citi's capital levels may also be affected by changes in accounting and regulatory standards, as well as U.S. corporate tax laws and the impact of future events on Citi's business results, such as changes in interest and foreign exchange rates, as well as business and asset dispositions. For additional information on capital-related trends, uncertainties and risks related to Citi's legacy and exit businesses, including the impact of CTA losses, see "Executive Summary" above and "Risk Factors—Strategic Risks" and "—Operational Risks" below.

During 2021, Citi returned a total of $11.8 billion of capital to common shareholders in the form of $4.2 billion in dividends and $7.6 billion in share repurchases totaling approximately 105 million common shares.

Capital Management

Citi's capital management framework is designed to ensure that Citigroup and its principal subsidiaries maintain sufficient capital consistent with each entity's respective risk profile, management targets and all applicable regulatory standards and guidelines. Citi assesses its capital adequacy against a series of internal quantitative capital goals, designed to evaluate its capital levels in expected and stressed economic environments. Underlying these internal quantitative capital goals are strategic capital considerations, centered on preserving and building financial strength.

The Citigroup Capital Committee, with oversight from the Risk Management Committee of Citigroup's Board of Directors, has responsibility for Citi's aggregate capital structure, including the capital assessment and planning process, which is integrated into Citi's capital plan. Balance sheet management, including oversight of capital adequacy, for Citigroup's subsidiaries is governed by each entity's Asset and Liability Committee, where applicable.

For additional information regarding Citi's capital planning and stress testing exercises, see "Stress Testing Component of Capital Planning" below.

Current Regulatory Capital Standards

Citi is subject to regulatory capital standards issued by the Federal Reserve Board, which constitute the U.S. Basel III rules. These rules establish an integrated capital adequacy framework, encompassing both risk-based capital ratios and leverage ratios.

Risk-Based Capital Ratios

The U.S. Basel III rules set forth the composition of regulatory capital (including the application of regulatory capital adjustments and deductions), as well as two comprehensive methodologies (a Standardized Approach and Advanced Approaches) for measuring total risk-weighted assets.

Total risk-weighted assets under the Advanced Approaches, which are primarily models based, include credit, market and operational risk-weighted assets. The Standardized Approach generally applies prescribed supervisory risk weights to broad categories of credit risk exposures. As a result, credit risk-weighted assets calculated under the Advanced Approaches are more risk sensitive than those calculated under the Standardized Approach. Market risk-weighted assets are currently calculated on a generally consistent basis under both approaches. The Standardized Approach excludes operational risk-weighted assets.

Under the U.S. Basel III rules, both Citi and Citibank, N.A. (Citibank) are required to maintain stated minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios of 4.5%, 6.0% and 8.0%, respectively. Further, the U.S. Basel III rules implement the "capital floor provision" of the so-called "Collins Amendment" of the Dodd-Frank Act, which requires Advanced Approaches banking organizations to calculate each of the three risk-based capital ratios (Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital) under both the U.S. Basel III Standardized Approach and the Advanced Approaches and comply with the more binding of each of the resulting risk-based capital ratios.

Tier 1 Leverage Ratio

Under the U.S. Basel III rules, Citi is also required to maintain a minimum Tier 1 Leverage ratio of 4.0%. The Tier 1 Leverage ratio, a non-risk-based measure of capital adequacy, is defined as Tier 1 Capital as a percentage of quarterly adjusted average total assets less amounts deducted from Tier 1 Capital.

Supplementary Leverage Ratio
Citi is also required to calculate a Supplementary Leverage ratio, which differs from the Tier 1 Leverage ratio by also including certain off-balance sheet exposures within the denominator of the ratio (Total Leverage Exposure). The Supplementary Leverage ratio represents end-of-period Tier 1 Capital to Total Leverage Exposure, with the latter defined as the sum of the daily average of on-balance sheet assets for the quarter and the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter, less applicable Tier 1 Capital deductions. Advanced Approaches banking organizations are required to maintain a stated minimum Supplementary Leverage ratio of 3.0%.

Further, U.S. GSIBs, including Citi, are subject to enhanced Supplementary Leverage ratio standards. These enhanced standards establish a 2.0% leverage buffer in addition to the stated 3.0% minimum Supplementary Leverage ratio requirement, for a total effective minimum Supplementary Leverage ratio requirement of 5.0%. If a U.S. GSIB fails to exceed this requirement, it will be subject to increasingly onerous restrictions (depending upon the extent of the shortfall) regarding capital distributions and discretionary executive bonus payments.

Temporary Supplementary Leverage Ratio Relief
In April 2020, the Federal Reserve Board issued an interim final rule that temporarily changed the calculation of the Supplementary Leverage ratio for bank holding companies, including Citigroup, by excluding U.S. Treasuries and deposits at Federal Reserve Banks from Total Leverage Exposure.

The interim final rule was effective for Citigroup's Supplementary Leverage ratio, as well as for Citigroup's leverage-based total loss absorbing capacity (TLAC) and long-term debt (LTD) requirements, and expired as scheduled on March 31, 2021. Citigroup's reported Supplementary Leverage ratio of 7.0% during the fourth quarter of 2020 benefited 109 basis points, as a result of the temporary relief.

Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology
In September 2020, the U.S. banking agencies issued a final rule (substantially unchanged from a March 2020 interim final rule) that modified the regulatory capital transition provision related to the current expected credit losses (CECL) methodology. The September 2020 final rule does not have any impact on U.S. GAAP accounting.

The final rule permitted banks to delay for two years the "Day One" adverse regulatory capital effects resulting from adoption of the CECL methodology on January 1, 2020 until January 1, 2022, followed by a three-year transition to phase out the regulatory capital benefit provided by the delay.

In addition, for the ongoing impact of CECL, the agencies utilized a 25% scaling factor as an approximation of the increased reserve build under CECL compared to the previous incurred loss model and, therefore, allowed banks to add back to Common Equity Tier 1 Capital an amount equal to 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021. Beginning January 1, 2022, the cumulative 25% change in CECL-based allowances between January 1, 2020 and December 31, 2021 will be phased in to regulatory capital (i) at 25% per year on January 1 of each year over the three-year transition period, and (ii) along with the delayed "Day One" impact.

Citigroup and Citibank elected the modified CECL transition provision provided by the rule beginning with the quarter ended March 31, 2020. Accordingly, the Day One regulatory capital effects resulting from adoption of the CECL methodology, as well as the ongoing adjustments for 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021, started to be phased in on January 1, 2022 and will be fully reflected in Citi's regulatory capital as of January 1, 2025.

As of December 31, 2021, Citigroup's reported Common Equity Tier 1 Capital ratio of 12.2% benefited from the deferrals of the CECL transition provision by 24 basis points (bps), which resulted in an approximate 6 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio upon commencement of the phase-in on January 1, 2022. In addition, this phase-in is expected to result in an additional 6 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio on January 1 of each year through January 1, 2025. For additional information on Citigroup's and Citibank's regulatory capital ratios excluding the impact of the CECL transition provision, see "Capital Resources (Full Adoption of CECL)" below.

TLAC Holdings
As previously disclosed, in January 2021, the U.S. banking agencies issued a final rule that created a new regulatory capital deduction applicable to Advanced Approaches banking organizations for certain investments in covered debt instruments issued by GSIBs. The final rule became effective for Citigroup and Citibank on April 1, 2021, and did not have a significant impact on either Citigroup's or Citibank's regulatory capital.

Regulatory Capital Buffers
Citi and Citibank are required to maintain several regulatory capital buffers above stated minimum capital requirements. These capital buffers would be available to absorb losses in advance of any potential impairment of regulatory capital below the stated minimum regulatory capital ratio requirements.

Banking organizations that fall below their regulatory capital buffers are subject to limitations on capital distributions and discretionary bonus payments to executive officers based on a percentage of "Eligible Retained Income" (ERI), with increasing restrictions based upon the severity of the breach. ERI is equal to the greater of (i) the bank's net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and tax effects not already reflected in net income, and (ii) the average of the bank's net income for the four calendar quarters preceding the current calendar quarter.

As of December 31, 2021, Citi's regulatory capital ratios exceeded effective regulatory minimum requirements. Accordingly, Citi is not subject to payout limitations as a result of Basel III requirements.

Stress Capital Buffer

Citigroup is subject to the Federal Reserve Board's Stress Capital Buffer (SCB) rule, which integrates the annual stress testing requirements with ongoing regulatory capital requirements. The SCB equals the peak-to-trough Common Equity Tier 1 Capital ratio decline under the Supervisory Severely Adverse scenario used in the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST), plus four quarters of planned common stock dividends, subject to a floor of 2.5%. SCB-based minimum capital requirements will be reviewed and updated annually by the Federal Reserve Board as part of the CCAR process. For additional information regarding CCAR and DFAST, see "Stress Testing Component of Capital Planning" below. The fixed 2.5% Capital Conservation Buffer (for additional information, see below) will continue to apply under the Advanced Approaches.

In August 2021, the Federal Reserve Board finalized and announced Citi's SCB requirement of 3.0%. Accordingly, effective October 1, 2021, Citigroup is required to maintain a 10.5% effective minimum Common Equity Tier 1 Capital ratio under the Standardized Approach. Previously, from October 1, 2020 through September 30, 2021, Citi had been subject to a 2.5% SCB, and a 10.0% effective minimum Common Equity Tier 1 Capital ratio under the Standardized Approach.

Capital Conservation Buffer and Countercyclical Capital Buffer

Citigroup is subject to a fixed 2.5% Capital Conservation Buffer under the Advanced Approaches. Citibank is subject to the fixed 2.5% Capital Conservation Buffer under both the Advanced Approaches and the Standardized Approach.

In addition, Advanced Approaches banking organizations, such as Citigroup and Citibank, are subject to a discretionary Countercyclical Capital Buffer. The Federal Reserve Board last voted to affirm the Countercyclical Capital Buffer amount at the current level of 0% in December 2020.

GSIB Surcharge

The Federal Reserve Board imposes a risk-based capital surcharge upon U.S. bank holding companies that are identified as global systemically important bank holding companies (GSIBs), including Citi. The GSIB surcharge augments the SCB, Capital Conservation Buffer and, if invoked, any Countercyclical Capital Buffer.

A U.S. bank holding company that is designated a GSIB is required, on an annual basis, to calculate a surcharge using two methods and is subject to the higher of the resulting two surcharges. The first method ("method 1") is based on the Basel Committee's GSIB methodology. Under the second method ("method 2"), the substitutability category under the Basel Committee's GSIB methodology is replaced with a quantitative measure intended to assess a GSIB's reliance on short-term wholesale funding. In addition, method 1 incorporates relative measures of systemic importance across certain global banking organizations and a year-end spot foreign exchange rate, whereas method 2 uses fixed measures of systemic importance and application of an average foreign exchange rate over a three-year period. The GSIB surcharges calculated under both method 1 and method 2 are based on measures of systemic importance from the year immediately preceding that in which the GSIB surcharge calculations are being performed (e.g., the method 1 and method 2 GSIB surcharges calculated during 2021 will be based on 2020 systemic indicator data). Generally, Citi's surcharge determined under method 2 will result in a higher surcharge than its surcharge determined under method 1.

Should a GSIB's systemic importance increase for more than one year, such that it becomes subject to a higher GSIB surcharge, the higher surcharge would not become effective for a full year after the second consecutive higher score (e.g., a higher surcharge calculated using data as of December 31, 2020 and December 30, 2021 would not become effective until January 1, 2023). However, if after two consecutive years of a higher score, a GSIB's systemic importance changes such that the GSIB would be subject to a lower surcharge, the GSIB would be subject to the lower surcharge in the calendar year commencing one year later (e.g., a lower surcharge calculated using data as of December 31, 2022 would become effective January 1, 2024).

The following table sets forth Citi's effective GSIB surcharge as determined under method 1 and method 2 during 2021 and 2020:

	2021	2020
Method 1	**2.0 %**	2.0 %
Method 2	**3.0**	3.0

Citi's GSIB surcharge effective during both 2021 and 2020 was 3.0%, as derived under the higher method 2 result. Citi's GSIB surcharge effective for 2022 will remain unchanged at 3.0%, as derived under the higher method 2 result.

Citi expects that its method 2 GSIB surcharge will continue to remain higher than its method 1 GSIB surcharge. Accordingly, based on Citi's method 2 result as of December 31, 2020, and its estimated method 2 result as of December 31, 2021, Citi's GSIB surcharge is expected to increase to 3.5% effective January 1, 2023. Citi's GSIB surcharge effective for 2024 will likely be based on the lower of its method 2 scores for year-end 2021 and 2022, and therefore is not expected to exceed 3.5%.

Prompt Corrective Action Framework

In general, the Prompt Corrective Action (PCA) regulations direct the U.S. banking agencies to enforce increasingly strict limitations on the activities of insured depository institutions that fail to meet certain regulatory capital thresholds. The PCA framework contains five categories of capital adequacy as measured by risk-based capital and leverage ratios: (i) "well capitalized," (ii) "adequately capitalized," (iii) "undercapitalized," (iv) "significantly undercapitalized" and (v) "critically undercapitalized."

Accordingly, an insured depository institution, such as Citibank, must maintain minimum Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital and Tier 1 Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized." In addition, insured depository institution subsidiaries of U.S. GSIBs, including Citibank, must maintain a minimum Supplementary Leverage ratio of 6.0% to be considered "well capitalized." Citibank was "well capitalized" as of December 31, 2021.

Furthermore, to be "well capitalized" under current federal bank regulatory agency definitions, a bank holding company must have a Tier 1 Capital ratio of at least 6.0%, a Total Capital ratio of at least 10.0% and not be subject to a Federal Reserve Board directive to maintain higher capital levels.

Stress Testing Component of Capital Planning

Citi is subject to an annual assessment by the Federal Reserve Board as to whether Citigroup has effective capital planning processes as well as sufficient regulatory capital to absorb losses during stressful economic and financial conditions, while also meeting obligations to creditors and counterparties and continuing to serve as a credit intermediary. This annual assessment includes two related programs: the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST).

For the largest and most complex firms, such as Citi, CCAR includes a qualitative evaluation of a firm's abilities to determine its capital needs on a forward-looking basis. In conducting the qualitative assessment, the Federal Reserve Board evaluates firms' capital planning practices, focusing on six areas of capital planning—namely, governance, risk management, internal controls, capital policies, incorporating stressful conditions and events, and estimating impact on capital positions. As part of the CCAR process, the Federal Reserve Board evaluates Citi's capital adequacy, capital adequacy process and its planned capital distributions, such as dividend payments and common share repurchases. The Federal Reserve Board assesses whether Citi has sufficient capital to continue operations throughout times of economic and financial market stress and whether Citi has robust, forward-looking capital planning processes that account for its unique risks.

All CCAR firms, including Citi, are subject to a rigorous evaluation of their capital planning process. Firms with weak practices may be subject to a deficient supervisory rating, and potentially an enforcement action, for failing to meet supervisory expectations. For additional information regarding CCAR, see "Risk Factors—Strategic Risks" below.

DFAST is a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions on Citi's regulatory capital. This program serves to inform the Federal Reserve Board and the general public as to how Citi's regulatory capital ratios might change using a hypothetical set of adverse economic conditions as designed by the Federal Reserve Board. In addition to the annual supervisory stress test conducted by the Federal Reserve Board, Citi is required to conduct annual company-run stress tests under the same adverse economic conditions designed by the Federal Reserve Board.

Both CCAR and DFAST include an estimate of projected revenues, losses, reserves, pro forma regulatory capital ratios, and any other additional capital measures deemed relevant by Citi. Projections are required over a nine-quarter planning horizon under two supervisory scenarios (baseline and severely adverse conditions). All risk-based capital ratios reflect application of the Standardized Approach framework under the U.S. Basel III rules.

In addition, Citibank is required to conduct the annual Dodd-Frank Act Stress Test. The annual stress test consists of a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions under several scenarios on Citibank's regulatory capital. This program serves to inform the Office of the Comptroller of the Currency as to how Citibank's regulatory capital ratios might change during a hypothetical set of adverse economic conditions and to ultimately evaluate the reliability of Citibank's capital planning process.

Citigroup and Citibank are required to disclose the results of their company-run stress tests.

Temporary Federal Reserve Board Limitations on Capital Distributions

From the third quarter of 2020 to the second quarter of 2021, the Federal Reserve Board placed temporary limitations on capital distributions for Citi and other large banking organizations, to ensure that large banks maintained a high level of capital resilience throughout the COVID-19 pandemic. Commencing July 1, 2021, Citi's common stock dividends and share repurchases were no longer subject to limitations based on the average of Citi's net income for the four preceding calendar quarters.

All large banks, including Citi, remain subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see "Regulatory Capital Buffers" above, and "Risk Factors—Strategic Risks" below.

Citigroup's Capital Resources

The following table sets forth Citi's effective minimum risk-based capital requirements as of December 31, 2021, September 30, 2021 and December 31, 2020:

	Advanced Approaches			Standardized Approach		
	December 31, 2021	September 30, 2021	December 31, 2020	**December 31, 2021**	September 30, 2021	December 31, 2020
Common Equity Tier 1 Capital ratio[1]	**10.0 %**	10.0 %	10.0 %	**10.5 %**	10.0 %	10.0 %
Tier 1 Capital ratio[1]	**11.5**	11.5	11.5	**12.0**	11.5	11.5
Total Capital ratio[1]	**13.5**	13.5	13.5	**14.0**	13.5	13.5

(1) Beginning October 1, 2021, Citi's effective minimum risk-based capital requirements include the 3.0% SCB and 3.0% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.0% GSIB surcharge under the Advanced Approaches (all of which must be composed of Common Equity Tier 1 Capital). For prior periods presented, Citi's effective minimum risk-based capital requirements included a 2.5% SCB and 3.0% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.0% GSIB surcharge under the Advanced Approaches.

The following tables set forth Citi's capital components and ratios as of December 31, 2021, September 30, 2021 and December 31, 2020:

	Advanced Approaches[5]			Standardized Approach[5]		
In millions of dollars, except ratios	**December 31, 2021**	September 30, 2021	December 31, 2020	**December 31, 2021**	September 30, 2021	December 31, 2020
Common Equity Tier 1 Capital[1]	**$ 149,305**	$ 149,631	$ 147,274	**$ 149,305**	$ 149,631	$ 147,274
Tier 1 Capital	**169,568**	168,902	167,053	**169,568**	168,902	167,053
Total Capital (Tier 1 Capital + Tier 2 Capital)[1]	**194,006**	194,423	196,051	**203,838**	204,288	205,002
Total Risk-Weighted Assets	**1,209,374**	1,265,297	1,278,977	**1,219,175**	1,284,316	1,242,381
Credit Risk[1]	**$ 840,483**	$ 871,668	$ 859,698	**$ 1,135,906**	$ 1,187,516	$ 1,121,871
Market Risk	**78,634**	93,376	116,181	**83,269**	96,800	120,510
Operational Risk	**290,257**	300,253	303,098	**—**	—	—
Common Equity Tier 1 Capital ratio[2]	**12.35 %**	11.83 %	11.51 %	**12.25 %**	11.65 %	11.85 %
Tier 1 Capital ratio[2]	**14.02**	13.35	13.06	**13.91**	13.15	13.45
Total Capital ratio[2]	**16.04**	15.37	15.33	**16.72**	15.91	16.50

In millions of dollars, except ratios	**Effective Minimum Requirement**	**December 31, 2021**	September 30, 2021	December 31, 2020
Quarterly Adjusted Average Total Assets[1][3]		**$ 2,351,434**	$ 2,311,830	$ 2,265,615
Total Leverage Exposure[1][4]		**2,957,764**	2,911,050	2,391,033
Tier 1 Leverage ratio	**4.0%**	**7.21 %**	7.31 %	7.37 %
Supplementary Leverage ratio	**5.0**	**5.73**	5.80	6.99

(1) Citi has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in retained earnings (after-tax), deferred tax assets (DTAs) arising from temporary differences, and the ACL upon the January 1, 2020 CECL adoption date were deferred and have commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022. For the ongoing impact of CECL, Citigroup was allowed to adjust retained earnings and the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to retained earnings and the ACL between January 1, 2020 and December 31, 2021 commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date. Corresponding adjustments to average on-balance sheet assets are reflected in quarterly adjusted average total assets and Total Leverage Exposure. Additionally, the increase in DTAs arising from temporary differences upon the January 1, 2020 adoption date were deducted from risk-weighted assets (RWA) and commenced phase-in to RWA at 25% per year beginning January 1, 2022.

(2) Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach as of December 31, 2021 and September 30, 2021, and under the Basel III Advanced Approaches framework as of December 31, 2020, whereas Citi's reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework for all periods presented.

(3) Tier 1 Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.

(4) Supplementary Leverage ratio denominator. Commencing with the second quarter of 2020 and continuing through the first quarter of 2021, Citigroup's Total Leverage Exposure temporarily excluded U.S. Treasuries and deposits at Federal Reserve Banks. For additional information, see "Temporary Supplementary Leverage Ratio Relief" above.

(5) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.

Common Equity Tier 1 Capital Ratio

As set forth in the table above, Citi's Common Equity Tier 1 Capital ratio at December 31, 2021 increased from September 30, 2021, primarily due to a decrease in risk-weighted assets and a temporary pause in common share repurchases in the fourth quarter of 2021 in preparation for the implementation of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. Citi's Common Equity Tier 1 Capital ratio increased from year-end 2020, largely driven by net income of $22.0 billion, a net decrease in risk-weighted assets and a temporary pause in common share repurchases in the fourth quarter of 2021 in preparation for the implementation of SA-CCR, partially offset by the return of $11.8 billion of capital to common shareholders in the form of share repurchases and dividends, as well as adverse net movements in *AOCI*.

Components of Citigroup Capital

In millions of dollars		**December 31, 2021**		December 31, 2020
Common Equity Tier 1 Capital				
Citigroup common stockholders' equity[1]	**$**	**183,108**	$	180,118
Add: Qualifying noncontrolling interests		**143**		141
Regulatory capital adjustments and deductions:				
Add: CECL transition and 25% provision deferral[2]		**3,028**		5,348
Less: Accumulated net unrealized gains (losses) on cash flow hedges, net of tax		**101**		1,593
Less: Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax		**(896)**		(1,109)
Less: Intangible assets:				
Goodwill, net of related DTLs[3]		**20,619**		21,124
Identifiable intangible assets other than MSRs, net of related DTLs		**3,800**		4,166
Less: Defined benefit pension plan net assets; other		**2,080**		921
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[4]		**11,270**		11,638
Total Common Equity Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**149,305**	$	147,274
Additional Tier 1 Capital				
Qualifying noncumulative perpetual preferred stock[1]	**$**	**18,864**	$	19,324
Qualifying trust preferred securities[5]		**1,399**		1,393
Qualifying noncontrolling interests		**34**		35
Regulatory capital deductions:				
Less: Permitted ownership interests in covered funds[6]		**—**		917
Less: Other		**34**		56
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**20,263**	$	19,779
Total Tier 1 Capital (Common Equity Tier 1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	**$**	**169,568**	$	167,053
Tier 2 Capital				
Qualifying subordinated debt	**$**	**20,064**	$	23,481
Qualifying trust preferred securities[7]		**248**		331
Qualifying noncontrolling interests		**42**		41
Eligible allowance for credit losses[2][8]		**14,209**		14,127
Regulatory capital deduction:				
Less: Other		**293**		31
Total Tier 2 Capital (Standardized Approach)	**$**	**34,270**	$	37,949
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	**$**	**203,838**	$	205,002
Adjustment for excess of eligible credit reserves over expected credit losses[2][8]	**$**	**(9,832)**	$	(8,951)
Total Tier 2 Capital (Advanced Approaches)	**$**	**24,438**	$	28,998
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	**$**	**194,006**	$	196,051

Footnotes continue on the following page.

(1) Issuance costs of $131 million and $156 million related to noncumulative perpetual preferred stock outstanding at December 31, 2021 and 2020, respectively, are excluded from common stockholders' equity and netted against such preferred stock in accordance with Federal Reserve Board regulatory reporting requirements, which differ from those under U.S. GAAP.

(2) Citi has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in retained earnings (after-tax) and the ACL upon the January 1, 2020 CECL adoption date were deferred and commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022. For the ongoing impact of CECL, Citigroup was allowed to adjust retained earnings and the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to retained earnings and the ACL between January 1, 2020 and December 31, 2021 have also commenced phase in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date.

(3) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.

(4) Of Citi's $24.8 billion of net DTAs at December 31, 2021, $15.3 billion was included in Common Equity Tier 1 Capital pursuant to the U.S. Basel III rules, while $9.5 billion was excluded. Excluded from Citi's Common Equity Tier 1 Capital as of December 31, 2021 was $11.3 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards. The amount excluded was reduced by $1.8 billion of net DTLs primarily associated with goodwill and certain other intangible assets that are separately deducted from capital. DTAs arising from tax carry-forwards are required to be entirely deducted from Common Equity Tier 1 Capital under the U.S. Basel III rules. DTAs arising from temporary differences are required to be deducted from capital only if these DTAs exceed 10%/15% limitation under the U.S. Basel III rules. Citi's DTAs do not currently exceed this limitation and, therefore, are not subject to deduction from Common Equity Tier 1 Capital, but are subject to risk weighting at 250%.

(5) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.

(6) Banking entities are required to be in compliance with the Volcker Rule of the Dodd-Frank Act, which prohibits conducting certain proprietary investment activities and limits their ownership of, and relationships with, covered funds. Commencing January 1, 2021, Citi no longer deducts permitted market-making positions in third-party covered funds from Tier 1 Capital, in accordance with the revised Volcker Rule 2.0 issued by the U.S. agencies in November 2019. Upon the removal of the capital deduction, permitted market-making positions in third-party covered funds are included in risk-weighted assets.

(7) Represents the amount of non-grandfathered trust preferred securities that were previously eligible for inclusion in Tier 2 Capital under the U.S. Basel III rules. Commencing January 1, 2022, non-grandfathered trust preferred securities have been fully phased out of Tier 2 Capital.

(8) Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets. The total amount of eligible credit reserves in excess of expected credit losses that were eligible for inclusion in Tier 2 Capital, subject to limitation, under the Advanced Approaches framework was $4.4 billion and $5.2 billion at December 30, 2021 and December 31, 2020, respectively.

Citigroup Capital Rollforward

In millions of dollars	Three months ended December 31, 2021	Twelve months ended December 31, 2021
Common Equity Tier 1 Capital, beginning of period	**$ 149,631**	**$ 147,274**
Net income	**3,173**	**21,952**
Common and preferred dividends declared	**(1,249)**	**(5,236)**
Net change in treasury stock	**6**	**(7,111)**
Net increase in common stock and additional paid-in capital	**87**	**132**
Net change in foreign currency translation adjustment net of hedges, net of tax	**(462)**	**(2,525)**
Net change in unrealized gains (losses) on debt securities AFS, net of tax	**(1,396)**	**(3,934)**
Net decrease in defined benefit plans liability adjustment, net of tax	**76**	**1,012**
Net change in adjustment related to change in fair value of financial liabilities attributable to own creditworthiness, net of tax	**(3)**	**19**
Net decrease in excluded component of fair value hedges	**12**	**—**
Net decrease in goodwill, net of related DTLs	**70**	**505**
Net decrease in identifiable intangible assets other than MSRs, net of related DTLs	**99**	**366**
Net increase in defined benefit pension plan net assets	**(133)**	**(936)**
Net change in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	**(373)**	**368**
Net decrease in CECL 25% provision deferral	**(361)**	**(2,320)**
Other	**128**	**(261)**
Net change in Common Equity Tier 1 Capital	**$ (326)**	**$ 2,031**
Common Equity Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$ 149,305**	**$ 149,305**
Additional Tier 1 Capital, beginning of period	**$ 19,271**	**$ 19,779**
Net change in qualifying perpetual preferred stock	**994**	**(460)**
Net increase in qualifying trust preferred securities	**1**	**6**
Net decrease in permitted ownership interests in covered funds	**—**	**917**
Other	**(3)**	**21**
Net increase in Additional Tier 1 Capital	**$ 992**	**$ 484**
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$ 169,568**	**$ 169,568**
Tier 2 Capital, beginning of period (Standardized Approach)	**$ 35,386**	**$ 37,949**
Net decrease in qualifying subordinated debt	**(392)**	**(3,417)**
Net change in eligible allowance for credit losses	**(651)**	**82**
Other	**(73)**	**(344)**
Net decrease in Tier 2 Capital (Standardized Approach)	**$ (1,116)**	**$ (3,679)**
Tier 2 Capital, end of period (Standardized Approach)	**$ 34,270**	**$ 34,270**
Total Capital, end of period (Standardized Approach)	**$ 203,838**	**$ 203,838**
Tier 2 Capital, beginning of period (Advanced Approaches)	**$ 25,521**	**$ 28,998**
Net decrease in qualifying subordinated debt	**(392)**	**(3,417)**
Net decrease in excess of eligible credit reserves over expected credit losses	**(618)**	**(799)**
Other	**(73)**	**(344)**
Net decrease in Tier 2 Capital (Advanced Approaches)	**$ (1,083)**	**$ (4,560)**
Tier 2 Capital, end of period (Advanced Approaches)	**$ 24,438**	**$ 24,438**
Total Capital, end of period (Advanced Approaches)	**$ 194,006**	**$ 194,006**

Citigroup Risk-Weighted Assets Rollforward (Basel III Standardized Approach)

In millions of dollars	Three months ended December 31, 2021	Twelve months ended December 31, 2021
Total Risk-Weighted Assets, beginning of period	**$ 1,284,316**	**$ 1,242,381**
Changes in Credit Risk-Weighted Assets		
General credit risk exposures	**(1,475)**	**(1,775)**
Repo-style transactions(1)	**(15,160)**	**(9,737)**
Securitization exposures(2)	**(1,306)**	**3,593**
Equity exposures	**(340)**	**494**
Over-the-counter (OTC) derivatives(3)	**(22,954)**	**3,224**
Other exposures(4)	**(7,167)**	**15,112**
Off-balance sheet exposures	**(3,208)**	**3,124**
Net change in Credit Risk-Weighted Assets	**$ (51,610)**	**$ 14,035**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (4,108)**	**$ (21,499)**
Model and methodology updates	**(9,423)**	**(15,742)**
Net decrease in Market Risk-Weighted Assets(5)	**$ (13,531)**	**$ (37,241)**
Total Risk-Weighted Assets, end of period	**$ 1,219,175**	**$ 1,219,175**

(1) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing and securities lending transactions. Repo-style transactions decreased during the three months and 12 months ended December 31, 2021, primarily due to exposure-driven decreases.

(2) Securitization exposures increased during the 12 months ended December 31, 2021, primarily due to increases in new deals.

(3) OTC derivatives decreased during the three months ended December 31, 2021, primarily due to decreases in mark-to-market and notional movement. OTC derivatives increased during the 12 months ended December 31, 2021, primarily due to increases in mark-to-market for bilateral derivatives.

(4) Other exposures include cleared transactions, unsettled transactions, and other assets. Other exposures decreased during the three months ended December 31, 2021 primarily due to decreases in cleared transactions. Other exposures increased during the 12 months ended December 31, 2021 primarily due to increases in various other assets.

(5) Market risk-weighted assets decreased during the three months and 12 months ended December 31, 2021, primarily due to exposure changes.

Citigroup Risk-Weighted Assets Rollforward (Basel III Advanced Approaches)

In millions of dollars	Three months ended December 31, 2021	Twelve months ended December 31, 2021
Total Risk-Weighted Assets, beginning of period	**$ 1,265,297**	**$ 1,278,977**
Changes in Credit Risk-Weighted Assets		
Retail exposures(1)	**(8,043)**	**(13,426)**
Wholesale exposures(2)	**(8,408)**	**(10,630)**
Repo-style transactions	**2,516**	**(3,861)**
Securitization exposures(3)	**528**	**5,816**
Equity exposures	**(253)**	**206**
Over-the-counter (OTC) derivatives(4)	**(8,465)**	**(510)**
Derivatives CVA(5)	**(5,988)**	**(2,715)**
Other exposures(6)	**(1,646)**	**7,003**
Supervisory 6% multiplier	**(1,426)**	**(1,098)**
Net decrease in Credit Risk-Weighted Assets	**$ (31,185)**	**$ (19,215)**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (5,320)**	**$ (21,805)**
Model and methodology updates	**(9,422)**	**(15,742)**
Net decrease in Market Risk-Weighted Assets(7)	**$ (14,742)**	**$ (37,547)**
Net decrease in Operational Risk-Weighted Assets(8)	**$ (9,996)**	**$ (12,841)**
Total Risk-Weighted Assets, end of period	**$ 1,209,374**	**$ 1,209,374**

(1) Retail exposures decreased during the three months ended December 31, 2021, primarily driven by model recalibrations. Retail exposures decreased during the 12 months ended December 31, 2021, primarily driven by seasonal holiday spending repayments, less spending on qualifying revolving (card) exposures and model recalibrations.
(2) Wholesale exposures decreased during the three months and 12 months ended December 31, 2021, primarily due to reductions in commercial loans and wholesale loan commitments.
(3) Securitization exposures increased during the 12 months ended December 31, 2021, primarily due to increases in new deals.
(4) OTC derivatives decreased during the three months ended December 31,2021, primarily due to decreases in mark-to-market and notional movement.
(5) Derivatives CVA decreased during the three months ended December 31, 2021, primarily due to decreases in exposure and volatility, as well as lower credit spreads and sensitivity.
(6) Other exposures increased during the 12 months ended December 31, 2021, primarily due to increases in various other assets.
(7) Market risk-weighted assets decreased during the three months and 12 months ended December 31, 2021, primarily due to exposure changes.
(8) Operational risk-weighted assets decreased during the three months and 12 months ended December 31, 2021, primarily due to changes in operational loss severity and frequency.

Supplementary Leverage Ratio

The following table sets forth Citi's Supplementary Leverage ratio and related components as of December 31, 2021, September 30, 2021 and December 31, 2020:

In millions of dollars, except ratios	**December 31, 2021**	September 30, 2021	December 31, 2020
Tier 1 Capital	**$ 169,568**	$ 168,902	$ 167,053
Total Leverage Exposure			
On-balance sheet assets(1)(2)(3)	**$ 2,389,237**	$ 2,349,414	$ 1,864,374
Certain off-balance sheet exposures:(4)			
Potential future exposure on derivative contracts	**222,241**	222,157	186,959
Effective notional of sold credit derivatives, net(5)	**23,788**	21,987	32,640
Counterparty credit risk for repo-style transactions(6)	**25,775**	21,174	20,965
Unconditionally cancelable commitments	**70,196**	70,541	71,163
Other off-balance sheet exposures	**264,330**	263,361	253,754
Total of certain off-balance sheet exposures	**$ 606,330**	$ 599,220	$ 565,481
Less: Tier 1 Capital deductions	**37,803**	37,584	38,822
Total Leverage Exposure(3)	**$ 2,957,764**	$ 2,911,050	$ 2,391,033
Supplementary Leverage ratio	**5.73 %**	5.80 %	6.99 %

(1) Represents the daily average of on-balance sheet assets for the quarter.
(2) Citi has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in DTAs arising from temporary differences and the ACL upon the January 1, 2020 CECL adoption date were deferred and commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022. For the ongoing impact of CECL, Citigroup was allowed to adjust the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to the ACL between January 1, 2020 and December 31, 2021 have also commenced phase in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date. Corresponding adjustments to average on-balance sheet assets are reflected in Total Leverage Exposure.
(3) Commencing with the second quarter of 2020 and continuing through the first quarter of 2021, Citigroup's Total Leverage Exposure temporarily excluded U.S. Treasuries and deposits at Federal Reserve Banks. For additional information, see "Temporary Supplementary Leverage Ratio Relief" above.
(4) Represents the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter.
(5) Under the U.S. Basel III rules, banking organizations are required to include in Total Leverage Exposure the effective notional amount of sold credit derivatives, with netting of exposures permitted if certain conditions are met.
(6) Repo-style transactions include repurchase or reverse repurchase transactions as well as securities borrowing or securities lending transactions.

As set forth in the table above, Citigroup's Supplementary Leverage ratio was 5.7% at December 31, 2021, compared to 5.8% at September 30, 2021 and 7.0% at December 31, 2020. The quarter-over-quarter decrease was primarily driven by an increase in Total Leverage Exposure, primarily driven by an increase in average on-balance sheet assets, as well as adverse net movements in *AOCI*, partially offset by net income in the quarter. The year-over-year decrease was primarily driven by an increase in Total Leverage Exposure, largely due to an approximate 100 basis point impact from the expiration of the Federal Reserve Board's temporary Supplementary Leverage ratio relief. For additional information, see "Temporary Supplementary Leverage Ratio Relief" above.

Capital Resources of Citigroup's Subsidiary U.S. Depository Institutions

Citigroup's subsidiary U.S. depository institutions are also subject to regulatory capital standards issued by their respective primary bank regulatory agencies, which are similar to the standards of the Federal Reserve Board.

The following tables set forth the capital components and ratios for Citibank, Citi's primary subsidiary U.S. depository institution, as of December 31, 2021, September 30, 2021 and December 31, 2020:

		Advanced Approaches[8]			Standardized Approach[8]		
In millions of dollars, except ratios	**Effective Minimum Requirement[1]**	**December 31, 2021**	September 30, 2021	December 31, 2020	**December 31, 2021**	September 30, 2021	December 31, 2020
Common Equity Tier 1 Capital[2]		**$ 148,548**	$ 147,459	$ 142,854	**$ 148,548**	$ 147,459	$ 142,854
Tier 1 Capital		**150,679**	149,588	144,962	**150,679**	149,588	144,962
Total Capital (Tier 1 Capital + Tier 2 Capital)[2][3]		**166,921**	166,196	161,447	**175,427**	174,745	169,449
Total Risk-Weighted Assets		**1,017,774**	1,067,406	1,047,088	**1,066,015**	1,107,021	1,054,056
Credit Risk[2]		**$ 737,802**	$ 761,259	$ 737,953	**$1,016,293**	$ 1,048,581	$ 989,222
Market Risk		**48,089**	55,566	63,984	**49,722**	58,440	64,834
Operational Risk		**231,883**	250,581	245,151	**—**	—	—
Common Equity Tier 1 Capital ratio[4][5]	**7.0 %**	**14.60 %**	13.81 %	13.64 %	**13.93 %**	13.32 %	13.55 %
Tier 1 Capital ratio[4][5]	**8.5**	**14.80**	14.01	13.84	**14.13**	13.51	13.75
Total Capital ratio[4][5]	**10.5**	**16.40**	15.57	15.42	**16.46**	15.79	16.08

In millions of dollars, except ratios	**Effective Minimum Requirement**	**December 31, 2021**	September 30, 2021	December 31, 2020
Quarterly Adjusted Average Total Assets[2][6]		**$ 1,716,596**	$ 1,682,993	$ 1,667,105
Total Leverage Exposure[2][7]		**2,236,839**	2,205,471	2,172,052
Tier 1 Leverage ratio[5]	**5.0%**	**8.78 %**	8.89 %	8.70 %
Supplementary Leverage ratio[5]	**6.0**	**6.74**	6.78	6.67

(1) For all periods presented, Citibank's effective minimum risk-based capital requirements are inclusive of the 2.5% Capital Conservation Buffer (all of which must be composed of Common Equity Tier 1 Capital).
(2) Citibank has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in retained earnings (after-tax), deferred tax assets (DTAs) arising from temporary differences, and the ACL upon the January 1, 2020 CECL adoption date were deferred and have commenced phase-in to regulatory capital at 25% per year beginning on January 1, 2022. For the ongoing impact of CECL, Citibank was allowed to adjust retained earnings and the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to retained earnings and the ACL between January 1, 2020 and December 31, 2021 have also commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date. Corresponding adjustments to average on-balance sheet assets are reflected in quarterly adjusted average total assets and Total Leverage Exposure. Additionally, the increase in DTAs arising from temporary differences upon the January 1, 2020 adoption date were deducted from risk-weighted assets (RWA) and commenced phase-in to RWA at 25% per year beginning January 1, 2022.
(3) Under the Advanced Approaches framework, eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets, which differs from the Standardized Approach in which the ACL is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess ACL being deducted in arriving at credit risk-weighted assets.
(4) Citibank's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.
(5) Citibank must maintain minimum Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital and Tier 1 Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized" under the revised Prompt Corrective Action (PCA) regulations applicable to insured depository institutions as established by the U.S. Basel III rules. Citibank must also maintain a minimum Supplementary Leverage ratio of 6.0% to be considered "well capitalized."
(6) Tier 1 Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.
(7) Supplementary Leverage ratio denominator.
(8) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.

As indicated in the table above, Citibank's capital ratios at December 31, 2021 were in excess of the stated and effective minimum requirements under the U.S. Basel III rules. In addition, Citibank was also "well capitalized" as of December 31, 2021.

Impact of Changes on Citigroup and Citibank Capital Ratios

The following tables present the estimated sensitivity of Citigroup's and Citibank's capital ratios to changes of $100 million in Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital (numerator), and changes of $1 billion in Advanced Approaches and Standardized Approach risk-weighted assets and quarterly adjusted average total assets, as well as Total Leverage Exposure (denominator), as of December 31, 2021. This information is provided for the purpose of analyzing the impact that a change in Citigroup's or Citibank's financial position or results of operations could have on these ratios. These sensitivities only consider a single change to either a component of capital, risk-weighted assets, quarterly adjusted average total assets or Total Leverage Exposure. Accordingly, an event that affects more than one factor may have a larger basis point impact than is reflected in these tables.

	Common Equity Tier 1 Capital ratio		Tier 1 Capital ratio		Total Capital ratio	
In basis points	Impact of $100 million change in Common Equity Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Total Capital	Impact of $1 billion change in risk-weighted assets
Citigroup						
Advanced Approaches	0.8	1.0	0.8	1.2	0.8	1.3
Standardized Approach	0.8	1.0	0.8	1.1	0.8	1.4
Citibank						
Advanced Approaches	1.0	1.4	1.0	1.5	1.0	1.6
Standardized Approach	0.9	1.3	0.9	1.3	0.9	1.5

	Tier 1 Leverage ratio		Supplementary Leverage ratio	
In basis points	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in quarterly adjusted average total assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in Total Leverage Exposure
Citigroup	0.4	0.3	0.3	0.2
Citibank	0.6	0.5	0.4	0.3

Citigroup Broker-Dealer Subsidiaries

At December 31, 2021, Citigroup Global Markets Inc., a U.S. broker-dealer registered with the SEC that is an indirect wholly owned subsidiary of Citigroup, had net capital, computed in accordance with the SEC's net capital rule, of $13 billion, which exceeded the minimum requirement by $8 billion.

Moreover, Citigroup Global Markets Limited, a broker-dealer registered with the United Kingdom's Prudential Regulation Authority (PRA) that is also an indirect wholly owned subsidiary of Citigroup, had total capital of $28 billion at December 31, 2021, which exceeded the PRA's minimum regulatory capital requirements.

In addition, certain of Citi's other broker-dealer subsidiaries are subject to regulation in the countries in which they operate, including requirements to maintain specified levels of net capital or its equivalent. Citigroup's other principal broker-dealer subsidiaries were in compliance with their regulatory capital requirements at December 31, 2021.

Total Loss-Absorbing Capacity (TLAC)

U.S. GSIBs, including Citi, are required to maintain minimum levels of TLAC and eligible long-term debt (LTD), each set by reference to the GSIB's consolidated risk-weighted assets (RWA) and total leverage exposure.

Minimum External TLAC Requirement

The minimum external TLAC requirement is the greater of (i) 18% of the GSIB's RWA plus the then-applicable RWA-based TLAC buffer (see below) and (ii) 7.5% of the GSIB's total leverage exposure plus a leverage-based TLAC buffer of 2% (i.e., 9.5%).

The RWA-based TLAC buffer equals the 2.5% capital conservation buffer, plus any applicable countercyclical capital buffer (currently 0%), plus the GSIB's capital surcharge as determined under method 1 of the GSIB surcharge rule (2.0% for Citi for 2021). Accordingly, Citi's total current minimum TLAC requirement was 22.5% of RWA for 2021.

Minimum LTD Requirement

The minimum LTD requirement is the greater of (i) 6% of the GSIB's RWA plus its capital surcharge as determined under method 2 of the GSIB surcharge rule (3.0% for Citi for 2021), for a total current requirement of 9% of RWA for Citi, and (ii) 4.5% of the GSIB's total leverage exposure.

The table below details Citi's eligible external TLAC and LTD amounts and ratios, and each effective minimum TLAC and LTD ratio requirement, as well as the surplus amount in dollars in excess of each requirement.

	December 31, 2021	
In billions of dollars, except ratios	External TLAC	LTD
Total eligible amount	$ 318	$ 143
% of Standardized Approach risk-weighted assets	26.1 %	11.7 %
Effective minimum requirement[1][2]	22.5	9.0
Surplus amount	$ 44	$ 33
% of Total Leverage Exposure	10.8 %	4.8 %
Effective minimum requirement	9.5	4.5
Surplus amount	$ 37	$ 10

(1) External TLAC includes Method 1 GSIB surcharge of 2.0%.
(2) LTD includes Method 2 GSIB surcharge of 3.0%.

As of December 31, 2021, Citi exceeded each of the minimum TLAC and LTD requirements, resulting in a $10 billion surplus above its binding TLAC requirement of LTD as a percentage of Total Leverage Exposure.

For additional information on Citi's TLAC-related requirements, see "Risk Factors—Compliance Risks" and "Liquidity Risk—Total Loss-Absorbing Capacity (TLAC)" below.

Capital Resources (Full Adoption of CECL)[1]

The following tables set forth Citigroup's and Citibank's capital components and ratios had the full impact of CECL been adopted as of December 31, 2021:

	Citigroup				Citibank		
	Effective Minimum Requirement, Advanced Approaches	Effective Minimum Requirement, Standardized Approach[2]	Advanced Approaches	Standardized Approach	Effective Minimum Requirement[3]	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital ratio	10.0 %	10.5 %	12.10 %	12.01 %	7.0 %	14.32 %	13.68 %
Tier 1 Capital ratio	11.5	12.0	13.78	13.68	8.5	14.53	13.88
Total Capital ratio	13.5	14.0	15.86	16.49	10.5	16.15	16.21

	Effective Minimum Requirement	Citigroup	Effective Minimum Requirement	Citibank
Tier 1 Leverage ratio	4.0 %	7.09 %	5.0 %	8.62 %
Supplementary Leverage ratio	5.0	5.64	6.0	6.61

(1) See footnote 2 on the "Components of Citigroup Capital" table above.
(2) The effective minimum requirements were applicable as of December 31, 2021. See "Stress Capital Buffer" above for additional information.
(3) Citibank's effective minimum requirements were the same under the Standardized Approach and the Advanced Approaches Framework.

Adoption of the Standardized Approach for Counterparty Credit Risk

In January 2020, the U.S. banking agencies issued a final rule to introduce the Standardized Approach for Counterparty Credit Risk (SA-CCR). SA-CCR replaced the Current Exposure Method (CEM), which was the previous methodology used to calculate exposure for all derivative contracts under the Standardized Approach, as well as RWA for derivative contracts under the Advanced Approaches in cases where internal models are not used. In addition, SA-CCR replaced CEM in numerous other instances throughout the regulatory framework, including but not limited to the Supplementary Leverage Ratio, certain components of the GSIB score, single counterparty credit limits and legal lending limits.

Under SA-CCR, a banking organization calculates the exposure amount of its derivative contracts at the netting set level. Multiple derivative contracts are generally considered to be under the same netting set as long as each derivative contract is subject to the same qualifying master netting agreement. SA-CCR also introduced the concept of hedging sets, which allows a banking organization to fully or partially net derivative contracts within the same netting set that share similar risk factors. Moreover, SA-CCR incorporated updated supervisory and maturity factors to calculate the potential future exposure of a derivative contract, and provides for improved recognition of collateral. Under the final rule, the exposure amount of a netting set is equal to an alpha factor of 1.4 multiplied by the sum of the replacement cost and potential future exposure of the netting set.

Citi adopted SA-CCR as of the mandatory compliance date of January 1, 2022. Adoption of SA-CCR increased Citigroup's Standardized RWA by approximately $51 billion, which resulted in a 49 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio under the Standardized Approaches on January 1, 2022. Citigroup's reported CET1 Capital ratio under the Standardized Approach as of December 31, 2021 was 12.25%, 75 bps above its 11.5% CET1 Capital target, and 175 bps above its 10.5% effective regulatory minimum CET1 Capital requirement under the Standardized Approach.

Adoption of SA-CCR also increased Citigroup's Advanced RWA by approximately $29 billion, which resulted in a 29 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio under the Advanced Approaches on January 1, 2022. Citigroup's reported CET1 Capital ratio under the Advanced Approaches as of December 31, 2021 was 12.35%, 85 bps above its 11.5% CET1 Capital target, and 235 bps above its 10.0% effective regulatory minimum CET1 Capital requirement under the Advanced Approaches.

Citigroup voluntarily suspended share repurchases during the fourth quarter of 2021, in anticipation of the adverse impact resulting from SA-CCR adoption. Citi resumed common share repurchases in January 2022.

Regulatory Capital Standards Developments

Basel III Revisions

As previously disclosed, the Basel Committee on Banking Supervision (Basel Committee) has finalized certain Basel III post-crisis regulatory reforms. The reforms relate to the methodologies in deriving credit, market and operational risk-weighted assets, the imposition of a new aggregate output floor for risk-weighted assets, and revisions to the leverage ratio framework.

The U.S. banking agencies may revise the U.S. Basel III rules in the future, in response to the Basel Committee's Basel III post-crisis regulatory reforms. For information about risks related to changes in regulatory capital requirements, see "Risk Factors—Strategic Risks." below.

Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity

Tangible common equity (TCE) represents common stockholders' equity less goodwill and identifiable intangible assets (other than mortgage servicing rights (MSRs)). RoTCE represents net income available to common shareholders as a percentage of average TCE. Tangible book value (TBV) per share represents TCE divided by common shares outstanding. These measures are non-GAAP financial measures. Other companies may calculate these measures in a different manner. Citi believes TCE, TBV and RoTCE provide alternate measures of capital strength and performance for investors, industry analysts and others.

	At December 31,				
In millions of dollars or shares, except per share amounts	**2021**	2020	2019	2018	2017
Total Citigroup stockholders' equity	**$ 201,972**	$ 199,442	$ 193,242	$ 196,220	$ 200,740
Less: Preferred stock	**18,995**	19,480	17,980	18,460	19,253
Common stockholders' equity	**$ 182,977**	$ 179,962	$ 175,262	$ 177,760	$ 181,487
Less:					
Goodwill	**21,299**	22,162	22,126	22,046	22,256
Identifiable intangible assets (other than MSRs)	**4,091**	4,411	4,327	4,636	4,588
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale (HFS)	**510**	—	—	—	32
Tangible common equity (TCE)	**$ 157,077**	$ 153,389	$ 148,809	$ 151,078	$ 154,611
Common shares outstanding (CSO)	**1,984.4**	2,082.1	2,114.1	2,368.5	2,569.9
Book value per share (common stockholders' equity/ CSO)	**$ 92.21**	$ 86.43	$ 82.90	$ 75.05	$ 70.62
Tangible book value per share (TCE/CSO)	**79.16**	73.67	70.39	63.79	60.16

	For the year ended December 31,				
In millions of dollars	**2021**	2020	2019	2018	2017(1)
Net income available to common shareholders	**$ 20,912**	$ 9,952	$ 18,292	$ 16,871	$ 14,583
Average common stockholders' equity	**182,421**	175,508	177,363	179,497	207,747
Average TCE	**156,253**	149,892	150,994	153,343	180,458
Return on average common stockholders' equity	**11.5 %**	5.7 %	10.3 %	9.4 %	7.0 %
Return on average TCE (RoTCE)	**13.4**	6.6	12.1	11.0	8.1

(1) Year ended December 31, 2017 excludes the one-time impact of Tax Reform. For a reconciliation of these amounts, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below.

RISK FACTORS

The following discussion sets forth what management currently believes could be the material risks and uncertainties that could impact Citi's businesses, results of operations and financial condition. Other risks and uncertainties, including those not currently known to Citi or its management, could also negatively impact Citi's businesses, results of operations and financial condition. Thus, the following should not be considered a complete discussion of all of the risks and uncertainties that Citi may face. For additional information about risks and uncertainties that could impact Citi, see "Executive Summary" and each respective business' results of operations above and "Managing Global Risk" below. The following risk factors are categorized to improve the readability and usefulness of the risk factor disclosure, and, while the headings and risk factors generally align with Citi's risk categorization, in certain instances the risk factors may not directly correspond with how Citi categorizes or manages its risks.

MARKET-RELATED RISKS

Macroeconomic, Geopolitical and Other Challenges and Uncertainties Globally Could Have a Negative Impact on Citi's Businesses and Results of Operations.

In addition to the significant macroeconomic challenges posed by the pandemic (see the pandemic-related risk factor below), Citi has experienced, and could experience in the future, negative impacts to its businesses and results of operations as a result of other macroeconomic, geopolitical and other challenges, uncertainties and volatility.

For example, the recent action of Russian military forces and support personnel in Ukraine has escalated tensions between Russia and the U.S., NATO, the EU and the U.K. The U.S. has imposed, and is likely to impose material additional, financial and economic sanctions and export controls against certain Russian organizations and/or individuals, with similar actions either implemented or planned by the EU and the U.K. and other jurisdictions. During the week of February 21, 2022, the U.S., the U.K., and the EU each imposed packages of financial and economic sanctions that, in various ways, constrain transactions with numerous Russian entities and individuals; transactions in Russian sovereign debt; and investment, trade, and financing to, from, or in certain regions of Ukraine. Citi's ability to engage in activity with certain consumer and institutional businesses in Russia and Ukraine or involving certain Russian or Ukrainian businesses and customers is dependent in part upon whether such engagement is restricted under any current or expected U.S., EU and other countries or U.K. sanctions and laws. Sanctions and export controls, as well as any actions by Russia, could adversely affect Citi's business activities and customers in and from Russia and Ukraine. Moreover, actions by Russia, and any further measures taken by the U.S. or its allies, could have negative impacts on regional and global financial markets and economic conditions. For additional information about these and other related risks, see the operational processes and systems, cybersecurity and emerging markets risk factors below. For additional information about Citi's exposures in Russia, see "Managing Global Risk—Other Risks—Country Risk—Russia" below.

Additionally, governmental fiscal and monetary actions, or expected actions, such as changes in interest rate policies and any program implemented by a central bank to change the size of its balance sheet, could significantly impact interest rates, economic growth rates, the volatility of global financial markets, foreign exchange rates and global capital flows. Further, it remains uncertain to what extent central banks may keep interest rates low or whether central banks might raise interest rates or reduce the size of their balance sheets, particularly as inflationary pressures continue and the U.S. and global economies continue to improve. While earlier in the pandemic the Federal Reserve Board (FRB) and other central banks took actions to support the global economy, including by further reducing their benchmark interest rates, mismatches between supply and demand of goods and services contributed to a rise in inflation in 2021, prompting the FRB to announce the approaching end of the period of extraordinarily low interest rates.

Interest rates on loans Citi makes are typically based off or set at a spread over a benchmark interest rate, and would likely decline or rise as benchmark rates decline or rise, respectively. While the interest rates at which Citi pays depositors are already low and unlikely to decline much further, declining or continued low interest rates for loans could further compress Citi's net interest income. Citi's net interest income could also be adversely affected due to a flattening of the interest rate yield curve (e.g., a lower spread between shorter-term versus longer-term interest rates), as Citi, similar to other banks, typically pays interest on deposits based on shorter-term interest rates and earns money on loans based on longer-term interest rates.

In contrast, an abrupt and sustained increase in interest rates could interfere with the global macroeconomic recovery, whether due to continued or increased inflationary pressures or otherwise. And while Citi estimates its overall net interest income would generally increase due to higher interest rates, higher rates could adversely affect Citi's funding costs, levels of deposits in its consumer and institutional businesses and certain business or product revenues. For additional information on Citi's interest rate risk, see "Managing Global Risk—Market Risk—Net Interest Income at Risk" below.

Additional areas of uncertainty include, among others, an elevated level of inflation resulting in adverse spill-over effects; the ability of Congress to raise the federal debt ceiling; slowing of the Chinese economy, including negative economic impacts associated with such slowdown or any policy actions; significant disruptions and volatility in financial markets; other geopolitical tensions and conflicts; protracted or widespread trade tensions; financial market, other economic and political disruption driven by anti-establishment movements; natural disasters; other pandemics; and election outcomes. For example, Citi's market-making businesses can suffer losses resulting from the widening of credit spreads due to unanticipated changes in financial markets. In addition, adverse developments or downturns in one or more of the world's larger economies would likely have a significant impact on the global economy or the economies of other countries because of global financial and economic linkages.

These and additional global macroeconomic, geopolitical and other challenges, uncertainties and volatilities have negatively impacted, and could continue to negatively impact, Citi's businesses, results of operations and financial condition, including its credit costs, revenues across *ICG* and *GCB* and *AOCI* (which would in turn negatively impact Citi's book and tangible book value).

STRATEGIC RISKS

Rapidly Evolving Challenges and Uncertainties Related to the COVID-19 Pandemic in the U.S. and Globally Will Likely Continue to Have Negative Impacts on Citi's Businesses and Results of Operations and Financial Condition.

The COVID-19 pandemic has affected all of the countries and jurisdictions in which Citi operates, including severely impacting global health, financial markets, consumer and business spending and economic conditions. The extent of the future pandemic impacts remain uncertain and will likely evolve by region, country or state, largely depending on the duration and severity of the public health consequences, including the duration and further spread of the coronavirus as well as any variants becoming more prevalent and impactful; further production, distribution, acceptance and effectiveness of vaccines; availability and efficiency of testing; the public response; and government actions. The future impacts to global economic conditions may include, among others:

- further disruption of global supply chains;
- higher inflation;
- higher interest rates;
- significant disruption and volatility in financial markets;
- additional closures, reduced activity and failures of many businesses, leading to loss of revenues and net losses;
- further institution of social distancing and restrictions on businesses and the movement of the public in and among the U.S. and other countries; and
- reduced U.S. and global economic output.

The pandemic has had, and may continue to have, negative impacts on Citi's businesses and overall results of operations and financial condition, which could be material. The extent of the impact on Citi's operations and financial performance, including its ability to execute its business strategies and initiatives, will continue to depend significantly on future developments in the U.S. and globally. Such developments are uncertain and cannot be predicted, including the course of the coronavirus, as well as any weakness or slowing in the economic recovery or a further economic downturn, whether due to further supply chain disruptions, inflation trends, higher interest rates or otherwise.

The pandemic may not be sufficiently contained for an extended period of time. A prolonged health crisis could reduce economic activity in the U.S. and other countries, resulting in additional declines or weakness in employment trends and business and consumer confidence. These factors could negatively impact global economic activity and markets; cause a continued decline in the demand for Citi's products and services and in its revenues; further increase Citi's credit and other costs; and may result in impairment of long-lived assets or goodwill. These factors could also cause an increase in Citi's balance sheet, risk-weighted assets and ACL, resulting in a decline in regulatory capital ratios or liquidity measures, as well as regulatory demands for higher capital levels and/or limitations or reductions in capital distributions (such as common share repurchases and dividends). Moreover, any disruption or failure of Citi's performance of, or its ability to perform, key business functions, as a result of the continued spread of COVID-19 or otherwise, could adversely affect Citi's operations.

The impact of the pandemic on Citi's consumer and corporate borrowers will vary by sector or industry, with some borrowers experiencing greater stress levels, particularly as credit and customer assistance support further winds down, which could lead to increased pressure on their results of operations and financial condition, increased borrowings or credit ratings downgrades, thus likely leading to higher credit costs for Citi. These borrowers include, among others, businesses that are more directly impacted by the institution of social distancing, the movement of the public and store closures. In addition, stress levels ultimately experienced by Citi's borrowers may be different from and more intense than assumptions made in prior estimates or models used by Citi, resulting in an increase in Citi's ACL or net credit losses, particularly as the benefits of fiscal stimulus and government support programs diminish.

Ongoing legislative and regulatory changes in the U.S. and globally to address the economic impact from the pandemic could further affect Citi's businesses, operations and financial performance. Citi could also face challenges, including legal and reputational, and scrutiny in its efforts to provide relief measures. Such efforts have resulted in, and may continue to result in, litigation, including class actions, and regulatory and government actions and proceedings. Such actions may result in judgments, settlements, penalties and fines adverse to Citi. In addition, the different types of government actions could vary in scale and duration across jurisdictions and regions with varying degrees of effectiveness.

Citi has taken measures to maintain the health and safety of its colleagues; however, these measures could result in additional expenses, and illness of employees could negatively affect staffing for a period of time. In addition, Citi's ability to recruit, hire and onboard colleagues in key areas could be negatively impacted by pandemic restrictions as well as Citi's COVID-19 vaccination requirement (see the qualified colleagues risk factor below).

Further, it is unclear how the macroeconomic or business environment or societal norms may be impacted after the pandemic. The post-pandemic environment may undergo unexpected developments or changes in financial markets, fiscal, monetary, tax and regulatory environments and consumer customer and corporate client behavior. These developments and changes could have an adverse impact on Citi's results of operations and financial condition. Ongoing business and regulatory uncertainties and changes may make Citi's longer-term business, balance sheet and strategic and budget planning more difficult or costly. Citi and its management and businesses may also experience increased or different competitive and other challenges in this environment.

To the extent that it is not able to adapt or compete effectively, Citi could experience loss of business and its results of operations and financial condition could suffer (see the competitive challenges risk factor below).

Citi's Ability to Return Capital to Common Shareholders Consistent with Its Capital Planning Efforts and Targets Substantially Depends on Regulatory Capital Requirements, Including the Results of the CCAR Process and Regulatory Stress Tests.

Citi's ability to return capital to its common shareholders consistent with its capital planning efforts and targets, whether through its common stock dividend or through a share repurchase program, substantially depends, among other things, on regulatory capital requirements, including the Stress Capital Buffer (SCB), which is based upon the results of the CCAR process required by the FRB as well as the supervisory stress tests required under the Dodd- Frank Act (as described in more detail below).

Citi's ability to return capital also depends on its results of operations and financial condition, the capital impact related to divestitures, forecasts of macroeconomic conditions, its implementation and maintenance of an effective capital planning process and management framework, and effectiveness in planning, managing and calculating its level of risk-weighted assets under both the Advanced Approaches and the Standardized Approach, Supplementary Leverage Ratio (SLR) and global systemically important bank holding company (GSIB) surcharge, which has been made more challenging due to elevated levels of liquidity in the financial system related to the pandemic (see the macroeconomic challenges and uncertainties risk factor above).

Changes in regulatory capital rules, requirements or interpretations could have a material impact on Citi's regulatory capital, both as a result of changes in Citi's reported regulatory capital and integration into the CCAR process and regulatory stress tests. For example, Citi was required to adopt the Standardized Approach for Counterparty Credit Risk (SA-CCR) as of January 1, 2022, which resulted in an approximate $51 billion increase in Citi's risk-weighted assets under the Standardized Approach. Citi voluntarily suspended common share repurchases during the fourth quarter of 2021, in anticipation of the adverse impact resulting from the adoption of SA-CCR. Citi will be required to adopt SA-CCR for purposes of the supervisory stress test during the 2023 cycle and SA-CCR may be considered by management during the 2022 cycle for purposes of management's own capital adequacy assessment. In addition, the U.S. banking agencies may potentially consider a number of changes to the U.S. regulatory capital framework in the future, including, but not limited to, revisions to the U.S. Basel III rules, recalibration of the GSIB surcharge and SLR, and enactment of the discretionary Countercyclical Capital Buffer. All of these potential changes could negatively impact Citi's regulatory capital position or increase Citi's regulatory capital requirements.

All CCAR firms, including Citi, will continue to be subject to a rigorous regulatory evaluation of capital planning practices, including, but not limited to, governance, risk management and internal controls. Citi's ability to return capital may be adversely impacted if such an evaluation of Citi resulted in negative findings. In addition, Citi's ability to accurately predict, interpret or explain to stakeholders the results of the CCAR process, and thus to address any market or investor perceptions, may be limited as the FRB's assessment of Citi's capital adequacy is conducted using the FRB's proprietary stress test models. For additional information on limitations on Citi's ability to return capital to common shareholders, as well as the CCAR process, supervisory stress test requirements and GSIB surcharge, see "Capital Resources—Overview" and "Capital Resources—Stress Testing Component of Capital Planning" above and the risk management risk factor below.

The FRB has stated that it expects leading capital adequacy practices to continue to evolve and to likely be determined by the FRB each year as a result of its cross-firm review of capital plan submissions. Similarly, the FRB has indicated that, as part of its stated goal to continually evolve its annual stress testing requirements, several parameters of the annual stress testing process may continue to be altered, including the severity of the stress test scenario, the FRB modeling of Citi's balance sheet, pre-provision net revenue (PPNR) and stress losses, and the addition of components deemed important by the FRB.

Beginning January 1, 2022, Citi was required to phase into regulatory capital at 25% per year the changes in retained earnings, deferred tax assets and ACL determined upon the January 1, 2020 CECL adoption date, as well as subsequent changes in the ACL between January 1, 2020 and December 31, 2021. The FRB has stated that it plans to maintain its current framework for calculating allowances on loans in the supervisory stress test through the 2023 supervisory stress test cycle, while continuing to evaluate appropriate future enhancements to this framework. The impacts on Citi's capital adequacy of the FRB's incorporation of CECL in its supervisory stress tests on an ongoing basis, and of other potential regulatory changes in the FRB's stress testing methodologies, remain unclear. For additional information regarding the CECL methodology, including the transition provisions related to the adverse regulatory capital effects resulting from adoption of the CECL methodology, see "Capital Resources—Current Regulatory Capital Standards—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above and Note 1 to the Consolidated Financial Statements.

In addition, the FRB has integrated the annual stress testing requirements with ongoing regulatory capital requirements. For Citigroup, the SCB equals the maximum decline in Citi's Common Equity Tier 1 Capital ratio under the supervisory severely adverse scenario over a nine-quarter CCAR measurement period, plus four quarters of planned common stock dividends, subject to a minimum requirement of 2.5%. Effective October 1, 2021, Citi's SCB was 3.0%. The SCB is calculated by the FRB using its proprietary data and modeling of each firm's results. Accordingly, Citi's SCB may change annually, or possibly more frequently, based on the supervisory stress test results, thus potentially resulting in volatility in the calculation of the SCB. Similar to the other regulatory capital buffers, a breach of the SCB would result in graduated limitations on capital distributions. For additional information on the SCB, including its calculation, see "Capital Resources—Regulatory Capital Buffers" above.

Although various uncertainties exist regarding the extent of, and the ultimate impact to Citi from, these changes to the FRB's regulatory capital, stress testing and CCAR regimes, these changes could increase the level of capital Citi is required or elects to hold, including as part of Citi's management buffer, thus potentially impacting the extent to which Citi is able to return capital to shareholders.

Citi, Its Management and Its Businesses Must Continually Review, Analyze and Successfully Adapt to Ongoing Regulatory and Legislative Uncertainties and Changes in the U.S. and Globally.

Despite the adoption of final regulations and laws in numerous areas impacting Citi and its businesses over the past several years, Citi, its management and its businesses continually face ongoing regulatory and legislative uncertainties and changes, both in the U.S. and globally. While the areas of ongoing regulatory and legislative uncertainties and changes facing Citi are too numerous to list completely, various examples include, but are not limited to (i) potential fiscal, monetary, regulatory, tax and other changes arising from the U.S. federal government and other governments, including as a result of the differing priorities of the current U.S. presidential administration, changes in regulatory leadership or focus and actions of Congress or in response to the pandemic; (ii) potential changes to various aspects of the regulatory capital framework and requirements applicable to Citi (see the capital return risk factor and "Capital Resources—Regulatory Capital Standards Developments" above); and (iii) future legislative and regulatory requirements in the U.S. and globally related to climate change, including any new disclosure requirements (see the climate change risk factor below). When referring to "regulatory," Citi is including both formal regulation and the views and expectations of its regulators in their supervisory roles.

U.S. and international regulatory and legislative initiatives have not always been undertaken or implemented on a coordinated basis, and areas of divergence have developed and continue to develop with respect to the scope, interpretation, timing, structure or approach, leading to inconsistent or even conflicting requirements, including within a single jurisdiction. For example, in May 2019, the European Commission adopted, as part of Capital Requirements Directive V (CRD V), a new requirement for major banking groups headquartered outside the EU (which would include Citi) to establish an intermediate EU holding company where the foreign bank has two or more institutions (broadly meaning banks, broker-dealers and similar financial firms) established in the EU. While in some respects the requirement mirrors an existing U.S. requirement for non-U.S. banking organizations to form U.S. intermediate holding companies, the implementation of the EU holding company requirement could lead to additional complexity with respect to Citi's resolution planning, capital and liquidity allocation and efficiency in various jurisdictions.

Moreover, ongoing regulatory and legislative uncertainties and changes make Citi's and its management's long-term business, balance sheet and strategic budget planning difficult, subject to change and potentially more costly. U.S. and other regulators globally have implemented and continue to discuss various changes to certain regulatory requirements, which would require ongoing assessment by management as to the impact to Citi, its businesses and business planning. For example, while the Basel III post-crisis regulatory reforms and revised market risk framework have been finalized at the international level, there remain significant uncertainties with respect to the integration of these revisions into the U.S. regulatory capital framework. Business planning is required to be based on possible or proposed rules or outcomes, which can change dramatically upon finalization, or upon implementation or interpretive guidance from numerous regulatory bodies worldwide, and such guidance can change.

Regulatory and legislative changes have also significantly increased Citi's compliance risks and costs (see the implementation and interpretation of regulatory changes risk factor below) and can adversely affect Citi's businesses, results of operations and financial condition.

Citi's Continued Investment and Other Initiatives as Part of Its Transformation and Strategic Refresh May Not Be as Successful as It Projects or Expects.

As part of its transformation initiatives, Citi continues to make significant investments to improve its infrastructure, risk management and controls and further enhance safety and soundness (for additional information, see the legal and regulatory proceedings risk factor below). Citi also continues to execute on its strategic refresh that includes, among other things, its exit of certain consumer banking businesses (see below) and its investments to deepen client relationships and enhance client offerings and capabilities in order to simplify the Company and enhance its allocation of resources.

For example, Citi continues to invest in its technology and digital capabilities across the franchise, including digital platforms and mobile and cloud-based solutions. In addition, Citi has been making other investments across the Company, such as in Citi's wealth management business, commercial banking business, treasury and trade solutions, securities services and other businesses, including implementing new capabilities and partnerships. Citi has also been pursuing productivity improvements through various technology and digital initiatives, organizational simplification and location strategies. Failure to properly invest in and upgrade Citi's technology and processes could result in an inability to be sufficiently competitive, serve clients effectively and avoid operational errors (for additional information, see the operational processes and systems risk factor below). There is no guarantee that these or other initiatives Citi may pursue will be as productive or effective as Citi expects, or at all.

Furthermore, Citi's strategic refresh necessitates further changes in and exits of certain businesses, which involve significant execution complexity, and could result in additional losses, charges or other negative financial impacts. For example, Citi may not be able to achieve its objectives related to its exits of 13 consumer markets in *Asia* and *EMEA* or exit of the consumer, small business and middle-market banking operations in Mexico. These exits may not be as productive, effective or timely as Citi expects and may result in additional foreign currency translation adjustments (CTA) or other losses, charges or other negative financial or strategic impacts, which could be material. For additional information on CTA losses, see the incorrect assumptions or estimates risk factor below.

Citi's investment and other initiatives may continue to evolve as its business strategies, the market environment and regulatory expectations change, which could make the initiatives more costly and more challenging to implement, and limit their effectiveness. Moreover, Citi's ability to achieve expected returns on its investments and costs savings depends, in part, on factors that it cannot control, including, among others, interest rates; inflation; impacts related to the pandemic; customer, client and competitor actions; and ongoing regulatory changes.

Citi's Ability to Utilize Its DTAs, and Thus Reduce the Negative Impact of the DTAs on Citi's Regulatory Capital, Will Be Driven by Its Ability to Generate U.S. Taxable Income.

At December 31, 2021, Citi's net DTAs were $24.8 billion, net of a valuation allowance of $4.2 billion, of which $9.5 billion was deducted from Citi's Common Equity Tier 1 Capital under the U.S. Basel III rules, primarily relating to net operating losses, foreign tax credit and general business credit carry-forwards (for additional information, see "Capital Resources—Components of Citigroup Capital" above).

Of the net DTAs at December 31, 2021, $2.8 billion related to foreign tax credit (FTC) carry-forwards, net of a valuation allowance. The carry-forward utilization period for FTCs is 10 years and represents the most time-sensitive component of Citi's DTAs. The FTC carry-forwards at December 31, 2021 expire over the period of 2022–2029. Citi must utilize any FTCs generated in the then-current-year tax return prior to utilizing any carry-forward FTCs.

The accounting treatment for realization of DTAs, including FTCs, is complex and requires significant judgment and estimates regarding future taxable earnings in the jurisdictions in which the DTAs arise and available tax planning strategies. Forecasts of future taxable earnings will depend upon various factors, including, among others, the continued impact of the pandemic and other macroeconomic conditions. In addition, any future increase in U.S. corporate tax rates could result in an increase in Citi's DTA, which may subject more of Citi's existing DTA to exclusion from regulatory capital while improving Citi's ability to utilize its FTC carry-forwards.

Citi's overall ability to realize its DTAs will primarily be dependent upon its ability to generate U.S. taxable income in the relevant tax carry-forward periods. Although utilization of FTCs in any year is generally limited to 21% of foreign source taxable income in that year, overall domestic losses (ODL) that Citi has incurred in the past allow it to reclassify domestic source income as foreign source. Failure to realize any portion of the net DTAs would have a corresponding negative impact on Citi's net income and financial returns.

Citi has not been and does not expect to be subject to the Base Erosion Anti-Abuse Tax (BEAT), which, if applicable to Citi in any given year, would have a significantly adverse effect on both Citi's net income and regulatory capital.

For additional information on Citi's DTAs, including FTCs, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below and Notes 1 and 9 to the Consolidated Financial Statements.

Citi's Interpretation or Application of the Complex Tax Laws to Which It Is Subject Could Differ from Those of the Relevant Governmental Authorities, Which Could Result in Litigation or Examinations and the Payment of Additional Taxes, Penalties or Interest.

Citi is subject to various income-based tax laws of the U.S. and its states and municipalities, as well as the numerous non-U.S. jurisdictions in which it operates. These tax laws are inherently complex and Citi must make judgments and interpretations about the application of these laws, including the Tax Cuts and Jobs Act (Tax Reform), to its entities, operations and businesses. In addition, Citi is subject to litigation or examinations with U.S. and non-U.S. tax authorities regarding non-income-based tax matters. Citi's interpretations or application of the tax laws, including with respect to Tax Reform, withholding, stamp, service and other non-income taxes, could differ from that of the relevant governmental taxing authority, which could result in the requirement to pay additional taxes, penalties or interest, which could be material. For additional information on the litigation and examinations involving non-U.S. tax authorities, see Note 27 to the Consolidated Financial Statements.

A Deterioration in or Failure to Maintain Citi's Co-Branding or Private Label Credit Card Relationships, Including as a Result of Early Termination, Bankruptcy or Liquidation, Could Have a Negative Impact on Citi's Results of Operations or Financial Condition.

Citi has co-branding and private label relationships through its branded cards and retail services credit card businesses with various retailers and merchants globally, whereby in the ordinary course of business Citi issues credit cards to customers of the retailers or merchants. The five largest relationships across both businesses in *North America GCB* constituted an aggregate of approximately 9% of Citi's revenues in 2021 (for additional information, see "*Global Consumer Banking—North America GCB*" above). Citi's co-branding and private label agreements provide for shared economics between the parties and generally have a fixed term.

Over the last several years, a number of U.S. retailers have continued to experience declining sales due to the pandemic or otherwise, which has resulted in significant numbers of store closures and, in a number of cases, bankruptcies, as retailers attempt to cut costs and reorganize. In addition, as has been widely reported, competition among card issuers, including Citi, for these relationships is significant, and it has become increasingly difficult in recent years to maintain such relationships on the same terms or at all.

Citi's co-branding and private label relationships could be negatively impacted by, among other things, the general economic environment; changes in consumer sentiment, spending patterns and credit card usage behaviors; a decline in sales and revenues, partner store closures, government imposed restrictions, reduced air and business travel, or other operational difficulties of the retailer or merchant; early termination due to a contractual breach or exercise of other early termination right; or other factors, including bankruptcies, liquidations, restructurings, consolidations or other similar events, whether due to the ongoing impact of the pandemic or otherwise (see the pandemic-related risk factor above).

While various mitigating factors could be available to Citi if any of the above events were to occur—such as by replacing the retailer or merchant or offering other card products—these events, particularly early termination and bankruptcies or liquidations, could negatively impact the results of operations or financial condition of branded cards, retail services or Citi as a whole, including as a result of loss of revenues, increased expenses, higher cost of credit, impairment of purchased credit card relationships and contract-related intangibles or other losses (for information on Citi's credit card related intangibles generally, see Note 16 to the Consolidated Financial Statements).

Citi's Inability in Its Resolution Plan Submissions to Address Any Shortcomings or Deficiencies Identified or Guidance Provided by the FRB and FDIC Could Subject Citi to More Stringent Capital, Leverage or Liquidity Requirements, or Restrictions on Its Growth, Activities or Operations, and Could Eventually Require Citi to Divest Assets or Operations.

Title I of the Dodd-Frank Act requires Citi to prepare and submit a plan to the FRB and the FDIC for the orderly resolution of Citigroup (the bank holding company) and its significant legal entities under the U.S. Bankruptcy Code in the event of future material financial distress or failure. The eight U.S. GSIBs, including Citi, filed their most recent resolution plans with the FRB and FDIC on July 1, 2021. For additional information on Citi's resolution plan submissions, see "Managing Global Risk—Liquidity Risk" below.

Under Title I, if the FRB and the FDIC jointly determine that Citi's resolution plan is not "credible" (which, although not defined, is generally believed to mean the regulators do not believe the plan is feasible or would otherwise allow Citi to be resolved in a way that protects systemically important functions without severe systemic disruption), or would not facilitate an orderly resolution of Citi under the U.S. Bankruptcy Code, and Citi fails to resubmit a resolution plan that remedies any identified deficiencies, Citi could be subjected to more stringent capital, leverage or liquidity requirements, or restrictions on its growth, activities or operations. If within two years from the imposition of any such requirements or restrictions Citi has still not remediated any identified deficiencies, then Citi could eventually be required to divest certain assets or operations. Any such restrictions or actions would negatively impact Citi's reputation, market and investor perception, operations and strategy.

Citi's Performance and the Performance of Its Individual Businesses Could Be Negatively Impacted if Citi Is Not Able to Effectively Compete for, Retain and Motivate Highly Qualified Colleagues.

Recent employment conditions have made the competition to hire and retain qualified employees significantly more challenging. Citi's performance and the performance of its individual businesses largely depend on the talents and efforts of its diverse and highly qualified colleagues. Specifically, Citi's continued ability to compete in each of its lines of business, to manage its businesses effectively and to execute its global strategy depends on its ability to attract new colleagues and to retain and motivate its existing colleagues. If Citi is unable to continue to attract, retain and motivate the most highly qualified colleagues, Citi's performance, including its competitive position, the execution of its strategy and its results of operations could be negatively impacted.

Citi's ability to attract, retain and motivate colleagues depends on numerous factors, some of which are outside of its control. For example, the competition for talent recently has been particularly intense because of economic conditions associated with the pandemic. Also, the banking industry generally is subject to more comprehensive regulation of employee compensation than other industries, including deferral and clawback requirements for incentive compensation, which can make it unusually challenging for Citi to compete in labor markets against businesses that are not subject to such regulation. Citi often competes for talent with such businesses, including, among others, technology companies. Further, Citi's vaccination requirement for its U.S.-based employees could make it more difficult to compete for or retain colleagues. Other factors that could impact its ability to attract, retain and motivate colleagues include, among other things, Citi's presence in a particular market or region, the professional opportunities it offers and its reputation. For information on Citi's colleagues and workforce management, see "Human Capital Resources and Management" below.

Financial Services Companies and Others as well as Emerging Technologies Pose Increasingly Competitive Challenges to Citi.

Citi operates in an increasingly evolving and competitive business environment, which includes both financial and non-financial services firms, such as traditional banks, online banks, financial technology companies and others. These companies compete on the basis of, among other factors, size, reach, quality and type of products and services offered, price, technology and reputation. Certain competitors may be subject to different and, in some cases, less stringent legal and regulatory requirements, placing Citi at a competitive disadvantage.

Citi competes with financial services companies in the U.S. and globally that continue to develop and introduce new products and services. In recent years, non-financial services firms, such as financial technology companies, have begun to offer services traditionally provided by financial institutions, such as Citi, and have sought bank charters to provide these services. These firms attempt to use technology and mobile platforms to enhance the ability of companies and individuals to borrow, save and invest money.

Moreover, emerging technologies have the potential to intensify competition and accelerate disruption in the financial services industry. For example, there is increasing interest from clients and investors in digital assets such as cryptocurrencies. Financial services firms and other market participants have begun to offer services related to those assets such as custody and trading. However, Citi may not be able to provide the same or similar services for legal or regulatory reasons and such services increase compliance risk. In addition, changes in the payments space (e.g., instant and 24x7 payments) are accelerating, and, as a result, certain of Citi's products and services could become less competitive.

In addition, as discussed above, it is unclear how the macroeconomic business environment or societal norms may be impacted as a result of the pandemic. Citi may experience increased or different competitive and other challenges in a post-pandemic environment. Increased competition and emerging technologies have required and could require Citi to change or adapt its products and services to attract and retain customers or clients or to compete more effectively with competitors, including new market entrants. Simultaneously, as Citi develops new products and services leveraging emerging technologies, new risks may emerge that, if not designed and governed adequately, may result in control gaps and in Citi operating outside of its risk appetite. For example, instant and 24x7 payments products could be accompanied by challenges to forecasting and managing liquidity, as well as increased operational and compliance risks.

To the extent that Citi is not able to compete effectively with financial technology companies and other firms, Citi could be placed at a competitive disadvantage, which could result in loss of customers and market share, and its businesses, results of operations and financial condition could suffer. For additional information on Citi's competitors, see the co-brand and private label cards and qualified colleagues risk factors above and "Supervision, Regulation and Other—Competition" below.

OPERATIONAL RISKS

A Failure or Disruption of Citi's Operational Processes or Systems Could Negatively Impact Citi's Reputation, Customers, Clients, Businesses or Results of Operations and Financial Condition.

Citi's global operations rely heavily on its technology, including the accurate, timely and secure processing, management, storage and transmission of confidential transactions, data and other information as well as the monitoring of a substantial amount of data and complex transactions in real time. For example, Citi obtains and stores an extensive amount of personal and client-specific information for its consumer and institutional customers and clients, and must accurately record and reflect their extensive account transactions. Citi's operations must also comply with complex and evolving laws and regulations in the countries in which it operates.

With the evolving proliferation of new technologies and the increasing use of the internet, mobile devices and cloud technologies to conduct financial transactions, large global financial institutions such as Citi have been, and will continue to be, subject to an ever-increasing risk of operational loss, failure or disruption, including as a result of cyber or information security incidents. These risks have been exacerbated during the pandemic, when a substantial portion of Citi's colleagues have worked remotely and customers and clients have increased their use of online banking and other platforms (for additional information, see the pandemic-related risk factor above and the cybersecurity risk factor below).

Although Citi has continued to upgrade its technology, including systems to automate processes and enhance efficiencies, operational incidents are unpredictable and can arise from numerous sources, not all of which are fully within Citi's control. These include, among others, human error, such as manual transaction processing errors; fraud or malice on the part of employees or third parties; accidental system or technological failure; electrical or telecommunication outages; failures of or cyber incidents involving computer servers or infrastructure; or other similar losses or damage to Citi's property or assets (see also the climate change risk factor below). For example, Citi has experienced and could experience further losses associated with manual transaction processing errors (for additional information, see "Revlon-Related Wire Transfer Litigation" in Note 27 to the Consolidated Financial Statements).

Irrespective of the sophistication of the technology utilized by Citi, there will always be some room for human error. In view of the large transactions in which Citi engages, such errors could result in significant loss.

Operational incidents can also arise as a result of failures by third parties with which Citi does business, such as failures by internet, mobile technology and cloud service providers or other vendors to adequately follow procedures or processes, safeguard their systems or prevent system disruptions or cyber attacks.

Incidents that impact information security and/or technology operations may cause disruptions and/or malfunctions within Citi's businesses (e.g., the temporary loss of availability of Citi's online banking system or mobile banking platform), as well as the operations of its clients, customers or other third parties. In addition, operational incidents could involve the failure or ineffectiveness of internal processes or controls.

Given Citi's global footprint and the high volume of transactions processed by Citi, certain failures, errors or actions may be repeated or compounded before they are discovered and rectified, which would further increase the consequences and costs. Operational incidents could result in financial losses as well as misappropriation, corruption or loss of confidential and other information or assets, which could significantly negatively impact Citi's reputation, customers, clients, businesses or results of operations and financial condition. Cyber-related and other operational incidents can also result in legal and regulatory proceedings, fines and other costs (see the legal and regulatory proceedings risk factor below).

For information on Citi's management of operational risk, see "Managing Global Risk—Operational Risk" below.

Citi's and Third Parties' Computer Systems and Networks Have Been, and Will Continue to Be, Susceptible to an Increasing Risk of Continually Evolving, Sophisticated Cybersecurity Activities That Could Result in the Theft, Loss, Misuse or Disclosure of Confidential Client or Customer Information, Damage to Citi's Reputation, Additional Costs to Citi, Regulatory Penalties, Legal Exposure and Financial Losses.

Citi's computer systems, software and networks are subject to ongoing cyber incidents such as unauthorized access, loss or destruction of data (including confidential client information), account takeovers, unavailability of service, computer viruses or other malicious code, cyber attacks and other similar events. These threats can arise from external parties, including cyber criminals, cyber terrorists, hacktivists and nation-state actors, as well as insiders who knowingly or unknowingly engage in or enable malicious cyber activities.

Third parties with which Citi does business, as well as retailers and other third parties with which Citi's customers do business, may also be sources of cybersecurity risks, particularly where activities of customers are beyond Citi's security and control systems. For example, Citi outsources certain functions, such as processing customer credit card transactions, uploading content on customer-facing websites and developing software for new products and services. These relationships allow for the storage and processing of customer information by third-party hosting of or access to Citi websites, which could lead to compromise or the potential to introduce vulnerable or malicious code, resulting in security breaches impacting Citi customers. Furthermore, because financial institutions are becoming increasingly interconnected with central agents, exchanges and clearing houses, including as a result of derivatives reforms over the last few years, Citi has increased exposure to cyber attacks through third parties. While many of Citi's agreements with third parties include indemnification provisions, Citi may not be able to recover sufficiently, or at all, under the provisions to adequately offset any losses Citi may incur from third-party cyber incidents.

Citi has been subject to attempted and sometimes successful cyber attacks from external sources over the last several years, including (i) denial of service attacks, which attempt to interrupt service to clients and customers, (ii) hacking and malicious software installations, intended to gain unauthorized access to information systems or to disrupt those systems, (iii) data breaches due to unauthorized access to customer account data and (iv) malicious software attacks on client systems, in an attempt to gain unauthorized access to Citi systems or client data under the guise of normal client transactions. While Citi's monitoring and protection services were able to detect and respond to the incidents targeting its systems before they became significant, they still resulted in limited losses in some instances as well as increases in expenditures to monitor against the threat of similar future cyber incidents. There can be no assurance that such cyber incidents will not occur again, and they could occur more frequently and on a more significant scale.

Further, although Citi devotes significant resources to implement, maintain, monitor and regularly upgrade its systems and networks with measures such as intrusion detection and prevention and firewalls to safeguard critical business applications, there is no guarantee that these measures or any other measures can provide absolute security. Because the methods used to cause cyber attacks change frequently or, in some cases, are not recognized until launched or even later, Citi may be unable to implement effective preventive measures or proactively address these methods until they are discovered. In addition, given the evolving nature of cyber threat actors and the frequency and sophistication of the cyber activities they carry out, the determination of the severity and potential impact of a cyber incident may not become apparent for a substantial period of time following discovery of the incident. Also, while Citi engages in certain actions to reduce the exposure resulting from outsourcing, such as performing security control assessments of third-party vendors and limiting third-party access to the least privileged level necessary to perform job functions, these actions cannot prevent all third-party-related cyber attacks or data breaches.

Cyber incidents can result in the disclosure of personal, confidential or proprietary customer or client information, damage to Citi's reputation with its clients and the market, customer dissatisfaction and additional costs to Citi, including expenses such as repairing systems, replacing customer payment cards, credit monitoring or adding new personnel or protection technologies. Regulatory penalties, loss of revenues, exposure to litigation and other financial losses, including loss of funds, to both Citi and its clients and customers and disruption to Citi's operational systems could also result from cyber incidents (for additional information on the potential impact of operational disruptions, see the operational processes and systems risk factor above). Moreover, the increasing risk of cyber incidents has resulted in increased legislative and regulatory scrutiny of firms' cybersecurity protection services and calls for additional laws and regulations to further enhance protection of consumers' personal data.

While Citi maintains insurance coverage that may, subject to policy terms and conditions including significant self-insured deductibles, cover certain aspects of cyber risks, such insurance coverage may be insufficient to cover all losses and may not take into account reputational harm, the cost of which could be immeasurable.

For additional information about Citi's management of cybersecurity risk, see "Managing Global Risk—Operational Risk—Cybersecurity Risk" below.

Changes to or the Application of Incorrect Assumptions, Judgments or Estimates in Citi's Financial Statements Could Cause Significant Unexpected Losses or Impacts in the Future.

U.S. GAAP requires Citi to use certain assumptions, judgments and estimates in preparing its financial statements, including, among other items, the estimate of the ACL; reserves related to litigation, regulatory and tax matters exposures; valuation of DTAs; the fair values of certain assets and liabilities; and the assessment of goodwill or other assets for impairment. If Citi's assumptions, judgments or estimates underlying its financial statements are incorrect or differ from actual or subsequent events, Citi could experience unexpected losses or other adverse impacts, some of which could be significant.

For example, the CECL methodology requires that Citi provide reserves for a current estimate of lifetime expected credit losses for its loan portfolios and other financial assets, as applicable, at the time those assets are originated or acquired. This estimate is adjusted each period for changes in expected lifetime credit losses. Citi's ACL estimate depends upon its CECL models and assumptions, forecasted macroeconomic conditions, including, among other things, U.S. unemployment rate and U.S. Real GDP, and the credit indicators, composition and other characteristics of Citi's loan and other applicable financial assets. These model assumptions and forecasted macroeconomic conditions will change over time, whether due to the pandemic or otherwise, resulting in greater variability in Citi's ACL compared to its provision for loan losses under the previous GAAP methodology, and, thus, impact its results of operations and financial condition, as well as regulatory capital due to the CECL phase-in beginning January 1, 2022.

Moreover, Citi has incurred losses related to its foreign operations that are reported in the CTA components of *Accumulated other comprehensive income (loss) (AOCI)*. In accordance with U.S. GAAP, a sale, substantial liquidation or any other deconsolidation event of any foreign operations, such as those related to Citi's legacy or exit businesses, would result in reclassification of any foreign CTA component of *AOCI* related to that foreign operation, including related hedges and taxes, into Citi's earnings. For example, Citi incurred a pretax loss of approximately $680 million ($580 million after-tax) in the third quarter of 2021 related to the sale of Citi's Australia consumer banking business in *Asia GCB*, primarily reflecting the impact of a CTA loss. For additional information on Citi's accounting policy for foreign currency translation and its foreign CTA components of *AOCI*, see Notes 1 and 19 to the Consolidated Financial Statements. For additional information on the key areas for which assumptions and estimates are used in preparing Citi's financial statements, including those related to Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below and Notes 1 and 27 to the Consolidated Financial Statements.

Changes to Financial Accounting and Reporting Standards or Interpretations Could Have a Material Impact on How Citi Records and Reports Its Financial Condition and Results of Operations.

Periodically, the Financial Accounting Standards Board (FASB) issues financial accounting and reporting standards that govern key aspects of Citi's financial statements or interpretations thereof when those standards become effective, including those areas where Citi is required to make assumptions or estimates. Changes to financial accounting or reporting standards or interpretations, whether promulgated or required by the FASB or other regulators, could present operational challenges and could also require Citi to change certain of the assumptions or estimates it previously used in preparing its financial statements, which could negatively impact how it records and reports its financial condition and results of operations generally and/or with respect to particular businesses. For additional information on Citi's accounting policies and changes in accounting, including the expected impacts on Citi's results of operations and financial condition, see Note 1 to the Consolidated Financial Statements.

If Citi's Risk Management Processes, Strategies or Models Are Deficient or Ineffective, Citi May Incur Significant Losses and Its Regulatory Capital and Capital Ratios Could Be Negatively Impacted.

Citi utilizes a broad and diversified set of risk management and mitigation processes and strategies, including use of models in enacting processes and strategies as well as in analyzing and monitoring the various risks Citi assumes in conducting its activities. For example, Citi uses models as part of its comprehensive stress testing initiatives across the Company. Citi also relies on data to aggregate, assess and manage various risk exposures. Management of these risks is made even more challenging within a global financial institution such as Citi, particularly given the complex, diverse and rapidly changing financial markets and conditions in which Citi operates as well as that losses can occur unintentionally from untimely, inaccurate or incomplete processes.

In addition, in October 2020, Citigroup and Citibank entered into consent orders with the FRB and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls (see "Citi's Consent Order Compliance" above and the legal and regulatory proceedings risk factor below).

Citi's risk management processes, strategies and models are inherently limited because they involve techniques, including the use of historical data in many circumstances, assumptions and judgments that cannot anticipate every economic and financial outcome in the markets in which Citi operates, nor can they anticipate the specifics and timing of such outcomes. Citi could incur significant losses, and its regulatory capital and capital ratios could be negatively impacted, if Citi's risk management processes, including its ability to manage and aggregate data in a timely and accurate manner, strategies or models are deficient or ineffective. Such deficiencies or ineffectiveness could also result in inaccurate financial, regulatory or risk reporting.

Moreover, Citi's Basel III regulatory capital models, including its credit, market and operational risk models, currently remain subject to ongoing regulatory review and approval, which may result in refinements, modifications or enhancements (required or otherwise) to these models. Modifications or requirements resulting from these ongoing reviews, as well as any future changes or guidance provided by the U.S. banking agencies regarding the regulatory capital framework applicable to Citi, have resulted in, and could continue to result in, significant changes to Citi's risk-weighted assets. These changes can negatively impact Citi's capital ratios and its ability to achieve its regulatory capital requirements.

CREDIT RISKS

Credit Risk and Concentrations of Risk Can Increase the Potential for Citi to Incur Significant Losses.

Credit risk primarily arises from Citi's lending and other businesses in both *ICG* and *GCB*. Citi has credit exposures to consumer, corporate and public sector borrowers and other counterparties in the U.S. and various countries and jurisdictions globally, including end-of-period consumer loans of $271 billion and end-of-period corporate loans of $397 billion at year-end 2021.

A default by a borrower or other counterparty, or a decline in the credit quality or value of any underlying collateral, exposes Citi to credit risk. Despite Citi's target client strategy, various macroeconomic, geopolitical and other factors, among other things, can increase Citi's credit risk and credit costs, particularly for certain sectors, industries or countries (for additional information, see the pandemic-related, co-branding and private label credit card and macroeconomic challenges and uncertainties risk factors above and the emerging markets risk factor below). For example, a weakening of economic conditions, including higher unemployment levels, can adversely affect borrowers' ability to repay their obligations. In addition, weakening economic conditions may result in Citi being unable to liquidate its collateral, as well as disputes with counterparties regarding the valuation of collateral Citi holds and Citi being unable to realize the fair value of such collateral.

While Citi provides reserves for expected losses for its credit exposures, as applicable, such reserves are subject to judgments and estimates that could be incorrect or differ from actual future events. Under the CECL accounting standard, the ACL reflects expected losses, rather than incurred losses, which has resulted in and could lead to additional volatility in the allowance and the provision for credit losses as forecasts of economic conditions change. In addition, Citi's future allowance may be affected by seasonality of its cards portfolio balances based on historical evidence showing that (i) credit card balances typically decrease during the first and second quarters, as borrowers use tax refunds to pay down balances; and (ii) balances increase during the third and fourth quarters each year as payments are no longer impacted by tax refunds and the holiday season approaches. However, these seasonal trends could be affected in 2022 due to the impacts of the pandemic, government stimulus and expiration of consumer and small business relief programs. For additional information, see the incorrect assumptions or estimates and changes to financial accounting and reporting standards risk factors above. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below and Notes 1 and 15 to the Consolidated Financial Statements. For additional information on Citi's credit and country risk, see each respective business's results of operations above and "Managing Global Risk—Credit Risk" and "Managing Global Risk—Other Risks—Country Risk" below and Notes 14 and 15 to the Consolidated Financial Statements.

Concentrations of risk to clients or counterparties engaged in the same or related industries or doing business in a particular geography, especially credit and market risks, can also increase Citi's risk of significant losses. As of year-end 2021, Citi's most significant concentration of credit risk was with the U.S. government and its agencies, which primarily results from trading assets and investments issued by the U.S. government and its agencies (for additional information, including concentrations of credit risk to other public sector entities, see Note 23 to the Consolidated Financial Statements). In addition, Citi routinely executes a high volume of securities, trading, derivative and foreign exchange transactions with non-U.S. sovereigns and with counterparties in the financial services industry, including banks, insurance companies, investment banks, governments, central banks and other financial institutions. Moreover, Citi has indemnification obligations in connection with various transactions that expose it to concentrations of risk, including credit risk from hedging or reinsurance arrangements related to those obligations (for additional information about these exposures, see Note 26 to the Consolidated Financial Statements). A rapid deterioration of a large borrower or other counterparty or within a sector or country in which Citi has large exposures or indemnifications or unexpected market dislocations could cause Citi to incur significant losses.

LIQUIDITY RISKS

The Maintenance of Adequate Liquidity and Funding Depends on Numerous Factors, Including Those Outside of Citi's Control, Such as Market Disruptions and Increases in Citi's Credit Spreads.

As a large, global financial institution, adequate liquidity and sources of funding are essential to Citi's businesses. Citi's liquidity and sources of funding can be significantly and negatively impacted by factors it cannot control, such as general disruptions in the financial markets, governmental fiscal and monetary policies, regulatory changes or negative investor perceptions of Citi's creditworthiness, unexpected increases in cash or collateral requirements and the inability to monetize available liquidity resources, whether due to the pandemic or otherwise. Citi competes with other banks and financial institutions for both institutional and consumer deposits, which represent Citi's most stable and lowest cost source of long-term funding. The competition for deposits has continued to increase in recent years, including, among others, as a result of online banks and digital banking. Furthermore, although Citi has had robust deposit growth since the onset of the pandemic, it remains unclear how "sticky" (likely to remain at Citi) those deposits may be, particularly in a less monetarily accommodative environment.

Moreover, Citi's costs to obtain and access secured funding and long-term unsecured funding are directly related to its credit spreads and changes in interest and currency exchange rates. Changes in credit spreads are driven by both external market factors and factors specific to Citi, such as negative views by investors of the financial services industry or Citi's financial prospects, and can be highly volatile. For additional information on Citi's primary sources of funding, see "Managing Global Risk—Liquidity Risk" below.

Citi's ability to obtain funding may be impaired and its cost of funding could increase if other market participants are seeking to access the markets at the same time, or if market appetite declines, as is likely to occur in a liquidity stress event or other market crisis. A sudden drop in market liquidity could also cause a temporary or lengthier dislocation of underwriting and capital markets activity. In addition, clearing organizations, central banks, clients and financial institutions with which Citi interacts may exercise the right to require additional collateral based on their perceptions or the market conditions, which could further impair Citi's access to and cost of funding.

In addition, as a holding company, Citi relies on interest, dividends, distributions and other payments from its subsidiaries to fund dividends as well as to satisfy its debt and other obligations. Several of Citi's U.S. and non-U.S. subsidiaries are or may be subject to capital adequacy or other liquidity, regulatory or contractual restrictions on their ability to provide such payments, including any local regulatory stress test requirements. Citi's broker-dealer and bank subsidiaries are subject to restrictions on their ability to lend or transact with affiliates, as well as restrictions on their ability to use funds deposited with them in brokerage or bank accounts to fund their businesses. Limitations on the payments that Citi receives from its subsidiaries could also impact its liquidity. A bank holding company is required by law to act as a source of financial and managerial strength for its subsidiary banks. As a result, the FRB may require Citi to commit resources to its subsidiary banks even if doing so is not otherwise in the interests of Citi or its shareholders or creditors, reducing the amount of funds available to meet its obligations. In addition, in the event of a subsidiary's liquidation or reorganization, Citi's right to participate in a distribution of such subsidiary's assets is subject to the prior claims of the subsidiary's creditors.

The Credit Rating Agencies Continuously Review the Credit Ratings of Citi and Certain of Its Subsidiaries, and a Ratings Downgrade Could Have a Negative Impact on Citi's Funding and Liquidity Due to Reduced Funding Capacity and Increased Funding Costs, Including Derivatives Triggers That Could Require Cash Obligations or Collateral Requirements.

The credit rating agencies, such as Fitch, Moody's and S&P Global Ratings, continuously evaluate Citi and certain of its subsidiaries. Their ratings of Citi and its more significant subsidiaries' long-term/ senior debt and short-term/ commercial paper are based on a number of factors, including standalone financial strength, as well as factors that are not entirely within the control of Citi and its subsidiaries, such as the agencies' proprietary rating methodologies and assumptions, and conditions affecting the financial services industry and markets generally.

Citi and its subsidiaries may not be able to maintain their current respective ratings. A ratings downgrade could negatively impact Citi's ability to access the capital markets and other sources of funds as well as the costs of those funds, and its ability to maintain certain deposits. A ratings downgrade could also have a negative impact on Citi's funding and liquidity due to reduced funding capacity and the impact from derivative triggers, which could require Citi to meet cash obligations and collateral requirements. In addition, a ratings downgrade could have a negative impact on other funding sources such as secured financing and other margined transactions for which there may be no explicit triggers, and on contractual provisions and other credit requirements of Citi's counterparties and clients that may contain minimum ratings thresholds in order for Citi to hold third-party funds. Some entities could have ratings limitations on their permissible counterparties, of which Citi may or may not be aware.

Furthermore, a credit ratings downgrade could have impacts that may not be currently known to Citi or are not possible to quantify. Certain of Citi's corporate customers and trading counterparties, among other clients, could re-evaluate their business relationships with Citi and limit the trading of certain contracts or market instruments with Citi in response to ratings downgrades. Changes in customer and counterparty behavior could impact not only Citi's funding and liquidity but also the results of operations of certain Citi businesses. For additional information on the potential impact of a reduction in Citi's or Citibank's credit ratings, see "Managing Global Risk—Liquidity Risk" below.

COMPLIANCE RISKS

Ongoing Interpretation and Implementation of Regulatory and Legislative Requirements and Changes and Heightened Regulatory Scrutiny and Expectations in the U.S. and Globally Have Increased Citi's Compliance, Regulatory and Other Risks and Costs.

Citi is continually required to interpret and implement extensive and frequently changing regulatory and legislative requirements in the U.S. and other jurisdictions in which it does business, resulting in substantial compliance, regulatory and other risks and costs. In addition, there are heightened regulatory scrutiny and expectations in the U.S. and globally for large financial institutions, as well as their employees and agents, with respect to governance, infrastructure, data and risk management practices and controls. These requirements and expectations also include, among other things, those related to customer and client protection, market practices, anti-money laundering and sanctions. A failure to comply with these requirements and expectations or resolve any identified deficiencies could result in increased regulatory oversight and restrictions, enforcement proceedings, penalties and fines (for additional information, see the legal and regulatory proceedings risk factor below).

Over the past several years, Citi has been required to implement a significant number of regulatory and legislative changes across all of its businesses and functions, and these changes continue. The changes themselves may be complex and subject to interpretation, and will require continued investments in Citi's global operations and technology solutions. In some cases, Citi's implementation of a regulatory or legislative requirement is occurring simultaneously with changing or conflicting regulatory guidance, legal challenges or legislative action to modify or repeal existing rules or enact new rules. Moreover, in some cases, there have been entirely new regulatory or legislative requirements or regimes, resulting in large volumes of regulation and potential uncertainty regarding regulatory expectations for compliance.

Examples of regulatory or legislative changes that have resulted in increased compliance risks and costs include (i) various laws relating to the limitation of cross-border data movement and/or collection and use of customer information, including data localization and protection and privacy laws, which also can conflict with or increase compliance complexity with respect to other laws, including anti-money laundering laws; (ii) the FRB's "total loss absorbing capacity" (TLAC) requirements; and (iii) the U.S. banking agencies' regulatory capital rules and requirements, which have continued to evolve (for additional information, see the capital return risk factor and "Capital Resources" above). In addition, the U.S. banking agencies have prioritized issues of social, economic and racial justice, and are in the process of considering ways in which these issues can be mitigated, including through rulemaking, supervision and other means.

Increased and ongoing compliance and regulatory requirements, uncertainties, scrutiny and expectations have resulted in higher compliance costs for Citi, in part due to an increase in risk, regulatory and compliance staff over the last several years. Extensive and changing compliance requirements can also result in increased reputational and legal risks for Citi, as failure to comply with regulations and requirements, or failure to comply with regulatory expectations, can result in enforcement and/or regulatory proceedings, penalties and fines.

Citi Is Subject to Extensive Legal and Regulatory Proceedings, Examinations, Investigations, Consent Orders and Related Compliance Efforts and Other Inquiries That Could Result in Significant Monetary Penalties, Supervisory or Enforcement Orders, Business Restrictions, Limitations on Dividends, Changes to Directors and/or Officers and Collateral Consequences Arising from Such Outcomes.

At any given time, Citi is a party to a significant number of legal and regulatory proceedings and is subject to numerous governmental and regulatory examinations, investigations, consent orders and related compliance efforts, and other inquiries. Citi can also be subject to enforcement proceedings not only because of violations of laws and regulations, but also due to failures, as determined by its regulators, to have adequate policies and procedures, or to remedy deficiencies on a timely basis.

The October 2020 FRB and OCC consent orders require Citigroup and Citibank to implement targeted action plans and quarterly progress reports detailing the results and status of improvements relating principally to various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls. These improvements will result in continued significant investments by Citi during 2022 and beyond, as an essential part of Citi's broader transformation efforts to enhance its infrastructure, governance, processes and risk and controls.

Although there are no restrictions on Citi's ability to serve its clients, the OCC consent order requires Citibank to obtain prior approval of any significant new acquisition, including any portfolio or business acquisition, excluding ordinary course transactions. Moreover, the OCC consent order provides that the OCC has the right to assess future civil money penalties or take other supervisory and/or enforcement actions, including where the OCC determines Citibank has not made sufficient and sustainable progress to address the required improvements. Such actions by the OCC could include imposing business restrictions, including possible limitations on the declaration or payment of dividends and changes in directors and/or senior executive officers. More generally, the OCC and/or the FRB could take additional enforcement or other actions if the regulatory agency believes that Citi has not met regulatory expectations regarding compliance with the consent orders. For additional information regarding the consent orders, see "Citi's Consent Order Compliance" above.

The global judicial, regulatory and political environment has generally been challenging for large financial institutions. The complexity of the federal and state regulatory and enforcement regimes in the U.S., coupled with the global scope of Citi's operations, also means that a single event or issue may give rise to a large number of overlapping investigations and regulatory proceedings, either by multiple federal and state agencies and authorities in the U.S. or by multiple regulators and other governmental entities in different jurisdictions, as well as multiple civil litigation claims in multiple jurisdictions.

U.S. and non-U.S. regulators have been increasingly focused on "conduct risk," a term used to describe the risks associated with behavior by employees and agents, including third parties, that could harm clients, customers, employees or the integrity of the markets, such as improperly creating, selling, marketing or managing products and services or improper incentive compensation programs with respect thereto, failures to safeguard a party's personal information, or failures to identify and manage conflicts of interest. In addition to the greater focus on conduct risk, the general heightened scrutiny and expectations from regulators could lead to investigations and other inquiries, as well as remediation requirements, more regulatory or other enforcement proceedings, civil litigation and higher compliance and other risks and costs.

Further, while Citi takes numerous steps to prevent and detect conduct by employees and agents that could potentially harm clients, customers, employees or the integrity of the markets, such behavior may not always be deterred or prevented. Banking regulators have also focused on the overall culture of financial services firms, including Citi.

In addition to regulatory restrictions or structural changes that could result from perceived deficiencies in Citi's culture, such focus could also lead to additional regulatory proceedings. Furthermore, the severity of the remedies sought in legal and regulatory proceedings to which Citi is subject has remained elevated. U.S. and certain non-U.S. governmental entities have increasingly brought criminal actions against, or have sought criminal convictions from, financial institutions and individual employees, and criminal prosecutors in the U.S. have increasingly sought and obtained criminal guilty pleas or deferred prosecution agreements against corporate entities and individuals and other criminal sanctions for those institutions and individuals. These types of actions by U.S. and international governmental entities may, in the future, have significant collateral consequences for a financial institution, including loss of customers and business, and the inability to offer certain products or services and/or operate certain businesses. Citi may be required to accept or be subject to similar types of criminal remedies, consent orders, sanctions, substantial fines and penalties, remediation and other financial costs or other requirements in the future, including for matters or practices not yet known to Citi, any of which could materially and negatively affect Citi's businesses, business practices, financial condition or results of operations, require material changes in Citi's operations or cause Citi reputational harm.

Further, many large claims—both private civil and regulatory—asserted against Citi are highly complex, slow to develop and may involve novel or untested legal theories. The outcome of such proceedings is difficult to predict or estimate until late in the proceedings. Although Citi establishes accruals for its legal and regulatory matters according to accounting requirements, Citi's estimates of, and changes to, these accruals involve significant judgment and may be subject to significant uncertainty, and the amount of loss ultimately incurred in relation to those matters may be substantially higher than the amounts accrued (see the incorrect assumptions or estimates risk factor above). In addition, certain settlements are subject to court approval and may not be approved.

OTHER RISKS

Citi's Presence in the Emerging Markets Subjects It to Various Risks as well as Increased Compliance and Regulatory Risks and Costs.

During 2021, emerging markets revenues accounted for approximately 35% of Citi's total revenues (Citi generally defines emerging markets as countries in *Latin America*, *Asia* (other than Japan, Australia and New Zealand), and central and Eastern Europe, the Middle East and Africa in *EMEA*).

Although Citi continues to pursue its target client strategy, Citi's presence in the emerging markets subjects it to various risks, such as limitations or unavailability of hedges on foreign investments; foreign currency volatility, including devaluations, sovereign volatility, election outcomes, regulatory changes and political events; foreign exchange controls, including inability to access indirect foreign exchange mechanisms; macroeconomic volatility and disruptions, including with respect to commodity prices; limitations on foreign investment; sociopolitical instability (including from hyperinflation); fraud; nationalization or loss of licenses; business restrictions; sanctions or asset freezes; potential criminal charges; closure of branches or subsidiaries; and confiscation of assets, whether related to geopolitical conflicts or otherwise; and these risks can be exacerbated in the event of a deterioration in relationships between the U.S. and an emerging market country. For example, Citi operates in several countries that have, or have had in the past, strict capital and currency controls, such as Argentina, that limit its ability to convert local currency into U.S. dollars and/or transfer funds outside of those countries. Among other things, Citi faces a risk of devaluation on its unhedged Argentine peso-denominated assets, which continue to increase (for further information on this and other risks, see "Managing Global Risk—Other Risks—Country Risk—Argentina" below).

Moreover, if the economic situation in an emerging markets country in which Citi operates were to deteriorate below a certain level, U.S. regulators may impose mandatory loan loss or other reserve requirements on Citi, which would increase its credit costs and decrease its earnings (for further information, see "Managing Global Risk—Other Risks—Country Risk—Argentina" below).

In addition, political turmoil and instability have occurred in various regions and emerging market countries across the globe which have required, and may continue to require, management time and attention and other resources (such as monitoring the impact of sanctions on certain emerging markets economies as well as impacting Citi's businesses and results of operations in affected countries).

Climate Change Could Have a Negative Impact on Citi's Results of Operations and Financial Condition.

Citi operates in countries, states and regions in which many of its businesses, and the activities of many of its customers and clients, are exposed to the adverse impacts of climate change, as well as uncertainties related to the transition to a low-carbon economy. Climate change presents both immediate and long-term risks to Citi and its customers and clients, with the risks expected to increase over time.

Climate risks can arise from both physical risks (those risks related to the physical effects of climate change) and transition risks (risks related to regulatory, compliance, technological, stakeholder and legal changes from a transition to a low-carbon economy). The physical and transition risks can manifest themselves differently across Citi's risk categories in the short, medium and long terms.

The physical risk from climate change could result from increased frequency and/or severity of adverse weather events. For example, adverse weather events could damage or destroy Citi's or its counterparties' properties and other assets and disrupt operations, making it more difficult for counterparties to repay their obligations, whether due to reduced profitability, asset devaluations or otherwise. These events could also increase the volatility in financial markets affecting Citi's trading businesses and increase its counterparty exposures and other financial risks, which may result in lower revenues and higher cost of credit.

Transition risks may arise from changes in regulations or market preferences toward a low-carbon economy, which in turn could have negative impacts on asset values, results of operations or the reputations of Citi and its customers and clients. For example, Citi's corporate credit exposures include oil and gas, power and other industries that may experience reduced demand for carbon-intensive products due to the transition to a low-carbon economy. Moreover, U.S. and non-U.S. banking regulators and others are increasingly focusing on the issue of climate risk at financial institutions, both directly and with respect to their clients. As an example, on December 16, 2021, the OCC requested feedback on draft principles designed to support the identification and management of climate-related financial risks at institutions with more than $100 billion in total consolidated assets.

Even as regulators begin to mandate additional disclosure of climate-related information by companies across sectors, there may continue to be a lack of information for more robust climate-related risk analyses. Third party exposures to climate-related risks and other data generally are limited in availability and variable in quality. Modeling capabilities to analyze climate-related risks and interconnections are improving but remain incomplete. Legislative or regulatory uncertainties and changes regarding climate-related risk management and disclosures are likely to result in higher regulatory, compliance, credit, reputational and other risks and costs (for additional information, see the ongoing regulatory and legislative uncertainties and changes risk factor above). In addition, Citi could face increased regulatory, reputational and legal scrutiny as a result of its climate risk, sustainability and other ESG related commitments.

For information on Citi's climate and other sustainability initiatives, see "Sustainability and Other ESG Matters" below. For additional information on Citi's management of climate risk, see "Managing Global Risk—Other Risks—Climate Risk" below.

The Transition Away from and Discontinuance of the London Inter-Bank Offered Rate (LIBOR) and Any Other Interest Rate Benchmark Could Have Adverse Consequences for Market Participants, Including Citi.

For decades, LIBOR and other rates or indices deemed to be benchmarks have been widely used across financial products and markets globally. These benchmarks have been the subject of ongoing national and international regulatory scrutiny and reform, resulting in regulators generally expecting or requiring banks, including Citi, to cease entering into new contracts that reference USD LIBOR as a benchmark by December 31, 2021. The LIBOR administrator ceased publication of non-USD LIBOR and one-week and two-month USD LIBOR on a representative basis on December 31, 2021, with plans to cease publication of all other USD LIBOR tenors on June 30, 2023. As a result, Citi ceased entering into new contracts referencing USD LIBOR as of January 1, 2022, other than for limited purposes as permitted by regulatory guidance.

LIBOR and other benchmarks have been used in a substantial number of Citi's outstanding securities and products, including, among others, derivatives, corporate loans, commercial and residential mortgages, credit cards, securitized products and other structured securities. Despite ongoing actions to prepare for the transition away from LIBOR (see "Managing Global Risk—Other Risks—LIBOR Transition Risk" below), market participants, including Citi, may not be adequately prepared for uncertainties associated with these benchmarks' discontinuance or, as necessary, be able to successfully modify their outstanding contracts or products that reference these benchmarks. For example, the transition away from and discontinuance of LIBOR or any other benchmark rate presents various uncertainties and operational, legal, reputational or compliance, financial and other risks and challenges to holders of these contracts and products, as well as financial markets and institutions, including Citi. These include, among others, the pricing, liquidity, observability, value of, return on and market for financial instruments and contracts that reference LIBOR or any other benchmark rate.

While Citi has adopted alternative reference rates for new contracts to replace these outgoing benchmarks, in some instances, it is possible that the characteristics of these new rates may not be sufficiently similar to, or produce the economic equivalent of, the benchmark rates that they are intended to replace. Alternative reference rates, such as the Secured Overnight Financing Rate (SOFR), are calculated using components different from those used in the calculation of LIBOR and may fluctuate differently than, and not be representative of, LIBOR. In order to compensate for these differences, certain of Citi's financial instruments and commercial agreements allow for a benchmark replacement adjustment. However, there can be no assurance that any benchmark replacement adjustment will be sufficient to produce the economic equivalent of LIBOR, either at the benchmark replacement date or over the life of such instruments and agreements.

Further, investors, counterparties and other market participants may not consider the new alternative rates to be a suitable substitute or successor for all of the purposes for which these benchmarks have historically been used (including, without limitation, as a representation of the unsecured short-term funding costs of banks), which may, in turn, reduce their market acceptance. Any failure of the alternative rates to gain broad market acceptance could adversely affect market demand for Citi's products or securities linked to such alternative rates and thus market prices of such instruments. As part of its transition, Citi is relying or has relied on guidance provided by the accounting standard setters related to the transition away from LIBOR. In the event that such guidance is insufficient or otherwise unable to be implemented as intended, LIBOR transition could disrupt Citi's hedge accounting relationships and/or lead to increased costs in connection with determining whether contract amendments result in a modification or an extinguishment from an accounting perspective. Changes in observability of the alternative reference rates could impact the fair value hierarchy classification of financial instruments and contracts.

Moreover, the LIBOR transition presents challenges related to contractual mechanics of existing financial instruments and contracts that reference such benchmarks that mature after discontinuance of the relevant benchmark. Certain of these legacy instruments and contracts do not provide for fallbacks to alternative reference rates, which makes it unclear what the applicable future replacement benchmark rates and associated payments might be after the current benchmark's cessation. Citi may not be able to amend certain instruments and contracts due to an inability to obtain sufficient levels of consent from counterparties or security holders. Although this will depend on the precise contractual terms of the instrument, such consent requirements are often conditions of securities, such as floating rate notes.

Even if the instruments and contracts provide for a transition to an alternative reference rate, the new rate may, particularly in times of financial stress, significantly differ from the prior rates. As a result, Citi may need to consider proactively addressing any contractual uncertainties or rate differences in such instruments and contracts, which would likely be both time consuming and costly, and may not ultimately be successful. While statutory solutions have been enacted in certain jurisdictions to address these contractual concerns (for example, the State of New York and the EU), the availability and effectiveness of these statutory mechanisms to cover all impacted financial instruments and products to which Citi is a party is uncertain.

In addition, the transition away from and discontinuance of LIBOR and other benchmark rates have subjected financial institutions, including Citi, to heightened scrutiny from regulators. Failure to successfully transition away from LIBOR and other benchmark rates could result in adverse regulatory actions, disputes, including potential litigation involving holders of outstanding products and contracts that reference LIBOR, and other benchmark rates and reputational harm to Citi. Citi may also need to further invest in and develop internal systems and infrastructure to transition to alternative benchmark rates to manage its businesses and support its clients.

SUSTAINABILITY AND OTHER ESG MATTERS

Introduction

Citi has progressively developed its understanding of environmental, social and governance (ESG) issues for more than 20 years and has a demonstrated record of ESG progress, including participating in the creation and adoption of ESG-related principles and standards. This section summarizes some of Citi's key ESG initiatives, including its Sustainable Progress Strategy and net zero and Action for Racial Equity commitments.

In January 2022, Citi published its 2021 Task Force on Climate-Related Financial Disclosures (TCFD) Report to provide its stakeholders with information on Citi's continued progress to address climate risk and to fulfill its commitment to publish an initial net zero plan within one year of announcing the net zero commitment. This represents Citi's fourth TCFD Report.

For information regarding Citi's management of climate risk, see "Managing Global Risk—Other Risks—Climate Risk" below.

ESG and Climate-Related Governance

ESG Governance

Citi's Board of Directors (Board) provides oversight of Citi's management activities to ensure responsible business practices (for additional information, see "Managing Global Risk—Risk Governance" below). For example, the Nomination, Governance and Public Affairs Committee of the Board oversees many of Citi's ESG activities, including reviewing Citi's policies and programs for environmental and social sustainability, climate change, human rights, diversity and other ESG issues, as well as advising on engagement with external stakeholders.

The Risk Management Committee of the Board provides oversight of Citi's Independent Risk Management function and reviews Citi's risk policies and frameworks, including receiving climate risk-related updates.

In 2021, Citi formed a Global ESG Council consisting of senior members of its management in order to provide enhanced oversight of Citi's ESG goals and activities. In addition, a number of teams and senior managers contribute to the oversight of different areas such as sustainability; community investing; talent and diversity; ethics and business practices; and remuneration.

Climate Change Governance

Citi's oversight of climate risk has continued to evolve with its expanding climate commitments. In 2021, Citi established its ESG Council, expanded its Climate Risk team and enhanced its climate risk and net zero-related governance through creation of a Net Zero Task Force. The Task Force, led by Citi's Chief Sustainability Officer and including leaders from various business units, was established to support the development and launch of Citi's net zero plan.

Key ESG Initiatives

Sustainable Progress Strategy

Citi's Sustainable Progress Strategy is summarized in its Environmental and Social Policy Framework. The three pillars of the strategy each have climate-related elements and serve as the foundation for Citi's climate commitments.

- The first pillar, "Low-Carbon Transition," focuses on financing and facilitating low-carbon solutions and supporting Citi's clients in their decarbonization and transition strategies.
- The second pillar, "Climate Risk," focuses on Citi's efforts to measure, manage and reduce the climate risk and impact of its client portfolio. Areas of activity include, portfolio analysis and stakeholder engagement as well as enhancing TCFD implementation and disclosure.
- The third pillar, "Sustainable Operations," focuses on Citi's efforts to reduce the environmental footprint of its facilities and strengthen its sustainability culture. This includes minimizing the impact of its global operations through operational footprint goals and further integrates sustainable practices across all countries in which Citi operates.

Net Zero Emissions by 2050

In March 2021, Citi announced its commitment to achieving net zero greenhouse gas (GHG) emissions associated with its financing by 2050, and net zero GHG emissions for its operations by 2030; both are significant targets given the size and breadth of Citi's lending portfolios and businesses. Citi made this commitment as part of its ongoing work to reduce its climate impact and help address the challenges that climate change poses to the global economy and broader society. Citi's net zero commitment demonstrates how identifying, assessing and managing climate-related risks and opportunities remains a top business priority for Citi.

While many financial institutions, including Citi, face increasing public pressure to divest from carbon-intensive sectors, Citi believes it has an important role to play in advising and financing the transition to net zero, and it plans to work closely with clients in this effort. Citi recognizes that large-scale, rapid divestment could result in an abrupt and disorderly transition to a low-carbon economy, creating both economic and social upheaval on a global scale. Citi believes that an orderly, responsible and equitable transition, which accounts for the immediate economic needs of communities, workers, environmental justice and broader economic development concerns, is essential for the retention of political and social support to move to a low-carbon economy.

Citi's 2021 TCFD Report discusses its initial 2050 net zero plan, including 2030 emissions targets for its Energy and Power loan portfolios that were developed in line with the Net Zero Banking Alliance Guidelines for Climate Target Setting for Banks. Citi's net zero plan incorporates a twofold approach: (i) assessment of climate-related factors affecting its clients, and (ii) engagement to understand their transition opportunities.

Citi's net zero approach includes the following areas of activity:

- *Client Transition Assessment, Advisory and Finance*: Seek to understand clients' GHG emissions and work with them to develop their transition plans and advise on capacity building
- *Clean Tech Finance*: Support clients and expedite the commercialization and adoption of climate technology globally through transition and environmental finance as well as public-private partnerships
- *Public Policy Engagement*: Support enabling public policy and regulation in the U.S. and other countries, including through trade associations and other industry groups
- *Risk Management*: Assess climate risk exposure across Citi's lending portfolios and review client carbon reduction progress, with ongoing review and refining of Citi's ESRM Policy as needed
- *Portfolio Management*: Active portfolio management to align with net zero targets, including considerations of transition measures taken by clients

The 2050 net zero commitment includes the following framework, delineating the key areas required to achieve its commitment:

- *Calculate Emissions*: Calculate baseline financed emissions for each carbon-intensive sector
- *Transition Pathway*: Identify the appropriate climate scenario transition pathway
- *Target Setting*: Establish emissions reduction targets for 2030 and beyond
- *Implementation Strategy*: Engage with and assess clients to determine transition opportunities
- *External Engagement*: Solicit feedback from clients, investors and other stakeholders, as the work continues to evolve and the parties collectively define net zero for the banking sector

In 2021, Citi continued to expand its participation in the financial industry's net zero leadership initiatives. Citi is a member of key industry initiatives that enhance its understanding of climate-related issues, improve its access to data and promote efficient communication and coordination across various climate efforts. These initiatives include the Partnership for Carbon Accounting Financials, the Net Zero Banking Alliance and the Glasgow Financial Alliance for Net Zero.

Action for Racial Equity

Effectively responding to the needs of communities of color in the U.S. represents a strategic imperative for the private sector. A wide range of data and studies have found that many major gaps in economic opportunity, education, income, housing and wealth run along racial lines, particularly between Black and white households. These gaps have not only had implications for Black Americans and other people of color but the broader economy as well.

Accordingly, in September 2020, Citi and the Citi Foundation announced Action for Racial Equity to help provide greater access to banking and credit in communities of color, increase investment in Black-owned businesses, expand affordable housing and homeownership among Black Americans and advance anti-racist practices within Citi and across the financial services industry. As part of Action for Racial Equity, Citi and the Citi Foundation have invested more than $1 billion in strategic initiatives to help close the racial wealth gap and increase economic mobility in the U.S. Action for Racial Equity builds on Citi's longstanding focus on advancing financial inclusion and economic opportunity for communities of color in the U.S. and accelerates its efforts in a time of increased calls for racial equity and shifting population demographics in a changing economy.

In line with Citi's continued commitment to expand access to banking products and services that can help advance economic progress—especially for underbanked and unbanked communities—on February 24, 2022, Citi announced plans to eliminate overdraft fees, returned item fees and overdraft protection fees by mid 2022. In addition to eliminating these fees, Citi will continue to offer a robust suite of free overdraft protection services for its consumers. See Note 5 to the Consolidated Financial Statements for details of Citi's *Commissions and fees* revenues.

Additional Information

For additional information on Citi's environmental and social policies and priorities, see Citi's website at www.citigroup.com. Click on "About Us" and then "Environmental, Social and Governance." For information on Citi's ESG and Sustainability (including climate change) governance, see Citi's 2021 Annual Meeting Proxy Statement available at www.citigroup.com. Click on "Investors" and then "Annual Reports & Proxy Statements."

The 2021 TCFD Report and any other ESG-related reports and information included elsewhere on Citi's investor relations website are not incorporated by reference into, and do not form any part of this 2021 Annual Report on Form 10-K.

HUMAN CAPITAL RESOURCES AND MANAGEMENT

Attracting and retaining a highly qualified and motivated workforce is a strategic priority for Citi. Citi seeks to enhance the competitive strength of its workforce through the following efforts:

- Continuous innovation in recruiting, training, compensation, promotion and engagement of colleagues.
- Actively seeking and listening to diverse perspectives at all levels of the organization.
- Optimizing transparency concerning workforce goals, to promote accountability, credibility and effectiveness in achieving those goals.

Workforce Size and Distribution

As of December 31, 2021, Citi employed approximately 223,400 colleagues in nearly 100 countries. The Company's workforce is constantly evolving and developing, benefiting from a strong mix of internal and external hiring into new and existing positions. In 2021, Citi welcomed 46,907 new colleagues in addition to the roles filled by colleagues through internal mobility. The following table shows the geographic distribution of those colleagues by segment, region and gender:

Segment or business[1]	North America	EMEA	Latin America	Asia	Total[2]	Women	Men	Unspecified
Institutional Clients Group	19,029	18,096	7,909	25,458	70,492	44.1	55.9	—
Global Consumer Banking	33,898	—	33,453	32,950	100,301	57.4 %	42.5 %	0.1 %
Corporate/Other	23,218	10,364	7,012	12,057	52,651	46.3	53.6	0.1
Total	76,145	28,460	48,374	70,465	223,444	50.6 %	49.3 %	0.1 %

(1) Colleague distribution is based on assigned business and region, which may not reflect where the colleague physically resides.
(2) Part-time colleagues represented less than 1.5% of Citi's global workforce.

Board Oversight

Citi devotes substantial resources to managing its workforce, guided by a culture of accountability and excellence. Citigroup's Board of Directors (the Board) provides strategic oversight and direction to management regarding workforce policies and includes many members with experience in overseeing workforce issues.

In addition, the Board's Personnel and Compensation Committee regularly reviews management's achievements against human capital management goals, such as addressing representation of women and U.S. minorities in assistant vice president (AVP) to managing director (MD) levels, as well as talent recruitment and development initiatives.

The Board works with the Nomination, Governance and Public Affairs Committee to evaluate potential successors to the Chief Executive Officer (CEO). With respect to regular succession of the CEO and senior management, Citi's Board evaluates internal, and, when appropriate, external candidates. To find external candidates, Citi seeks input from members of the Board, senior management and recruiting firms. To develop internal candidates, Citi engages in a number of practices, formal and informal, designed to familiarize the Board with Citi's talent pool. The formal process involves an annual talent review conducted by senior management at which the Board studies the most promising members of senior management. The Board learns about each person's experience, skills, areas of expertise, accomplishments, goals and risk and control assessments. This review is conducted at a regularly scheduled Board meeting on an annual basis.

Diversity, Equity and Inclusion

Citigroup's Board is committed to ensuring that the Board and Citi's Executive Management Team (see "Managing Global Risk—Risk Governance" below) are composed of individuals whose backgrounds reflect the diversity represented by Citi's employees, customers and stakeholders. In addition, over the past several years, Citi has increased efforts to diversify its workforce, including, among other things, taking actions with respect to pay equity, representation goals and use of diverse slates in recruiting.

Pay Equity

Citi has focused on measuring and addressing pay equity within the organization:

- In 2018, Citi was the first major U.S. financial institution to publicly release the results of a pay equity review comparing its compensation of women to men and U.S. minorities to U.S. non-minorities. Since 2018, Citi has continued to be transparent about pay equity, including disclosing its unadjusted or "raw" pay gap for both women and U.S. minorities.
- Citi's 2021 pay equity review determined that, on an adjusted basis, women globally are paid on average more than 99% of what men are paid at Citi. In addition, the review determined there was no statistically significant difference in adjusted compensation between U.S. minorities and non-minorities. Following the review,

appropriate pay adjustments were made as part of Citi's 2021 compensation cycle.

- Citi's 2021 raw gap analysis showed that the median pay for women globally is 74% of the median for men, similar to 2020, and up from 73% in 2019 and 71% in 2018. The median pay for U.S. minorities is more than 96% of the median for non-minorities, which is up from just under 94% in 2020, 94% in 2019 and 93% in 2018.

Representation Goals

Increasing the number of women globally and U.S. Black employees into senior AVP to MD levels will position Citi to further close the raw pay gap and increase the diversity of the Company. At the AVP to MD levels, Citi established representation goals of 40% for women globally and 8% for U.S. Black employees by the end of 2021. As of December 31, 2021, Citi exceeded its goals for AVP to MD levels for women globally (at 40.6%) and U.S. Black employees (at 8.1%).

Citi is the first major Wall Street bank to participate in Management Leadership for Tomorrow's Black Equity at Work Certification, to help measure internal progress toward Black equity in the workplace.

In addition, consistent with its ongoing support of measurement and transparency, Citi will conduct a third-party racial equity audit to help assess the true impact of Citi's Action for Racial Equity initiatives (for additional information, see "Sustainability and Other ESG Matters—Action for Racial Equity" above).

Diverse Slates in Recruitment

In 2021, Citi expanded the use of diverse slates in its recruiting efforts to have at least two women or U.S. minorities interview for U.S.-based roles and at least two women interview for global hire roles at the AVP to MD levels.

Since implementation, Citi has increased the share of diverse candidates on slates by 26% and more than doubled the total number of diverse slates between March and December 2021. Candidate slates were as follows:

- 74.4% of roles included a diverse slate with at least two women globally and/or U.S. underrepresented minorities for U.S. hires; and
- 92.2% of roles included a diverse slate with at least one woman globally and/or U.S. underrepresented minority for U.S. hires compared to 86% in 2020.

In 2021, women representation in Citi's full-time global campus programs surpassed its goal of 50%, increasing to 51% from 49% in 2020. In addition, Black and Hispanic/ Latino representation within Citi's full-time U.S. campus programs increased to 28% from 24% in 2020.

Workforce Development

Citi highly values a workplace environment where colleagues can bring their authentic selves to work and where diverse perspectives and ideas are embraced. Citi encourages career growth and development by offering broad and diverse opportunities to colleagues. Highlights of these opportunities include the following:

- Citi provides a range of internal development and rotational programs to colleagues at all levels, including various training programs and events to assist high-performing colleagues in building the skills needed to transition to manager and supervisory roles.
- Citi has a focus on internal talent development and aims to provide colleagues with career growth opportunities, with 37% of open positions filled internally in 2021. These opportunities are particularly important as Citi focuses on providing career paths for its internal talent base as part of its efforts to increase organic growth and promotions within the organization.

Moreover, in 2021, a diverse group of human resources and business stakeholders collaborated to provide input on the current state and target future state for promotions at Citi. Their analysis resulted in the identification of opportunities for improvement to create greater transparency and alignment of the promotion process across Citi's businesses, functions and regions.

Wellness

During the past two years, the pandemic's impact has been substantial on the mental and physical health of Citi colleagues and their families. As the Company transforms and the future of work evolves, colleague wellness is a central component of Citi's focus. Coming out of the pandemic, Citi has announced three working models: colleagues will be designated as hybrid, resident or remote, based on job-specific requirements.

As colleagues pivoted to remote work during their respective country lockdowns, Citi's health plans also expanded to keep colleagues at home and safe. In the U.S., Citi offered free virtual care visits, home delivery of prescriptions, enhanced bereavement leave and no-cost COVID testing.

In addition to providing access to COVID vaccinations, which included several onsite locations in Asia and the U.S., Citi organized drive-through flu vaccination programs in the U.S. for thousands of colleagues and their family members. All colleagues globally were provided time off for vaccinations and boosters and to recover from any side effects, if needed.

To support the ongoing health of its workforce, on October 28, 2021 Citi announced a COVID-19 vaccination policy requiring all U.S. colleagues and new hires to be fully vaccinated or receive an approved accommodation or state-permitted exemption, as a condition of employment. As of the January 14, 2022 deadline, over 99% of U.S. colleagues were in compliance with the vaccine policy.

Citi also took actions to support the emotional well-being of its colleagues. Citi significantly enhanced free mental well-being programs in our largest region by doubling the number of free counseling sessions for colleagues and their family members and adding real-time text, video and message-based counseling. Citi also debuted a new online tool so that all colleagues around the globe could easily find their local Employee Assistance programs and resources. Citi also expanded live, town hall-style mental well-being programming to include targeted events with subject matter experts aimed at parents, caregivers and other at-risk groups.

Citi's wellness vision is not simply a reaction to its external environment. It has consistently been about nurturing colleagues and their families, however their families are grown. Citi continues to broaden gender affirmation medical coverage and incorporate it in its basic medical plan coverage around the world. Citi also enhanced its fertility coverage and support. In North America, Citi's new Adoption and Surrogacy Assistance Program provides reimbursement to help with certain expenses in the adoption of a child or surrogacy parenting arrangement.

In early 2020, Citi expanded its Paid Parental Leave Policy to include Citi colleagues around the world. At a minimum, all Citi colleagues are eligible for 16 weeks of paid pregnancy leave or four weeks of paid parental bonding leave. Colleagues working in countries that require leave policies above the global minimum continue to maintain even longer periods of paid time off.

For information about Citi's reliance on a highly qualified and motivated workforce, see "Risk Factors" above. For additional information about Citi's human capital management initiatives and goals, see Citi's upcoming 2022 proxy statement to be filed with the SEC in March 2022, as well as its 2020 ESG report available at www.citigroup.com. The 2020 ESG report and other information included elsewhere on Citi's investor relations website are not incorporated by reference into, and do not form any part of, this 2021 Annual Report on Form 10-K.

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(1) For additional information regarding certain credit risk, market risk and other quantitative and qualitative information, refer to Citi's Pillar 3 Basel III Advanced Approaches Disclosures, as required by the rules of the Federal Reserve Board, on Citi's Investor Relations website.

MANAGING GLOBAL RISK

Overview

For Citi, effective risk management is of primary importance to its overall operations. Accordingly, Citi's risk management process has been designed to monitor, evaluate and manage the principal risks it assumes in conducting its activities. Specifically, the activities that Citi engages in, and the risks those activities generate, must be consistent with Citi's Mission and Value Proposition and the key principles that guide it, as well as Citi's risk appetite. As discussed above, Citi is continuing its efforts to comply with the FRB and OCC consent orders, relating principally to various aspects of risk management, compliance, data quality management and governance, and internal controls (see "Citi's Consent Order Compliance" and "Risk Factors—Compliance Risks" above).

Risk management must be built on a foundation of ethical culture. Under Citi's Mission and Value Proposition, which was developed by its senior leadership and distributed throughout the Company, Citi strives to serve its clients as a trusted partner by responsibly providing financial services that enable growth and economic progress while earning and maintaining the public's trust by constantly adhering to the highest ethical standards. As such, Citi asks all colleagues to ensure that their decisions pass three tests: they are in Citi's clients' interests, create economic value and are always systemically responsible. In addition, Citi evaluates colleagues' performance against behavioral expectations set out in Citi's Leadership Principles, which were designed in part to effectuate Citi's Mission and Value Proposition. Other culture-related efforts in connection with conduct risk, ethics and leadership, escalation and treating customers fairly help Citi to execute its Mission and Value Proposition.

Citi has established an Enterprise Risk Management (ERM) Framework to ensure that all of Citi's risks are managed appropriately and consistently across Citi and at an aggregate, enterprise-wide level. The ERM Framework details the principles used to support effective enterprise-wide risk management across the end-to-end risk management lifecycle. The ERM Framework also provides clarity on the expected activities in relation to risk management of the Citigroup Board of Directors (the Board), Citi's Executive Management Team (See "Risk Governance—Executive Management Team" below) and employees across the lines of defense. The underlying pillars of the framework encompass:

- *Culture*—the core principles and behaviors that underpin a strong culture of risk awareness, in line with Citi's Mission and Value Proposition, and Leadership Principles;
- *Governance*—the committee structure and reporting arrangements that support the appropriate oversight of risk management activities at the Board and Executive Management Team levels;
- *Risk Management*—the end-to-end risk management cycle including the identification, measurement, monitoring, controlling and reporting of all risks including emerging, growing, idiosyncratic or otherwise material risks, and aggregated to an enterprise-wide level; and
- *Enterprise Programs*—the key risk management programs performed across the risk management lifecycle for all risk categories; these programs also outline the specific roles played by each of the lines of defense in these processes.

Each of these pillars is underpinned by Supporting Capabilities, which are the infrastructure, people, technology and data, and modelling and analytical capabilities that are in place to enable the execution of the ERM Framework.

Citi's approach to risk management requires that its risk-taking be consistent with its risk appetite. Risk appetite is the aggregate type and level of risk Citi is willing to take in order to meet its strategic objectives and business plan. Citi's Risk Appetite Framework sets boundaries for risk-taking and consists of a set of risk appetite statements as well as the governance processes through which the risk appetite is established, communicated, cascaded and monitored.

Citi's risks are generally categorized and summarized as follows:

- *Credit risk* is the risk of loss resulting from the decline in credit quality (or downgrade risk) or failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations.
- *Liquidity risk* is the risk that Citi will not be able to efficiently meet both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or financial conditions of Citi.
- *Market risk* (*Trading and Non-Trading*): Market risk of trading portfolios is the risk of loss arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables, such as equity and commodity prices or credit spreads. Market risk of non-trading portfolios is the risk to current or projected financial condition and resilience arising from movements in interest rates and resulting from repricing risk, basis risk, yield curve risk and options risk.
- *Operational risk* is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It includes legal risk, which is the risk of loss (including litigation costs, settlements and regulatory fines) resulting from the failure of Citi to comply with laws, regulations, prudent ethical standards and contractual obligations in any aspect of Citi's business, but excludes strategic and reputation risks (see below).
- *Compliance risk* is the risk to current or projected financial condition and resilience arising from violations of laws, rules or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards.
- *Reputation risk* is the risk to current or projected financial conditions and resilience arising from negative public opinion.
- *Strategic risk* is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalization, or capital, arising from the external factors

affecting the Company's operating environment; as well as the risks associated with defining the strategy and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

Citi uses a lines of defense model as a key component of its ERM Framework to manage its risks. The lines of defense model brings together risk-taking, risk oversight and risk assurance under one umbrella and provides an avenue for risk accountability of first line of defense, a construct for effective challenge by the second line of defense (Independent Risk Management and Independent Compliance Risk Management), and empowers independent risk assurance by the third line of defense (Internal Audit). In addition, Citi has enterprise support functions that support safety and soundness across Citi. Each of the lines of defense and enterprise support functions, along with the Board, are empowered to perform relevant risk management processes and responsibilities in order to manage Citi's risks in a consistent and effective manner.

First Line of Defense: Front Line Units and Front Line Unit Activities

Citi's first line of defense owns the risks inherent in or arising from their business and is responsible for identifying, measuring, monitoring, controlling and reporting those risks consistent with Citi's strategy, Mission and Value Proposition, Leadership Principles and risk appetite.

Front line units are responsible and held accountable for managing the risks associated with their activities within the boundaries set by independent risk management. They are also responsible for designing and implementing effective internal controls and maintaining processes for managing their risk profile, including through risk mitigation, so that it remains consistent with Citi's established risk appetite.

Front line unit activities are considered part of the first line of defense and are subject to the oversight and challenge of independent risk management.

The first line of defense is composed of Citi's Business Management, Regional and Country Management, certain Corporate Functions (Enterprise Operations and Technology, Chief Administrative Office, Global Public Affairs, Office of the Citibank Chief Executive Officer (CEO) and Finance), as well as other front line unit activities. Front line units may also include enterprise support units and activities—see "Enterprise Support Functions" below.

Second Line of Defense: Independent Risk Management

Independent risk management units are independent of front line units. They are responsible for overseeing the risk-taking activities of the first line of defense and challenging the first line of defense in the execution of their risk management responsibilities. They are also responsible for independently identifying, measuring, monitoring, controlling and reporting aggregate risks and for setting standards for the management and oversight of risk. Independent risk management is comprised of Independent Risk Management (IRM) and Independent Compliance Risk Management (ICRM) and are led by chief risk executives (i.e., Chief Risk Officer (CRO) and Chief Compliance Officer (CCO)) who have unrestricted access to the Citigroup Board of Directors and its Risk Management Committee to facilitate the ability to execute their specific responsibilities pertaining to escalation to the Citigroup Board of Directors.

Independent Risk Management

The IRM organization sets risk and control standards for the first line of defense and actively manages and oversees aggregate credit, market (trading and non-trading), liquidity, strategic, operational and reputation risks across Citi, including risks that span categories, such as concentration risk, country risk and climate risk.

IRM is organized to align to risk categories, legal entities/regions and Company-wide, cross-risk functions or processes (i.e., foundational areas). There are teams that report to an independent CRO for various risk categories and legal entities/regions. In addition, there are foundational teams that report to Foundational Risk Management heads. The Risk Category, Legal Entity/Regional CROs and Foundational Risk Management Heads report to the Citigroup CRO.

Independent Compliance Risk Management

The ICRM organization actively oversees compliance risk across Citi, sets compliance risk and control standards for the first line of defense to manage compliance risk and promotes business conduct and activity that is consistent with Citi's Mission and Value Proposition and the compliance risk appetite. Citi's objective is to embed an enterprise-wide compliance risk management framework and culture that identifies, measures, monitors, controls and escalates compliance risk across Citi.

ICRM is aligned by product line, function and geography to provide compliance risk management advice and credible challenge on day-to-day matters and strategic decision-making for key initiatives. ICRM also has program-level Enterprise Compliance units responsible for setting standards and establishing priorities for program-related compliance efforts. These Compliance Risk Management heads report directly to the CCO.

Third Line of Defense: Internal Audit

Internal Audit is independent of front line units and independent risk management units. The role of Internal Audit is to provide independent, objective, reliable, valued and timely assurance to the Citigroup Board of Directors, its Audit Committee, Citi senior management and regulators over the effectiveness of governance, risk management and controls that mitigate current and evolving risks and enhance the control culture within Citi. Internal Audit reports to a chief audit executive (i.e., Citi's Chief Auditor) who has unrestricted access to the Board and the board of directors of certain subsidiaries or their respective audit committees to facilitate the ability to execute specific responsibilities pertaining to escalation of risks and issues. The Internal Audit function has designated Chief Auditors responsible for assessing the design and effectiveness of controls within the various business units, functions, geographies and legal entities in which Citi operates.

Enterprise Support Functions

Enterprise support functions engage in activities that support safety and soundness across Citi. These functions provide advisory services and/or design, implement, maintain and oversee Company-wide programs that support Citi in maintaining an effective control environment.

Enterprise support functions are comprised of Human Resources, International Franchise Management, Legal (including Citi Security and Investigative Services).

Enterprise support functions, units and activities are subject to the relevant Company-wide independent oversight processes specific to the risk category that they generate (e.g., operational risk, compliance risk, reputation risk).

Risk Governance

Citi's ERM Framework encompasses risk management processes to address risks undertaken by Citi through identification, measurement, monitoring, controlling and reporting of all risks. The ERM Framework integrates these processes with appropriate governance to complement Citi's commitment to maintaining strong and consistent risk management practices.

Board Oversight

The Board is responsible for oversight of risk management and holds the Executive Management Team accountable for implementing the ERM Framework and meeting strategic objectives within Citi's risk appetite.

Executive Management Team

The Board delegates authority to an Executive Management Team for directing and overseeing day-to-day management of Citi. The Executive Management Team is led by the Citigroup CEO and provides oversight of group activities, both directly and through authority delegated to committees it has established to oversee the management of risk, to ensure continued alignment with Citi's strategy and risk appetite.

Board and Executive Management Committees

The Board executes its responsibilities either directly or through its committees. The Board has delegated authorities to the following Board standing committees to help fulfill its oversight and risk management responsibilities:

- *Risk Management Committee (RMC)*: assists the Board in fulfilling its responsibility with respect to (i) oversight of Citi's risk management framework, including the significant policies and practices used in managing credit, market, liquidity, strategic, operational, compliance, reputation and certain other risks, including those pertaining to capital management, and (ii) performance oversight of the Global Risk Review—credit, capital and collateral review functions.
- *Audit Committee*: provides oversight of Citi's financial reporting and internal control risk, as well as Internal Audit and Citi's external independent accountants.
- *Personnel and Compensation Committee*: provides oversight of incentive compensation plans and risk related to compensation.
- *Ethics, Conduct and Culture Committee*: provides oversight of Citi's Conduct Risk Management Program.
- *Nomination, Governance and Public Affairs Committee*: provides oversight of reputational issues, Environmental, Social and Governance (ESG) and sustainability matters, and legal and regulatory compliance risks as they relate to corporate governance matters.

In addition to the above, the Board has established the following ad hoc committee:

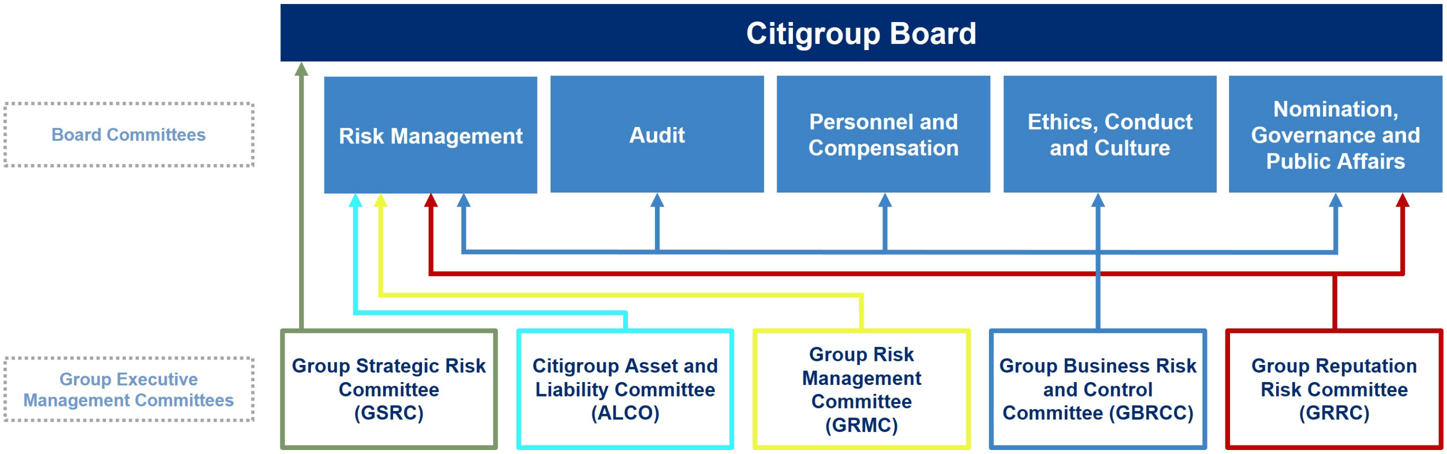
- *Transformation Oversight Committee*: provides oversight of the actions of Citi's management to develop and execute a transformation of Citi's risk and control environment pursuant to the recent regulatory consent orders (for additional information see "Citi's Consent Order Compliance" above).

The Executive Management Team has established five standing committees that cover the primary risks to which Citi (i.e., Group) is exposed. These consist of:

- *Group Strategic Risk Committee (GSRC)*: provides governance oversight of Citi's management actions to adequately identify, monitor, report, manage and escalate all material strategic risks facing Citi.
- *Citigroup Asset and Liability Committee (ALCO)*: responsible for governance over management's Liquidity Risk and Market Risk (non-trading) management and for monitoring and influencing the balance sheet, investment securities and capital management activities of Citigroup.
- *Group Risk Management Committee (GRMC)*: provides governance oversight of Credit Risk and Market Risk (trading) management in the Trading Book.
- *Group Business Risk and Control Committee (GBRCC)*: provides governance oversight of Citi's Compliance and Operational Risks.
- *Group Reputation Risk Committee (GRRC)*: provides governance oversight for Reputation Risk management across Citi.

In addition to the Executive Management committees listed above, the Board may establish ad-hoc committees in response to regulatory feedback or to manage additional activities where deemed necessary.

The figure below illustrates the reporting lines between the Board and Executive Management committees:



CREDIT RISK

Overview

Credit risk is the risk of loss resulting from the decline in credit quality of a client, customer or counterparty (or downgrade risk) or the failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations. Credit risk arises in many of Citigroup's business activities, including:

- consumer, commercial and corporate lending;
- capital markets derivative transactions;
- structured finance; and
- securities financing transactions (repurchase and reverse repurchase agreements, and securities loaned and borrowed).

Credit risk also arises from clearing and settlement activities, when Citi transfers an asset in advance of receiving its counter-value or advances funds to settle a transaction on behalf of a client. Concentration risk, within credit risk, is the risk associated with having credit exposure concentrated within a specific client, industry, region or other category.

Credit risk is one of the most significant risks Citi faces as an institution. For additional information, see "Risk Factors—Credit Risk" above. As a result, Citi has an established framework in place for managing credit risk across all businesses that includes a defined risk appetite, credit limits and credit policies. Citi's credit risk management also includes processes and policies with respect to problem recognition, including "watch lists," portfolio reviews, stress tests, updated risk ratings and classification triggers.

With respect to Citi's clearing and settlement activities, intraday client usage of clearing lines is monitored against limits, as well as against usage patterns with settlement activity monitored daily and intraday for select products. To the extent that a problem develops, Citi typically moves the client to a secured (collateralized) operating model. Generally, Citi's intraday clearing and settlement lines are uncommitted and cancelable at any time.

To manage concentration of risk within credit risk, Citi has in place a framework consisting of industry limits, an idiosyncratic framework consisting of single name concentrations for each business and across Citigroup and a specialized framework consisting of product limits.

Credit exposures are generally reported in notional terms for accrual loans, reflecting the value at which the loans as well as other off-balance sheet commitments are carried on the Consolidated Balance Sheet. Credit exposure arising from capital markets activities is generally expressed as the current mark-to-market, net of margin, reflecting the net value owed to Citi by a given counterparty.

The credit risk associated with these credit exposures is a function of the idiosyncratic creditworthiness of the obligor, as well as the terms and conditions of the specific obligation. Citi assesses the credit risk associated with its credit exposures on a regular basis through its Allowance for Credit Losses (ACL) process (see "Significant Accounting Policies and Significant Estimates—Allowance for Credit Losses" below and Notes 1 and 15 to the Consolidated Financial Statements), as well as through regular stress testing at the company, business, geography and product levels. These stress-testing processes typically estimate potential incremental credit costs that would occur as a result of either downgrades in the credit quality or defaults of the obligors or counterparties. For additional information on Citi's credit risk management, see Note 14 to the Consolidated Financial Statements.

CONSUMER CREDIT

Citi fulfills a broad spectrum of customers' financial needs with activities spanning retail banking, wealth management, credit card, personal loan, mortgage and small business banking through *North America GCB*. During 2021, Citi also provided such activities in 18 countries in *Latin America GCB* and *Asia GCB* (for information on Citi's consumer market exits in *Latin America GCB* and *Asia GCB*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above). The retail banking products include consumer mortgages, home equity, personal and small business loans and lines of credit and similar related products building a generally prime portfolio through well-defined lending parameters. Citi uses its risk appetite framework to define its lending parameters.

Consumer Credit Portfolio

The following table shows Citi's quarterly end-of-period consumer loans:(1)

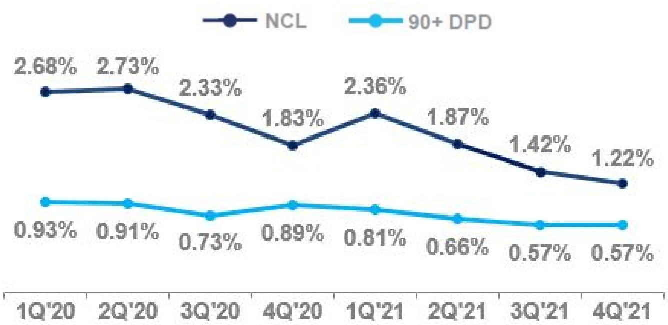
In billions of dollars	4Q'20	1Q'21	2Q'21	3Q'21(2)	**4Q'21(2)**
Retail banking:					
Mortgages	$ 88.9	$ 86.7	$ 86.3	$ 79.8	**$ 79.5**
Personal, small business and other	40.1	39.1	39.0	37.0	**36.1**
Total retail banking	$ 129.0	$ 125.8	$ 125.3	$ 116.8	**$ 115.6**
Cards:					
Branded cards	$ 106.7	$ 99.6	$ 102.9	$ 100.6	**$ 105.7**
Retail services	46.4	42.5	42.7	42.7	**46.0**
Total cards	$ 153.1	$ 142.1	$ 145.6	$ 143.3	**$ 151.7**
Total *GCB*	$ 282.1	$ 267.9	$ 270.9	$ 260.1	**$ 267.3**
***GCB* regional distribution:**					
North America	65 %	64 %	64 %	67 %	**68 %**
Latin America	5	5	5	5	**5**
Asia(3)	30	31	31	28	**27**
Total *GCB*	100 %	100 %	100 %	100 %	**100 %**
***Corporate/Other*(4)**	$ 6.7	$ 6.1	$ 5.0	$ 4.2	**$ 3.9**
Total consumer loans	$ 288.8	$ 274.0	$ 275.9	$ 264.3	**$ 271.2**

(1) End-of-period loans include interest and fees on credit cards.
(2) As a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines, the businesses were reclassified as held-for-sale and their assets and liabilities were included in *Other assets* and *Other liabilities*, respectively, on Citi's Consolidated Balance Sheet and excluded from loans and related credit measures, of *GCB* and *Asia GCB* beginning in the third quarter of 2021 for Australia and the fourth quarter of 2021 for the Philippines. For additional information, see Note 2 to the Consolidated Financial Statements.
(3) *Asia* includes loans and leases in certain *EMEA* countries for all periods presented.
(4) Primarily consists of legacy assets, principally *North America* consumer mortgages.

For information on changes to Citi's consumer loans, see "Liquidity Risk—Loans" below.

Overall Consumer Credit Trends

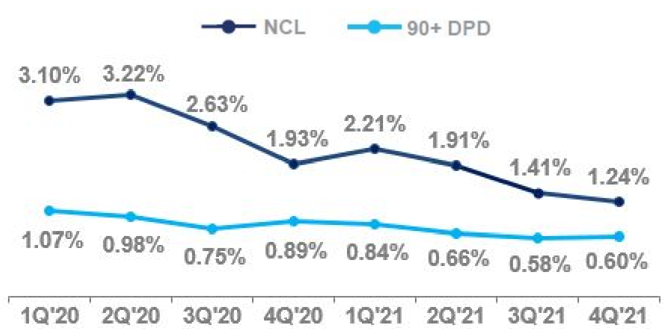
Global Consumer Banking



As shown in the chart above, *GCB*'s net credit loss rate decreased quarter-over-quarter and year-over-year for the fourth quarter of 2021, primarily reflecting the continued impact of government stimulus, unemployment benefits and consumer relief programs in *North America GCB*, and a decline following the peak charge-offs in *Asia GCB* and *Latin America GCB* in recent quarters.

GCB's 90+ days past due delinquency rate remained unchanged quarter-over-quarter. The 90+days past due delinquency rate decreased year-over-year, primarily due to the continued impacts of government stimulus, unemployment benefits and consumer relief programs in *North America GCB*, as well as lower delinquencies in *Asia GCB* and *Latin America GCB*, following the charge-off of peak delinquencies in recent quarters.

North America GCB



North America GCB provides mortgage, home equity, small business and personal loans through Citi's retail banking network and card products through branded cards and retail services businesses. The retail bank is concentrated in six major metropolitan cities in the U.S. (for additional information on the U.S. retail bank, see "*North America GCB*" above).

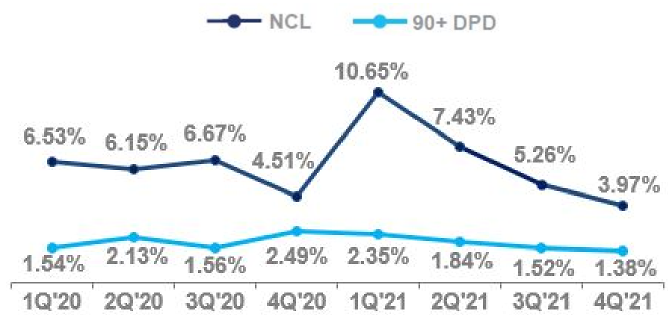
As of December 31, 2021, approximately 74% of *North America GCB* consumer loans consisted of branded and retail services cards, which generally drives the overall credit performance of *North America GCB* (for additional information on *North America GCB*'s cards portfolios, including delinquency and net credit loss rates, see "Credit Card Trends" below).

As shown in the chart above, the net credit loss rate in *North America GCB* for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, primarily reflecting the continued impact of high payment rates in cards, driven by government stimulus.

Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate in *North America GCB* increased modestly quarter-over-quarter, primarily due to seasonality in cards, while the 90+ days past due delinquency rate decreased year-over-year, primarily reflecting the continued impact of high payment rates in cards, driven by government stimulus.

Latin America GCB

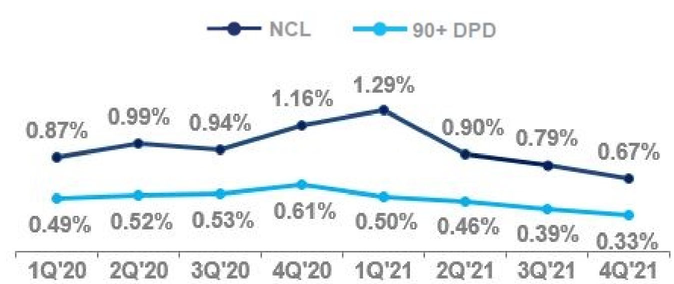


Latin America GCB operates in Mexico through Citibanamex and provides credit cards, consumer mortgages and small business and personal loans. *Latin America GCB* serves a more mass-market segment in Mexico and focuses on developing multiproduct relationships with customers.

As shown in the chart above, the net credit loss rate in *Latin America GCB* for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters resulted in lower delinquencies that led to lower net credit losses in the current quarter.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters and higher payment rates resulted in a lower 90+ days past due delinquency rate in the current quarter.

Asia[1] GCB



(1) *Asia* includes *GCB* activities in certain *EMEA* countries for all periods presented.

During 2021, *Asia GCB* operated in 17 countries and jurisdictions in *Asia* and *EMEA* and provided credit cards, consumer mortgages and small business and personal loans.

As shown in the chart above, the fourth quarter of 2021 net credit loss rate in *Asia GCB* decreased quarter-over-quarter, driven by the charge-off of peak delinquencies in recent quarters. Year-over-year, the net credit loss rate decreased, as elevated losses during the prior year returned to pre-pandemic levels. The decrease was also driven by the reclassification of approximately $10 billion of loans to held-for-sale as a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines (*Asia* HFS reclass).

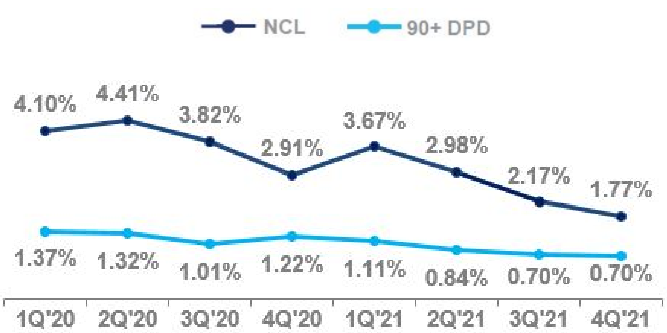
The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, driven by the charge-off of peak delinquencies in recent quarters, as elevated losses returned to pre-pandemic levels, as well as the impact of the *Asia* HFS reclass.

The performance of *Asia GCB*'s portfolios continues to reflect the strong credit profiles in the region's target customer segments. Regulatory changes in many markets in *Asia* over the past few years have also resulted in improved credit quality.

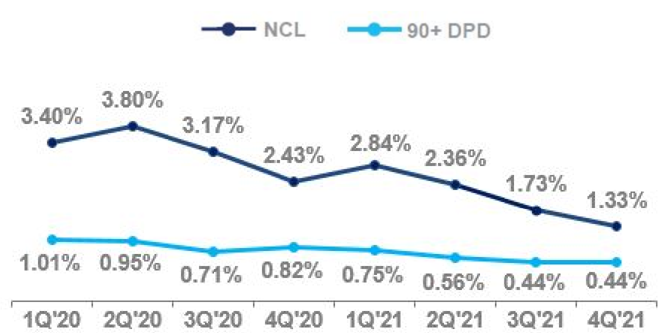
For additional information on cost of credit, loan delinquency and other information for Citi's consumer loan portfolios, see each respective business's results of operations above and Notes 13 and 14 to the Consolidated Financial Statements.

Credit Card Trends

Global Cards



North America Branded Cards

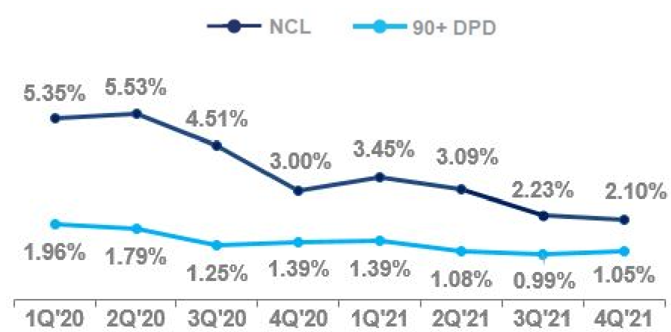


North America GCB's branded cards portfolio includes proprietary and co-branded cards.

As shown in the chart above, the net credit loss rate in *North America* branded cards for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate remained unchanged quarter-over-quarter and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

North America Retail Services



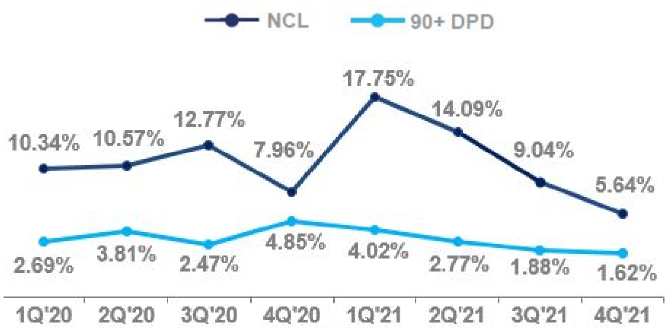
Retail services partners directly with more than 20 retailers and dealers to offer private label and co-branded cards. Retail services' target market focuses on select industry segments such as home improvement, specialty retail, consumer electronics and fuel.

Retail services continually evaluates opportunities to add partners within target industries that have strong loyalty, lending or payment programs and growth potential.

As shown in the chart above, the net credit loss rate in retail services for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate increased quarter-over-quarter due to seasonality, and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

Latin America Branded Cards

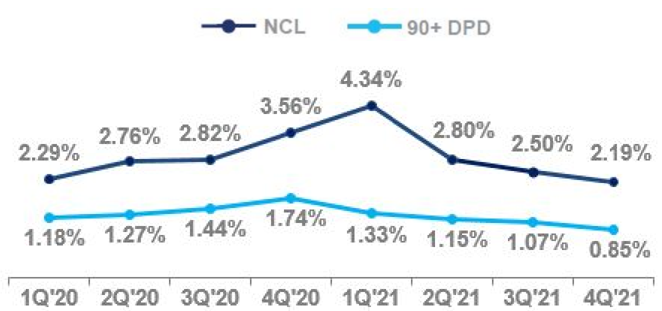


Latin America GCB issues proprietary and co-branded cards.

As shown in the chart above, the fourth quarter of 2021 net credit loss rate in *Latin America* branded cards decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters resulted in lower delinquencies that led to lower net credit losses in the current quarter.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters and higher payment rates resulted in a lower 90+ days past due delinquency rate.

Asia Branded Cards(1)



(1) *Asia* includes loans and leases in certain *EMEA* countries for all periods presented.

As shown in the chart above, the net credit loss rate in *Asia* branded cards for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, driven by the charge-off of peak delinquencies in recent quarters, as elevated losses returned to pre-pandemic levels, as well as the impact of the *Asia* HFS reclass.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, driven by the charge-off of peak delinquencies in recent quarters, as elevated losses returned to pre-pandemic levels, as well as the *Asia* HFS reclass.

For additional information on cost of credit, delinquency and other information for Citi's cards portfolios, see each respective business's results of operations above and Note 14 to the Consolidated Financial Statements.

North America Cards FICO Distribution

The following tables show the current FICO score distributions for Citi's *North America* cards portfolios based on end-of-period receivables. FICO scores are updated monthly for a substantial share of the portfolio and quarterly for the remaining portfolio.

Branded Cards

FICO distribution(1)	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
> 760	**49 %**	48 %	46 %
680–760	**38**	39	39
< 680	**13**	13	15
Total	**100 %**	100 %	100 %

Retail Services

FICO distribution(1)	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
> 760	**28 %**	27 %	27 %
680–760	**44**	45	44
< 680	**28**	28	29
Total	**100 %**	100 %	100 %

(1) The FICO bands in the tables are consistent with general industry peer presentations.

The FICO distribution of both cards portfolios remained largely stable compared to the prior quarter and improved compared to the prior year, demonstrating strong underlying credit quality and a benefit from the impacts of government stimulus, unemployment benefits and customer relief programs, as well as lower credit utilization. For additional information on FICO scores, see Note 14 to the Consolidated Financial Statements.

Additional Consumer Credit Details

Consumer Loan Delinquencies Amounts and Ratios

In millions of dollars, except EOP loan amounts in billions	EOP loans[1] December 31, 2021	90+ days past due[2] December 31, 2021	2020	2019	30–89 days past due[2] December 31, 2021	2020	2019
Global Consumer Banking[3][4]							
Total	**$ 267.3**	**$ 1,521**	$ 2,507	$ 2,737	**$ 1,661**	$ 2,517	$ 3,001
Ratio		**0.57 %**	0.89 %	0.91 %	**0.62 %**	0.89 %	1.00 %
Retail banking							
Total	**$ 115.6**	**$ 462**	$ 632	$ 438	**$ 522**	$ 860	$ 816
Ratio		**0.40 %**	0.49 %	0.35 %	**0.45 %**	0.67 %	0.66 %
North America	**48.1**	**228**	299	146	**219**	328	334
Ratio		**0.49 %**	0.58 %	0.29 %	**0.47 %**	0.63 %	0.67 %
Latin America	**8.6**	**107**	130	106	**106**	220	180
Ratio		**1.24 %**	1.33 %	0.91 %	**1.23 %**	2.24 %	1.54 %
Asia[5][6]	**58.9**	**127**	203	186	**197**	312	302
Ratio		**0.22 %**	0.31 %	0.30 %	**0.33 %**	0.47 %	0.48 %
Cards							
Total	**$ 151.7**	**$ 1,059**	$ 1,875	$ 2,299	**$ 1,139**	$ 1,657	$ 2,185
Ratio		**0.70 %**	1.22 %	1.31 %	**0.75 %**	1.08 %	1.25 %
North America—branded	**87.9**	**389**	686	915	**408**	589	814
Ratio		**0.44 %**	0.82 %	0.95 %	**0.46 %**	0.70 %	0.85 %
North America—retail services	**46.0**	**482**	644	1,012	**539**	639	945
Ratio		**1.05 %**	1.39 %	1.91 %	**1.17 %**	1.38 %	1.79 %
Latin America	**4.7**	**76**	233	165	**67**	170	159
Ratio		**1.62 %**	4.85 %	2.75 %	**1.43 %**	3.54 %	2.65 %
Asia[5][6]	**13.1**	**112**	312	207	**125**	259	267
Ratio		**0.85 %**	1.74 %	1.04 %	**0.95 %**	1.45 %	1.34 %
***Corporate/Other*—Consumer**[7]							
Total	**$ 3.9**	**$ 221**	$ 313	$ 278	**$ 88**	$ 179	$ 295
Ratio		**6.14 %**	5.13 %	3.02 %	**2.44 %**	2.93 %	3.21 %
Total Citigroup	**$ 271.2**	**$ 1,742**	$ 2,820	$ 3,015	**$ 1,749**	$ 2,696	$ 3,296
Ratio		**0.65 %**	0.98 %	0.98 %	**0.65 %**	0.94 %	1.07 %

(1) End-of-period (EOP) loans include interest and fees on credit cards.

(2) The ratios of 90+ days past due and 30–89 days past due are calculated based on EOP loans, net of unearned income.

(3) The 90+ days past due balances for *North America*—branded and *North America*—retail services are generally still accruing interest. Citigroup's policy is generally to accrue interest on credit card loans until 180 days past due, unless notification of bankruptcy filing has been received earlier.

(4) The 90+ days past due and 30–89 days past due and related ratios for *North America GCB* exclude loans guaranteed by U.S. government-sponsored agencies since the potential loss predominantly resides with the U.S. government-sponsored agencies. The amounts excluded for loans 90+ days past due and (EOP loans) were $185 million ($1.1 billion), $171 million ($0.7 billion) and $135 million ($0.5 billion) at December 31, 2021, 2020 and 2019, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $74 million, $98 million and $72 million at December 31, 2021, 2020 and 2019, respectively.

(5) *Asia* includes delinquencies and loans in certain *EMEA* countries for all periods presented.

(6) During 2021, Citi's Australia and the Philippines consumer banking businesses were reclassified as HFS, due to Citi's entry into agreements to sell the businesses. Accordingly, Australia and the Philippines consumer loans are recorded in *Other assets* on the Consolidated Balance Sheet, and hence the loans and related delinquencies and ratios are not included in this table. See Note 2 to the Consolidated Financial Statements for additional information.

(7) The 90+ days past due and 30–89 days past due and related ratios exclude U.S. mortgage loans that are primarily related to U.S. mortgages guaranteed by U.S. government-sponsored agencies since the potential loss predominantly resides with the U.S. agencies. The amounts excluded for 90+ days past due EOP loans were $138 million ($0.4 billion), $183 million ($0.5 billion) and $172 million ($0.4 billion) at December 31, 2021, 2020 and 2019, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $35 million, $73 million and $55 million at December 31, 2021, 2020 and 2019, respectively.

Consumer Loan Net Credit Losses and Ratios

	Average loans[1]	Net credit losses[2]		
In millions of dollars, except average loan amounts in billions	**2021**	**2021**	2020	2019
Global Consumer Banking				
Total	**$ 266.3**	**$ 4,582**	$ 6,646	$ 7,382
Ratio		**1.72 %**	2.39 %	2.60 %
Retail banking				
Total	**$ 122.3**	**$ 779**	$ 805	$ 910
Ratio		**0.64 %**	0.65 %	0.76 %
North America	**50.0**	**109**	132	161
Ratio		**0.22 %**	0.25 %	0.33 %
Latin America	**9.0**	**410**	377	494
Ratio		**4.56 %**	3.85 %	4.30 %
Asia[3][4]	**63.3**	**260**	296	255
Ratio		**0.41 %**	0.47 %	0.43 %
Cards				
Total	**$ 144.0**	**$ 3,803**	$ 5,841	$ 6,472
Ratio		**2.64 %**	3.82 %	3.94 %
North America—branded	**81.1**	**1,659**	2,708	2,864
Ratio		**2.05 %**	3.20 %	3.19 %
North America—retail services	**43.1**	**1,169**	2,150	2,558
Ratio		**2.71 %**	4.62 %	5.13 %
Latin America	**4.4**	**510**	489	615
Ratio		**11.59 %**	10.40 %	10.79 %
Asia[3][4]	**15.4**	**465**	494	435
Ratio		**3.02 %**	2.84 %	2.29 %
***Corporate/Other*—Consumer**				
Total	**$ 5.3**	**$ (82)**	$ (21)	$ (6)
Ratio		**(1.55)%**	0.25 %	0.14 %
Total Citigroup	**$ 271.6**	**$ 4,500**	$ 6,625	$ 7,376
Ratio		**1.66 %**	2.32 %	2.49 %

(1) Average loans include interest and fees on credit cards.
(2) The ratios of net credit losses are calculated based on average loans, net of unearned income.
(3) *Asia* includes NCLs and average loans in certain *EMEA* countries for all periods presented.
(4) As a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines during 2021, these businesses were reclassified as HFS beginning in 2021. As a result of HFS accounting treatment, approximately $6 million of net credit losses (NCLs) was recorded as a reduction in revenue (*Other revenue*) in 2021. Accordingly, these NCLs are not included in this table, as well as Loans HFS that are recorded in *Other assets* on the Consolidated Balance Sheet. See Note 2 to the Consolidated Financial Statements for additional information.

Loan Maturities and Fixed/Variable Pricing of Consumer Loans

Loan Maturities

In millions of dollars at December 31, 2021	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years but within 15 years	Greater than 15 years	Total
In North America offices					
Residential first mortgages	$ 15	$ 109	$ 2,573	$ 41,116	$ 43,813
Home equity loans	65	56	1,484	3,496	5,101
Credit cards	133,868	—	—	—	133,868
Personal, small business and other	1,092	1,678	237	151	3,158
Total	$ 135,040	$ 1,843	$ 4,294	$ 44,763	$ 185,940
In offices outside North America					
Residential mortgages	$ 2,022	$ 651	$ 6,667	$ 25,261	$ 34,601
Credit cards	17,808	—	—	—	17,808
Personal, small business and other	23,323	8,180	1,124	260	32,887
Total	$ 43,153	$ 8,831	$ 7,791	$ 25,521	$ 85,296

Fixed/Variable Pricing

In millions of dollars at December 31, 2021	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years but within 15 years	Greater than 15 years	Total
Loans at fixed interest rates					
Residential first mortgages	$ 225	$ 183	$ 1,990	$ 31,581	$ 33,979
Home equity loans	65	51	223	336	675
Credit cards	42,117	—	—	—	42,117
Personal, small business and other	11,883	6,407	37	83	18,410
Total	$ 54,290	$ 6,641	$ 2,250	$ 32,000	$ 95,181
Loans at floating or adjustable interest rates					
Residential first mortgages	$ 1,812	$ 577	$ 7,250	$ 34,796	$ 44,435
Home equity loans	—	5	1,261	3,160	4,426
Credit cards	109,559	—	—	—	109,559
Personal, small business and other	12,532	3,451	1,324	328	17,635
Total	$ 123,903	$ 4,033	$ 9,835	$ 38,284	$ 176,055

CORPORATE CREDIT

Consistent with its overall strategy, Citi's corporate clients are typically corporations that value the depth and breadth of Citi's global network. Citi aims to establish relationships with these clients that, consistent with client needs, encompass multiple products, including cash management and trade services, foreign exchange, lending, capital markets and M&A advisory. During 2021, Citi's corporate credit exposures also included exposures in the private bank, excluding certain loans managed on a delinquency basis. For information on Citi's planned revision to its reporting structure effective for the first quarter of 2022, including the reporting of the private bank as part of a new reporting segment, *Personal Banking and Wealth Management*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

Corporate Credit Portfolio

The following table details Citi's corporate credit portfolio within *ICG* (excluding certain loans in the private bank, which are managed on a delinquency basis, as well as loans carried at fair value and held-for-sale), and before consideration of collateral or hedges, by remaining tenor for the periods indicated:

	December 31, 2021				September 30, 2021				December 31, 2020			
In billions of dollars	**Due within 1 year**	**Greater than 1 year but within 5 years**	**Greater than 5 years**	**Total exposure**	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure
Direct outstandings (on-balance sheet)[1]	**$ 187**	**$ 136**	**$ 21**	**$ 344**	$ 192	$ 134	$ 21	$ 347	$ 175	$ 138	$ 25	$ 338
Unfunded lending commitments (off-balance sheet)[2]	**159**	**278**	**13**	**450**	164	286	11	461	158	272	11	441
Total exposure	**$ 346**	**$ 414**	**$ 34**	**$ 794**	$ 356	$ 420	$ 32	$ 808	$ 333	$ 410	$ 36	$ 779

(1) Includes drawn loans, overdrafts, bankers' acceptances and leases.
(2) Includes unused commitments to lend, letters of credit and financial guarantees.

Portfolio Mix—Geography and Counterparty

Citi's corporate credit portfolio is diverse across geography and counterparty. The following table shows the percentage of this portfolio by region (excluding the delinquency-managed private bank portfolio) based on Citi's internal management geography:

	December 31, 2021	September 30, 2021	December 31, 2020
North America	**57 %**	57 %	56 %
EMEA	**24**	25	25
Asia	**13**	13	13
Latin America	**6**	5	6
Total	**100 %**	100 %	100 %

The maintenance of accurate and consistent risk ratings across the corporate credit portfolio facilitates the comparison of credit exposure across all lines of business, geographic regions and products. Counterparty risk ratings reflect an estimated probability of default for a counterparty and are derived by leveraging validated statistical models, scorecard models and external agency ratings (under defined circumstances), in combination with consideration of factors specific to the obligor or market, such as management experience, competitive position, regulatory environment and commodity prices. Facility risk ratings are assigned that reflect the probability of default of the obligor and factors that affect the loss given default of the facility, such as support or collateral. Internal obligor ratings that generally correspond to BBB and above are considered investment grade, while those below are considered non-investment grade.

The following table presents the corporate credit portfolio (excluding the delinquency-managed private bank portfolio) by facility risk rating as a percentage of the total corporate credit portfolio:

	Total exposure		
	December 31, 2021	September 30, 2021	December 31, 2020
AAA/AA/A	**51 %**	49 %	49 %
BBB	**32**	32	31
BB/B	**15**	16	17
CCC or below	**2**	3	3
Total	**100 %**	100 %	100 %

Note: Total exposure includes direct outstandings and unfunded lending commitments.

In addition to the obligor and facility risk ratings assigned to all exposures, Citi may classify exposures in the corporate credit portfolio. These classifications are consistent with Citi's interpretation of the U.S. banking regulators' definition of criticized exposures, which may categorize exposures as special mention, substandard, doubtful or loss.

Risk ratings and classifications are reviewed regularly, and adjusted as appropriate. The credit review process incorporates quantitative and qualitative factors, including financial and non-financial disclosures or metrics, idiosyncratic events or changes to the competitive, regulatory or macroeconomic environment. This includes but is not limited to exposures in those sectors significantly impacted by the pandemic (including consumer retail, commercial real estate and transportation).

Citi believes the corporate credit portfolio to be appropriately rated and classified as of December 31, 2021. Since the onset of the pandemic, Citi has taken action to adjust internal ratings and classifications of exposures as both the macroeconomic environment and obligor-specific factors have changed, particularly where additional stress has been seen.

As obligor risk ratings are downgraded, the probability of default increases. Downgrades of obligor risk ratings tend to result in a higher provision for credit losses. In addition, downgrades may result in the purchase of additional credit derivatives or other risk mitigants to hedge the incremental credit risk, or may result in Citi's seeking to reduce exposure to an obligor or an industry sector. Citi will continue to review exposures to ensure that the appropriate probability of default is incorporated into all risk assessments.

For additional information on Citi's corporate credit portfolio, see Note 14 to the Consolidated Financial Statements.

Portfolio Mix—Industry

Citi's corporate credit portfolio is diversified by industry. The following table details the allocation of Citi's total corporate credit portfolio by industry (excluding the delinquency-managed private bank portfolio):

	Total exposure		
	December 31, 2021	September 30, 2021	December 31, 2020
Transportation and industrials	**18 %**	19 %	19 %
Private bank	**14**	14	14
Consumer retail	**10**	10	11
Technology, media and telecom	**11**	10	10
Real estate	**9**	9	8
Power, chemicals, metals and mining	**8**	8	8
Banks and finance companies	**7**	7	7
Energy and commodities	**6**	6	6
Health	**4**	5	5
Public sector	**3**	3	3
Insurance	**4**	3	3
Asset managers and funds	**3**	3	3
Financial markets infrastructure	**2**	2	2
Securities firms	**—**	—	—
Other industries	**1**	1	1
Total	**100 %**	100 %	100 %

The following table details Citi's corporate credit portfolio by industry as of December 31, 2021:

					Non-investment grade			Selected metrics		
In millions of dollars	Total credit exposure	Funded[1]	Unfunded[1]	Investment grade	Non-criticized	Criticized performing	Criticized non-performing[2]	30 days or more past due and accruing[3]	Net credit losses (recoveries)[4]	Credit derivative hedges[5]
Transportation and industrials	**$ 143,444**	**$ 51,502**	**$ 91,942**	**$ 110,047**	**$ 19,051**	**$ 13,196**	**$ 1,150**	**$ 384**	**$ 127**	**$ (8,791)**
Autos[6]	48,210	18,662	29,548	39,824	5,365	2,906	115	49	2	(3,228)
Transportation	26,896	12,085	14,811	19,233	2,344	4,447	872	105	104	(1,334)
Industrials	68,338	20,755	47,583	50,990	11,342	5,843	163	230	21	(4,229)
Private bank	**114,018**	**79,684**	**34,334**	**110,684**	**2,060**	**1,190**	**84**	**793**	**6**	**(1,080)**
Consumer retail	**78,995**	**32,894**	**46,101**	**60,687**	**13,590**	**4,311**	**407**	**224**	**100**	**(5,115)**
Technology, media and telecom	**84,334**	**28,542**	**55,792**	**64,677**	**15,873**	**3,587**	**197**	**156**	**11**	**(6,875)**
Real estate	**69,808**	**46,220**	**23,588**	**58,089**	**6,761**	**4,923**	**35**	**116**	**50**	**(798)**
Power, chemicals, metals and mining	**65,641**	**20,224**	**45,417**	**53,576**	**10,708**	**1,241**	**116**	**292**	**22**	**(5,808)**
Power	26,199	5,610	20,589	22,860	2,832	420	87	100	17	(3,032)
Chemicals	25,550	8,525	17,025	20,789	4,224	528	9	88	6	(2,141)
Metals and mining	13,892	6,089	7,803	9,927	3,652	293	20	104	(1)	(635)
Banks and finance companies	**58,251**	**36,803**	**21,448**	**49,466**	**4,892**	**3,890**	**3**	**150**	**(5)**	**(680)**
Energy and commodities[7]	**48,973**	**13,485**	**35,488**	**38,972**	**7,517**	**2,220**	**264**	**224**	**78**	**(3,679)**
Health	**33,393**	**8,826**	**24,567**	**27,599**	**4,702**	**942**	**150**	**95**	**—**	**(2,465)**
Public sector	**23,842**	**12,464**	**11,378**	**21,035**	**1,527**	**1,275**	**5**	**37**	**(3)**	**(1,282)**
Insurance	**28,495**	**3,163**	**25,332**	**27,447**	**987**	**61**	**—**	**2**	**1**	**(2,711)**
Asset managers and funds	**22,269**	**6,649**	**15,620**	**20,871**	**1,019**	**377**	**2**	**12**	**—**	**(113)**
Financial markets infrastructure	**14,342**	**109**	**14,233**	**14,323**	**18**	**—**	**1**	**—**	**—**	**(22)**
Securities firms	**1,472**	**613**	**859**	**605**	**816**	**51**	**—**	**4**	**—**	**(5)**
Other industries	**6,590**	**2,802**	**3,788**	**4,146**	**1,892**	**490**	**62**	**—**	**6**	**(169)**
Total	**$ 793,867**	**$ 343,980**	**$ 449,887**	**$ 662,224**	**$ 91,413**	**$ 37,754**	**$ 2,476**	**$ 2,489**	**$ 393**	**$ (39,593)**

(1) Excludes $46.5 billion and $1.7 billion of funded and unfunded exposure at December 31, 2021, respectively, primarily related to the delinquency-managed private bank portfolio. Funded balances also excludes loans carried at fair value of $6.1 billion at December 31, 2021.
(2) Includes non-accrual loan exposures and criticized unfunded exposures.
(3) Excludes $36 million of past due loans primarily related to the delinquency-managed private bank portfolio.
(4) Net credit losses (recoveries) are for the year ended December 31, 2021 and exclude delinquency-managed private bank net credit losses of $2 million.
(5) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the $39.6 billion of purchased credit protection, $36.0 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $3.6 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $28.4 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.
(6) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately $17.9 billion ($6.5 billion in funded, with more than 99% rated investment grade) as of December 31, 2021.
(7) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2021, Citi's total exposure to these energy-related entities was approximately $5.1 billion, of which approximately $2.6 billion consisted of direct outstanding funded loans.

The following table details Citi's corporate credit portfolio by industry as of December 31, 2020:

In millions of dollars	Total credit exposure	Funded[(1)]	Unfunded[(1)]	Investment grade	Non-investment grade: Non-criticized	Non-investment grade: Criticized performing	Non-investment grade: Criticized non-performing[(2)]	Selected metrics: 30 days or more past due and accruing[(3)]	Selected metrics: Net credit losses (recoveries)[(4)]	Selected metrics: Credit derivative hedges[(5)]
Transportation and industrials	$ 145,449	$ 58,353	$ 87,096	$ 104,311	$ 17,452	$ 21,887	$ 1,798	$ 136	$ 239	$ (8,110)
Autos[(6)]	52,150	23,586	28,564	41,334	4,374	6,167	275	8	45	(3,220)
Transportation	27,693	14,107	13,586	16,410	2,993	6,872	1,417	17	144	(1,166)
Industrials	65,606	20,660	44,946	46,566	10,085	8,848	106	111	50	(3,724)
Private bank[(1)]	109,397	75,693	33,705	104,244	2,395	2,510	248	963	78	(1,080)
Consumer retail	81,941	34,621	47,320	60,683	11,524	9,418	316	146	64	(5,493)
Technology, media and telecom	81,598	29,821	51,777	60,236	15,924	5,214	223	107	74	(7,237)
Real estate	64,817	42,711	22,106	53,839	5,342	5,453	185	334	18	(642)
Power, chemicals, metals and mining	63,273	20,156	43,117	47,534	11,367	4,181	192	59	70	(5,341)
Power	26,555	6,018	20,537	22,405	3,311	685	154	14	57	(2,637)
Chemicals	22,227	7,839	14,387	16,535	3,804	1,882	5	32	8	(2,102)
Metals and mining	14,492	6,299	8,193	8,593	4,251	1,614	34	13	5	(602)
Banks and finance companies	52,639	29,570	23,069	43,546	4,648	4,387	59	27	79	(765)
Energy and commodities[(7)]	48,447	14,009	34,438	33,678	7,226	6,546	996	70	285	(4,199)
Health	35,421	8,575	26,846	29,081	4,354	1,749	238	17	17	(1,964)
Public sector	26,705	13,416	13,289	22,098	1,887	2,704	16	45	9	(1,089)
Insurance	26,576	1,925	24,651	25,864	575	136	—	27	1	(2,682)
Asset managers and funds	19,745	4,491	15,254	18,528	1,013	191	13	41	(1)	(84)
Financial markets infrastructure	12,610	229	12,382	12,590	20	—	—	—	—	(9)
Securities firms	976	430	547	573	298	97	9	—	—	(6)
Other industries	9,009	4,247	4,762	4,980	2,404	1,442	182	10	43	(138)
Total	$ 778,603	$ 338,246	$ 440,357	$ 621,784	$ 86,427	$ 65,914	$ 4,477	$ 1,982	$ 976	$ (38,839)

(1) Excludes $42.0 billion and $4.4 billion of funded and unfunded exposure at December 31, 2020, respectively, primarily related to the delinquency-managed private bank portfolio. Funded balances also excludes loans carried at fair value of $6.8 billion at December 31, 2020.
(2) Includes non-accrual loan exposures and criticized unfunded exposures.
(3) Excludes $162 million of past due loans primarily related to the delinquency-managed private bank portfolio.
(4) Net credit losses (recoveries) are for the year ended December 31, 2020 and exclude delinquency-managed private bank credit losses of $10 million.
(5) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the $38.8 billion of purchased credit protection, $36.8 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $2.0 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $16.1 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.
(6) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately $20.2 billion ($10.3 billion in funded, with more than 99% rated investment grade) at December 31, 2020.
(7) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2020, Citi's total exposure to these energy-related entities was approximately $7.0 billion, of which approximately $3.8 billion consisted of direct outstanding funded loans.

Exposure to Commercial Real Estate

As of December 31, 2021, *ICG*'s total corporate credit exposure to commercial real estate (CRE) was $66 billion, with $44 billion consisting of direct outstanding funded loans (mainly included in the real estate and private bank categories in the above table), or 7% of Citi's total outstanding loans. In addition, as of December 31, 2021, more than 70% of *ICG*'s total corporate CRE exposure was to borrowers in the U.S. Also as of December 31, 2021, approximately 77% of *ICG*'s total corporate CRE exposure was rated investment grade.

As of December 31, 2021, the ACLL was 0.9% of funded CRE exposure, including 2.4% of funded non-investment-grade exposure.

Of the total CRE exposure:

- $20 billion ($12 billion of direct outstanding funded loans) relates to Community Reinvestment Act-related lending provided pursuant to Citi's regulatory requirements to meet the credit needs of borrowers in low and moderate income neighborhoods.
- $20 billion ($16 billion of direct outstanding funded loans) relates to exposure secured by mortgages on underlying properties or in well-rated securitization exposures.
- $15 billion ($5 billion of direct outstanding funded loans) relates to unsecured loans to large REITs, with nearly 74% of the exposure rated investment grade.
- $11 billion ($11 billion of direct outstanding funded loans) relates to CRE exposure in the private bank, of which 100% is secured by mortgages. In addition, 48% of the exposure is also full recourse to the client. As of December 31, 2021, 82% of the exposure was rated investment grade.

Credit Risk Mitigation

As part of its overall risk management activities, Citi uses credit derivatives and other risk mitigants to hedge portions of the credit risk in its corporate credit portfolio, in addition to outright asset sales. Citi may enter into partial-term hedges as well as full-term hedges. In advance of the expiration of partial-term hedges, Citi will determine, among other factors, the economic feasibility of hedging the remaining life of the instrument. The results of the mark-to-market and any realized gains or losses on credit derivatives are reflected primarily in *Principal transactions* in the Consolidated Statement of Income.

At December 31, 2021, September 30, 2021 and December 31, 2020, *ICG* (excluding the delinquency-managed private bank portfolio) had economic hedges on the corporate credit portfolio of $39.6 billion, $38.1 billion and $38.8 billion, respectively. Citi's expected credit loss model used in the calculation of its ACL does not include the favorable impact of credit derivatives and other mitigants that are marked to market. In addition, the reported amounts of direct outstandings and unfunded lending commitments in the tables above do not reflect the impact of these hedging transactions. The credit protection was economically hedging underlying *ICG* (excluding the delinquency-managed private bank portfolio) corporate credit portfolio exposures with the following risk rating distribution:

Rating of Hedged Exposure

	December 31, 2021	September 30, 2021	December 31, 2020
AAA/AA/A	**35 %**	32 %	30 %
BBB	**49**	47	48
BB/B	**13**	17	19
CCC or below	**3**	4	3
Total	**100 %**	100 %	100 %

Loan Maturities and Fixed/Variable Pricing of Corporate Loans

In millions of dollars at December 31, 2021	Due within 1 year	Over 1 year but within 5 years	Over 5 years but within 15 years	Over 15 years	Total
Corporate loans					
In North America offices[1]					
Commercial and industrial loans	$ 25,694	$ 24,878	$ 973	$ 454	$ 51,999
Financial institutions	50,299	16,534	91	12	66,936
Mortgage and real estate[2]	12,385	5,948	5,460	39,564	63,357
Installment, revolving credit and other	13,090	13,454	2,573	26	29,143
Lease financing	95	230	88	—	413
Total	$ 101,563	$ 61,044	$ 9,185	$ 40,056	$ 211,848
In offices outside the North America[1]					
Commercial and industrial loans	$ 75,502	$ 22,905	$ 4,650	$ 110	$ 103,167
Financial institutions	26,672	5,147	92	292	32,203
Mortgage and real estate[2]	4,359	4,541	912	600	10,412
Installment, revolving credit and other	25,518	7,440	455	1,023	34,436
Governments and official institutions	792	2,183	843	605	4,423
Lease financing	1	23	18	—	42
Total	$ 132,844	$ 42,239	$ 6,970	$ 2,630	$ 184,683
Corporate loans, net of unearned income[3]	$ 234,407	$ 103,283	$ 16,155	$ 42,686	$ 396,531
Loans at fixed interest rates[4]					
Commercial and industrial loans		$ 6,003	$ 752	$ 96	
Financial institutions		4,982	26	12	
Mortgage and real estate[2]		1,506	4,557	17,150	
Installment, revolving credit and other		4,481	856	92	
Lease financing		240	88	—	
Total		$ 17,212	$ 6,279	$ 17,350	
Loans at floating or adjustable interest rates[4]					
Commercial and industrial loans		$ 41,780	$ 4,871	$ 468	
Financial institutions		16,699	157	292	
Mortgage and real estate[2]		8,983	1,815	23,015	
Installment, revolving credit and other		18,597	3,015	1,561	
Lease financing		12	18	—	
Total		$ 86,071	$ 9,876	$ 25,336	
Total fixed/variable pricing of corporate loans with maturities due after one year, net of unearned income[3]		$ 103,283	$ 16,155	$ 42,686	

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.

(2) Loans secured primarily by real estate.

(3) Corporate loans are net of unearned income of ($799) million. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

(4) Based on contractual terms. Repricing characteristics may effectively be modified from time to time using derivative contracts. See Note 22 to the Consolidated Financial Statements.

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

In millions of dollars	December 31, 2021	2020	2019	2018	2017
Consumer loans					
In North America offices[1]					
Residential first mortgages[2]	**$ 43,813**	$ 47,778	$ 47,008	$ 47,412	$ 49,375
Home equity loans[2]	**5,101**	7,128	9,223	11,543	14,827
Credit cards	**133,868**	130,385	149,163	144,542	139,718
Personal, small business and other	**3,158**	4,509	3,699	4,046	4,140
Total	**$ 185,940**	$ 189,800	$ 209,093	$ 207,543	$ 208,060
In offices outside North America[1]					
Residential mortgages[2]	**$ 34,601**	$ 39,969	$ 38,024	$ 36,388	$ 37,870
Credit cards	**17,808**	22,692	25,909	24,951	25,727
Personal, small business and other	**32,887**	36,378	36,522	33,478	34,157
Total	**$ 85,296**	$ 99,039	$ 100,455	$ 94,817	$ 97,754
Consumer loans, net of unearned income[3]	**$ 271,236**	$ 288,839	$ 309,548	$ 302,360	$ 305,814
Corporate loans					
In North America offices[1]					
Commercial and industrial	**$ 51,999**	$ 57,731	$ 55,929	$ 60,861	$ 60,219
Financial institutions	**66,936**	55,809	53,922	48,447	39,128
Mortgage and real estate[2]	**63,357**	60,675	53,371	50,124	44,683
Installment and other	**29,143**	26,744	31,238	32,425	31,932
Lease financing	**413**	673	1,290	1,429	1,470
Total	**$ 211,848**	$ 201,632	$ 195,750	$ 193,286	$ 177,432
In offices outside North America[1]					
Commercial and industrial	**$ 103,167**	$ 104,072	$ 112,668	$ 114,029	$ 113,178
Financial institutions	**32,203**	32,334	40,211	36,837	35,273
Mortgage and real estate[2]	**10,412**	11,371	9,780	7,376	7,309
Installment and other	**34,436**	33,759	27,303	25,685	22,638
Lease financing	**42**	65	95	103	190
Governments and official institutions	**4,423**	3,811	4,128	4,520	5,200
Total	**$ 184,683**	$ 185,412	$ 194,185	$ 188,550	$ 183,788
Corporate loans, net of unearned income[4]	**$ 396,531**	$ 387,044	$ 389,935	$ 381,836	$ 361,220
Total loans—net of unearned income	**$ 667,767**	$ 675,883	$ 699,483	$ 684,196	$ 667,034
Allowance for credit losses on loans (ACLL)	**(16,455)**	(24,956)	(12,783)	(12,315)	(12,355)
Total loans—net of unearned income and ACLL	**$ 651,312**	$ 650,927	$ 686,700	$ 671,881	$ 654,679
ACLL as a percentage of total loans—net of unearned income[5]	**2.49 %**	3.73 %	1.84 %	1.81 %	1.86 %
ACLL for consumer loan losses as a percentage of total consumer loans—net of unearned income[5]	**5.02 %**	6.77 %	3.20 %	3.14 %	3.08 %
ACLL for corporate loan losses as a percentage of total corporate loans—net of unearned income[5]	**0.73 %**	1.42 %	0.75 %	0.74 %	0.82 %

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification of corporate loans between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.

(2) Loans secured primarily by real estate.

(3) Consumer loans are net of unearned income of $659 million, $749 million, $783 million, $742 million and $768 million at December 31, 2021, 2020, 2019, 2018 and 2017, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

(4) Corporate loans include private bank loans and are net of unearned income of $(799) million, $(844) million, $(814) million, $(855) million and $(794) million at December 31, 2021, 2020, 2019, 2018 and 2017, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

(5) Because loans carried at fair value do not have an ACLL, they are excluded from the ACLL ratio calculation.

Details of Credit Loss Experience

In millions of dollars	**2021**	2020	2019	2018	2017
Allowance for credit losses on loans (ACLL) at beginning of year	**$ 24,956**	$ 12,783	$ 12,315	$ 12,355	$ 12,060
Adjustments to opening balance:					
Financial instruments—credit losses (CECL)[1]	**—**	4,201	—	—	—
Variable post-charge-off third-party collection costs[2]	**—**	(443)	—	—	—
Adjusted ACLL at beginning of year	**$ 24,956**	$ 16,541	$ 12,315	$ 12,355	$ 12,060
Provision for credit losses on loans (PCLL)					
Consumer[2]	**(966)**	11,765	7,751	7,258	7,329
Corporate	**(2,137)**	4,157	467	96	174
Total	**$ (3,103)**	$ 15,922	$ 8,218	$ 7,354	$ 7,503
Gross credit losses on loans					
Consumer					
In U.S. offices	**$ 4,055**	$ 6,047	$ 6,538	$ 5,971	$ 5,664
In offices outside the U.S.	**2,143**	2,144	2,316	2,351	2,377
Corporate					
Commercial and industrial, and other					
In U.S. offices	**239**	562	265	121	223
In offices outside the U.S.	**256**	409	196	208	401
Loans to financial institutions					
In U.S. offices	**1**	14	—	3	3
In offices outside the U.S.	**1**	12	3	7	1
Mortgage and real estate					
In U.S. offices	**20**	71	23	2	2
In offices outside the U.S.	**5**	4	—	2	2
Total	**$ 6,720**	$ 9,263	$ 9,341	$ 8,665	$ 8,673
Credit recoveries on loans[2]					
Consumer					
In U.S. offices	**$ 1,204**	$ 1,106	$ 975	$ 912	$ 892
In offices outside the U.S.	**494**	460	503	502	552
Corporate					
Commercial and industrial, and other					
In U.S. offices	**67**	43	28	47	31
In offices outside the U.S.	**56**	28	59	78	117
Loans to financial institutions					
In U.S. offices	**3**	—	—	—	1
In offices outside the U.S.	**1**	14	—	3	1
Mortgage and real estate					
In U.S. offices	**—**	—	8	6	2
In offices outside the U.S.	**—**	1	—	4	1
Total	**$ 1,825**	$ 1,652	$ 1,573	$ 1,552	$ 1,597
Net credit losses on loans (NCLs)					
In U.S. offices	**$ 3,041**	$ 5,545	$ 5,815	$ 5,132	$ 4,966
In offices outside the U.S.	**1,854**	2,066	1,953	1,981	2,110
Total	**$ 4,895**	$ 7,611	$ 7,768	$ 7,113	$ 7,076
Other—net[3][4][5][6][7][8]	**$ (503)**	$ 104	$ 18	$ (281)	$ (132)
Allowance for credit losses on loans (ACLL) at end of year	**$ 16,455**	$ 24,956	$ 12,783	$ 12,315	$ 12,355
ACLL as a percentage of EOP loans[9]	**2.49 %**	3.73 %	1.84 %	1.81 %	1.86 %
Allowance for credit losses on unfunded lending commitments (ACLUC)[10][11]	**$ 1,871**	$ 2,655	$ 1,456	$ 1,367	$ 1,258

Total ACLL and ACLUC	**$**	**18,326**	$	27,611	$	14,239	$	13,682	$	13,613
Net consumer credit losses on loans	**$**	**4,500**	$	6,625	$	7,376	$	6,908	$	6,597
As a percentage of average consumer loans		**1.66 %**		2.32 %		2.49 %		2.33 %		2.22 %
Net corporate credit losses on loans	**$**	**395**	$	986	$	392	$	205	$	479
As a percentage of average corporate loans		**0.10 %**		0.25 %		0.10 %		0.05 %		0.14 %
ACLL by type at end of year(12)										
Consumer	**$**	**13,616**	$	19,554	$	9,897	$	9,504	$	9,412
Corporate		**2,839**		5,402		2,886		2,811		2,943
Total	**$**	**16,455**	$	24,956	$	12,783	$	12,315	$	12,355

(1) On January 1, 2020, Citi adopted Accounting Standards Codification (ASC) 326, *Financial Instruments—Credit Losses (CECL)*. The ASC introduces a new credit loss methodology requiring earlier recognition of credit losses while also providing additional disclosure about credit risk. On January 1, 2020, Citi recorded a $4.1 billion, or an approximate 29%, pretax increase in the Allowance for credit losses, along with a $3.1 billion after-tax decrease in Retained earnings and a deferred tax asset increase of $1.0 billion. This transition impact reflects (i) a $4.9 billion build to the consumer ACL due to longer estimated tenors than under the incurred loss methodology under prior U.S. GAAP, net of recoveries; and (ii) a $0.8 billion decrease to the corporate ACL due to shorter remaining tenors, incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies. See Note 1 to the Consolidated Financial Statements for further discussion on the impact of Citi's adoption of CECL.

(2) Citi had a change in accounting related to its variable post-charge-off third-party collection costs that was recorded as an adjustment to its January 1, 2020 opening allowance for credit losses on loans of $443 million. See Note 1 to the Consolidated Financial Statements.

(3) Includes all adjustments to the allowance for credit losses, such as changes in the allowance from acquisitions, dispositions, securitizations, FX translation, purchase accounting adjustments, etc.

(4) 2021 includes an approximate $280 million reclass related to Citi's agreement to sell its consumer banking business in Australia and an approximate $90 million reclass related to Citi's agreement to sell its consumer banking business in the Philippines. Those ACLL were reclassified to Other assets during 2021. 2021 also includes a decrease of approximately $134 million related to FX translation.

(5) 2020 includes reductions of approximately $4 million related to the transfer to HFS of various real estate loan portfolios. In addition, 2020 includes an increase of approximately $97 million related to FX translation.

(6) 2019 includes reductions of approximately $42 million related to the sale or transfer to HFS of various loan portfolios. In addition, 2019 includes a reduction of approximately $60 million related to FX translation.

(7) 2018 includes reductions of approximately $201 million related to the sale or transfer to HFS of various loan portfolios, which include approximately $106 million related to the transfer of various real estate loan portfolios to HFS. In addition, 2017 includes an increase of approximately $115 million related to FX translation.

(8) 2017 includes reductions of approximately $261 million related to the sale or transfer to HFS of various loan portfolios, which include approximately $106 million related to the transfer of various real estate loan portfolios to HFS. In addition, 2017 includes an increase of approximately $115 million related to FX translation.

(9) December 31, 2021, 2020, 2019, 2018 and 2017 exclude $6.1 billion, $6.9 billion, $4.1 billion, $3.2 billion and $4.4 billion, respectively, of loans which are carried at fair value.

(10) 2020 corporate ACLUC includes a non-provision transfer of $68 million, representing reserves on performance guarantees. The reserves on these contracts were reclassified out of the ACL on unfunded lending commitments and into other liabilities.

(11) Represents additional credit reserves recorded as *Other liabilities* on the Consolidated Balance Sheet.

(12) Beginning in 2020, under CECL, the ACLL represents management's estimate of expected credit losses in the portfolio and troubled debt restructurings. See "Significant Accounting Policies and Significant Estimates" and Note 1 to the Consolidated Financial Statements below. Attribution of the ACLL is made for analytical purposes only and the entire ACLL is available to absorb credit losses in the overall portfolio. Prior to 2020, the ACLL represented management's estimate of probable losses inherent in the portfolio, as well as probable losses related to large individually evaluated impaired loans and TDRs. See "Superseded Accounting Principles" in Note 1 to the Consolidated Financial Statements.

Allowance for Credit Losses on Loans (ACLL)

The following tables detail information on Citi's ACLL, loans and coverage ratios:

		December 31, 2021	
In billions of dollars	**ACLL**	**EOP loans, net of unearned income**	**ACLL as a percentage of EOP loans(1)**
Consumer			
North America cards(2)	$ 10.8	$ 133.8	8.1 %
North America mortgages(3)	0.2	48.9	0.4
North America other	0.3	3.2	9.4
International cards	1.2	17.8	6.7
International other(4)	1.2	67.5	1.8
Total	$ 13.7	$ 271.2	5.1 %
Corporate			
Commercial and industrial	$ 1.5	$ 151.1	1.0 %
Financial institutions	0.3	98.9	0.3
Mortgage and real estate	0.7	73.8	0.9
Installment and other	0.3	66.7	0.4
Total	$ 2.8	$ 390.5	0.7 %
Loans at fair value(1)	N/A	$ 6.1	N/A
Total Citigroup	$ 16.5	$ 667.8	2.5 %

(1) Loans carried at fair value do not have an ACLL and are excluded from the ACLL ratio calculation.
(2) Includes both branded cards and retail services. The $10.8 billion of loan loss reserves represented approximately 63 months of coincident net credit loss coverage. As of December 31, 2021, *North America* branded cards ACLL as a percentage of EOP loans was 7.1% and *North America* retail services ACLL as a percentage of EOP loans was 10.0%.
(3) Of the $0.2 billion, approximately $0.1 billion and $0.1 billion determined in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. Of the $48.9 billion in loans, approximately $47.5 billion and $1.4 billion of the loans were evaluated in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. For additional information, see Note 15 to the Consolidated Financial Statements.
(4) Includes mortgages and other retail loans.

		December 31, 2020	
In billions of dollars	ACLL	EOP loans, net of unearned income	ACLL as a percentage of EOP loans(1)
Consumer			
North America cards(2)	$ 14.7	$ 130.4	11.3 %
North America mortgages(3)	0.7	54.9	1.3
North America other	0.3	4.5	6.7
International cards	2.1	22.7	9.3
International other(4)	1.8	76.3	2.4
Total	$ 19.6	$ 288.8	6.8 %
Corporate			
Commercial and industrial	$ 3.6	$ 156.3	2.3 %
Financial institutions	0.4	87.7	0.5
Mortgage and real estate	1.1	72.1	1.5
Installment and other	0.3	64.1	0.5
Total	$ 5.4	$ 380.2	1.4 %
Loans at fair value(1)	N/A	$ 6.9	N/A
Total Citigroup	$ 25.0	$ 675.9	3.7 %

(1) Loans carried at fair value do not have an ACLL and are excluded from the ACLL ratio calculation.
(2) Includes both branded cards and retail services. The $14.7 billion of loan loss reserves represented approximately 53 months of coincident net credit loss coverage. As of December 31, 2020, *North America* branded cards ACLL as a percentage of EOP loans was 10.0% and *North America* retail services ACLL as a percentage of EOP loans was 13.6%.
(3) Of the $0.7 billion, nearly all was allocated to *North America* mortgages in *Corporate/Other*, including approximately $0.5 billion and $0.2 billion determined in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. Of the $54.9 billion in loans, approximately $53.0 billion and $1.9 billion of the loans were evaluated in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. For additional information, see Note 15 to the Consolidated Financial Statements.
(4) Includes mortgages and other retail loans.

The following table details Citi's corporate credit allowance for credit losses on loans (ACLL) by industry exposure as of December 31, 2021:

In millions of dollars, except percentages	Funded exposure(1)	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 51,502	$ 597	1.16 %
Private bank	79,684	145	0.18
Consumer retail	32,894	288	0.88
Technology, media and telecom	28,542	170	0.60
Real estate	46,220	509	1.10
Power, chemicals, metals and mining	20,224	151	0.75
Banks and finance companies	36,804	197	0.54
Energy and commodities	13,485	268	1.99
Health	8,826	73	0.83
Public sector	12,464	74	0.59
Insurance	3,162	8	0.25
Asset managers and funds	6,649	34	0.51
Financial markets infrastructure	109	—	—
Securities firms	613	10	1.63
Other industries	2,802	28	1.00
Total classifiably managed loans(2)	$ 343,980	$ 2,552	0.74 %
Loans managed on a delinquency basis(3)	$ 46,481	$ 287	0.62 %
Total	$ 390,461	$ 2,839	0.73 %

(1) Funded exposure excludes loans carried at fair value of $6.1 billion that are not subject to ACLL under the CECL standard.
(2) As of December 31, 2021, the ACLL shown above reflects coverage of 0.4% of funded investment-grade exposure and 2.3% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed private bank loans including non-rated mortgage and real estate loans to private banking clients at December 31, 2021.

The following table details Citi's corporate credit allowance for credit losses on loans (ACLL) by industry exposure as of December 31, 2020:

In millions of dollars, except percentages	Funded exposure(1)	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 58,352	$ 1,558	2.67 %
Private bank	75,693	224	0.30
Consumer retail	34,621	563	1.63
Technology, media and telecom	29,821	407	1.36
Real estate	42,711	718	1.68
Power, chemicals, metals and mining	20,156	312	1.55
Banks and finance companies	29,570	219	0.74
Energy and commodities	14,009	523	3.73
Health	8,575	144	1.68
Public sector	13,416	172	1.28
Insurance	1,925	7	0.36
Asset managers and funds	4,491	22	0.49
Financial markets infrastructure	229	—	—
Securities firms	430	10	2.33
Other industries	4,247	122	2.87
Total classifiably managed loans(2)	$ 338,246	$ 5,001	1.48 %
Loans managed on a delinquency basis(3)	$ 41,958	$ 401	0.96 %
Total	$ 380,204	$ 5,402	1.42 %

(1) Funded exposure excludes loans carried at fair value of $6.8 billion that are not subject to ACLL under the CECL standard.
(2) As of December 31, 2021, the ACLL shown above reflects coverage of 0.5% of funded investment-grade exposure and 4.4% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed private bank loans including non-rated mortgage and real estate loans to private banking clients at December 31, 2020.

Non-Accrual Loans and Assets and Renegotiated Loans
There is a certain amount of overlap among non-accrual loans and assets and renegotiated loans. The following summary provides a general description of each category.

***Non-Accrual Loans and Assets*:**

- Corporate and consumer (including commercial banking) non-accrual status is based on the determination that payment of interest or principal is doubtful.
- A corporate loan may be classified as non-accrual and still be performing under the terms of the loan structure. Non-accrual loans may still be current on interest payments. Citi's corporate non-accrual loans were $1.9 billion, $2.4 billion and $3.5 billion as of December 31, 2021, September 30, 2021 and December 31, 2020, respectively. Of these, approximately 54%, 56% and 59% were performing at December 31, 2021, September 30, 2021 and December 31, 2020, respectively.
- Consumer non-accrual status is generally based on aging, i.e., the borrower has fallen behind on payments.
- Consumer mortgage loans, other than Federal Housing Administration (FHA) insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy. In addition, home equity loans are classified as non-accrual if the related residential first mortgage loan is 90 days or more past due.
- *North America* branded cards and retail services are not included because, under industry standards, credit card loans accrue interest until such loans are charged off, which typically occurs at 180 days of contractual delinquency.

***Renegotiated Loans*:**

- Includes both corporate and consumer loans whose terms have been modified in a troubled debt restructuring (TDR).
- Includes both accrual and non-accrual TDRs.

Non-Accrual Loans

The table below summarizes Citigroup's non-accrual loans as of the periods indicated. Non-accrual loans may still be current on interest payments. In situations where Citi reasonably expects that only a portion of the principal owed will ultimately be collected, all payments received are reflected as a reduction of principal and not as interest income. For all other non-accrual loans, cash interest receipts are generally recorded as revenue.

	December 31,				
In millions of dollars	**2021**	2020	2019	2018	2017
Corporate non-accrual loans[1]					
North America	**$ 801**	$ 1,928	$ 1,214	$ 586	$ 966
EMEA	**399**	661	430	375	849
Latin America	**568**	719	473	307	348
Asia	**109**	219	71	243	70
Total corporate non-accrual loans	**$ 1,877**	$ 3,527	$ 2,188	$ 1,511	$ 2,233
Consumer non-accrual loans[1]					
North America	**$ 759**	$ 1,059	$ 905	$ 1,138	$ 1,468
Latin America	**524**	774	632	638	688
Asia[2]	**219**	308	279	250	243
Total consumer non-accrual loans	**$ 1,502**	$ 2,141	$ 1,816	$ 2,026	$ 2,399
Total non-accrual loans	**$ 3,379**	$ 5,668	$ 4,004	$ 3,537	$ 4,632

(1) For years prior to 2020, excludes purchased credit-deteriorated loans, as they are generally accruing interest. The carrying value of these loans was $128 million at December 31, 2019, $128 million at December 31, 2018 and $167 million at December 31, 2017.

(2) *Asia GCB* includes balances in certain *EMEA* countries for all periods presented.

The changes in Citigroup's non-accrual loans were as follows:

	Year ended December 31, 2021			Year ended December 31, 2020		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
Non-accrual loans at beginning of year	**$ 3,527**	**$ 2,141**	**$ 5,668**	$ 2,188	$ 1,816	$ 4,004
Additions	**1,708**	**2,018**	**3,726**	5,103	2,829	7,932
Sales and transfers to HFS	**(405)**	**(199)**	**(604)**	(2)	(95)	(97)
Returned to performing	**(217)**	**(615)**	**(832)**	(157)	(389)	(546)
Paydowns/settlements	**(2,215)**	**(630)**	**(2,845)**	(3,117)	(677)	(3,794)
Charge-offs	**(493)**	**(1,180)**	**(1,673)**	(446)	(1,132)	(1,578)
Other	**(28)**	**(33)**	**(61)**	(42)	(211)	(253)
Ending balance	**$ 1,877**	**$ 1,502**	**$ 3,379**	$ 3,527	$ 2,141	$ 5,668

The table below summarizes Citigroup's other real estate owned (OREO) assets. OREO is recorded on the Consolidated Balance Sheet within *Other assets.* This represents the carrying value of all real estate property acquired by foreclosure or other legal proceedings when Citi has taken possession of the collateral:

	December 31,				
In millions of dollars	**2021**	2020	2019	2018	2017
OREO					
North America	**$ 15**	$ 19	$ 39	$ 64	$ 89
EMEA	**—**	—	1	1	2
Latin America	**8**	7	14	12	35
Asia	**4**	17	7	22	18
Total OREO	**$ 27**	$ 43	$ 61	$ 99	$ 144
Non-accrual assets					
Corporate non-accrual loans	**$ 1,877**	$ 3,527	$ 2,188	$ 1,511	$ 2,233
Consumer non-accrual loans	**1,502**	2,141	1,816	2,026	2,399
Non-accrual loans (NAL)	**$ 3,379**	$ 5,668	$ 4,004	$ 3,537	$ 4,632
OREO	**$ 27**	$ 43	$ 61	$ 99	$ 144
Non-accrual assets (NAA)	**$ 3,406**	$ 5,711	$ 4,065	$ 3,636	$ 4,776
NAL as a percentage of total loans	**0.51 %**	0.84 %	0.57 %	0.52 %	0.69 %
NAA as a percentage of total assets	**0.15**	0.25	0.21	0.19	0.26
ACLL as a percentage of NAL(1)	**487**	440	319	348	267

(1) The ACLL includes the allowance for Citi's credit card portfolios and purchased distressed loans, while the non-accrual loans exclude credit card balances (with the exception of certain international portfolios) and, prior to 2020, include purchased credit-deteriorated loans as these continue to accrue interest until charge-off.

Renegotiated Loans

The following table presents Citi's loans modified in TDRs:

In millions of dollars	Dec. 31, 2021	Dec. 31, 2020
Corporate renegotiated loans[(1)]		
In U.S. offices		
Commercial and industrial[(2)]	**$ 103**	$ 193
Mortgage and real estate	**51**	60
Financial institutions	**—**	—
Other	**32**	30
Total	**$ 186**	$ 283
In offices outside the U.S.		
Commercial and industrial[(2)]	**$ 133**	$ 132
Mortgage and real estate	**22**	32
Financial institutions	**—**	—
Other	**9**	3
Total	**$ 164**	$ 167
Total corporate renegotiated loans	**$ 350**	$ 450
Consumer renegotiated loans[(3)]		
In U.S. offices		
Mortgage and real estate	**$ 1,422**	$ 1,904
Cards	**1,269**	1,449
Installment and other	**26**	33
Total	**$ 2,717**	$ 3,386
In offices outside the U.S.		
Mortgage and real estate	**$ 223**	$ 361
Cards	**313**	533
Installment and other	**428**	519
Total	**$ 964**	$ 1,413
Total consumer renegotiated loans	**$ 3,681**	$ 4,799

(1) Includes $321 million and $415 million of non-accrual loans included in the non-accrual loans table above at December 31, 2021 and 2020, respectively. The remaining loans were accruing interest.

(2) In addition to modifications reflected as TDRs at December 31, 2021 and 2020, Citi also modified none and $47 million, respectively, of commercial loans risk rated "Substandard Non-Performing" or worse (asset category defined by banking regulators) in offices outside the U.S. These modifications were not considered TDRs because the modifications did not involve a concession or because the modifications qualified for exemptions from TDR accounting provided by the CARES Act or the interagency guidance.

(3) Includes $627 million and $873 million of non-accrual loans included in the non-accrual loans table above at December 31, 2021 and 2020, respectively. The remaining loans were accruing interest.

Forgone Interest Revenue on Loans[(1)]

In millions of dollars	In U.S. offices	In non-U.S. offices	2021 total
Interest revenue that would have been accrued at original contractual rates[(2)]	$ 343	$ 346	$ 689
Amount recognized as interest revenue[(2)]	166	189	355
Forgone interest revenue	**$ 177**	**$ 157**	**$ 334**

(1) Relates to corporate non-accrual loans, renegotiated loans and consumer loans on which accrual of interest has been suspended.

(2) Interest revenue in offices outside the U.S. may reflect prevailing local interest rates, including the effects of inflation and monetary correction in certain countries.

LIQUIDITY RISK

Overview

Adequate and diverse sources of funding and liquidity are essential to Citi's businesses. Funding and liquidity risks arise from several factors, many of which are mostly or entirely outside Citi's control, such as disruptions in the financial markets, changes in key funding sources, credit spreads, changes in Citi's credit ratings and macroeconomic, geopolitical and other conditions. For additional information, see "Risk Factors—Liquidity Risks" above.

Citi's funding and liquidity management objectives are aimed at (i) funding its existing asset base, (ii) growing its core businesses, (iii) maintaining sufficient liquidity, structured appropriately, so that Citi can operate under a variety of adverse circumstances, including potential Company-specific and/or market liquidity events in varying durations and severity, and (iv) satisfying regulatory requirements, including, among other things, those related to resolution planning (for additional information, see "Resolution Plan" and "Total Loss-Absorbing Capacity (TLAC)" below). Citigroup's primary liquidity objectives are established by entity, and in aggregate, across two major categories:

- Citibank (including Citibank Europe plc, Citibank Singapore Ltd. and Citibank (Hong Kong) Ltd.); and
- Citi's non-bank and other entities, including the parent holding company (Citigroup Inc.), Citi's primary intermediate holding company (Citicorp LLC), Citi's broker-dealer subsidiaries (including Citigroup Global Markets Inc., Citigroup Global Markets Limited. and Citigroup Global Markets Japan Inc.) and other bank and non-bank subsidiaries that are consolidated into Citigroup (including Citibanamex).

At an aggregate Citigroup level, Citi's goal is to maintain sufficient funding in amount and tenor to fully fund customer assets and to provide an appropriate amount of cash and high-quality liquid assets (as discussed below), even in times of stress, in order to meet its payment obligations as they come due. The liquidity risk management framework provides that in addition to the aggregate requirements, certain entities be self-sufficient or net providers of liquidity, including in conditions established under their designated stress tests.

Citi's primary funding sources include (i) corporate and consumer deposits via Citi's bank subsidiaries, including Citibank, N.A. (Citibank), (ii) long-term debt (primarily senior and subordinated debt) mainly issued by Citigroup Inc., as the parent, and Citibank, and (iii) stockholders' equity. These sources may be supplemented by short-term borrowings, primarily in the form of secured funding transactions.

As referenced above, Citi's funding and liquidity framework ensures that the tenor of these funding sources is of sufficient term in relation to the tenor of its asset base. The goal of Citi's asset/liability management is to ensure that there is sufficient liquidity and tenor in the liability structure relative to the liquidity profile of the assets. This reduces the risk that liabilities will become due before assets mature or are monetized. This excess liquidity is held primarily in the form of high-quality liquid assets (HQLA), as set forth in the table below.

Citi's liquidity is managed via a centralized treasury model by Treasury, in conjunction with regional and in-country treasurers with oversight provided by Independent Risk Management and various Asset & Liability Committees (ALCOs) at the Citigroup, region, country and business levels. Pursuant to this approach, Citi's HQLA is managed with emphasis on asset-liability management and entity-level liquidity adequacy throughout Citi.

Citi's CRO and Chief Financial Officer co-chair Citigroup's ALCO, which includes Citi's Treasurer and other senior executives. The ALCO sets the strategy of the liquidity portfolio and monitors portfolio performance (for additional information about the ALCO, see "Risk Governance—Board and Executive Management Committees" above). Significant changes to portfolio asset allocations are approved by the ALCO. Citi also has other ALCOs, which are established at various organizational levels to ensure appropriate oversight for countries, franchise businesses and regions, serving as the primary governance committees for managing Citi's balance sheet and liquidity.

As a supplement to ALCO, Citi's Funding and Liquidity Risk Committee (FLRC) is a more focused assembly for funding and liquidity risk matters. The FLRC reviews and discusses the funding and liquidity risk profile of, as well as risk management practices for Citigroup and Citibank and reports its findings and recommendations to each relevant ALCO as appropriate.

Liquidity Monitoring and Measurement

Stress Testing

Liquidity stress testing is performed for each of Citi's major entities, operating subsidiaries and/or countries. Stress testing and scenario analyses are intended to quantify the potential impact of an adverse liquidity event on the balance sheet and liquidity position, and to identify viable funding alternatives that can be utilized. These scenarios include assumptions about significant changes in key funding sources, market triggers (such as credit ratings), potential uses of funding and macroeconomic, geopolitical and other conditions. These conditions include expected and stressed market conditions as well as Company-specific events.

Liquidity stress tests are performed to ascertain potential mismatches between liquidity sources and uses over a variety of time horizons and over different stressed conditions. To monitor the liquidity of an entity, these stress tests and potential mismatches are calculated with varying frequencies, with several tests performed daily.

Given the range of potential stresses, Citi maintains contingency funding plans on a consolidated basis and for individual entities. These plans specify a wide range of readily available actions for a variety of adverse market conditions or idiosyncratic stresses.

High-Quality Liquid Assets (HQLA)

In billions of dollars	Citibank Dec. 31, 2021	Citibank Sept. 30, 2021	Citibank Dec. 31, 2020	Citi non-bank and other entities Dec. 31, 2021	Citi non-bank and other entities Sept. 30, 2021	Citi non-bank and other entities Dec. 31, 2020	Total Dec. 31, 2021	Total Sept. 30, 2021	Total Dec. 31, 2020
Available cash	**$ 253.6**	$ 255.1	$ 304.3	**$ 2.6**	$ 3.5	$ 2.1	**$ 256.2**	$ 258.6	$ 306.4
U.S. sovereign	**119.6**	108.9	77.8	**63.1**	64.3	64.8	**182.7**	173.2	142.6
U.S. agency/agency MBS	**45.0**	45.3	31.8	**5.7**	6.0	6.5	**50.7**	51.3	38.3
Foreign government debt[(1)]	**48.9**	50.2	39.6	**13.6**	11.2	16.2	**62.5**	61.4	55.8
Other investment grade	**1.6**	1.8	1.2	**0.8**	0.3	0.5	**2.4**	2.1	1.7
Total HQLA (AVG)	**$ 468.7**	$ 461.2	$ 454.7	**$ 85.8**	$ 85.3	$ 90.1	**$ 554.5**	$ 546.5	$ 544.8

Note: The amounts set forth in the table above are presented on an average basis. For securities, the amounts represent the liquidity value that potentially could be realized and, therefore, exclude any securities that are encumbered and incorporate any haircuts applicable under the U.S. LCR rule. The table above incorporates various restrictions that could limit the transferability of liquidity between legal entities, including Section 23A of the Federal Reserve Act.

(1) Foreign government debt includes securities issued or guaranteed by foreign sovereigns, agencies and multilateral development banks. Foreign government debt securities are held largely to support local liquidity requirements and Citi's local franchises and principally include government bonds from Japan, Mexico, South Korea, India and Hong Kong.

The table above includes average amounts of HQLA held at Citigroup's operating entities that are eligible for inclusion in the calculation of Citigroup's consolidated Liquidity Coverage ratio (LCR), pursuant to the U.S. LCR rules. These amounts include the HQLA needed to meet the minimum requirements at these entities and any amounts in excess of these minimums that are assumed to be transferable to other entities within Citigroup. Citigroup's HQLA increased quarter-over-quarter as of the fourth quarter of 2021, primarily reflecting an increase in deposits.

As of December 31, 2021, Citigroup had $961 billion of available liquidity resources to support client and business needs, including end-of-period HQLA assets; additional unencumbered securities, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi's HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Short-Term Liquidity Measurement: Liquidity Coverage Ratio (LCR)

In addition to internal 30-day liquidity stress testing performed for Citi's major entities, operating subsidiaries and countries, Citi also monitors its liquidity by reference to the LCR.

The LCR is calculated by dividing HQLA by estimated net outflows assuming a stressed 30-day period, with the net outflows determined by standardized stress outflow and inflow rates prescribed in the LCR rule. The outflows are partially offset by contractual inflows from assets maturing within 30 days. Similar to outflows, the inflows are calculated based on prescribed factors to various assets categories, such as retail loans as well as unsecured and secured wholesale lending. The minimum LCR requirement is 100%.

The table below details the components of Citi's LCR calculation and HQLA in excess of net outflows for the periods indicated:

In billions of dollars	Dec. 31, 2021	Sept. 30, 2021	Dec. 31, 2020
HQLA	**$ 554.5**	$ 546.5	$ 544.8
Net outflows	**482.9**	474.8	460.7
LCR	**115 %**	115 %	118 %
HQLA in excess of net outflows	**$ 71.6**	$ 71.7	$ 84.1

Note: The amounts are presented on an average basis.

As of December 31, 2021, Citi's average LCR was unchanged sequentially, as Citi's average HQLA and net outflows increased proportionately.

Long-Term Liquidity Measurement: Net Stable Funding Ratio (NSFR)

As previously disclosed, in October 2020, the U.S. banking agencies adopted a final rule to assess the availability of a bank's stable funding against a required level.

In general, a bank's available stable funding includes portions of equity, deposits and long-term debt, while its required stable funding will be based on the liquidity characteristics of its assets, derivatives and commitments. Standardized weightings are required to be applied to the various asset and liabilities classes. The ratio of available stable funding to required stable funding is required to be greater than 100%.

The final rule became effective beginning July 1, 2021, while public disclosure requirements to report the ratio will occur on a semiannual basis beginning June 30, 2023. Citi was in compliance with the final rule as of December 31, 2021.

Loans

As part of its funding and liquidity objectives, Citi seeks to fund its existing asset base appropriately as well as maintain sufficient liquidity to grow its *GCB* and *ICG* businesses, including its loan portfolio. Citi maintains a diversified portfolio of loans to its consumer and institutional clients. The table below details the average loans, by business and/or segment, and the total end-of-period loans for each of the periods indicated:

In billions of dollars	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Global Consumer Banking			
North America	**$ 176.8**	$ 173.8	$ 179.4
Latin America	**13.0**	13.2	14.3
Asia(1)	**72.5**	75.9	82.4
Total	**$ 262.3**	$ 262.9	$ 276.1
Institutional Clients Group			
Corporate lending	**$ 127.5**	$ 129.2	$ 146.2
Treasury and trade solutions (TTS)	**76.3**	73.7	67.1
Private bank	**124.5**	125.9	113.3
Markets and securities services and other	**72.5**	72.0	56.1
Total	**$ 400.8**	$ 400.8	$ 382.7
Total *Corporate/Other*	**$ 4.3**	$ 4.7	$ 7.4
Total Citigroup loans (AVG)	**$ 667.4**	$ 668.5	$ 666.2
Total Citigroup loans (EOP)	**$ 667.8**	$ 664.8	$ 676.1

(1) Includes loans in certain *EMEA* countries for all periods presented.

As of the fourth quarter of 2021, end-of period loans declined 1% year-over-year and were largely unchanged quarter-over-quarter.

On an average basis, loans were largely unchanged both year-over-year and sequentially. Excluding the impact of FX translation, average loans increased 1% year-over-year and were largely unchanged sequentially. On this basis, average *GCB* loans declined 4% year-over-year, primarily reflecting the reclassification of loans to held-for-sale as a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines.

Excluding the impact of FX translation, average *ICG* loans increased 5% year-over-year. Loans in corporate lending declined 12% on an average basis, reflecting net repayments as Citi continued to assist its clients in accessing the capital markets, as well as lower demand. Private bank loans increased 10%, largely driven by increased secured lending to high-net-worth clients. *Markets and securities services* loans increased 29%, reflecting an increase in securitization financing. TTS loans increased 15%, reflecting an increase in trade flows and originations.

Average *Corporate/Other* loans continued to decline (down 46%), driven by the wind-down of legacy assets.

Deposits

The table below details the average deposits, by business and/or segment, and the total end-of-period deposits for each of the periods indicated:

In billions of dollars	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Global Consumer Banking(1)			
North America	**$ 214.0**	$ 208.4	$ 188.9
Latin America	**23.8**	24.2	24.3
Asia(2)	**117.2**	120.7	120.0
Total	**$ 355.0**	$ 353.3	$ 333.2
Institutional Clients Group			
Treasury and trade solutions (TTS)	**$ 690.6**	$ 674.8	$ 686.5
Banking ex-TTS	**188.2**	179.5	163.2
Markets and securities services	**129.3**	127.2	109.3
Total	**$ 1,008.1**	$ 981.6	$ 959.0
Corporate/Other	**$ 7.2**	$ 8.2	$ 13.1
Total Citigroup deposits (AVG)	**$ 1,370.3**	$ 1,343.0	$ 1,305.3
Total Citigroup deposits (EOP)	**$ 1,317.2**	$ 1,347.5	$ 1,280.7

(1) Reflects deposits within retail banking.
(2) Includes deposits in certain *EMEA* countries for all periods presented.

End-of-period deposits increased 3% year-over-year and declined 2% sequentially.

As of the fourth quarter of 2021, on an average basis, deposits increased 5% year-over-year and 2% sequentially. Excluding the impact of FX translation, average deposits grew 6% from the prior-year period and 3% sequentially. The year-over-year increase reflected continued client engagement as well as the elevated level of liquidity in the financial system. Excluding the impact of FX translation, average deposits in *GCB* increased 7%, with continued strong growth in *North America*.

Excluding the impact of FX translation, average deposits in *ICG* grew 6% year-over-year, with strong growth in the private bank and securities services.

Long-Term Debt

Long-term debt (generally defined as debt with original maturities of one year or more) represents the most significant component of Citi's funding for the Citigroup parent company and Citi's non-bank subsidiaries and is a supplementary source of funding for the bank entities.

Long-term debt is an important funding source due in part to its multiyear contractual maturity structure. The weighted-average maturity of unsecured long-term debt issued by Citigroup and its affiliates (including Citibank) with a remaining life greater than one year was approximately 8.6 years as of December 31, 2021, unchanged from the prior quarter and the prior year. The weighted-average maturity is calculated based on the contractual maturity of each security. For securities that are redeemable prior to maturity at the option of the holder, the weighted-average maturity is calculated based on the earliest date an option becomes exercisable.

Citi's long-term debt outstanding at the Citigroup parent company includes benchmark senior and subordinated debt and what Citi refers to as customer-related debt, consisting of structured notes, such as equity- and credit-linked notes, as well as non-structured notes. Citi's issuance of customer-related debt is generally driven by customer demand and complements benchmark debt issuance as a source of funding for Citi's non-bank entities. Citi's long-term debt at the bank includes Citibank benchmark senior debt, FHLB borrowings and securitizations.

Long-Term Debt Outstanding

The following table sets forth Citi's end-of-period total long-term debt outstanding for each of the dates indicated:

In billions of dollars	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Non-bank[1]			
Benchmark debt:			
Senior debt	**$ 117.8**	$ 123.9	$ 126.2
Subordinated debt	**25.7**	26.0	27.1
Trust preferred	**1.7**	1.7	1.7
Customer-related debt	**78.3**	74.7	65.2
Local country and other[2]	**7.3**	7.2	6.7
Total non-bank	**$ 230.8**	$ 233.5	$ 226.9
Bank			
FHLB borrowings	**$ 5.3**	$ 5.8	$ 10.9
Securitizations[3]	**9.6**	11.0	16.6
Citibank benchmark senior debt	**3.6**	3.6	13.6
Local country and other[2]	**5.1**	4.3	3.6
Total bank	**$ 23.6**	$ 24.7	$ 44.7
Total long-term debt	**$ 254.4**	$ 258.2	$ 271.7

Note: Amounts represent the current value of long-term debt on Citi's Consolidated Balance Sheet that, for certain debt instruments, includes consideration of fair value, hedging impacts and unamortized discounts and premiums.

(1) Non-bank includes long-term debt issued to third parties by the parent holding company (Citigroup) and Citi's non-bank subsidiaries (including broker-dealer subsidiaries) that are consolidated into Citigroup. As of December 31, 2021, non-bank included $65.9 billion of long-term debt issued by Citi's broker-dealer and other subsidiaries, as well as certain Citigroup consolidated hedging activities.

(2) Local country and other includes debt issued by Citi's affiliates in support of their local operations. Within non-bank, certain secured financing is also included. Within bank, borrowings under certain U.S. government-sponsored liquidity programs are also included.

(3) Predominantly credit card securitizations, primarily backed by branded credit card receivables.

As of the fourth quarter of 2021, Citi's total long-term debt outstanding decreased year-over-year, primarily driven by declines in unsecured benchmark senior debt at the non-bank entities and the bank, as well as securitizations and FHLB borrowings at the bank. The decrease in total long-term debt was partially offset by the issuance of customer-related debt at the non-bank entities. Sequentially, long-term debt outstanding decreased, driven primarily by decreases in unsecured benchmark senior debt at the non-bank entities and securitizations at the bank, partially offset by the issuance of customer-related debt at the non-bank entities.

As part of its liability management, Citi also has considered, and may continue to consider, opportunities to redeem or repurchase its long-term debt pursuant to open market purchases, tender offers or other means. Such redemptions and repurchases help reduce Citi's overall funding costs. During 2021, Citi redeemed or repurchased an aggregate of approximately $33.8 billion of its outstanding long-term debt.

Long-Term Debt Issuances and Maturities

The table below details Citi's long-term debt issuances and maturities (including repurchases and redemptions) during the periods presented:

	2021		2020		2019	
In billions of dollars	**Maturities**	**Issuances**	Maturities	Issuances	Maturities	Issuances
Non-bank						
Benchmark debt:						
Senior debt	**$ 17.6**	**$ 15.4**	$ 6.5	$ 20.4	$ 16.5	$ 16.2
Subordinated debt	**—**	**—**	—	—	—	—
Trust preferred	**—**	**—**	—	—	—	—
Customer-related debt	**31.2**	**48.7**	27.7	36.8	12.7	25.1
Local country and other	**3.3**	**3.6**	2.4	1.4	1.1	5.4
Total non-bank	**$ 52.1**	**$ 67.7**	$ 36.6	$ 58.6	$ 30.3	$ 46.7
Bank						
FHLB borrowings	**$ 5.7**	**$ —**	$ 7.5	$ 12.9	$ 7.1	$ 2.1
Securitizations	**6.1**	**—**	4.6	0.3	7.9	0.1
Citibank benchmark senior debt	**9.8**	**—**	9.8	—	4.8	8.8
Local country and other	**1.2**	**2.9**	4.9	4.6	0.9	1.4
Total bank	**$ 22.8**	**$ 2.9**	$ 26.8	$ 17.8	$ 20.7	$ 12.4
Total	**$ 74.9**	**$ 70.6**	$ 63.4	$ 76.4	$ 51.0	$ 59.1

The table below shows Citi's aggregate long-term debt maturities (including repurchases and redemptions) in 2021, as well as its aggregate expected remaining long-term debt maturities by year as of December 31, 2021:

	Maturities							
In billions of dollars	**2021**	2022	2023	2024	2025	2026	Thereafter	Total
Non-bank								
Benchmark debt:								
Senior debt	**$ 17.6**	$ 8.2	$ 12.6	$ 11.0	$ 10.7	$ 18.2	$ 57.1	$ 117.8
Subordinated debt	**—**	0.8	1.3	1.0	5.2	2.6	14.8	25.7
Trust preferred	**—**	—	—	—	—	—	1.7	1.7
Customer-related debt	**31.2**	11.9	10.2	8.5	4.9	5.5	37.3	78.3
Local country and other	**3.3**	2.3	2.2	0.1	—	0.7	1.8	7.3
Total non-bank	**$ 52.1**	$ 23.2	$ 26.3	$ 20.6	$ 20.8	$ 27.0	$ 112.7	$ 230.8
Bank								
FHLB borrowings	**$ 5.7**	$ 5.3	$ —	$ —	$ —	$ —	$ —	$ 5.3
Securitizations	**6.1**	2.1	3.3	1.4	0.4	—	2.4	9.6
Citibank benchmark senior debt	**9.8**	0.9	—	2.7	—	—	—	3.6
Local country and other	**1.2**	1.5	0.9	0.9	0.1	0.1	1.6	5.1
Total bank	**$ 22.8**	$ 9.8	$ 4.2	$ 5.0	$ 0.5	$ 0.1	$ 4.0	$ 23.6
Total long-term debt	**$ 74.9**	$ 33.0	$ 30.5	$ 25.6	$ 21.3	$ 27.1	$ 116.7	$ 254.4

Resolution Plan

Citi is required under Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) and the rules promulgated by the FDIC and Federal Reserve Board to periodically submit a plan for Citi's rapid and orderly resolution under the U.S. Bankruptcy Code in the event of material financial distress or failure.

On December 17, 2019, the Federal Reserve Board and FDIC issued feedback on the resolution plans filed on July 1, 2019 by the eight U.S. Global Systemically Important Banks, including Citigroup. The Federal Reserve Board and FDIC identified one shortcoming, but no deficiencies, in Citigroup's resolution plan relating to governance mechanisms. Based on regulatory changes effective December 31, 2019, Citigroup's 2021 resolution plan submission, which was filed on July 1, 2021 was a targeted resolution plan, only including a subset of the information of a full resolution plan and additional information, identified by the Federal Reserve Board and FDIC on July 1, 2020. Citigroup will alternate between submitting a full resolution plan and a targeted resolution plan on a biennial cycle. For additional information on Citi's resolution plan submissions, see "Risk Factors—Strategic Risks" above. Citigroup's preferred resolution strategy is "single point of entry" under the U.S. Bankruptcy Code.

Under Citi's preferred "single point of entry" resolution plan strategy, only Citigroup, the parent holding company, would enter into bankruptcy, while Citigroup's material legal entities (as defined in the public section of its 2021 resolution plan, which can be found on the Federal Reserve Board's and FDIC's websites) would remain operational outside of any resolution or insolvency proceedings. Citigroup's resolution plan has been designed to minimize the risk of systemic impact to the U.S. and global financial systems, while maximizing the value of the bankruptcy estate for the benefit of Citigroup's creditors, including its unsecured long-term debt holders.

In addition, in line with the Federal Reserve Board's final total loss-absorbing capacity (TLAC) rule, Citigroup believes it has developed the resolution plan so that Citigroup's shareholders and unsecured creditors—including its unsecured long-term debt holders—bear any losses resulting from Citigroup's bankruptcy. Accordingly, any value realized by holders of its unsecured long-term debt may not be sufficient to repay the amounts owed to such debt holders in the event of a bankruptcy or other resolution proceeding of Citigroup.

The FDIC has also indicated that it was developing a single point of entry strategy to implement the Orderly Liquidation Authority under Title II of the Dodd-Frank Act, which provides the FDIC with the ability to resolve a firm when it is determined that bankruptcy would have serious adverse effects on financial stability in the U.S.

As previously disclosed, in response to feedback received from the Federal Reserve Board and FDIC, Citigroup took the following actions:

(i) Citicorp LLC (Citicorp), an existing wholly owned subsidiary of Citigroup, was established as an intermediate holding company (an IHC) for certain of Citigroup's operating material legal entities;

(ii) Citigroup executed an inter-affiliate agreement with Citicorp, Citigroup's operating material legal entities and certain other affiliated entities pursuant to which Citicorp is required to provide liquidity and capital support to Citigroup's operating material legal entities in the event Citigroup were to enter bankruptcy proceedings (Citi Support Agreement);

(iii) pursuant to the Citi Support Agreement:

- Citigroup made an initial contribution of assets, including certain high-quality liquid assets and inter-affiliate loans (Contributable Assets), to Citicorp, and Citicorp became the business-as-usual funding vehicle for Citigroup's operating material legal entities;
- Citigroup will be obligated to continue to transfer Contributable Assets to Citicorp over time, subject to certain amounts retained by Citigroup to, among other things, meet Citigroup's near-term cash needs;
- in the event of a Citigroup bankruptcy, Citigroup will be required to contribute most of its remaining assets to Citicorp; and

(iv) the obligations of both Citigroup and Citicorp under the Citi Support Agreement, as well as the Contributable Assets, are secured pursuant to a security agreement.

The Citi Support Agreement provides two mechanisms, besides Citicorp's issuing of dividends to Citigroup, pursuant to which Citicorp will be required to transfer cash to Citigroup during business as usual so that Citigroup can fund its debt service as well as other operating needs: (i) one or more funding notes issued by Citicorp to Citigroup and (ii) a committed line of credit under which Citicorp may make loans to Citigroup.

Total Loss-Absorbing Capacity (TLAC)

U.S. GSIBs are required to maintain minimum levels of TLAC and eligible LTD, each set by reference to the GSIB's consolidated risk-weighted assets (RWA) and total leverage exposure. The intended purpose of the requirements is to facilitate the orderly resolution of U.S. GSIBs under the U.S. Bankruptcy Code and Title II of the Dodd-Frank Act. For additional information, including Citi's TLAC and LTD amounts and ratios, see "Capital Resources—Current Regulatory Capital Standards" and "Risk Factors—Compliance Risks" above.

SECURED FUNDING TRANSACTIONS AND SHORT-TERM BORROWINGS

Citi supplements its primary sources of funding with short-term financings that generally include (i) secured funding transactions consisting of securities loaned or sold under agreements to repurchase, i.e., repos, and (ii) to a lesser extent, short-term borrowings consisting of commercial paper and borrowings from the FHLB and other market participants.

Secured Funding Transactions

Secured funding is primarily accessed through Citi's broker-dealer subsidiaries to fund efficiently both (i) secured lending activity and (ii) a portion of the securities inventory held in the context of market-making and customer activities. Citi also executes a smaller portion of its secured funding transactions through its bank entities, which are typically collateralized by government debt securities. Generally, daily changes in the level of Citi's secured funding are primarily due to fluctuations in secured lending activity in the matched book (as described below) and securities inventory.

Secured funding of $191 billion as of December 31, 2021 decreased 3% from the prior-year period and 9% sequentially. Excluding the impact of FX translation, secured funding decreased 1% from the prior-year period and 8% sequentially, driven by normal business activity. The average balance for secured funding was approximately $222 billion for the quarter ended December 31, 2021.

The portion of secured funding in the broker-dealer subsidiaries that funds secured lending is commonly referred to as "matched book" activity. The majority of this activity is secured by high-quality liquid securities such as U.S. Treasury securities, U.S. agency securities and foreign government debt securities. Other secured funding is secured by less liquid securities, including equity securities, corporate bonds and asset-backed securities, the tenor of which is generally equal to or longer than the tenor of the corresponding matched book assets.

The remainder of the secured funding activity in the broker-dealer subsidiaries serves to fund securities inventory held in the context of market-making and customer activities. To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and establishing minimum required funding tenors. The weighted average maturity of Citi's secured funding of less liquid securities inventory was greater than 110 days as of December 31, 2021.

Citi manages the risks in its secured funding by conducting daily stress tests to account for changes in capacity, tenor, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress. Citi generally sources secured funding from more than 150 counterparties.

Short-Term Borrowings

Citi's short-term borrowings of $28 billion as of the fourth quarter of 2021 decreased 5% year-over-year, reflecting a decline in FHLB advances, and 6% sequentially, primarily driven by a decline in structured notes (see Note 17 to the Consolidated Financial Statements for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

CREDIT RATINGS

Citigroup’s funding and liquidity, funding capacity, ability to access capital markets and other sources of funds, the cost of these funds and its ability to maintain certain deposits are partially dependent on its credit ratings.

The table below shows the ratings for Citigroup and Citibank as of December 31, 2021. While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holding Inc. (CGMHI) were BBB+/A-2 at S&P Global Ratings and A+/F1 at Fitch as of December 31, 2021.

Ratings as of December 31, 2021

	Citigroup Inc.			Citibank, N.A.		
	Senior debt	**Commercial paper**	**Outlook**	**Long-term**	**Short-term**	**Outlook**
Fitch Ratings	**A**	**F1**	**Stable**	**A+**	**F1**	**Stable**
Moody’s Investors Service	**A3**	**P-2**	**Stable**	**Aa3**	**P-1**	**Stable**
S&P Global Ratings	**BBB+**	**A-2**	**Stable**	**A+**	**A-1**	**Stable**

Potential Impacts of Ratings Downgrades

Ratings downgrades by Moody’s, Fitch or S&P Global Ratings could negatively impact Citigroup’s and/or Citibank’s funding and liquidity due to reduced funding capacity, including derivative triggers, which could take the form of cash obligations and collateral requirements.

The following information is provided for the purpose of analyzing the potential funding and liquidity impact to Citigroup and Citibank of a hypothetical simultaneous ratings downgrade across all three major rating agencies. This analysis is subject to certain estimates, estimation methodologies, judgments and uncertainties. Uncertainties include potential ratings limitations that certain entities may have with respect to permissible counterparties, as well as general subjective counterparty behavior. For example, certain corporate customers and markets counterparties could re-evaluate their business relationships with Citi and limit transactions in certain contracts or market instruments with Citi. Changes in counterparty behavior could impact Citi’s funding and liquidity, as well as the results of operations of certain of its businesses. The actual impact to Citigroup or Citibank is unpredictable and may differ materially from the potential funding and liquidity impacts described below. For additional information on the impact of credit rating changes on Citi and its applicable subsidiaries, see “Risk Factors—Liquidity Risks” above.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of December 31, 2021, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citigroup Inc. across all three major rating agencies could impact Citigroup’s funding and liquidity due to derivative triggers by approximately $0.8 billion, compared to $1.1 billion as of September 30, 2021. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

As of December 31, 2021, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citibank across all three major rating agencies could impact Citibank’s funding and liquidity due to derivative triggers by approximately $0.6 billion, compared to $0.5 billion as of September 30, 2021. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

In total, as of December 31, 2021, Citi estimates that a one-notch downgrade of Citigroup and Citibank across all three major rating agencies could result in increased aggregate cash obligations and collateral requirements of approximately $1.4 billion, compared to $1.6 billion as of September 30, 2021 (see also Note 22 to the Consolidated Financial Statements). As detailed under “High-Quality Liquid Assets” above, Citigroup has various liquidity resources available to its bank and non-bank entities in part as a contingency for the potential events described above.

In addition, a broad range of mitigating actions are currently included in Citigroup’s and Citibank’s contingency funding plans. For Citigroup, these mitigating factors include, but are not limited to, accessing surplus funding capacity from existing clients, tailoring levels of secured lending and adjusting the size of select trading books and collateralized borrowings at certain Citibank subsidiaries. Mitigating actions available to Citibank include, but are not limited to, selling or financing highly liquid government securities, tailoring levels of secured lending, adjusting the size of select trading assets, reducing loan originations and renewals, raising additional deposits or borrowing from the FHLB or central banks. Citi believes these mitigating actions could substantially reduce the funding and liquidity risk, if any, of the potential downgrades described above.

Citibank—Additional Potential Impacts

In addition to the above derivative triggers, Citi believes that a potential downgrade of Citibank's senior debt/long-term rating across any of the three major rating agencies could also have an adverse impact on the commercial paper/short-term rating of Citibank. Citibank has provided liquidity commitments to consolidated asset-backed commercial paper conduits, primarily in the form of asset purchase agreements. As of December 31, 2021, Citibank had liquidity commitments of approximately $9.0 billion to consolidated asset-backed commercial paper conduits, compared to $10.0 billion as of September 30, 2021 (for additional information, see Note 21 to the Consolidated Financial Statements).

In addition to the above-referenced liquidity resources of certain Citibank entities, Citibank could reduce the funding and liquidity risk, if any, of the potential downgrades described above through mitigating actions, including repricing or reducing certain commitments to commercial paper conduits. In the event of the potential downgrades described above, Citi believes that certain corporate customers could re-evaluate their deposit relationships with Citibank. This re-evaluation could result in clients adjusting their discretionary deposit levels or changing their depository institution, which could potentially reduce certain deposit levels at Citibank. However, Citi could choose to adjust pricing, offer alternative deposit products to its existing customers or seek to attract deposits from new customers, in addition to the mitigating actions referenced above.

MARKET RISK

OVERVIEW

Market risk is the potential for losses arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities. Market risk emanates from both Citi's trading and non-trading portfolios. For additional information on market risk and market risk management, see "Risk Factors" above.

Each business is required to establish, with approval from Citi's market risk management, a market risk limit framework for identified risk factors that clearly defines approved risk profiles and is within the parameters of Citi's overall risk appetite. These limits are monitored by the Risk organization, including various regional, legal entity and business Risk Management committees, Citi's country and business Asset & Liability Committees and the Citigroup Risk Management and Asset & Liability Committees. In all cases, the businesses are ultimately responsible for the market risks taken and for remaining within their defined limits.

MARKET RISK OF NON-TRADING PORTFOLIOS

Market risk from non-trading portfolios stems from the potential impact of changes in interest rates and foreign exchange rates on Citi's net interest income, and on Citi's *Accumulated other comprehensive income (loss) (AOCI)* from its debt securities portfolios. Market risk from non-trading portfolios also includes the potential impact of changes in foreign exchange rates on Citi's capital invested in foreign currencies.

Net Interest Income at Risk

Net interest income, for interest rate exposure purposes, is the difference between the yield earned on the non-trading portfolio assets (including customer loans) and the rate paid on the liabilities (including customer deposits or company borrowings). Net interest income is affected by changes in the level of interest rates, as well as the amounts and mix of assets and liabilities, and the timing of contractual and assumed repricing of assets and liabilities to reflect market rates.

Citi's principal measure of risk to net interest income is interest rate exposure (IRE). IRE measures the change in expected net interest income in each currency resulting solely from unanticipated changes in forward interest rates.

Citi's estimated IRE incorporates various assumptions including prepayment rates on loans, customer behavior and the impact of pricing decisions. For example, in rising interest rate scenarios, portions of the deposit portfolio may be assumed to experience rate increases that are less than the change in market interest rates. In declining interest rate scenarios, it is assumed that mortgage portfolios experience higher prepayment rates. Citi's estimated IRE below assumes that its businesses and/or Citi Treasury make no additional changes in balances or positioning in response to the unanticipated rate changes.

Citi is planning to transition the sensitivity analysis for its IRE (see the current IRE sensitivity impacts below), employing enhanced methodologies and changes to certain assumptions. The changes include, among other things, assumptions around the projected balance sheet (being more static), coupled with revisions to the treatment of certain business contributions to IRE, mainly accrual positions in *ICG*'s *Markets* businesses. These changes are planned for 2022, and will result in a higher impact to Citi's NII and *AOCI* and a better reflection of the nature of the portfolios.

In order to manage changes in interest rates effectively, Citi may modify pricing on new customer loans and deposits, purchase fixed-rate securities, issue debt that is either fixed or floating or enter into derivative transactions that have the opposite risk exposures. Citi regularly assesses the viability of these and other strategies to reduce its interest rate risks and implements such strategies when it believes those actions are prudent.

Citi manages interest rate risk as a consolidated Company-wide position. Citi's client-facing businesses create interest rate-sensitive positions, including loans and deposits, as part of their ongoing activities. Citi Treasury aggregates these risk positions and manages them centrally. Operating within established limits, Citi Treasury makes positioning decisions and uses tools, such as Citi's investment securities portfolio, company-issued debt and interest rate derivatives, to target the desired risk profile. Changes in Citi's interest rate risk position reflect the accumulated changes in all non-trading assets and liabilities, with potentially large and offsetting impacts, as well as in Citi Treasury's positioning decisions.

Citigroup employs additional measurements, including stress testing the impact of non-linear interest rate movements on the value of the balance sheet, and the analysis of portfolio duration and volatility, particularly as they relate to mortgage loans and mortgage-backed securities and the potential impact of the change in the spread between different market indices.

Interest Rate Risk of Investment Portfolios—Impact on *AOCI*

Citi also measures the potential impacts of changes in interest rates on the value of its *AOCI*, which can in turn impact Citi's common equity and tangible common equity. This will impact Citi's Common Equity Tier 1 and other regulatory capital ratios. Citi's goal is to benefit from an increase in the market level of interest rates, while limiting the impact of changes in *AOCI* on its regulatory capital position.

AOCI at risk is managed as part of the Company-wide interest rate risk position. *AOCI* at risk considers potential changes in *AOCI* (and the corresponding impact on the Common Equity Tier 1 Capital ratio) relative to Citi's capital generation capacity.

The following table sets forth the estimated impact to Citi's net interest income, *AOCI* and the Common Equity Tier 1 Capital ratio (on a fully implemented basis), each assuming an unanticipated parallel instantaneous 100 basis point (bps) increase in interest rates:

In millions of dollars, except as otherwise noted	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Estimated annualized impact to net interest income			
U.S. dollar[1]	**$ 563**	$ 151	$ 373
All other currencies	**612**	586	683
Total	**$ 1,175**	$ 737	$ 1,056
As a percentage of average interest-earning assets	**0.05 %**	0.03 %	0.05 %
Estimated initial negative impact to *AOCI* (after-tax)[2]	**$ (4,609)**	$ (4,914)	$ (5,645)
Estimated initial impact on Common Equity Tier 1 Capital ratio (bps)	**(30)**	(30)	(34)

(1) Certain trading-oriented businesses within Citi have accrual-accounted positions that are excluded from the estimated impact to net interest income in the table, since these exposures are managed economically in combination with mark-to-market positions. The U.S. dollar interest rate exposure associated with these businesses was $(179) million for a 100 bps instantaneous increase in interest rates as of December 31, 2021.

(2) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

The year-over-year increase in the estimated impact to net interest income primarily reflected changes in Citi's balance sheet composition and Citi Treasury positioning. The year-over-year changes in the estimated impact to *AOCI* and the Common Equity Tier 1 Capital ratio primarily reflected the impact of the composition of Citi Treasury's investment and derivatives portfolio.

In the event of a parallel instantaneous 100 bps increase in interest rates, Citi expects that the negative impact to *AOCI* would be offset in shareholders' equity through the expected recovery of the impact on *AOCI* through accretion of Citi's investment portfolio over a period of time. As of December 31, 2021, Citi expects that the $4.6 billion negative impact to *AOCI* in such a scenario could potentially be offset over approximately 27 months.

The following table sets forth the estimated impact to Citi's net interest income, *AOCI* and the Common Equity Tier 1 Capital ratio (on a fully implemented basis) under five different changes in interest rate scenarios for the U.S. dollar and Citi's other currencies. The 100 bps downward rate scenarios are impacted by the low level of interest rates in several countries and the assumption that market interest rates, as well as rates paid to depositors and charged to borrowers, do not fall below zero (i.e., the "flooring assumption"). The rate scenarios are also impacted by convexity related to mortgage products.

In millions of dollars, except as otherwise noted	**Scenario 1**	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**
Overnight rate change (bps)	100	100	—	—	(100)
10-year rate change (bps)	100	—	100	(100)	(100)
Estimated annualized impact to net interest income					
U.S. dollar	$ 563	$ 647	$ 86	$ (244)	$ (770)
All other currencies	612	655	41	(41)	(353)
Total	$ 1,175	$ 1,302	$ 127	$ (285)	$ (1,123)
Estimated initial impact to *AOCI* (after-tax)[1]	$ (4,609)	$ (2,934)	$ (1,757)	$ 1,373	$ 3,050
Estimated initial impact to Common Equity Tier 1 Capital ratio (bps)	(30)	(19)	(12)	9	18

Note: Each scenario assumes that the rate change will occur instantaneously. Changes in interest rates for maturities between the overnight rate and the 10-year rate are interpolated.

(1) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

As shown in the table above, the magnitude of the impact to Citi's net interest income and *AOCI* is greater under Scenario 2 as compared to Scenario 3. This is because the combination of changes to Citi's investment portfolio, partially offset by changes related to Citi's pension liabilities, results in a net position that is more sensitive to rates at shorter- and intermediate-term maturities.

Changes in Foreign Exchange Rates—Impacts on *AOCI* and Capital

As of December 31, 2021, Citi estimates that an unanticipated parallel instantaneous 5% appreciation of the U.S. dollar against all of the other currencies in which Citi has invested capital could reduce Citi's tangible common equity (TCE) by approximately $1.5 billion, or 0.9%, as a result of changes to Citi's FX translation adjustment in *AOCI*, net of hedges. This impact would be primarily due to changes in the value of the Mexican peso, Euro, Singapore dollar and Indian rupee.

This impact is also before any mitigating actions Citi may take, including ongoing management of its FX translation exposure. Specifically, as currency movements change the value of Citi's net investments in foreign currency-denominated capital, these movements also change the value of Citi's risk-weighted assets denominated in those currencies. This, coupled with Citi's foreign currency hedging strategies, such as foreign currency borrowings, foreign currency forwards and other currency hedging instruments, lessens the impact of foreign currency movements on Citi's Common Equity Tier 1 Capital ratio. Changes in these hedging strategies, as well as hedging costs, divestitures and tax impacts, can further affect the actual impact of changes in foreign exchange rates on Citi's capital as compared to an unanticipated parallel shock, as described above.

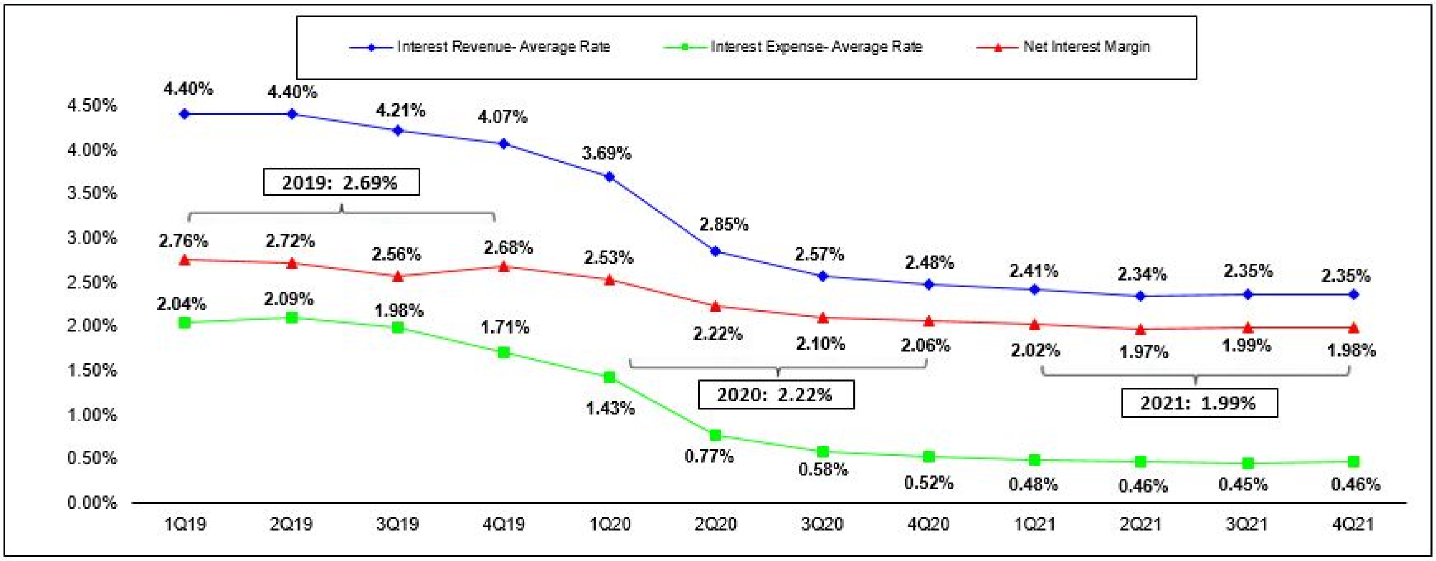
In addition, the effect of Citi's ongoing management strategies with respect to quarterly changes in foreign exchange rates, and the quarterly impact of these changes on Citi's TCE and Common Equity Tier 1 Capital ratio, are shown in the table below. For additional information on the changes in *AOCI*, see Note 19 to the Consolidated Financial Statements.

	For the quarter ended		
In millions of dollars, except as otherwise noted	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Change in FX spot rate[1]	**(0.6)%**	(2.7)%	5.5 %
Change in TCE due to FX translation, net of hedges	**$ (438)**	$ (1,042)	$ 1,829
As a percentage of TCE	**(0.3)%**	(0.7)%	1.2 %
Estimated impact to Common Equity Tier 1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	**(1)**	(1)	2

(1) FX spot rate change is a weighted average based on Citi's quarterly average GAAP capital exposure to foreign countries.

Interest Revenue/Expense and Net Interest Margin (NIM)

Average Rates - Interest Revenue, Interest Expense, and Net Interest Margin



In millions of dollars, except as otherwise noted	**2021**	2020	2019	**Change 2021 vs. 2020**	Change 2020 vs. 2019
Interest revenue[1]	**$ 50,667**	$ 58,285	$ 76,718	**(13)%**	(24)%
Interest expense[2]	**7,981**	13,338	28,382	**(40)**	(53)
Net interest income, taxable equivalent basis[1]	**$ 42,686**	$ 44,947	$ 48,336	**(5)%**	(7)%
Interest revenue—average rate[3]	**2.36 %**	2.88 %	4.27 %	**(52) bps**	(139) bps
Interest expense—average rate	**0.46**	0.81	1.95	**(35) bps**	(114) bps
Net interest margin[3][4]	**1.99**	2.22	2.69	**(23) bps**	(47) bps
Interest rate benchmarks					
Two-year U.S. Treasury note—average rate	**0.27 %**	0.39 %	1.97 %	**(12) bps**	(158) bps
10-year U.S. Treasury note—average rate	**1.45**	0.89	2.14	**56 bps**	(125) bps
10-year vs. two-year spread	118 **bps**	50 bps	17 bps		

Note: Revenue previously referred to as net interest revenue is now referred to as net interest income. In addition, during the fourth quarter of 2021, Citi reclassified deposit insurance expenses (FDIC and other similar insurance assessments outside of the U.S.) from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each year were $1,207 million for 2021, $1,203 million for 2020 and $781 million for 2019.

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $192 million, $196 million and $208 million for 2021, 2020 and 2019, respectively.

(2) Interest expense associated with certain hybrid financial instruments, which are classified as *Long-term debt* and accounted for at fair value, is reported together with any changes in fair value as part of *Principal transactions* in the Consolidated Statement of Income and is therefore not reflected in *Interest expense* in the table above.

(3) The average rate on interest revenue and net interest margin reflects the taxable equivalent gross-up adjustment. See footnote 1 above.

(4) Citi's net interest margin (NIM) is calculated by dividing net interest income by average interest-earning assets.

Non-*ICG Markets* Net Interest Income

In millions of dollars		**2021**		2020		2019
Net interest income (NII)—taxable equivalent basis(1) per above	**$**	**42,686**	$	44,947	$	48,338
ICG Markets NII—taxable equivalent basis(1)		**5,733**		5,786		4,562
Non-*ICG Markets* NII—taxable equivalent basis(1)	**$**	**36,953**	$	39,161	$	43,776

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

Citi's net interest income (NII) in the fourth quarter of 2021 was $10.8 billion ($10.9 billion on a taxable equivalent basis), largely unchanged versus the prior year, as a modest increase in non-*ICG Markets* NII (approximately $60 million) offset an equivalent decline in *ICG Markets* (fixed income markets and equity markets). Citi's NIM was 1.98% on a taxable equivalent basis in the fourth quarter of 2021, a decrease of one basis point from the prior quarter, largely reflecting deposit growth.

Citi's NII for 2021 decreased 5%, or approximately $2.3 billion, to $42.5 billion ($42.7 billion on a taxable equivalent basis) versus the prior year. The decrease was primarily related to a decline in non-*ICG Markets* NII, largely reflecting lower interest rates and lower loan balances. In 2021, Citi's NIM was 1.99% on a taxable equivalent basis, compared to 2.22% in 2020, primarily driven by lower rates and a mix-shift in balances.

Additional Interest Rate Details

Average Balances and Interest Rates—Assets(1)(2)(3)

Taxable Equivalent Basis

In millions of dollars, except rates	Average volume 2021	Average volume 2020	Average volume 2019	Interest revenue 2021	Interest revenue 2020	Interest revenue 2019	% Average rate 2021	% Average rate 2020	% Average rate 2019
Assets									
Deposits with banks(4)	**$ 298,319**	$ 288,629	$ 188,523	**$ 577**	$ 928	$ 2,682	**0.19 %**	0.32 %	1.42 %
Securities borrowed and purchased under agreements to resell(5)									
In U.S. offices	**$ 172,716**	$ 149,076	$ 146,030	**$ 385**	$ 1,202	$ 4,752	**0.22 %**	0.81 %	3.25 %
In offices outside the U.S.(4)	**149,944**	138,074	119,550	**667**	1,081	2,133	**0.44**	0.78	1.78
Total	**$ 322,660**	$ 287,150	$ 265,580	**$ 1,052**	$ 2,283	$ 6,885	**0.33 %**	0.80 %	2.59 %
Trading account assets(6)(7)									
In U.S. offices	**$ 140,215**	$ 144,130	$ 109,064	**$ 2,653**	$ 3,624	$ 4,099	**1.89 %**	2.51 %	3.76 %
In offices outside the U.S.(4)	**151,722**	134,078	131,217	**2,718**	2,509	3,589	**1.79**	1.87	2.74
Total	**$ 291,937**	$ 278,208	$ 240,281	**$ 5,371**	$ 6,133	$ 7,688	**1.84 %**	2.20 %	3.20 %
Investments									
In U.S. offices									
Taxable	**$ 322,884**	$ 265,833	$ 221,895	**$ 3,547**	$ 3,860	$ 5,162	**1.10 %**	1.45 %	2.33 %
Exempt from U.S. income tax	**12,296**	14,084	15,227	**437**	452	577	**3.55**	3.21	3.79
In offices outside the U.S.(4)	**152,940**	139,400	117,529	**3,498**	3,781	4,222	**2.29**	2.71	3.59
Total	**$ 488,120**	$ 419,317	$ 354,651	**$ 7,482**	$ 8,093	$ 9,961	**1.53 %**	1.93 %	2.81 %
Loans (net of unearned income)(8)									
In U.S. offices	**$ 386,141**	$ 396,846	$ 395,792	**$ 24,023**	$ 26,700	$ 30,563	**6.22 %**	6.73 %	7.72 %
In offices outside the U.S.(4)	**281,895**	288,379	288,319	**11,509**	13,569	17,266	**4.08**	4.71	5.99
Total	**$ 668,036**	$ 685,225	$ 684,111	**$ 35,532**	$ 40,269	$ 47,829	**5.32 %**	5.88 %	6.99 %
Other interest-earning assets(9)	**$ 75,876**	$ 67,547	$ 64,322	**$ 653**	$ 579	$ 1,673	**0.86 %**	0.86 %	2.60 %
Total interest-earning assets	**$ 2,144,948**	$ 2,026,076	$ 1,797,468	**$ 50,667**	$ 58,285	$ 76,718	**2.36 %**	2.88 %	4.27 %
Non-interest-earning assets(6)	**$ 202,761**	$ 200,378	$ 181,337						
Total assets	**$ 2,347,709**	$ 2,226,454	$ 1,978,805						

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $192 million, $196 million and $208 million for 2021, 2020 and 2019, respectively.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(5) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to ASC 210-20-45. However, *Interest revenue* excludes the impact of ASC 210-20-45.
(6) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.
(7) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(8) Includes cash-basis loans.
(9) Includes *Brokerage receivables*.

Average Balances and Interest Rates—Liabilities and Equity, and Net Interest Income[1][2][3]

Taxable Equivalent Basis

	Average volume			Interest expense			% Average rate		
In millions of dollars, except rates	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Liabilities									
Deposits									
In U.S. offices[4]	**$ 532,466**	$ 485,848	$ 388,948	**$ 1,084**	$ 2,524	$ 5,873	**0.20 %**	0.52 %	1.51 %
In offices outside the U.S.[5]	**557,207**	541,301	487,318	**1,812**	2,810	5,979	**0.33**	0.52	1.23
Total	**$ 1,089,673**	$ 1,027,149	$ 876,266	**$ 2,896**	$ 5,334	$ 11,852	**0.27 %**	0.52 %	1.35 %
Securities loaned and sold under agreements to repurchase[6]									
In U.S. offices	**$ 136,955**	$ 137,348	$ 112,876	**$ 676**	$ 1,292	$ 4,194	**0.49 %**	0.94 %	3.72 %
In offices outside the U.S.[5]	**93,744**	79,426	77,283	**336**	785	2,069	**0.36**	0.99	2.68
Total	**$ 230,699**	$ 216,774	$ 190,159	**$ 1,012**	$ 2,077	$ 6,263	**0.44 %**	0.96 %	3.29 %
Trading account liabilities[7][8]									
In U.S. offices	**$ 47,871**	$ 38,308	$ 37,099	**$ 109**	$ 283	$ 818	**0.23 %**	0.74 %	2.20 %
In offices outside the U.S.[5]	**67,739**	52,051	51,817	**373**	345	490	**0.55**	0.66	0.95
Total	**$ 115,610**	$ 90,359	$ 88,916	**$ 482**	$ 628	$ 1,308	**0.42 %**	0.70 %	1.47 %
Short-term borrowings and other interest-bearing liabilities[9]									
In U.S. offices	**$ 69,683**	$ 82,363	$ 78,230	**$ (27)**	$ 493	$ 2,138	**(0.04)%**	0.60 %	2.73 %
In offices outside the U.S.[5]	**26,133**	20,053	20,575	**148**	137	327	**0.57**	0.68	1.59
Total	**$ 95,816**	$ 102,416	$ 98,805	**$ 121**	$ 630	$ 2,465	**0.13 %**	0.62 %	2.49 %
Long-term debt[10]									
In U.S. offices	**$ 186,522**	$ 213,809	$ 193,972	**$ 3,384**	$ 4,656	$ 6,398	**1.81 %**	2.18 %	3.30 %
In offices outside the U.S.[5]	**4,282**	3,918	4,803	**86**	13	96	**2.01**	0.33	2.00
Total	**$ 190,804**	$ 217,727	$ 198,775	**$ 3,470**	$ 4,669	$ 6,494	**1.82 %**	2.14 %	3.27 %
Total interest-bearing liabilities	**$ 1,722,602**	$ 1,654,425	$ 1,452,921	**$ 7,981**	$ 13,338	$ 28,382	**0.46 %**	0.81 %	1.95 %
Demand deposits in U.S. offices	**$ 98,414**	$ 30,876	$ 27,737						
Other non-interest-bearing liabilities[7]	**324,724**	346,736	301,756						
Total liabilities	**$ 2,145,740**	$ 2,032,037	$ 1,782,414						
Citigroup stockholders' equity	**$ 201,360**	$ 193,769	$ 195,685						
Noncontrolling interests	**609**	648	706						
Total equity	**$ 201,969**	$ 194,417	$ 196,391						
Total liabilities and stockholders' equity	**$ 2,347,709**	$ 2,226,454	$ 1,978,805						
Net interest income as a percentage of average interest-earning assets[11]									
In U.S. offices	**$ 1,244,182**	$ 1,187,077	$ 1,017,021	**$ 26,404**	$ 27,520	$ 28,898	**2.12 %**	2.32 %	2.84 %
In offices outside the U.S.[6]	**900,766**	838,999	780,447	**16,282**	17,427	19,440	**1.81**	2.08	2.49
Total	**$ 2,144,948**	$ 2,026,076	$ 1,797,468	**$ 42,686**	$ 44,947	$ 48,338	**1.99 %**	2.22 %	2.69 %

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective liability categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Consists of other time deposits and savings deposits. Savings deposits are made up of insured money market accounts, NOW accounts and other savings deposits. The interest expense on savings deposits includes FDIC deposit insurance assessments.
(5) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(6) Average volumes of securities sold under agreements to repurchase are reported net pursuant to ASC 210-20-45. However, *Interest expense* excludes the impact of ASC 210-20-45.
(7) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.

(8) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(9) Includes *Brokerage payables*.
(10) Excludes hybrid financial instruments and beneficial interests in consolidated VIEs that are classified as *Long-term debt*, as the changes in fair value for these obligations are recorded in *Principal transactions*.
(11) Includes allocations for capital and funding costs based on the location of the asset.

Analysis of Changes in Interest Revenue(1)(2)(3)

	2021 vs. 2020			2020 vs. 2019		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change	Average volume	Average rate	Net change
Deposits with banks(3)	**$ 30**	**$ (381)**	**$ (351)**	$ 976	$ (2,730)	$ (1,754)
Securities borrowed and purchased under agreements to resell						
In U.S. offices	**$ 166**	**$ (983)**	**$ (817)**	$ 97	$ (3,647)	$ (3,550)
In offices outside the U.S.(3)	**86**	**(500)**	**(414)**	290	(1,342)	(1,052)
Total	**$ 252**	**$ (1,483)**	**$ (1,231)**	$ 387	$ (4,989)	$ (4,602)
Trading account assets(4)						
In U.S. offices	**$ (96)**	**$ (875)**	**$ (971)**	$ 1,103	$ (1,578)	$ (475)
In offices outside the U.S.(3)	**320**	**(111)**	**209**	77	(1,157)	(1,080)
Total	**$ 224**	**$ (986)**	**$ (762)**	$ 1,180	$ (2,735)	$ (1,555)
Investments(1)						
In U.S. offices	**$ 761**	**$ (1,089)**	**$ (328)**	$ 911	$ (2,338)	$ (1,427)
In offices outside the U.S.(3)	**345**	**(628)**	**(283)**	703	(1,144)	(441)
Total	**$ 1,106**	**$ (1,717)**	**$ (611)**	$ 1,614	$ (3,482)	$ (1,868)
Loans (net of unearned income)(5)						
In U.S. offices	**$ (706)**	**$ (1,971)**	**$ (2,677)**	$ 81	$ (3,945)	$ (3,864)
In offices outside the U.S.(3)	**(299)**	**(1,761)**	**(2,060)**	4	(3,700)	(3,696)
Total	**$ (1,005)**	**$ (3,732)**	**$ (4,737)**	$ 85	$ (7,645)	$ (7,560)
Other interest-earning assets(6)	**$ 72**	**$ 2**	**$ 74**	$ 80	$ (1,174)	$ (1,094)
Total interest revenue	**$ 679**	**$ (8,297)**	**$ (7,618)**	$ 4,322	$ (22,755)	$ (18,433)

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes cash-basis loans.
(6) Includes *Brokerage receivables*.

Analysis of Changes in Interest Expense and Net Interest Income[(1)(2)(3)]

	2021 vs. 2020			2020 vs. 2019		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change	Average volume	Average rate	Net change
Deposits						
In U.S. offices	$ 222	$ (1,661)	$ (1,439)	$ 1,199	$ (4,548)	$ (3,349)
In offices outside the U.S.[(3)]	80	(1,078)	(998)	601	(3,770)	(3,169)
Total	$ 302	$ (2,739)	$ (2,437)	$ 1,800	$ (8,318)	$ (6,518)
Securities loaned and sold under agreements to repurchase						
In U.S. offices	$ (4)	$ (612)	$ (616)	$ 757	$ (3,659)	$ (2,902)
In offices outside the U.S.[(3)]	122	(571)	(449)	56	(1,340)	(1,284)
Total	$ 118	$ (1,183)	$ (1,065)	$ 813	$ (4,999)	$ (4,186)
Trading account liabilities[(4)]						
In U.S. offices	$ 58	$ (232)	$ (174)	$ 26	$ (561)	$ (535)
In offices outside the U.S.[(3)]	93	(65)	28	2	(147)	(145)
Total	$ 151	$ (297)	$ (146)	$ 28	$ (708)	$ (680)
Short-term borrowings and other interest-bearing liabilities[(5)]						
In U.S. offices	$ (66)	$ (454)	$ (520)	$ 107	$ (1,752)	$ (1,645)
In offices outside the U.S.[(3)]	37	(26)	11	(8)	(182)	(190)
Total	$ (29)	$ (480)	$ (509)	$ 99	$ (1,934)	$ (1,835)
Long-term debt						
In U.S. offices	$ (551)	$ (721)	$ (1,272)	$ 603	$ (2,346)	$ (1,743)
In offices outside the U.S.[(3)]	1	71	72	(15)	(67)	(82)
Total	$ (550)	$ (650)	$ (1,200)	$ 588	$ (2,413)	$ (1,825)
Total interest expense	$ (8)	$ (5,349)	$ (5,357)	$ 3,328	$ (18,372)	$ (15,044)
Net interest income	$ 687	$ (2,948)	$ (2,261)	$ 993	$ (4,382)	$ (3,389)

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes *Brokerage payables*.

Market Risk of Trading Portfolios

Trading portfolios include positions resulting from market-making activities, hedges of certain available-for-sale (AFS) debt securities, the CVA relating to derivative counterparties and all associated hedges, fair value option loans and hedges of the loan portfolio within capital markets origination within *ICG*.

The market risk of Citi's trading portfolios is monitored using a combination of quantitative and qualitative measures, including, but not limited to:

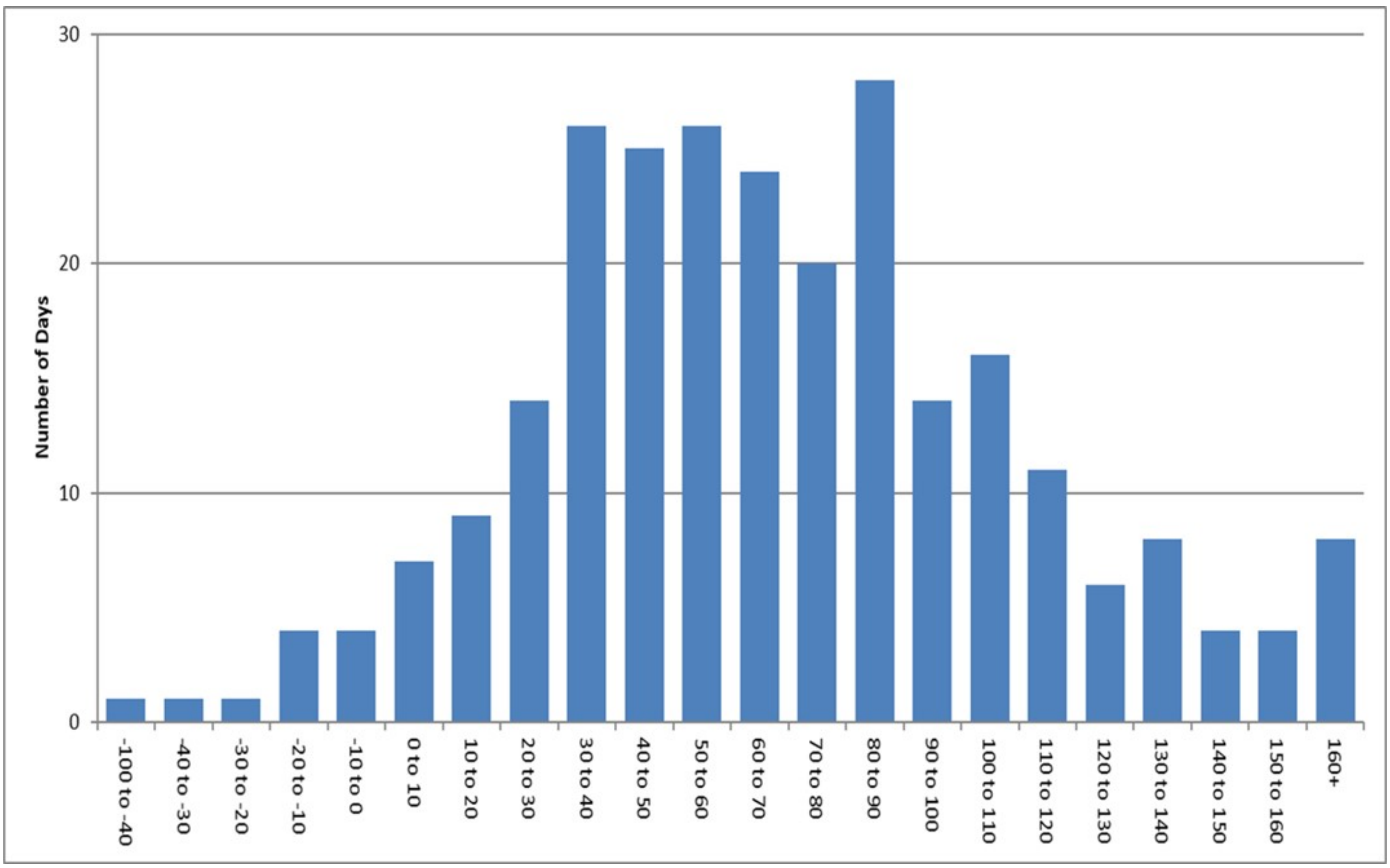
- factor sensitivities;
- value at risk (VAR); and
- stress testing.

Each trading portfolio across Citi's businesses has its own market risk limit framework encompassing these measures and other controls, including trading mandates, new product approval, permitted product lists and pre-trade approval for larger, more complex and less liquid transactions.

The following chart of total daily trading-related revenue (loss) captures trading volatility and shows the number of days in which revenues for Citi's trading businesses fell within particular ranges. Trading-related revenue includes trading, net interest and other revenue associated with Citi's trading businesses. It excludes DVA, FVA and CVA adjustments incurred due to changes in the credit quality of counterparties, as well as any associated hedges of that CVA. In addition, it excludes fees and other revenue associated with capital markets origination activities. Trading-related revenues are driven by both customer flows and the changes in valuation of the trading inventory. As shown in the chart below, positive trading-related revenue was achieved for 95.8% of the trading days in 2021.

Daily Trading-Related Revenue (Loss)[(1)]—Twelve Months Ended December 31, 2021

In millions of dollars



(1) Reflects the effects of asymmetrical accounting for economic hedges of certain AFS debt securities. Specifically, the change in the fair value of hedging derivatives is included in trading-related revenue, while the offsetting change in the fair value of hedged AFS debt securities is included in *AOCI* and not reflected above.

Factor Sensitivities
Factor sensitivities are expressed as the change in the value of a position for a defined change in a market risk factor, such as a change in the value of a U.S. Treasury Bond for a one-basis-point change in interest rates. Citi's Global Market Risk function, within the Independent Risk Management organization, works to ensure that factor sensitivities are calculated, monitored and limited for all material risks taken in the trading portfolios.

Value at Risk (VAR)
VAR estimates, at a 99% confidence level, the potential decline in the value of a position or a portfolio under normal market conditions assuming a one-day holding period. VAR statistics, which are based on historical data, can be materially different across firms due to differences in portfolio composition, differences in VAR methodologies and differences in model parameters. As a result, Citi believes VAR statistics can be used more effectively as indicators of trends in risk-taking within a firm, rather than as a basis for inferring differences in risk-taking across firms.

Citi uses a single, independently approved Monte Carlo simulation VAR model (see "VAR Model Review and Validation" below), which has been designed to capture material risk sensitivities (such as first- and second-order sensitivities of positions to changes in market prices) of various asset classes/risk types (such as interest rate, credit spread, foreign exchange, equity and commodity risks). Citi's VAR includes positions that are measured at fair value; it does not include investment securities classified as AFS or HTM. For information on these securities, see Note 13 to the Consolidated Financial Statements.

Citi believes its VAR model is conservatively calibrated to incorporate fat-tail scaling and the greater of short-term (approximately the most recent month) and long-term (three years) market volatility. The Monte Carlo simulation involves approximately 450,000 market factors, making use of approximately 350,000 time series, with sensitivities updated daily, volatility parameters updated intra-monthly and correlation parameters updated monthly. The conservative features of the VAR calibration contribute an approximate 33% add-on to what would be a VAR estimated under the assumption of stable and perfectly, normally distributed markets.

As set forth in the table below, Citi's average trading VAR decreased $5 million from 2020 to 2021, mainly due to a reduction of market volatility, given improved macroeconomic conditions, compared to 2020. Citi's average trading and credit portfolio VAR decreased $24 million from 2020 to 2021 due to VAR volatility recalibration.

Year-end and Average Trading VAR and Trading and Credit Portfolio VAR

In millions of dollars	**December 31, 2021**	**2021 Average**	December 31, 2020	2020 Average
Interest rate	**$ 50**	**$ 65**	$ 72	$ 66
Credit spread	**59**	**71**	70	86
Covariance adjustment[1]	**(35)**	**(42)**	(51)	(48)
Fully diversified interest rate and credit spread[2]	**$ 74**	**$ 94**	$ 91	$ 104
Foreign exchange	**36**	**42**	40	26
Equity	**29**	**33**	31	36
Commodity	**28**	**34**	17	22
Covariance adjustment[1]	**(88)**	**(102)**	(85)	(82)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)[2]	**$ 79**	**$ 101**	$ 94	$ 106
Specific risk-only component[3]	**$ 3**	**$ 1**	$ (1)	$ (2)
Total trading VAR—general market risk factors only (excluding credit portfolios)	**$ 76**	**$ 100**	$ 95	$ 108
Incremental impact of the credit portfolio[4]	**$ 45**	**$ 30**	$ 29	$ 49
Total trading and credit portfolio VAR	**$ 124**	**$ 131**	$ 123	$ 155

(1) Covariance adjustment (also known as diversification benefit) equals the difference between the total VAR and the sum of the VARs tied to each risk type. The benefit reflects the fact that the risks within individual and across risk types are not perfectly correlated and, consequently, the total VAR on a given day will be lower than the sum of the VARs relating to each risk type. The determination of the primary drivers of changes to the covariance adjustment is made by an examination of the impact of both model parameter and position changes.
(2) The total trading VAR includes mark-to-market and certain fair value option trading positions in *ICG*, with the exception of hedges to the loan portfolio, fair value option loans and all CVA exposures. Available-for-sale and accrual exposures are not included.
(3) The specific risk-only component represents the level of equity and fixed income issuer-specific risk embedded in VAR.
(4) The credit portfolio is composed of mark-to-market positions associated with non-trading business units including Citi Treasury, the CVA relating to derivative counterparties and all associated CVA hedges. FVA and DVA are not included. The credit portfolio also includes hedges to the loan portfolio, fair value option loans and hedges to the leveraged finance pipeline within capital markets origination in *ICG*.

The table below provides the range of market factor VARs associated with Citi's total trading VAR, inclusive of specific risk:

	2021		2020	
In millions of dollars	**Low**	**High**	Low	High
Interest rate	**$ 47**	**$ 96**	$ 28	$ 137
Credit spread	**54**	**96**	36	171
Fully diversified interest rate and credit spread	**$ 74**	**$ 123**	$ 44	$ 223
Foreign exchange	**33**	**49**	14	40
Equity	**21**	**50**	13	141
Commodity	**19**	**55**	12	64
Total trading	**$ 79**	**$ 130**	$ 47	$ 245
Total trading and credit portfolio	**108**	**166**	58	424

Note: No covariance adjustment can be inferred from the above table as the high and low for each market factor will be from different close-of-business dates.

The following table provides the VAR for *ICG*, excluding the CVA relating to derivative counterparties, hedges of CVA, fair value option loans and hedges to the loan portfolio:

In millions of dollars	**Dec. 31, 2021**
Total—all market risk factors, including general and specific risk	**$ 81**
Average—during year	**$ 103**
High—during year	**134**
Low—during year	**81**

VAR Model Review and Validation
Generally, Citi's VAR review and model validation process entails reviewing the model framework, major assumptions and implementation of the mathematical algorithm. In addition, product specific back-testing on portfolios is periodically completed as part of the ongoing model performance monitoring process and reviewed with Citi's U.S. banking regulators. Furthermore, Regulatory VAR back-testing (as described below) is performed against buy-and-hold profit and loss on a monthly basis for multiple sub-portfolios across the organization (trading desk level, *ICG* business segment and Citigroup) and the results are shared with U.S. banking regulators.

Material VAR model and assumption changes must be independently validated within Citi's Independent Risk Management organization. All model changes, including those for the VAR model, are validated by the model validation group within Citi's Model Risk Management. In the event of significant model changes, parallel model runs are undertaken prior to implementation. In addition, significant model and assumption changes are subject to the periodic reviews and approval by Citi's U.S. banking regulators.

Citi uses the same independently validated VAR model for both Regulatory VAR and Risk Management VAR (i.e., total trading and total trading and credit portfolios VARs) and, as such, the model review and validation process for both purposes is as described above.

Regulatory VAR, which is calculated in accordance with Basel III, differs from Risk Management VAR due to the fact that certain positions included in Risk Management VAR are not eligible for market risk treatment in Regulatory VAR. The composition of Risk Management VAR is discussed under "Value at Risk" above. The applicability of the VAR model for positions eligible for market risk treatment under U.S. regulatory capital rules is periodically reviewed and approved by Citi's U.S. banking regulators.

In accordance with Basel III, Regulatory VAR includes all trading book-covered positions and all foreign exchange and commodity exposures. Pursuant to Basel III, Regulatory VAR excludes positions that fail to meet the intent and ability to trade requirements and are therefore classified as non-trading book and categories of exposures that are specifically excluded as covered positions. Regulatory VAR excludes CVA on derivative instruments and DVA on Citi's own fair value option liabilities. CVA hedges are excluded from Regulatory VAR and included in credit risk-weighted assets as computed under the Advanced Approaches for determining risk-weighted assets.

Regulatory VAR Back-Testing
In accordance with Basel III, Citi is required to perform back-testing to evaluate the effectiveness of its Regulatory VAR model. Regulatory VAR back-testing is the process in which the daily one-day VAR, at a 99% confidence interval, is compared to the buy-and-hold profit and loss (i.e., the profit and loss impact if the portfolio is held constant at the end of the day and re-priced the following day). Buy-and-hold profit and loss represents the daily mark-to-market profit and loss attributable to price movements in covered positions from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue, net interest, fees and commissions, intra-day trading profit and loss and changes in reserves.

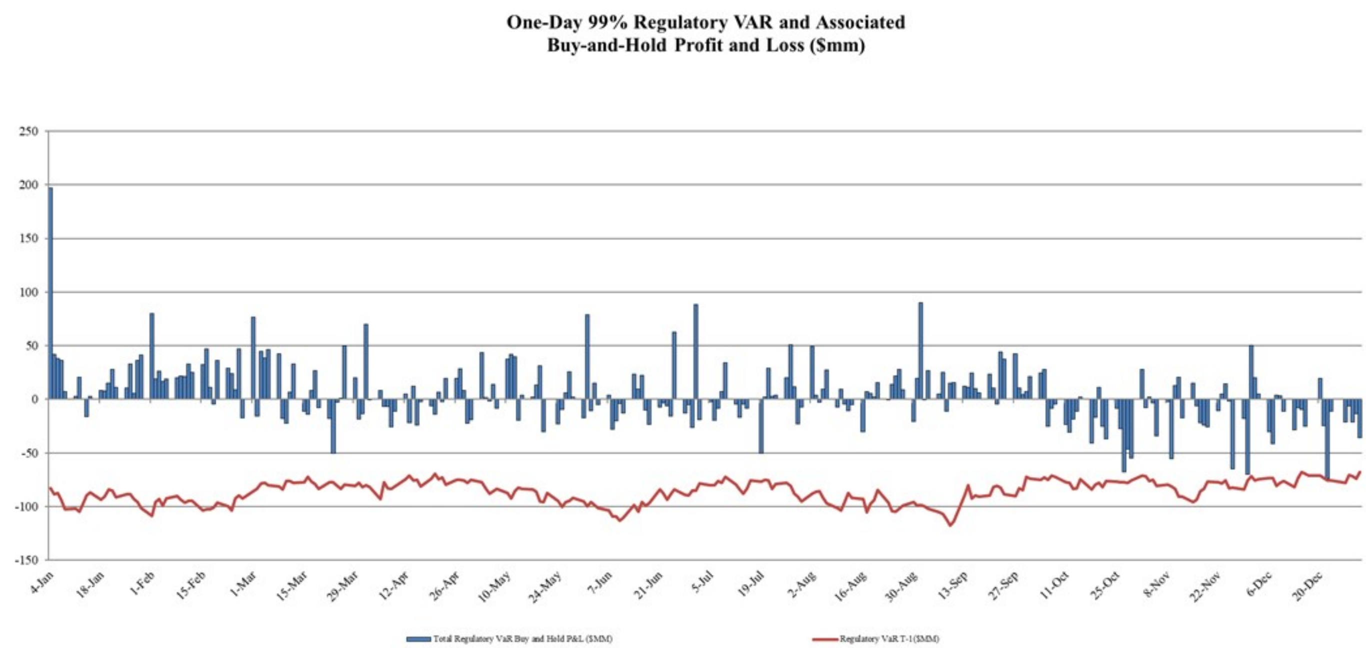
Based on a 99% confidence level, Citi would expect two to three days in any one year where buy-and-hold losses exceed the Regulatory VAR. Given the conservative calibration of Citi's VAR model (as a result of taking the greater of short- and long-term volatilities and fat-tail scaling of volatilities), Citi would expect fewer exceptions under normal and stable market conditions. Periods of unstable market conditions could increase the number of back-testing exceptions.

The following graph shows the daily buy-and-hold profit and loss associated with Citi's covered positions compared to Citi's one-day Regulatory VAR during 2021. As of December 31, 2021, one back-testing exception was observed at the Citigroup level.

The difference between the 54.4% of days with buy-and-hold gains for Regulatory VAR back-testing and the 95.8% of days with trading, net interest and other revenue associated with Citi's trading businesses, shown in the histogram of daily trading-related revenue below, reflects, among other things, that a significant portion of Citi's trading-related revenue is not generated from daily price movements on these positions and exposures, as well as differences in the portfolio composition of Regulatory VAR and Risk Management VAR.

Regulatory Trading VAR and Associated Buy-and-Hold Profit and Loss(1)—12 Months ended December 31, 2021

In millions of dollars



(1) Buy-and-hold profit and loss, as defined by the banking regulators under Basel III, represents the daily mark-to-market revenue movement attributable to the trading position from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue and net interest intra-day trading profit and loss on new and terminated trades, as well as changes in reserves. Therefore, it is not comparable to the trading-related revenue presented in the chart of daily trading-related revenue above.

Stress Testing

Citi performs market risk stress testing on a regular basis to estimate the impact of extreme market movements. It is performed on individual positions and trading portfolios, as well as in aggregate, inclusive of multiple trading portfolios. Citi's market risk management, after consultations with the businesses, develops both systemic and specific stress scenarios, reviews the output of periodic stress testing exercises and uses the information to assess the ongoing appropriateness of exposure levels and limits. Citi uses two complementary approaches to market risk stress testing across all major risk factors (i.e., equity, foreign exchange, commodity, interest rate and credit spreads): top-down systemic stresses and bottom-up business-specific stresses. Systemic stresses are designed to quantify the potential impact of extreme market movements on an institution-wide basis, and are constructed using both historical periods of market stress and projections of adverse economic scenarios. Business-specific stresses are designed to probe the risks of particular portfolios and market segments, especially those risks that are not fully captured in VAR and systemic stresses.

The systemic stress scenarios and business-specific stress scenarios at Citi are used in several reports reviewed by senior management and also to calculate internal risk capital for trading market risk. In general, changes in market values are defined over a one-year horizon. For the most liquid positions and market factors, changes in market values are defined over a shorter two-month horizon. The limited set of positions and market factors whose market value changes are defined over a two-month horizon are those that in management's judgment have historically remained very liquid during financial crises, even as the trading liquidity of most other positions and market factors materially declined.

OPERATIONAL RISK

Overview

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This includes legal risk, which is the risk of loss (including litigation costs, settlements, and regulatory fines) resulting from the failure of Citi to comply with laws, regulations, prudent ethical standards, and contractual obligations in any aspect of its businesses, but excludes strategic and reputation risks. Citi also recognizes the impact of operational risk on the reputation risk associated with Citi's business activities.

Operational risk is inherent in Citi's global business activities, as well as related support functions, and can result in losses. Citi maintains a comprehensive Citi-wide risk taxonomy to classify operational risks that it faces using standardized definitions across Citi's Operational Risk Management Framework (see discussion below). This taxonomy also supports regulatory requirements and expectations inclusive of those related to U.S. Basel III, Comprehensive Capital Analysis and Review (CCAR), Heightened Standards for Large Financial Institutions and Dodd Frank Annual Stress Testing (DFAST).

Citi manages operational risk consistent with the overall framework described in "Managing Global Risk—Overview" above. Citi's goal is to keep operational risk at appropriate levels relative to the characteristics of its businesses, the markets in which it operates, its capital and liquidity and the competitive, economic and regulatory environment. This includes effectively managing operational risk and maintaining or reducing operational risk exposures within Citi's operational risk appetite.

Citi's Independent Operational Risk Management group has established a global-Operational Risk Management Framework with policies and practices for identification, measurement, monitoring, managing and reporting operational risks and the overall operating effectiveness of the internal control environment. As part of this framework, Citi has defined its operational risk appetite and established a manager's control assessment (MCA) process for self-identification of significant operational risks, assessment of the performance of key controls and mitigation of residual risk above acceptable levels.

Each major business segment must implement operational risk processes consistent with the requirements of this framework. This includes:

- understanding the operational risks they are exposed to;
- designing controls to mitigate identified risks;
- establishing key indicators;
- monitoring and reporting whether the operational risk exposures are in or out of their operational risk appetite;
- having processes in place to bring operational risk exposures within acceptable levels;
- periodically estimate and aggregate the operational risks they are exposed to; and
- ensuring that sufficient resources are available to actively improve the operational risk environment and mitigate emerging risks.

Citi considers operational risks that result from the introduction of new or changes to existing products, or result from significant changes in its organizational structures, systems, processes and personnel.

Citi has a governance structure for the oversight of operational risk exposures through Business Risk and Controls Committees (BRCCs), which include a Citigroup BRCC as well as business, functions, regional and country BRCCs. BRCCs are chaired by the individuals in the first line of defense and provide escalation channels for senior management to review operational risk exposures including breaches of operational risk appetite, key indicators, operational risk events, and control issues. Membership includes senior business and functions leadership as well as members of the second line of defense.

In addition, Independent Risk Management, including the Operational Risk Management group, works proactively with Citi's businesses and functions to drive a strong and embedded operational risk management culture and framework across Citi. The Operational Risk Management group actively challenges business and functions implementation of the Operational Risk Management Framework requirements and the quality of operational risk management practices and outcomes.

Information about businesses' key operational risks, historical operational risk losses and the control environment is reported by each major business segment and functional area. Citi's operational risk profile and related information is summarized and reported to senior management, as well as to the Audit and Risk Committees of Citi's Board of Directors by the Head of Operational Risk Management.

Operational risk is measured through Operational Risk Capital and Operational Risk Regulatory Capital for the Advanced Approaches under Basel III. Projected operational risk losses under stress scenarios are estimated as a required part of the FRB's CCAR process.

For additional information on Citi's operational risks, see "Risk Factors—Operational Risk" above.

Cybersecurity Risk

Overview

Cybersecurity risk is the business risk associated with the threat posed by a cyber attack, cyber breach or the failure to protect Citi's most vital business information assets or operations, resulting in a financial or reputational loss (for additional information, see the operational processes and systems and cybersecurity risk factors in "Risk Factors—Operational Risks" above). With an evolving threat landscape, ever-increasing sophistication of threat actor tactics, techniques and procedures, and use of new technologies to conduct financial transactions, Citi and its clients, customers and third parties are and will continue to be at risk from cyber attacks and information security incidents. Citi recognizes the significance of these risks and, therefore, leverages an intelligence-led strategy to protect against, detect and respond to, and recover from cyber attacks. Further, Citi actively participates in financial industry, government and cross-sector knowledge-sharing groups to enhance individual and collective cybersecurity preparedness and resilience.

Risk Management
Citi's technology and cybersecurity risk management program is built on three lines of defense. Citi's first line of defense under the Office of the Chief Information Security Officer provides frontline business, operational and technical controls and capabilities to protect against cybersecurity risks, and to respond to cyber incidents and data breaches. Citi manages these threats through state-of-the-art Fusion Centers, which serve as central commands for monitoring and coordinating responses to cyber threats. The enterprise information security team is responsible for infrastructure defense and security controls, performing vulnerability assessments and third-party information security assessments, employee awareness and training programs and security incident management. In each case the team works in coordination with a network of information security officers who are embedded within the businesses and functions globally.

Citi's Operational Risk Management-Technology and Cyber (ORM-T/C) and Independent Compliance Risk Management-Technology and Information Security (ICRM-T) groups serve as the second line of defense, and actively evaluate, anticipate and challenge Citi's risk mitigation practices and capabilities. Citi seeks to proactively identify and remediate technology and cybersecurity risks before they materialize as incidents that negatively affect business operations. Accordingly, the ORM-T/C team independently challenges and monitors capabilities in accordance with Citi's defined Technology and Cyber Risk Appetite statements. To address evolving cybersecurity risks and corresponding regulations, ORM-T/C and ICRM-T teams collectively also monitor cyber legal and regulatory requirements, identify and define emerging risks, execute strategic cyber threat assessments, perform new products and initiative reviews, perform data management risk oversight and conduct cyber risk assurance reviews (inclusive of third-party assessments). In addition, ORM-T/C employs tools and oversees and challenges metrics that are both tailored to cybersecurity and technology and aligned with Citi's overall operational risk management framework to effectively track, identify and manage risk.

Internal audit serves as the third line of defense and independently provides assurance on how effectively the organization as a whole manages cybersecurity risk. Citi also has multiple senior committees such as the Information Security Risk Committee (ISRC), which governs enterprise-level risk tolerance inclusive of cybersecurity risk.

Board Oversight
Citi's Board of Directors provides oversight of management's efforts to mitigate cybersecurity risk and respond to cyber incidents. The Board receives regular reports on cybersecurity and engages in discussions throughout the year with management and subject-matter experts on the effectiveness of Citi's overall cybersecurity program. The Board also obtains updates on Citi's inherent cybersecurity risks and Citi's road map and progress for addressing these risks.

Moreover, Citi's Board and its committee members receive contemporaneous reporting on significant cyber events including response, legal obligations, and outreach and notification to regulators, and customers when needed, as well as guidance to management as appropriate. In 2021, the Board of Directors underwent a cyber incident tabletop exercise. Also in 2021, the Board's Risk Management Committee approved a standalone Cybersecurity Risk Appetite Statement against which Citi's performance is measured quarterly. For additional information on the Board's oversight of cybersecurity risk management, see Citi's 2022 proxy statement to be filed with the SEC in March 2022.

COMPLIANCE RISK
Compliance risk is the risk to current or projected financial condition and resilience arising from violations of laws, rules, or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards. Compliance risk exposes Citi to fines, civil money penalties, payment of damages and the voiding of contracts. Compliance risk can result in diminished reputation, harm to Citi's customers, limited business opportunities and lessened expansion potential. It encompasses the risk of noncompliance with all laws and regulations, as well as prudent ethical standards and some contractual obligations. It could also include exposure to litigation (known as legal risk) from all aspects of traditional and non-traditional banking.

Citi seeks to operate with integrity, maintain strong ethical standards and adhere to applicable policies and regulatory and legal requirements. Citi must maintain and execute a proactive Compliance Risk Management (CRM) Policy that is designed to manage compliance risk effectively across Citi, with a view to fundamentally strengthen the compliance risk management culture across the lines of defense taking into account Citi's risk governance framework and regulatory requirements. Independent Compliance Risk Management's (ICRM) primary objectives are to:

- Drive and embed a culture of compliance and control throughout Citi;
- Maintain and oversee an integrated CRM Policy and Compliance Risk Framework that facilitates enterprise-wide compliance with local, national or cross-border laws, rules or regulations, Citi's internal policies, standards and procedures and relevant standards of conduct;
- Assess compliance risks and issues across product lines, functions and geographies, supported by globally consistent systems and compliance risk management processes; and
- Provide compliance risk data aggregation and reporting capabilities.

To anticipate, control and mitigate compliance risk, Citi has established the CRM Policy to achieve standardization and centralization of methodologies and processes, and to enable more consistent and comprehensive execution of compliance risk management.

Citi has a commitment, as well as an obligation, to identify, assess and mitigate compliance risks associated with its businesses and functions. ICRM is responsible for oversight of Citi's CRM Policy, while all businesses and global control functions are responsible for managing their compliance risks and operating within the Compliance Risk Appetite.

Citi carries out its objectives and fulfills its responsibilities through the Compliance Risk Framework, which is composed of the following integrated key activities, to holistically manage compliance risk:

- Management of Citi's compliance with laws, rules and regulations by identifying and analyzing changes, assessing the impact, and implementing appropriate policies, processes and controls;
- Developing and providing compliance training to ensure colleagues are aware of and understand the key laws, rules and regulations;
- Monitoring the Compliance Risk Appetite, which is articulated through qualitative compliance risk statements describing Citi's appetite for certain types of risk and quantitative measures to monitor the Company's compliance risk exposure;
- Monitoring and testing of compliance risks and controls in assessing conformance with laws, rules, regulations and internal policies; and
- Issue identification, escalation and remediation to drive accountability, including measurement and reporting of compliance risk metrics against established thresholds in support of the CRM Policy and Compliance Risk Appetite.

As discussed above, Citi is working to address the FRB and OCC consent orders, which include improvements to Citi's Compliance Risk Framework and its Enterprise-wide application (for additional information regarding the consent orders, see "Citi's Consent Order Compliance" above).

REPUTATION RISK

Citi's reputation is a vital asset in building trust with its stakeholders and Citi is diligent in enhancing and protecting its reputation with its colleagues, customers, investors and regulators. To support this, Citi has developed a reputation risk framework. Under this framework, Citigroup and Citibank have implemented a risk appetite statement and related key indicators to monitor corporate activities and operations relative to our risk appetite. The framework also requires that business segments and regions escalate significant reputation risks that require review or mitigation through a Reputation Risk Committee or equivalent.

The Reputation Risk Committees, which are composed of Citi's most senior executives, govern the process by which material reputation risks are identified, monitored, reported, managed, and escalated. The Reputation Risk Committees determine the appropriate actions to be taken in line with risk appetite and regulatory expectations, while promoting a culture of risk awareness and high standards of integrity and ethical behavior across the Company, consistent with Citi's mission and value proposition. The Reputation Risk Committees in the business segments and regions are part of the governance infrastructure that Citi has in place to review the reputation risk posed by business activities, sales practices, product design, or perceived conflicts of interest. These committees may also raise potential reputation risks for due consideration by the Reputation Risk Committee at the corporate level. The Citigroup Reputation Risk Committee may escalate reputation risks to the Nomination, Governance and Public Affairs Committee or other appropriate committee of the Citigroup Board of Directors.

The responsibility for enhancing and protecting Citi's reputation is shared by all colleagues, who are guided by Citi's Code of Conduct. Colleagues are expected to exercise sound judgment and common sense in decisions and actions. They are also expected to promptly escalate all issues that present potential reputation risk in line with policy.

STRATEGIC RISK

As discussed above, strategic risk is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalization, or capital, arising from the external factors affecting the Company's operating environment; as well as the risks associated with defining the strategy and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

In this context, external factors affecting Citi's operating environment are the economic environment, geopolitical/political landscape, industry/competitive landscape, societal trends, customer/client behavior, regulatory/legislative environment and trends related to investors/shareholders.

Citi's Executive Management Team is responsible for the development and execution of Citi's strategy. This strategy is translated into forward-looking plans (collectively Citi's Strategic Plan) that are then cascaded across the organization. Citi's Strategic Plan is presented to the board on an annual basis and is aligned with Risk Appetite thresholds and includes Top Risk identification as required by internal frameworks. It is also aligned with limit requirements for capital allocation. Governance and oversight of strategic risk is facilitated by internal committees on a group-wide basis as well as strategic committees at the *ICG*, *GCB* and regional levels.

Citi works to ensure that strategic risks are adequately considered and addressed across its various risk management activities, and that strategic risks are assessed in the context of Citi's risk appetite. Citi conducts a top-down, bottom-up risk identification process to identify risks, including strategic risks. Business segments undertake a quarterly risk identification process to systematically identify and document all material risks faced by Citi. Independent Risk Management oversees the Risk Identification process through regular reviews and coordinates identification and monitoring of Top Risks. Independent Risk Management also manages strategic risk by monitoring risk appetite thresholds in conjunction with various strategic risk committees, which are part of the governance structure that Citi has in place to manage its strategic risks.

For additional information on Citi's strategic risks, see "Risk Factors—Strategic Risks" above.

OTHER RISKS

LIBOR Transition Risk

The LIBOR administrator ceased publication of non-USD LIBOR and one week and two-month USD LIBOR on a representative basis on December 31, 2021, with plans to cease publication of all other USD LIBOR tenors on June 30, 2023. Regulators expect banks, including Citi, to have ceased entering into new contracts that reference USD LIBOR as a benchmark by December 31, 2021, except for limited circumstances as set out in regulatory guidance.

Citi recognizes that a transition away from and discontinuance of LIBOR presents various risks and challenges that could significantly impact financial markets and market participants, including Citi (for information about Citi's risks from a transition away from and discontinuation of LIBOR or any other benchmark rates, see "Risk Factors—Other Risks" above). Accordingly, Citi has continued its efforts to identify and manage its LIBOR transition risks.

For example, Citi continues to closely monitor legislative, regulatory and other developments related to LIBOR transition matters and legislative relief. The International Swaps and Derivatives Association (ISDA) published the Interbank Offered Rate (IBOR) Fallbacks Protocol for existing IBOR derivatives transactions, which became effective in January 2021. The IBOR Fallbacks Protocol provides derivatives market participants with new fallbacks for legacy and new derivatives contracts if both counterparties adhere to the protocol or engage in bilateral amendments (see discussion below regarding Citi's adherence to the protocol). In April 2021, legislation was adopted in New York State that provides for the use of a statutory replacement for USD LIBOR in certain New York law legacy contracts. Similar federal legislation was passed in the House of Representatives in December 2021 and is pending passage by the Senate, although there is no guarantee that the federal legislative proposal will become law.

In addition, Citi has established a LIBOR governance and implementation program focused on identifying and addressing the impact of LIBOR transition on Citi's clients, operational capabilities and financial contracts. The program operates globally across Citi's businesses and functions and includes active involvement of senior management, oversight by Citi's Asset and Liability Committee and reporting to the Risk Management Committee of Citigroup's Board of Directors. As part of the program, Citi has continued to implement its LIBOR transition action plans and associated roadmaps under the following key workstreams: program management; transition strategy and risk management; customer management, including internal communications and training, legal/contract management and product management; financial exposures and risk management; regulatory and industry engagement; operations and technology; and finance, risk, tax and treasury.

During 2021, Citi continued to participate in a number of working groups formed by global regulators, including the Alternative Reference Rates Committee (ARRC) convened by the FRB. These working groups promote and advance development of alternative reference rates and seek to identify and address potential challenges from any transition to such rates. Citi's LIBOR transition action plans and associated roadmaps are intended to be consistent with the timelines recommended by these working groups. This includes the Commodity Futures Trading Commission's SOFR First Initiative, which is designed to promote derivatives trading in SOFR. Citi also continued to engage with regulators, financial accounting bodies and others on LIBOR transition matters.

Citi's LIBOR transition efforts include, among other things, reducing its overall exposure to LIBOR, increasing Citi's virtual client communication efforts and client transition facilitation, including outreach regarding new industry-led protocols and solutions, and using alternative reference rates in certain newly issued financial instruments and products. In the past several years, Citi has issued preferred stock and benchmark debt referencing the Secured Overnight Financing Rate (SOFR) and issued customer-related debt referencing SOFR and the Sterling Overnight Interbank Average Rate (SONIA), the recommended replacement rate for Sterling LIBOR. Citi has also originated and arranged loans referencing SOFR and SONIA and executed SOFR and SONIA-based derivatives contracts. Further, Citi has also been investing in its systems and infrastructure, as client activity moves away from LIBOR to alternative reference rates. Since the ARRC's recommendation of CME Group's Term SOFR in July 2021, Citi has focused on systems' readiness to provide Term SOFR loan and derivatives to clients, where permitted.

In 2021, Citi also focused on remediating existing LIBOR contracts for which publication ceased on a representative basis on December 31, 2021. Substantially all of these contracts were remediated by December 31, 2021, and Citi continues to actively engage in and track the remediation of any remaining contracts after December 31, 2021. As of December 31, 2021, Citi's overall USD LIBOR gross notional exposure for contracts maturing after the LIBOR cessation date of June 30, 2023 was approximately $7.1 trillion, which includes approximately $4 trillion of cleared derivatives that are covered by planned Central Counterparty Clearing House (CCP) conversions, and approximately $2.4 trillion of bilateral derivatives that are covered by robust contract fallback language. The remaining exposure of approximately $0.7 trillion includes bilateral derivatives and cash products that will be addressed by 2022 contract remediation plans.

In addition, for LIBOR contracts that have not yet been remediated, Citi continues to review the effect of relevant legislative solutions, which are expected to facilitate the transition to replacement rates.

Climate Risk

Climate change presents immediate and long-term risks to Citi and its clients and customers, with the risks expected to increase over time. Climate risk refers to the risk of loss arising from climate change and is comprised of both physical risk and transition risk. Physical risk considers how chronic and acute climate change (e.g., increased storms, drought, fires, floods) can directly damage physical assets (e.g., real estate, crops) or otherwise impact their value or productivity. Transition risk considers how changes in policy, technology, business practices and market preferences to address climate change (e.g., carbon pricing policies, power generation shifts from fossil fuels to renewable energy) can lead to changes in the value of assets, commodities and companies.

Climate risk is an overarching risk that can act as a driver of other categories of risk, such as credit risk from obligors exposed to high climate risk, reputational risk from increased stakeholder concerns about financing high-carbon industries and operational risk from physical risks to Citi's facilities and personnel.

Citi currently identifies climate risk as an "emerging risk" within its enterprise risk management framework. Emerging risks are risks or thematic issues that are either new to the landscape, or in the case of climate risk, existing risks that are rapidly changing or evolving in an escalating fashion, which are difficult to assess due to limited data or other uncertainties. For additional information on climate risk, see “Risk Factors—Other Risks” above.

Citi reviews factors related to climate risk under its longstanding Environmental and Social Risk Management (ESRM) Policy, which includes a focus on climate risk related to financed projects and clients in high-carbon sectors. Cautious of the credit risk of stranded assets, as well as the reputational risks associated with the coal sector due to its high carbon emissions, Citi began a phase-down of its financing of thermal coal mining companies in 2015 and of new coal-fired power plants in 2018. As Citi’s phase-down has continued, Citi’s ESRM Policy was updated to include a prohibition on all project-related financing of new coal-fired power plants and new or expanding thermal coal mines as well as clear timetables to reduce financing of companies with high exposure to coal fired power and coal mining who do not pursue low-carbon transition in the coming years. These sector approaches allow Citi to set a comprehensive and industry-wide approach to clarify its positions, set clear expectations for its clients and help address certain climate risk driven credit risk concerns while reducing reputation risk.

Citi continues to explore and test methodologies for quantifying how climate risks could impact the individual credit profiles of its clients across various sectors. To assist in embedding climate risk assessments in its credit assessment process, Citi is developing sector-specific climate risk assessments. Such climate risk assessments are designed to supplement publicly available client disclosures and data provided from third-party vendors and facilitate conversations with clients on their most material climate risks and management plans for adaptation and mitigation. In the near term, Citi’s assessments will consider sectors that have been identified as higher climate risk by Citi’s risk identification process. This will not only help Citi better understand its clients’ businesses and climate-related risks, but will also provide a source of climate data. Citi’s net zero plan is leading to the further integration of climate risk discussions into client engagement and client selection.

Furthermore, Citi is developing globally consistent principles and approaches for managing climate risk across Citi. Climate risk will be embedded into relevant policies and processes over time.

In addition, Citi continues to participate in financial industry collaborations to develop and pilot new methodologies and approaches for measuring and assessing the potential financial risks of climate change. Citi is also closely monitoring regulatory developments on climate risk and sustainable finance, and actively engaging with regulators on these topics.

For additional information about sustainability and other ESG matters at Citi, see “Sustainability and Other ESG Matters” above.

Country Risk

Top 25 Country Exposures

The following table presents Citi's top 25 exposures by country (excluding the U.S.) as of December 31, 2021. (Including the U.S., the total exposure as of December 31, 2021 to the top 25 countries would represent approximately 98% of Citi's exposure to all countries.)

For purposes of the table, loan amounts are reflected in the country where the loan is booked, which is generally based on the domicile of the borrower. For example, a loan to a Chinese subsidiary of a Switzerland-based corporation will generally be categorized as a loan in China. In addition, Citi has developed regional booking centers in certain countries, most significantly in the United Kingdom (U.K.) and Ireland, in order to more efficiently serve its corporate customers. As an example, with respect to the U.K., only 33% of corporate loans presented in the table below are to U.K. domiciled entities (36% for unfunded commitments), with the balance of the loans predominately to European domiciled counterparties. Approximately 87% of the total U.K. funded loans and 88% of the total U.K. unfunded commitments were investment grade as of December 31, 2021.

Trading account assets and investment securities are generally categorized based on the domicile of the issuer of the security of the underlying reference entity. For additional information on the assets included in the table, see the footnotes to the table below.

In billions of dollars	**ICG loans[1]**	**GCB loans**	**Other funded[2]**	**Unfunded[3]**	**Net MTM on derivatives/ repos[4]**	**Total hedges (on loans and CVA)**	**Investment securities[5]**	**Trading account assets[6]**	**Total as of 4Q21**	Total as of 3Q21	Total as of 4Q20	**Total as a % of Citi as of 4Q21**
United Kingdom	$ 42.8	$ 0.2	$ 1.2	$ 45.7	$ 12.8	$ (5.7)	$ 3.6	$ (4.7)	**$ 95.9**	$ 111.6	$ 115.2	**5.5 %**
Mexico	14.2	13.3	0.3	7.7	3.4	(0.9)	19.6	2.0	**59.6**	60.0	64.5	**3.4**
Hong Kong	18.8	15.3	0.2	7.1	0.7	(1.6)	7.9	2.0	**50.4**	52.8	49.0	**2.9**
Singapore	15.6	14.0	0.1	7.4	1.2	(0.9)	6.3	2.0	**45.7**	46.0	45.8	**2.6**
Ireland	13.9	—	0.6	28.9	0.4	(0.2)	—	0.9	**44.5**	45.3	43.9	**2.5**
South Korea	3.8	15.7	0.1	2.1	1.0	(0.9)	9.7	0.5	**32.0**	34.2	35.8	**1.8**
India	6.8	3.8	0.9	5.3	4.6	(0.7)	8.5	0.6	**29.8**	30.3	31.4	**1.7**
Brazil	11.0	—	0.1	3.0	5.6	(0.7)	5.7	2.6	**27.3**	24.4	26.2	**1.6**
China	7.3	3.6	0.8	1.8	2.5	(1.0)	8.2	0.2	**23.4**	20.2	21.8	**1.3**
Germany	0.3	—	—	6.0	6.4	(3.6)	5.9	4.4	**19.4**	14.4	24.4	**1.1**
Jersey	7.3	—	0.1	10.4	—	(0.1)	—	—	**17.7**	14.9	13.4	**1.0**
Australia	5.9	—	0.1	8.0	1.1	(0.7)	1.3	0.7	**16.4**	17.7	21.7	**0.9**
Japan	2.3	—	—	3.4	3.2	(1.8)	5.0	3.8	**15.9**	19.3	21.8	**0.9**
Taiwan	4.1	8.6	0.1	1.4	0.5	(0.2)	0.2	0.6	**15.3**	17.0	17.3	**0.9**
United Arab Emirates	7.3	1.5	0.1	3.8	0.4	(0.5)	2.2	0.1	**14.9**	16.6	12.4	**0.9**
Canada	2.1	0.5	0.1	7.5	1.7	(1.5)	3.3	1.0	**14.7**	16.9	17.8	**0.8**
Poland	3.2	1.8	—	2.6	0.4	(0.2)	4.5	0.8	**13.1**	11.2	15.0	**0.7**
Thailand	1.1	2.7	—	2.1	—	—	1.8	0.2	**7.9**	8.0	8.0	**0.5**
Malaysia	1.4	3.4	0.2	1.0	0.1	(0.1)	1.9	(0.1)	**7.8**	8.2	8.3	**0.4**
Indonesia	2.2	0.6	—	1.2	0.2	(0.1)	1.5	(0.1)	**5.5**	5.8	6.0	**0.3**
Russia	2.2	0.7	—	0.7	0.4	(0.1)	1.5	—	**5.4**	5.5	5.2	**0.3**
Luxembourg	0.8	—	—	—	0.2	(0.9)	4.0	(0.1)	**4.0**	5.3	5.1	**0.2**
South Africa	1.4	—	0.1	0.6	0.2	(0.1)	1.8	(0.2)	**3.8**	3.8	3.6	**0.2**
Czech Republic	0.7	—	—	0.9	1.6	(0.1)	0.4	—	**3.5**	3.5	4.3	**0.2**
Spain	0.4	—	—	2.9	0.4	(1.3)	—	0.3	**2.7**	3.3	3.4	**0.2**
Total as a % of Citi's total exposure												**32.8 %**
Total as a % of Citi's non-U.S. total exposure												**93.4 %**

(1) *ICG* loans reflect funded corporate loans and private bank loans, net of unearned income. As of December 31, 2021, private bank loans in the table above totaled $31.8 billion, concentrated in the U.K. ($8.8 billion), Hong Kong ($8.6 billion) and Singapore ($7.5 billion).
(2) Other funded includes other direct exposures such as accounts receivable, loans HFS, other loans in *Corporate/Other* and investments accounted for under the equity method.
(3) Unfunded exposure includes unfunded corporate lending commitments, letters of credit and other contingencies.

(4) Net mark-to-market counterparty risk on OTC derivatives and securities lending/borrowing transactions (repos). Exposures are shown net of collateral and inclusive of CVA. Includes margin loans.
(5) Investment securities include debt securities available-for-sale, recorded at fair market value, and debt securities held-to-maturity, recorded at amortized cost.
(6) Trading account assets are shown on a net basis and include issuer risk on cash products and derivative exposure where the underlying reference entity/issuer is located in that country.

Argentina

Citi operates in Argentina through its *ICG* businesses. As of December 31, 2021, Citi's net investment in its Argentine operations was approximately $1.5 billion. Citi uses the U.S. dollar as the functional currency for its operations in highly inflationary countries under U.S. GAAP. Citi uses Argentina's official market exchange rate to remeasure its net Argentine peso-denominated assets into the U.S. dollar. As of December 31, 2021, the official Argentine peso exchange rate against the U.S. dollar was 102.73.

The Central Bank of Argentina maintains certain capital and currency controls that generally restrict Citi's ability to access U.S. dollars in Argentina and remit substantially all of its earnings from its Argentine operations. Citi's net investment in its Argentine operations is likely to increase as Citi continues to generate net income from its Argentine franchise and the majority of its earnings cannot be remitted.

Due to the currency controls implemented by the Central Bank of Argentina, certain indirect foreign exchange mechanisms have developed that some Argentine entities may use to obtain U.S. dollars, generally at rates that are significantly higher than Argentina's official exchange rate. Citibank Argentina is precluded from accessing these alternative mechanisms, and these exchange mechanisms cannot be used to remeasure Citi's net monetary assets into the U.S. dollar under U.S. GAAP. Citi cannot predict future fluctuations in Argentina's official market exchange rate or to what extent Citi may be able to access U.S. dollars at the official exchange rate in the future.

Citi economically hedges the foreign currency risk in its net Argentine peso-denominated assets to the extent possible and prudent using non-deliverable forward (NDF) derivative instruments that are primarily executed outside of Argentina. As of December 31, 2021, the international NDF market had very limited liquidity, resulting in Citi being unable to economically hedge nearly all of its Argentine peso exposure. As a result, and to the extent that Citi does not execute NDF contracts for this unhedged exposure in the future, Citi would record devaluations on its net Argentine peso-denominated assets in earnings, without any benefit from a change in the fair value of derivative positions used to economically hedge the exposure.

Citi continually evaluates its economic exposure to its Argentine counterparties and reserves for changes in credit risk and sovereign risk associated with its Argentine assets. Citi believes it has established appropriate allowances for credit losses on its Argentine loans, and appropriate fair value adjustments on Argentine assets and liabilities measured at fair value, for such risks under U.S. GAAP as of December 31, 2021. However, U.S. regulatory agencies may require Citi to record additional reserves in the future, increasing *ICG*'s cost of credit, based on the perceived country risk associated with its Argentine exposures.

For additional information on Citi's emerging markets risks, including those related to its Argentine exposures, see "Risk Factors" above.

Russia

Citi operates both its *ICG* and *GCB* businesses in Russia, although the Company is currently pursuing the exit of its *GCB* business in the country. All of Citi's domestic operations in Russia are conducted through a subsidiary of Citibank, which uses the Russian ruble as its functional currency. Citi's net investment in Russia was approximately $1 billion as of December 31, 2021. The majority of Citi's net investment was hedged for foreign currency depreciation as of December 31, 2021, using forward foreign exchange contracts. Citi's total third-party exposure was approximately $8.2 billion as of December 31, 2021. These assets primarily consisted of corporate and consumer loans, local government debt securities, reverse repurchase agreements, and cash on deposit and placements with the Bank of Russia and other financial institutions. A significant portion of Citi's third-party exposures were funded with domestic deposit liabilities from both *ICG* and *GCB* clients. Further, Citi has approximately $1.6 billion of additional exposures to Russian counterparties that are not held on the Russian subsidiary and are not included in the $8.2 billion above.

The $5.4 billion in Russia credit and other exposures in the "Top 25 Country Exposures" table above does not include approximately $1.0 billion of cash and placements with the Bank of Russia and other financial institutions and $1.8 billion of reverse repurchase agreements with various counterparties.

Citi continues to monitor the current Russia–Ukraine geopolitical situation and economic conditions and will mitigate its exposures and risks as appropriate. For additional information, see "Risk Factors—Market-Related Risk," "—Operational Risks" and "—Other Risks" above.

FFIEC—Cross-Border Claims on Third Parties and Local Country Assets

Citi's cross-border disclosures are set forth below, based on the country exposure bank regulatory reporting guidelines of the Federal Financial Institutions Examination Council (FFIEC). The following summarizes some of the FFIEC key reporting guidelines:

- Amounts are based on the domicile of the ultimate obligor, counterparty, collateral (only including qualifying liquid collateral), issuer or guarantor, as applicable (e.g., a security recorded by a Citi U.S. entity but issued by the U.K. government is considered U.K. exposure; a loan recorded by a Citi Mexico entity to a customer domiciled in Mexico where the underlying collateral is held in Germany is considered German exposure).
- Amounts do not consider the benefit of collateral received for secured financing transactions (i.e., repurchase agreements, reverse repurchase agreements and securities loaned and borrowed) and are reported based on notional amounts.
- Netting of derivative receivables and payables, reported at fair value, is permitted, but only under a legally binding netting agreement with the same specific counterparty, and does not include the benefit of margin received or hedges.
- Credit default swaps (CDS) are included based on the gross notional amount sold and purchased and do not include any offsetting CDS on the same underlying entity.
- Loans are reported without the benefit of hedges.

Given the requirements noted above, Citi's FFIEC cross-border exposures and total outstandings tend to fluctuate, in some cases significantly, from period to period. As an example, because total outstandings under FFIEC guidelines do not include the benefit of margin or hedges, market volatility in interest rates, foreign exchange rates and credit spreads may cause significant fluctuations in the level of total outstandings, all else being equal.

The tables below show each country whose total outstandings exceeded 0.75% of total Citigroup assets:

	December 31, 2021									
	Cross-border claims on third parties and local country assets									
In billions of dollars	**Banks (a)**	**Public (a)**	**NBFIs[1] (a)**	**Other (corporate and households) (a)**	**Trading assets[2] (included in (a))**	**Short-term claims[2] (included in (a))**	**Total outstanding[3] (sum of (a))**	**Commitments and guarantees[4]**	**Credit derivatives purchased[5]**	**Credit derivatives sold[5]**
United Kingdom	**$ 7.0**	**$ 31.1**	**$ 55.6**	**$ 19.2**	**$ 16.5**	**$ 70.8**	**$ 112.9**	**$ 23.0**	**$ 76.3**	**$ 70.8**
Cayman Islands	**—**	**—**	**78.8**	**13.2**	**7.4**	**56.3**	**92.0**	**9.9**	**0.4**	**0.3**
Japan	**31.0**	**30.1**	**12.8**	**8.7**	**15.6**	**54.8**	**82.6**	**8.4**	**13.4**	**12.1**
Germany	**4.5**	**48.9**	**47.7**	**9.6**	**18.5**	**78.3**	**110.7**	**23.2**	**48.6**	**44.7**
Mexico	**2.8**	**28.4**	**9.3**	**25.8**	**2.7**	**33.4**	**66.3**	**19.7**	**6.7**	**6.1**
France	**9.7**	**9.6**	**27.0**	**9.8**	**14.0**	**41.6**	**56.1**	**85.3**	**62.6**	**55.7**
Singapore	**1.9**	**18.3**	**12.1**	**17.4**	**2.7**	**39.1**	**49.7**	**16.3**	**1.4**	**1.3**
South Korea	**3.6**	**17.9**	**3.2**	**21.9**	**2.0**	**37.7**	**46.6**	**12.7**	**9.0**	**8.1**
Hong Kong	**1.3**	**12.3**	**3.9**	**21.8**	**4.2**	**30.2**	**39.3**	**13.6**	**1.7**	**1.5**
Australia	**3.9**	**14.2**	**5.7**	**12.8**	**7.3**	**22.9**	**36.6**	**13.6**	**4.0**	**3.9**
China	**4.2**	**12.9**	**3.7**	**14.7**	**8.0**	**26.3**	**35.5**	**4.4**	**9.6**	**9.0**
India	**1.2**	**15.0**	**4.4**	**13.1**	**2.6**	**23.4**	**33.7**	**10.2**	**1.8**	**1.4**
Taiwan	**0.5**	**7.0**	**1.7**	**15.8**	**4.8**	**21.1**	**25.0**	**14.6**	**—**	**0.1**
Netherlands	**5.9**	**8.8**	**3.3**	**5.7**	**5.2**	**16.2**	**23.7**	**9.8**	**30.8**	**27.6**
Brazil	**2.0**	**12.9**	**2.2**	**12.5**	**3.9**	**20.3**	**29.6**	**3.2**	**6.2**	**5.6**
Italy	**2.8**	**10.9**	**0.9**	**1.8**	**8.1**	**2.4**	**16.4**	**1.6**	**38.8**	**37.0**
Switzerland	**1.4**	**13.7**	**0.9**	**6.0**	**3.1**	**20.0**	**22.0**	**9.7**	**18.9**	**17.6**
Canada	**6.5**	**12.2**	**4.7**	**4.1**	**3.8**	**21.0**	**27.5**	**12.9**	**5.7**	**5.3**

	December 31, 2020									
	Cross-border claims on third parties and local country assets									
In billions of dollars	Banks (a)	Public (a)	NBFIs[1] (a)	Other (corporate and households) (a)	Trading assets[2] (included in (a))	Short-term claims[2] (included in (a))	Total outstanding[3] (sum of (a))	Commitments and guarantees[4]	Credit derivatives purchased[5]	Credit derivatives sold[5]
United Kingdom[6]	$ 16.0	$ 26.0	$ 50.5	$ 17.5	$ 14.2	$ 73.5	$ 110.0	$ 25.8	$ 76.2	$ 75.3
Cayman Islands	—	—	85.8	12.7	8.0	69.7	98.5	11.9	0.3	0.2
Japan	32.9	35.5	12.1	6.6	16.2	63.3	87.1	6.6	16.1	15.1
Germany[6]	7.1	51.8	15.9	9.6	11.3	58.6	84.4	14.1	49.7	48.1
Mexico	3.9	31.5	9.5	28.8	6.0	44.4	73.7	21.7	7.3	6.6
France	11.0	9.7	39.3	9.5	13.3	58.7	69.5	68.2	61.3	56.4
Singapore	2.5	25.6	10.7	17.5	2.8	46.5	56.3	13.8	1.9	1.5
South Korea	3.3	18.2	1.8	24.9	1.5	35.6	48.2	14.7	10.8	10.7
Hong Kong	1.5	13.8	3.9	19.8	7.2	33.2	39.0	13.1	2.1	1.7
Australia	5.1	16.4	4.0	13.0	9.6	31.6	38.5	13.0	5.7	5.2
China	4.5	16.3	3.3	14.1	9.7	33.4	38.2	5.8	10.5	10.0
India	1.9	14.0	2.5	12.9	2.3	22.1	31.3	11.3	1.8	1.6
Taiwan	0.4	7.8	2.0	16.5	5.1	23.7	26.7	14.1	—	—
Netherlands	7.8	10.4	3.4	4.8	5.2	18.2	26.4	10.4	28.5	27.4
Brazil	2.8	11.3	1.6	9.9	5.2	20.0	25.6	2.7	6.0	6.0
Italy	2.5	19.1	0.6	1.9	15.0	16.1	24.1	2.7	42.3	41.3
Switzerland	1.8	14.3	1.4	4.9	2.6	20.0	22.4	7.3	18.0	17.4
Canada	4.5	6.3	5.9	4.5	3.4	15.1	21.2	14.5	3.9	4.0

(1) Non-bank financial institutions.
(2) Included in total outstanding.
(3) Total outstanding includes cross-border claims on third parties, as well as local country assets. Cross-border claims on third parties include cross-border loans, securities, deposits with banks and other monetary assets, as well as net revaluation gains on foreign exchange and derivative products.
(4) Commitments (not included in total outstanding) include legally binding cross-border letters of credit and other commitments and contingencies as defined by the FFIEC guidelines. The FFIEC definition of commitments includes commitments to local residents to be funded with local currency liabilities originated within the country.
(5) Credit default swaps (CDS) are not included in total outstanding.
(6) Exposures for the United Kingdom and Germany for the December 31, 2020 period have been revised by $(5.4) billion and $4.8 billion, respectively, as compared to those previously reported, with the balance in the U.S. This revision reflects a correction in the domicile for Non-Bank Financial Institutions counterparties.

SIGNIFICANT ACCOUNTING POLICIES AND SIGNIFICANT ESTIMATES

This section contains a summary of Citi's most significant accounting policies. Note 1 to the Consolidated Financial Statements contains a summary of all of Citigroup's significant accounting policies. These policies, as well as estimates made by management, are integral to the presentation of Citi's results of operations and financial condition. While all of these policies require a certain level of management judgment and estimates, this section highlights and discusses the significant accounting policies that require management to make highly difficult, complex or subjective judgments and estimates at times regarding matters that are inherently uncertain and susceptible to change (see also "Risk Factors—Operational Risks" above). Management has discussed each of these significant accounting policies, the related estimates and its judgments with the Audit Committee of the Citigroup Board of Directors.

Valuations of Financial Instruments

Citigroup holds debt and equity securities, derivatives, retained interests in securitizations, investments in private equity and other financial instruments. A substantial portion of these assets and liabilities is reflected at fair value on Citi's Consolidated Balance Sheet as *Trading account assets*, *Available-for-sale securities* and *Trading account liabilities*.

Citi purchases securities under agreements to resell (reverse repos or resale agreements) and sells securities under agreements to repurchase (repos), a substantial portion of which is carried at fair value. In addition, certain loans, short-term borrowings, long-term debt and deposits, as well as certain securities borrowed and loaned positions that are collateralized with cash, are carried at fair value. Citigroup holds its investments, trading assets and liabilities, and resale and repurchase agreements on Citi's Consolidated Balance Sheet to meet customer needs and to manage liquidity needs, interest rate risks and private equity investing.

When available, Citi generally uses quoted market prices in active markets to determine fair value and classifies such items within Level 1 of the fair value hierarchy established under ASC 820-10, *Fair Value Measurement*. If quoted market prices are not available, fair value is based on internally developed valuation models that use, where possible, current market-based or independently sourced market parameters, such as interest rates, currency rates and option volatilities. Such models are often based on a discounted cash flow analysis. In addition, items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified under the fair value hierarchy as Level 3 even though there may be some significant inputs that are readily observable.

Citi is required to exercise subjective judgments relating to the applicability and functionality of internal valuation models, the significance of inputs or value drivers to the valuation of an instrument and the degree of observability in certain markets. The fair value of these instruments is reported on Citi's Consolidated Balance Sheet with the changes in fair value recognized in either the Consolidated Statement of Income or in *AOCI*.

Losses on available-for-sale securities whose fair values are less than the amortized cost, where Citi intends to sell the security or could more-likely-than-not be required to sell the security, are recognized in earnings. Where Citi does not intend to sell the security nor could more-likely-than-not be required to sell the security, the portion of the loss related to credit is recognized as an allowance for credit losses with a corresponding provision for credit losses and the remainder of the loss is recognized in other comprehensive income. Such losses are capped at the difference between the fair value and amortized cost of the security.

For equity securities carried at cost or under the measurement alternative, decreases in fair value below the carrying value are recognized as impairment in the Consolidated Statement of Income. Moreover, for certain equity method investments, decreases in fair value are only recognized in earnings in the Consolidated Statement of Income if such decreases are judged to be an other-than-temporary impairment (OTTI). Adjudicating the temporary nature of fair value impairments is also inherently judgmental.

The fair value of financial instruments incorporates the effects of Citi's own credit risk and the market view of counterparty credit risk, the quantification of which is also complex and judgmental. For additional information on Citi's fair value analysis, see Notes 1, 6, 24 and 25 to the Consolidated Financial Statements.

Citi's Allowance for Credit Losses (ACL)
The table below shows Citi's ACL as of the fourth quarter of 2021. For information on the drivers of Citi's ACL release in the fourth quarter, see below. For additional information on Citi's accounting policy on accounting for credit losses under ASC Topic 326, *Financial Instruments—Credit losses; Current Expected Credit Losses (CECL)*, see Note 1 to the Consolidated Financial Statements below.

	Allowance for credit losses (ACL)								
	Balance	Build (release)					2021	Balance	ACLL/EOP
In millions of dollars	Dec. 31, 2020	1Q21	2Q21	3Q21	4Q21	2021	FX/ Other(1)	Dec. 31, 2021	loans Dec. 31, 2021(2)
Cards(2)	$ 16,805	$ (1,523)	$ (1,106)	$ (906)	$ (957)	**$ (4,492)**	**$ (322)**	**$ 11,991**	**7.90 %**
All other *GCB*	2,419	(283)	(292)	(125)	18	**(682)**	**(149)**	**1,588**	
Global Consumer Banking	$ 19,224	$ (1,806)	$ (1,398)	$ (1,031)	$ (939)	**$ (5,174)**	**$ (471)**	**$ 13,579**	**5.08 %**
Institutional Clients Group	5,402	(1,312)	(949)	(65)	(207)	**(2,533)**	**(30)**	**2,839**	**0.73**
Corporate/Other	330	(109)	(99)	(53)	(30)	**(291)**	**(2)**	**37**	
Allowance for credit losses on loans (ACLL)	**$ 24,956**	**$ (3,227)**	**$ (2,446)**	**$ (1,149)**	**$ (1,176)**	**$ (7,998)**	**$ (503)**	**$ 16,455**	**2.49 %**
Allowance for credit losses on unfunded lending commitments	2,655	(626)	44	(13)	(193)	**(788)**	**4**	**1,871**	
Other	146	1	1	(13)	11	**—**	**2**	**148**	
Total allowance for credit losses (ACL)	**$ 27,757**	**$ (3,852)**	**$ (2,401)**	**$ (1,175)**	**$ (1,358)**	**$ (8,786)**	**$ (497)**	**$ 18,474**	

(1) Includes reclassifications to *Other assets* related to Citi's agreements to sell its consumer banking businesses in Australia and the Philippines. See Notes 2 and 15 to the Consolidated Financial Statements.
(2) As of December 31, 2021, in *North America GCB*, branded cards ACLL/EOP loans was 7.10% and retail services ACLL/EOP loans was 10.0%.

Citi's reserves for expected credit losses on funded loans and unfunded lending commitments, standby letters of credit and financial guarantees are reflected on the Consolidated Balance Sheet in the *Allowance for credit losses on loans* (ACLL) and *Other liabilities* (Allowance for credit losses on unfunded lending commitments (ACLUC)), respectively. In addition, Citi reserves for expected credit losses on other financial assets carried at amortized cost, including held-to-maturity securities, reverse repurchase agreements, securities borrowed, deposits with banks and other financial receivables. These reserves, together with the ACLL and ACLUC, are referred to as the ACL. Changes in the ACL are reflected as *Provision for credit losses* in the Consolidated Statement of Income for each reporting period.

The ACL is composed of quantitative and qualitative management adjustment components. The quantitative component uses a forward-looking base macroeconomic forecast. The qualitative management adjustment component reflects economic uncertainty using alternative downside macroeconomic scenarios and portfolio characteristics and current economic conditions not captured in the quantitative component, such as adjustments to reflect uncertainty around the estimated impact of the pandemic on credit losses. Both the quantitative and qualitative management adjustment components are further discussed below.

Quantitative Component
Citi estimates expected credit losses for its quantitative component using (i) its comprehensive internal data on loss and default history, (ii) internal credit risk ratings, (iii) external credit bureau and rating agencies information, and (iv) a reasonable and supportable forecast of macroeconomic conditions.

For its consumer and corporate portfolios, Citi's expected credit losses are determined primarily by utilizing models that consider the borrowers' probability of default (PD), loss given default (LGD) and exposure at default (EAD). The loss likelihood and severity models used for estimating expected credit losses are sensitive to changes in macroeconomic variables that inform the forecasts, and cover a wide range of geographic, industry, product and operating segments.

In addition, Citi's models determine expected credit losses based on leading credit indicators, including loan delinquencies, changes in portfolio size, default frequency, risk ratings and loss recovery rates (among other things), as well as other current economic factors and credit trends, including housing prices, unemployment and gross domestic product (GDP). This methodology is applied separately for each product within each geographic region in which these portfolios exist.

This evaluation process is subject to numerous estimates and judgments. The frequency of default, risk ratings, loss recovery rates, size and diversity of individual large credits and ability of borrowers with foreign currency obligations to obtain the foreign currency necessary for orderly debt servicing, among other things, are all taken into account.

Changes in these estimates could have a direct impact on Citi's credit costs and the allowance in any period.

Qualitative Component

The qualitative management adjustment component includes, among other things, management adjustments to reflect economic uncertainty based on the likelihood and severity of downside scenarios and certain portfolio characteristics not captured in the quantitative component, such as concentrations, collateral valuation, model limitations, idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. The qualitative management adjustment component also reflects the uncertainty around the estimated impact of the pandemic on credit loss estimates. The ultimate extent of the pandemic's impact on Citi's ACL will depend on, among other things, (i) how consumers respond to the conclusion of government stimulus and assistance programs, (ii) the impact on unemployment, (iii) the timing and extent of the economic recovery, (iv) the severity and duration of any resurgence of COVID-19, (v) the rate of distribution and administration of vaccines and (vi) the extent of any market volatility.

4Q21 Changes in the ACL

In the fourth quarter of 2021, Citi released $1.0 billion of the ACL for its consumer portfolios and $0.4 billion of the ACL for its corporate portfolios, for a total release of $1.4 billion. The releases in the consumer and corporate ACLs were driven primarily by the continued improvement in the macroeconomic outlook, as well as continued improvements in credit quality. The overall qualitative management adjustments declined compared to the previous quarter. Based on its latest macroeconomic forecast, Citi believes its analysis of the ACL reflects the forward view of the economic environment as of December 31, 2021.

Macroeconomic Variables

Citi considers a multitude of macroeconomic variables for both the base and downside macroeconomic forecasts it uses to estimate the ACL, including domestic and international variables for its global portfolios and exposures. Citi's forecasts of the U.S. unemployment rate and U.S. Real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of the ACL.

The tables below show Citi's forecasted quarterly average U.S. unemployment rate and year-over-year U.S. Real GDP growth rate used in determining Citi's ACL for each quarterly reporting period from 4Q20 to 4Q21:

	Quarterly average			
U.S. unemployment	**4Q21**	**2Q22**	**4Q22**	**13-quarter average(1)**
Citi forecast at 4Q20	6.3	6.1	5.7	6.1
Citi forecast at 1Q21	4.9	4.1	3.8	4.3
Citi forecast at 2Q21	4.6	4.1	3.9	4.1
Citi forecast at 3Q21	4.5	4.1	3.9	4.0
Citi forecast at 4Q21	4.3	4.0	3.8	3.8

(1) Represents the average unemployment rate for the rolling, forward-looking 13 quarters in the forecast horizon.

	Year-over-year growth rate(1)		
	Full year		
U.S. Real GDP	**2021**	**2022**	**2023**
Citi forecast at 4Q20	3.7	2.7	2.6
Citi forecast at 1Q21	6.2	4.1	1.9
Citi forecast at 2Q21	6.5	3.7	2.0
Citi forecast at 3Q21	5.9	3.9	2.1
Citi forecast at 4Q21	5.5	4.0	2.2

(1) The year-over-year growth rate is the percentage change in the Real (inflation adjusted) GDP level.

Under the base macroeconomic forecast as of 4Q21, U.S. Real GDP growth is expected to remain strong during 2022, and the unemployment rate is expected to continue to improve as the U.S. moves past the peak of the pandemic-related health and economic crisis.

Consumer

As discussed above, Citi's total consumer ACLL release (including *Corporate/Other*) of $1.0 billion in the fourth quarter of 2021 reduced the ACLL balance to $13.6 billion, or 5.0% of total consumer loans as of December 31, 2021. The release was primarily driven by the continued improvement in the macroeconomic outlook, as well as continued improvements in credit quality. Citi's consumer ACLL is largely driven by the cards businesses.

For cards, including Citi's international businesses, the level of reserves relative to EOP loans decreased to 7.9% as of December 31, 2021, compared to 9.1% at September 30, 2021, primarily driven by by the continued improvement in the macroeconomic outlook, as well as continued improvements in credit quality. For the remaining consumer exposures, the level of reserves relative to EOP loans was 1.4% at December 31, 2021, essentially unchanged from September 30, 2021.

Corporate
Citi's corporate ACLL release of $0.2 billion in the fourth quarter of 2021 reduced the ACLL reserve balance to $2.8 billion, or 0.73% of total funded loans. The release was primarily driven by improvements in portfolio credit quality, as well as improvement in the macroeconomic outlook.

The *Allowance for credit losses on unfunded lending commitments* (ACLUC) release of $191 million in the fourth quarter of 2021 decreased the total ACLUC reserve balance included in *Other liabilities* to $1.9 billion at December 31, 2021.

ACLL and Non-accrual Ratios
At December 31, 2021, the ratio of the allowance for credit losses to total funded loans was 2.49% (5.02% for consumer loans and 0.73% for corporate loans) compared to 2.69% at September 30, 2021 (5.55% for consumer loans and 0.77% for corporate loans).

Citi's total non-accrual loans were $3.4 billion at December 31, 2021, down $610 million from September 30, 2021. Consumer non-accrual loans decreased $87 million to $1.5 billion at December 31, 2021 from $1.6 billion at September 30, 2021, while corporate non-accrual loans decreased $523 million to $1.9 billion at December 31, 2021 from $2.4 billion at September 30, 2021. In addition, the ratio of non-accrual loans to total consumer loans was 0.55% and non-accrual loans to total corporate loans was 0.47%, at December 31, 2021.

Regulatory Capital Impact
Citi has elected to phase in the CECL impact for regulatory capital purposes. The transition provisions were recently modified to defer the phase-in. After two years with no impact on capital, the CECL transition impact will phase in over a three-year transition period with 25% of the impact (net of deferred taxes) recognized on the first day of each subsequent year, commencing January 1, 2022, and will be fully implemented on January 1, 2025. In addition, 25% of the impact of the build (pretax) in 2020 and 2021 were deferred and being amortized over the same timeframe.

For a further description of the ACL and related accounts, see Notes 1 and 15 to the Consolidated Financial Statements.

For a discussion of the adoption of the CECL accounting pronouncement, see Note 1 to the Consolidated Financial Statements.

Goodwill
Citi tests goodwill for impairment annually on July 1 (the annual test) and through interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount, such as a significant adverse change in the business climate, a decision to sell or dispose of all or a significant portion of a reporting unit or a significant decline in Citi's stock price. During 2021, the annual test was performed, which resulted in no goodwill impairment as described in Note 16 to the Consolidated Financial Statements.

As of December 31, 2021, Citigroup's activities were conducted through the *Global Consumer Banking* and *Institutional Clients Group* business operating segments and *Corporate/Other*. Goodwill impairment testing is performed at the level below the business segment (referred to as a reporting unit).

Citi utilizes allocated equity as a proxy for the carrying value of its reporting units for purposes of goodwill impairment testing. The allocated equity in the reporting units is determined based on the capital the business would require if it were operating as a standalone entity, incorporating sufficient capital to be in compliance with both current and expected regulatory capital requirements, including capital for specifically identified goodwill and intangible assets. The capital allocated to the reporting units is incorporated into the annual budget process, which is approved by Citi's Board of Directors.

Goodwill impairment testing involves management judgment, requiring an assessment of whether the carrying value of a reporting unit can be supported by its fair value of the reporting unit using widely accepted valuation techniques, such as the market approach (earnings multiples and/or transaction multiples) and/or the income approach (discounted cash flow (DCF) method). In applying these methodologies, Citi utilizes a number of factors, including actual operating results, future business plans, economic projections and market data.

Similar to 2020, Citi engaged an independent valuation specialist in 2021 to assist in Citi's valuation of all the reporting units, employing both the market approach and the DCF method. The resulting fair values were relatively consistent and appropriate weighting was given to outputs from both methods. The DCF method utilized at the time of each impairment test used discount rates that Citi believes adequately reflected the risk and uncertainty in the financial markets in the internally generated cash flow projections.

The DCF method employs a capital asset pricing model in estimating the discount rate. Since none of the Company's reporting units are publicly traded, individual reporting unit fair value determinations cannot be directly correlated to Citigroup's common stock price. The sum of the fair values of the reporting units exceeded the overall market capitalization of Citi as of July 1, 2021. However, Citi believes that it is not meaningful to reconcile the sum of the fair values of the Company's reporting units to its market capitalization due to several factors. The market capitalization of Citigroup reflects the execution risk in a transaction involving Citigroup due to its size. However, the individual reporting units' fair values are not subject to the same level of execution risk nor a business model that is as international. In addition, the market capitalization of Citigroup does not include consideration of the individual reporting unit's control premium.

Citi performed its annual goodwill impairment test as of July 1, 2021. The fair values of Citi's reporting units as a percentage of their carrying values ranged from approximately 125% to 153%, resulting in no impairment. While the inherent risk related to uncertainty is embedded in the key assumptions used in the valuations, the economic and business environments continue to evolve as management implements its strategic refresh, which includes, among others, the exits of consumer businesses in 13 markets in *Asia* and *EMEA*, as well as the exit of the Mexico consumer, small business and middle-market banking operations. If management's future estimate of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future. Citi expects that the implementation of its new operating segments and reporting units in the first quarter of 2022, as well as the timing and sequencing of the sales of its *Asia* consumer banking businesses, may result in goodwill impairment. See Notes 1 and 16 to the Consolidated Financial Statements for additional information on goodwill, including the changes in the goodwill balance year-over-year and the segments' goodwill balances as of December 31, 2021.

Income Taxes

Overview

Citi is subject to the income tax laws of the U.S., its states and local municipalities and the non-U.S. jurisdictions in which Citi operates. These tax laws are complex and are subject to differing interpretations by the taxpayer and the relevant governmental taxing authorities. Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of the various tax jurisdictions or may be settled with the taxing authority upon audit.

In establishing a provision for income tax expense, Citi must make judgments and interpretations about the application of these inherently complex tax laws. Citi must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign. Deferred taxes are recorded for the future consequences of events that have been recognized in the financial statements or tax returns, based upon enacted tax laws and rates. Deferred tax assets (DTAs) are recognized subject to management's judgment that realization is more-likely-than-not. For example, if it is more-likely-than-not that a carry-forward would expire unused, Citi would set up a valuation allowance (VA) against that DTA. Citi has established valuation allowances as described below.

As a result of the Tax Cuts and Jobs Act (Tax Reform), beginning in 2018, Citi is taxed on income generated by its U.S. operations at a federal tax rate of 21%. The effect on Citi's state tax rate is dependent upon how and when the individual states that have not yet addressed the federal tax law changes choose to adopt the various new provisions of the U.S. Internal Revenue Code.

Citi's non-U.S. branches and subsidiaries are subject to tax at their local tax rates. Non-U.S. branches also continue to be subject to U.S. taxation. The impact of this on Citi's earnings depends on the level of branch pretax income, the local branch tax rate and allocations of overall domestic loss (ODL) and expenses for U.S. tax purposes to branch earnings. Citi expects no residual U.S. tax on such earnings since it currently has sufficient branch tax carry-forwards. With respect to non-U.S. subsidiaries, dividends from these subsidiaries are excluded from U.S. taxation. While the majority of Citi's non-U.S. subsidiary earnings are classified as Global Intangible Low Taxed Income (GILTI), Citi expects no material residual U.S. tax on such earnings based on its non-U.S. subsidiaries' local tax rates, which exceed, on average, the GILTI tax rate. Finally, Citi does not expect the Base Erosion Anti-Abuse Tax (BEAT) to affect its tax provision.

Deferred Tax Assets and Valuation Allowances

At December 31, 2021, Citi had net DTAs of $24.8 billion. In the fourth quarter of 2021, Citi's DTAs increased by $0.3 billion, primarily as a result of losses in *Other comprehensive income*. On a full-year basis, Citi's DTAs at December 31, 2021 were essentially unchanged from $24.8 billion at December 31, 2020.

Of Citi's total net DTAs of $24.8 billion as of December 31, 2021, $9.5 billion, primarily related to tax carry-forwards, was deducted in calculating Citi's regulatory capital. Net DTAs arising from temporary differences are deducted from regulatory capital if in excess of the 10%/15% limitations (see "Capital Resources" above). For the quarter and year ended December 31, 2021, Citi did not have any such DTAs. Accordingly, the remaining $15.3 billion of net DTAs as of December 31, 2021 was not deducted in calculating regulatory capital pursuant to Basel III standards, and was appropriately risk weighted under those rules.

Citi's total VA at December 31, 2021 was $4.2 billion, a decrease of $1.0 billion from $5.2 billion at December 31, 2020. The decrease was primarily driven by usage of carry-forwards and expirations in the FTC branch basket. Citi's VA of $4.2 billion is composed of $2.5 billion on its FTC carry-forwards, $1.0 billion on its U.S. residual DTA related to its non-U.S. branches, $0.6 billion on local non-U.S. DTAs and $0.1 billion on state net operating loss carry-forwards.

In 2021, Citi reduced its VA for DTAs related to FTCs in its branch basket for 2021 and future periods. As stated above with regard to the impact of non-U.S. branches on Citi's earnings, the level of branch pretax income, the local branch tax rate and the allocations of ODL and expenses for U.S. tax purposes to the branch basket are the main factors in determining the branch VA. The allocated ODL was enhanced by significant taxable income generated in the current year. In addition, during 2021, the global interest rate environment and balance sheet requirements in non-U.S. branches resulted in a lower relative allocation of interest expense to non-U.S. branches. The combination of the factors enumerated resulted in a VA release of $0.2 billion. Citi also released branch basket VA of $0.1 billion with respect to future years, based upon Citi's operating plan and estimates of future branch basket factors, as outlined above.

Citi's VA of $0.8 billion against FTC carry-forwards in its general basket was reduced by $0.2 billion in 2021, primarily as a result of audit adjustments made to prior years' returns. In Citi's general basket for FTCs, changes in the forecasted amount of income in U.S. locations derived from sources outside the U.S., in addition to tax examination changes from prior years, could alter the amount of valuation allowance that is needed against such FTCs. Citi continues to look for additional actions that may become prudent and feasible, taking into account client, regulatory and operational considerations. (See Note 9 to the Consolidated Financial Statements.)

Recognized FTCs comprised approximately $2.8 billion of Citi's DTAs as of December 31, 2021, compared to approximately $4.4 billion as of December 31, 2020. The decrease in FTCs year-over-year was primarily due to current-year usage. The FTC carry-forward period represents the most time-sensitive component of Citi's DTAs.

Citi has an ODL of approximately $15 billion at December 31, 2021, which allows Citi to elect a percentage between 50% and 100% of future years' domestic source income to be reclassified as foreign source income. (See Note 9 to the Consolidated Financial Statements for a description of the ODL.)

The majority of Citi's U.S. federal net operating loss carry-forward and all of its New York State and City net operating loss carry-forwards are subject to a carry-forward period of 20 years. This provides enough time to fully utilize the net DTAs pertaining to these existing net operating loss carry-forwards. This is due to Citi's forecast of sufficient U.S. taxable income and the continued taxation of Citi's non-U.S. income by New York State and City.

Although realization is not assured, Citi believes that the realization of its recognized net DTAs of $24.8 billion at December 31, 2021 is more-likely-than-not, based upon management's expectations of future taxable income in the jurisdictions in which the DTAs arise, as well as available tax planning strategies (as defined in ASC Topic 740, *Income Taxes*). Citi has concluded that it has the necessary positive evidence to support the realization of its net DTAs after taking its valuation allowances into consideration.

For additional information on Citi's income taxes, including its income tax provision, tax assets and liabilities and a tabular summary of Citi's net DTAs balance as of December 31, 2021 (including the FTCs and applicable expiration dates of the FTCs), see Note 9 to the Consolidated Financial Statements. For information on Citi's ability to use its DTAs, see "Risk Factors—Strategic Risks" above and Note 9 to the Consolidated Financial Statements.

Potential U.S. Tax Legislation

On January 4, 2022, final FTC regulations were published in the Federal Register. These regulations eliminate the creditability of foreign taxes paid in certain situations. These include countries that do not align with U.S. tax principles in significant part and for services performed outside the recipient country. Citi is examining the extent to which these regulations will impact its effective tax rate. Any adoption effect on Citi's DTAs, including its valuation allowance against FTC carry-forwards, will be reported in the first quarter of 2022. Citi does not expect a significant impact on its 2022 effective tax rate. However, the U.S. president's proposed legislation discussed below, if enacted, could exacerbate the impact of these regulations.

The president has proposed the Build Back Better Act, which makes substantial changes to the taxation of multinational corporations. While the Act does not presently contain an increase to the U.S. corporate tax rate, it would impose a minimum level of U.S. taxation, computed on a jurisdiction by jurisdiction basis. The Organization for Economic Cooperation and Development (OECD) Inclusive Framework (140 countries) similarly proposed a minimum tax that could impact Citi.

2017 Impact of Tax Reform

The table below discloses the as-reported GAAP results for 2018 and 2017, as well as the 2017 adjusted results excluding the one-time 2017 impact of Tax Reform. The table does not reflect any adjustment to 2018 results:

In millions of dollars, except per share amounts and as otherwise noted	2018 as reported(1)	2017 as reported	2017 one-time impact of Tax Reform	2017 adjusted results(2)	2018 increase (decrease) vs. 2017 ex-Tax Reform $ Change	% Change
Net income	$ 18,045	$ (6,798)	$ (22,594)	$ 15,796	$ 2,249	14 %
Diluted earnings per share:						
Income from continuing operations	6.69	(2.94)	(8.31)	5.37	1.32	25
Net income	6.68	(2.98)	(8.31)	5.33	1.35	25
Effective tax rate	22.8 %	129.1 %	(9,930) bps	29.8 %		(700) bps
Performance and other metrics:						
Return on average assets	0.94 %	(0.36)%	(120) bps	0.84 %		10 bps
Return on average common stockholders' equity	9.4	(3.9)	(1,090)	7.0		240
Return on average total stockholders' equity	9.1	(3.0)	(1,000)	7.0		210
Return on average tangible common equity	11.0	(4.6)	(1,270)	8.1		290
Dividend payout ratio	23.1	(32.2)	(5,020)	18.0		510
Total payout ratio	109.1	(213.9)	(33,140)	117.5		840

(1) 2018 includes the one-time benefit of $94 million, due to the finalization of the provisional component of the impact based on Citi's analysis as well as additional guidance received from the U.S. Treasury Department related to Tax Reform, which impacted the tax line within *Corporate/Other*.

(2) 2017 excludes the one-time impact of Tax Reform.

Litigation Accruals

See the discussion in Note 27 to the Consolidated Financial Statements for information regarding Citi's policies on establishing accruals for litigation and regulatory contingencies.

Accounting Changes

See Note 1 to the Consolidated Financial Statements for a discussion of changes in accounting standards.

DISCLOSURE CONTROLS AND PROCEDURES

Citi's disclosure controls and procedures are designed to ensure that information required to be disclosed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including without limitation that information required to be disclosed by Citi in its SEC filings is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), as appropriate, to allow for timely decisions regarding required disclosure.

Citi's Disclosure Committee assists the CEO and CFO in their responsibilities to design, establish, maintain and evaluate the effectiveness of Citi's disclosure controls and procedures. The Disclosure Committee is responsible for, among other things, the oversight, maintenance and implementation of the disclosure controls and procedures, subject to the supervision and oversight of the CEO and CFO.

Citi's management, with the participation of its CEO and CFO, has evaluated the effectiveness of Citigroup's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of December 31, 2021. Based on that evaluation, the CEO and CFO have concluded that at that date Citigroup's disclosure controls and procedures were effective.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Citi's management is responsible for establishing and maintaining adequate internal control over financial reporting. Citi's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. Citi's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of Citi's assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that Citi's receipts and expenditures are made only in accordance with authorizations of Citi's management and directors and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Citi's assets that could have a material effect on its financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Citi's management assessed the effectiveness of Citigroup's internal control over financial reporting as of December 31, 2021 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework (2013)*. Based on this assessment, management believes that, as of December 31, 2021, Citi's internal control over financial reporting was effective. In addition, there were no changes in Citi's internal control over financial reporting during the fiscal quarter ended December 31, 2021 that materially affected, or are reasonably likely to materially affect, Citi's internal control over financial reporting.

The effectiveness of Citi's internal control over financial reporting as of December 31, 2021 has been audited by KPMG LLP, Citi's independent registered public accounting firm, as stated in their report below, which expressed an unqualified opinion on the effectiveness of Citi's internal control over financial reporting as of December 31, 2021.

FORWARD-LOOKING STATEMENTS

Certain statements in this Form 10-K, including but not limited to statements included within the Management's Discussion and Analysis of Financial Condition and Results of Operations, are "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. In addition, Citigroup also may make forward-looking statements in its other documents filed or furnished with the SEC, and its management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

Generally, forward-looking statements are not based on historical facts but instead represent Citigroup's and its management's beliefs regarding future events. Such statements may be identified by words such as believe, expect, anticipate, intend, estimate, may increase, may fluctuate, target and illustrative, and similar expressions or future or conditional verbs such as will, should, would and could.

Such statements are based on management's current expectations and are subject to risks, uncertainties and changes in circumstances. Actual results and capital and other financial conditions may differ materially from those included in these statements due to a variety of factors, including without limitation (i) the precautionary statements included within each individual business's discussion and analysis of its results of operations and (ii) the factors listed and described under "Risk Factors" above.

Any forward-looking statements made by or on behalf of Citigroup speak only as to the date they are made, and Citi does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the forward-looking statements were made.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

KPMG

To the Stockholders and Board of Directors
Citigroup Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting
We have audited the accompanying consolidated balance sheets of Citigroup Inc. and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle
As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for the recognition and measurement of credit losses as of January 1, 2020 due to the adoption of ASC Topic 326, Financial Instruments – Credit Losses.

Basis for Opinions
The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying management's annual report on internal control over financial reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Assessment of the fair value of certain Level 3 assets and liabilities measured on a recurring basis

As described in Notes 1, 24 and 25 to the consolidated financial statements, the Company's assets and liabilities recorded at fair value on a recurring basis were $856.6 billion and $313.4 billion, respectively at December 31, 2021. The Company estimated the fair value of Level 3 assets and liabilities measured on a recurring basis ($14.7 billion and $35.2 billion, respectively at December 31, 2021) utilizing various valuation techniques with one or more significant inputs or significant value drivers being unobservable including, but not limited to, complex internal valuation models, alternative pricing procedures or comparables analysis and discounted cash flows.

We identified the assessment of the measurement of fair value for certain Level 3 assets and liabilities recorded at fair value on a recurring basis as a critical audit matter. A high degree of effort, including specialized skills and knowledge, and subjective and complex auditor judgment was involved in the assessment of the Level 3 fair values due to measurement uncertainty. Specifically, the assessment encompassed the evaluation of the fair value methodology, including methods, models and significant assumptions and inputs used to estimate fair value. Significant assumptions and inputs include interest rate, price, yield, credit spread, volatilities, correlations and forward prices. The assessment also included an evaluation of the conceptual soundness and performance of the valuation models.

The following are the primary procedures we performed to address this critical audit matter. We involved valuation professionals with specialized skills and knowledge who assisted in evaluating the design and testing the operating effectiveness of certain internal controls related to the Company's Level 3 fair value measurements, including controls over:

- valuation methodologies, including significant inputs and assumptions
- independent price verification
- evaluating that significant model assumptions and inputs reflected those which a market participant would use to determine an exit price in the current market environment
- the valuation models used were mathematically accurate and appropriate to value the financial instruments
- relevant information used within the Company's models that was reasonably available was considered in the fair value determination.

We evaluated the Company's methodology for compliance with U.S. generally accepted accounting principles. We involved valuation professionals with specialized skills and knowledge who assisted in developing an independent fair value estimate for a selection of certain Level 3 assets and liabilities recorded at fair value on a recurring basis, based on independently developed valuation models and assumptions, as applicable, using market data sources we determined to be relevant and reliable, and compared our independent expectation to the Company's fair value measurements.

Assessment of the allowance for credit losses collectively evaluated for impairment

As discussed in Notes 1 and 15 to the consolidated financial statements, the Company's allowance for credit losses related to loans and unfunded lending commitments collectively evaluated for impairment (the collective ACLL) was $18.3 billion as of December 31, 2021. The expected credit losses for the quantitative component of the collective ACLL is the product of multiplying the probability of default (PD), loss given default (LGD), and exposure at default (EAD) for consumer and corporate loans. For consumer credit cards, the Company uses the payment rate approach over the life of the loan, which leverages payment rate curves, to determine the payments that should be applied to liquidate the end-of-period balance in the estimation of EAD. For unconditionally cancelable accounts, reserves are based on the expected life of the balance as of the evaluation date and do not include any undrawn commitments that are unconditionally cancelable. The Company's models utilize a single forward-looking macroeconomic forecast and macroeconomic assumptions over reasonable and supportable forecast periods. Reasonable and supportable forecast periods vary by product. For consumer loan models, the Company uses a 13-quarter reasonable and supportable period and reverts to historical loss experience thereafter. For corporate loan models, the Company uses a nine-quarter reasonable and supportable period followed by a three-quarter transition to historical loss experience. Additionally, for consumer loans, these models consider leading credit indicators including loan delinquencies, as well as economic factors. For corporate loans, these models consider the credit quality as measured by risk ratings and economic factors. The qualitative component considers idiosyncratic events and the uncertainty of forward-looking economic scenarios.

We identified the assessment of the collective ACLL as a critical audit matter. The assessment involved significant measurement uncertainty requiring complex auditor judgment, and specialized skills and knowledge as well as experience in the industry. This assessment encompassed the evaluation of the various components of the collective ACLL methodology, including the methods and models used to estimate the PD, LGD, and EAD and certain key assumptions and inputs for the Company's quantitative and qualitative components. Key assumptions and inputs for consumer loans included loan delinquencies, certain credit indicators, reasonable and supportable forecast periods, expected life as well as economic factors, including unemployment rates, gross domestic product (GDP) and housing prices, which are considered in the model. For corporate loans, key assumptions and inputs included risk ratings, reasonable and supportable forecasts, credit conversion factor for unfunded lending commitments, and economic factors, including GDP and unemployment rates considered in the model. Key assumptions and inputs for the qualitative component for both consumer and corporate loan portfolios included the likelihood and severity of a downside scenario and consideration of uncertainties due to idiosyncratic events as a result of the COVID-19 pandemic. The assessment also included an evaluation of the conceptual soundness and performance of the PD, LGD, and EAD models. In addition, auditor judgment was required to evaluate the sufficiency of audit evidence obtained.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's measurement of the collective ACLL estimate, including controls over the:

- approval of the collective ACLL methodologies
- determination of the key assumptions and inputs used to estimate the quantitative and qualitative components of the collective ACLL
- performance monitoring of the PD, LGD, and EAD models.

We evaluated the Company's process to develop the collective ACLL estimate by testing certain sources of data and assumptions that the Company used and considered the relevance and reliability of such data and assumptions. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in:

- reviewing the Company's collective ACLL methodologies and key assumptions for compliance with U.S. generally accepted accounting principles
- assessing the conceptual soundness and performance testing of the PD, LGD, and EAD models by inspecting the model documentation to determine whether the models are suitable for their intended use
- evaluating judgments made by the Company relative to the development and performance monitoring testing of the PD, LGD, and EAD models by comparing them to relevant Company-specific metrics
- assessing the economic forecast scenarios through comparison to publicly available forecasts
- evaluating the methodologies used to develop certain economic forecast scenarios by comparing them to relevant industry practices
- testing corporate loan risk ratings for a selection of borrowers by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral
- evaluating the methodologies used in determining the qualitative components and the effect of those components on the collective ACLL compared with relevant credit risk factors and consistency with credit trends.

We also assessed the sufficiency of the audit evidence obtained related to the collective ACLL by evaluating the:

- cumulative results of the audit procedures
- qualitative aspects of the Company's accounting practices
- potential bias in the accounting estimates.

/s/ KPMG LLP)
We have served as the Company's auditor since 1969.

New York, New York
(PCAOB ID # 185)
February 25, 2022

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CONSOLIDATED FINANCIAL STATEMENTS

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF INCOME

Citigroup Inc. and Subsidiaries

In millions of dollars, except per share amounts	Years ended December 31, 2021	2020	2019
Revenues			
Interest revenue	**$ 50,475**	$ 58,089	$ 76,510
Interest expense	**7,981**	13,338	28,382
Net interest income	**$ 42,494**	$ 44,751	$ 48,128
Commissions and fees	**$ 13,672**	$ 11,385	$ 11,746
Principal transactions	**10,154**	13,885	8,892
Administration and other fiduciary fees	**3,943**	3,472	3,411
Realized gains on sales of investments, net	**665**	1,756	1,474
Impairment losses on investments:			
Impairment losses on investments and other assets	**(206)**	(165)	(32)
Provision for credit losses on AFS debt securities[1]	**(3)**	(3)	—
Net impairment losses recognized in earnings	**$ (209)**	$ (168)	$ (32)
Other revenue	**$ 1,165**	$ 420	$ 1,448
Total non-interest revenues	**$ 29,390**	$ 30,750	$ 26,939
Total revenues, net of interest expense	**$ 71,884**	$ 75,501	$ 75,067
Provisions for credit losses and for benefits and claims			
Provision for credit losses on loans	**$ (3,103)**	$ 15,922	$ 8,218
Provision for credit losses on held-to-maturity (HTM) debt securities	**(3)**	7	—
Provision for credit losses on other assets	**—**	7	—
Policyholder benefits and claims	**116**	113	73
Provision for credit losses on unfunded lending commitments	**(788)**	1,446	92
Total provisions for credit losses and for benefits and claims[2]	**$ (3,778)**	$ 17,495	$ 8,383
Operating expenses			
Compensation and benefits	**$ 25,134**	$ 22,214	$ 21,433
Premises and equipment	**2,314**	2,333	2,328
Technology/communication	**7,828**	7,383	7,077
Advertising and marketing	**1,490**	1,217	1,516
Other operating	**11,427**	11,227	10,429
Total operating expenses	**$ 48,193**	$ 44,374	$ 42,783
Income from continuing operations before income taxes	**$ 27,469**	$ 13,632	$ 23,901
Provision for income taxes	**5,451**	2,525	4,430
Income from continuing operations	**$ 22,018**	$ 11,107	$ 19,471
Discontinued operations			
Income (loss) from discontinued operations	**$ 7**	$ (20)	$ (31)
Benefit for income taxes	**—**	—	(27)
Income (loss) from discontinued operations, net of taxes	**$ 7**	$ (20)	$ (4)
Net income before attribution of noncontrolling interests	**$ 22,025**	$ 11,087	$ 19,467
Noncontrolling interests	**73**	40	66
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Basic earnings per share[3]			
Income from continuing operations	**$ 10.21**	$ 4.75	$ 8.08
Loss from discontinued operations, net of taxes	**—**	(0.01)	—
Net income	**$ 10.21**	$ 4.74	$ 8.08
Weighted average common shares outstanding *(in millions)*	**2,033.0**	2,085.8	2,249.2
Diluted earnings per share[3]			
Income from continuing operations	**$ 10.14**	$ 4.73	$ 8.04
Loss from discontinued operations, net of taxes	**—**	(0.01)	—
Net income	**$ 10.14**	$ 4.72	$ 8.04
Adjusted weighted average common shares outstanding *(in millions)*	**2,049.4**	2,099.0	2,265.3

(1) This presentation is in accordance with ASC 326, which requires the provision for credit losses on AFS securities to be included in revenue.
(2) This total excludes the provision for credit losses on AFS securities, which is disclosed separately above.
(3) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Citigroup Inc. and Subsidiaries

	Years ended December 31,		
In millions of dollars	**2021**	2020	2019
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Add: Citigroup's other comprehensive income (loss)			
Net change in unrealized gains and losses on debt securities, net of taxes[1]	**$ (3,934)**	$ 3,585	$ 1,985
Net change in debt valuation adjustment (DVA), net of taxes[1]	**232**	(475)	(1,136)
Net change in cash flow hedges, net of taxes	**(1,492)**	1,470	851
Benefit plans liability adjustment, net of taxes[2]	**1,012**	(55)	(552)
Net change in foreign currency translation adjustment, net of taxes and hedges	**(2,525)**	(250)	(321)
Net change in excluded component of fair value hedges, net of taxes	**—**	(15)	25
Citigroup's total other comprehensive income (loss)	**$ (6,707)**	$ 4,260	$ 852
Citigroup's total comprehensive income	**$ 15,245**	$ 15,307	$ 20,253
Add: Other comprehensive income (loss) attributable to noncontrolling interests	**$ (99)**	$ 26	$ —
Add: Net income attributable to noncontrolling interests	**73**	40	66
Total comprehensive income	**$ 15,219**	$ 15,373	$ 20,319

(1) See Note 1 to the Consolidated Financial Statements.
(2) See Note 8 to the Consolidated Financial Statements.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEET

Citigroup Inc. and Subsidiaries

In millions of dollars		December 31, 2021		2020
Assets				
Cash and due from banks (including segregated cash and other deposits)	**$**	**27,515**	$	26,349
Deposits with banks, net of allowance		**234,518**		283,266
Securities borrowed and purchased under agreements to resell (including $216,466 and $185,204 as of December 31, 2021 and 2020, respectively, at fair value), net of allowance		**327,288**		294,712
Brokerage receivables, net of allowance		**54,340**		44,806
Trading account assets (including $133,828 and $168,967 pledged to creditors at December 31, 2021 and 2020, respectively)		**331,945**		375,079
Investments:				
Available-for-sale debt securities (including $9,226 and $5,921 pledged to creditors as of December 31, 2021 and 2020, respectively), net of allowance		**288,522**		335,084
Held-to-maturity debt securities (including $1,460 and $547 pledged to creditors as of December 31, 2021 and 2020, respectively), net of allowance		**216,963**		104,943
Equity securities (including $1,032 and $1,066 as of December 31, 2021 and 2020, respectively, at fair value)		**7,337**		7,332
Total investments	**$**	**512,822**	$	447,359
Loans:				
Consumer (including $12 and $14 as of December 31, 2021 and 2020, respectively, at fair value)		**271,236**		288,839
Corporate (including 6,070 and 6,840 as of December 31, 2021 and 2020, respectively, at fair value)		**396,531**		387,044
Loans, net of unearned income	**$**	**667,767**	$	675,883
Allowance for credit losses on loans (ACLL)		**(16,455)**		(24,956)
Total loans, net	**$**	**651,312**	$	650,927
Goodwill		**21,299**		22,162
Intangible assets (including MSRs of $404 and $336 as of December 31, 2021 and 2020, respectively, at fair value)		**4,495**		4,747
Other assets (including $12,342 and $14,613 as of December 31, 2021 and 2020, respectively, at fair value), net of allowance		**125,879**		110,683
Total assets	**$**	**2,291,413**	$	2,260,090

The following table presents certain assets of consolidated variable interest entities (VIEs), which are included on the Consolidated Balance Sheet above. The assets in the table below include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. In addition, the assets in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation.

In millions of dollars		December 31, 2021		2020
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs				
Cash and due from banks	**$**	**260**	$	281
Trading account assets		**10,038**		8,104
Investments		**844**		837
Loans, net of unearned income				
Consumer		**34,677**		37,561
Corporate		**14,312**		17,027
Loans, net of unearned income	**$**	**48,989**	$	54,588
Allowance for credit losses on loans (ACLL)		**(2,668)**		(3,794)
Total loans, net	**$**	**46,321**	$	50,794
Other assets		**1,174**		43
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	**$**	**58,637**	$	60,059

Statement continues on the next page.

	December 31,	
In millions of dollars, except shares and per share amounts	**2021**	2020
Liabilities		
Non-interest-bearing deposits in U.S. offices	**$ 158,552**	$ 126,942
Interest-bearing deposits in U.S. offices (including $879 and $879 as of December 31, 2021 and 2020, respectively, at fair value)	**543,283**	503,213
Non-interest-bearing deposits in offices outside the U.S.	**97,270**	100,543
Interest-bearing deposits in offices outside the U.S. (including $787 and $1,079 as of December 31, 2021 and 2020, respectively, at fair value)	**518,125**	549,973
Total deposits	**$ 1,317,230**	$ 1,280,671
Securities loaned and sold under agreements to repurchase (including $56,694 and $60,206 as of December 31, 2021 and 2020, respectively, at fair value)	**191,285**	199,525
Brokerage payables (including $3,575 and $6,835 as of December 31, 2021 and 2020, respectively, at fair value), including allowance	**61,430**	50,484
Trading account liabilities	**161,529**	168,027
Short-term borrowings (including $7,358 and $4,683 as of December 31, 2021 and 2020, respectively, at fair value)	**27,973**	29,514
Long-term debt (including $82,609 and $67,063 as of December 31, 2021 and 2020, respectively, at fair value)	**254,374**	271,686
Other liabilities	**74,920**	59,983
Total liabilities	**$ 2,088,741**	$ 2,059,890
Stockholders' equity		
Preferred stock ($1.00 par value; authorized shares: 30 million), issued shares: **759,800 as of December 31, 2021** and 779,200 as of December 31, 2020, at aggregate liquidation value	**$ 18,995**	$ 19,480
Common stock ($0.01 par value; authorized shares: 6 billion), issued shares: **3,099,651,835 as of December 31, 2021** and 3,099,633,160 as of December 31, 2020	**31**	31
Additional paid-in capital	**108,003**	107,846
Retained earnings	**184,948**	168,272
Treasury stock, at cost: **1,115,296,641 shares as of December 31, 2021** and 1,017,543,951 shares as of December 31, 2020	**(71,240)**	(64,129)
Accumulated other comprehensive income (loss) (*AOCI*)	**(38,765)**	(32,058)
Total Citigroup stockholders' equity	**$ 201,972**	$ 199,442
Noncontrolling interests	**700**	758
Total equity	**$ 202,672**	$ 200,200
Total liabilities and equity	**$ 2,291,413**	$ 2,260,090

The following table presents certain liabilities of consolidated VIEs, which are included on the Consolidated Balance Sheet above. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude amounts where creditors or beneficial interest holders have recourse to the general credit of Citigroup.

	December 31,	
In millions of dollars	**2021**	2020
Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup		
Short-term borrowings	**$ 8,376**	$ 9,278
Long-term debt	**12,579**	20,405
Other liabilities	**694**	463
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	**$ 21,649**	$ 30,146

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

In millions of dollars, except shares in thousands	Years ended December 31, Amounts 2021	2020	2019	Shares 2021	2020	2019
Preferred stock at aggregate liquidation value						
Balance, beginning of year	**$ 19,480**	$ 17,980	$ 18,460	**779**	719	738
Issuance of new preferred stock	**3,300**	3,000	1,500	**132**	120	60
Redemption of preferred stock	**(3,785)**	(1,500)	(1,980)	**(151)**	(60)	(79)
Balance, end of year	**$ 18,995**	$ 19,480	$ 17,980	**760**	779	719
Common stock and additional paid-in capital (APIC)						
Balance, beginning of year	**$ 107,877**	$ 107,871	$ 107,953	**3,099,633**	3,099,603	3,099,567
Employee benefit plans	**85**	5	(112)	**19**	30	36
Preferred stock issuance costs (new issuances, net of reclassifications to retained earnings for redemptions)	**25**	(4)	(4)	**—**	—	—
Other	**47**	5	34	**—**	—	—
Balance, end of year	**$ 108,034**	$ 107,877	$ 107,871	**3,099,652**	3,099,633	3,099,603
Retained earnings						
Balance, beginning of year	**$ 168,272**	$ 165,369	$ 151,347			
Adjustments to opening balance, net of taxes[1]						
Financial instruments—credit losses (CECL adoption)	**—**	(3,076)	—			
Variable post-charge-off third-party collection costs	**—**	330	—			
Lease accounting, intra-entity transfers of assets	**—**	—	151			
Adjusted balance, beginning of year	**$ 168,272**	$ 162,623	$ 151,498			
Citigroup's net income	**21,952**	11,047	19,401			
Common dividends[2]	**(4,196)**	(4,299)	(4,403)			
Preferred dividends	**(1,040)**	(1,095)	(1,109)			
Other (primarily reclassifications from APIC for preferred issuance costs on redemptions)	**(40)**	(4)	(18)			
Balance, end of year	**$ 184,948**	$ 168,272	$ 165,369			
Treasury stock, at cost						
Balance, beginning of year	**$ (64,129)**	$ (61,660)	$ (44,370)	**(1,017,544)**	(985,480)	(731,100)
Employee benefit plans[3]	**489**	456	585	**7,745**	8,676	9,872
Treasury stock acquired[4]	**(7,600)**	(2,925)	(17,875)	**(105,498)**	(40,740)	(264,252)
Balance, end of year	**$ (71,240)**	$ (64,129)	$ (61,660)	**(1,115,297)**	(1,017,544)	(985,480)
Citigroup's accumulated other comprehensive income (loss)						
Balance, beginning of year	**$ (32,058)**	$ (36,318)	$ (37,170)			
Citigroup's total other comprehensive income (loss)	**(6,707)**	4,260	852			
Balance, end of year	**$ (38,765)**	$ (32,058)	$ (36,318)			
Total Citigroup common stockholders' equity	**$ 182,977**	$ 179,962	$ 175,262	**1,984,355**	2,082,089	2,114,123
Total Citigroup stockholders' equity	**$ 201,972**	$ 199,442	$ 193,242			
Noncontrolling interests						
Balance, beginning of year	**$ 758**	$ 704	$ 854			
Transactions between noncontrolling-interest shareholders and the related consolidated subsidiary	**—**	—	—			
Transactions between Citigroup and the noncontrolling-interest shareholders	**(10)**	(4)	(169)			
Net income attributable to noncontrolling-interest shareholders	**73**	40	66			
Distributions paid to noncontrolling-interest shareholders	**(10)**	(2)	(40)			
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	**(99)**	26	—			
Other	**(12)**	(6)	(7)			
Net change in noncontrolling interests	**$ (58)**	$ 54	$ (150)			
Balance, end of year	**$ 700**	$ 758	$ 704			
Total equity	**$ 202,672**	$ 200,200	$ 193,946			

(1) See Note 1 to the Consolidated Financial Statements for additional details.
(2) Common dividends declared were $0.51 per share in the first, second, third and fourth quarters of 2021 and 2020; $0.45 per share in the first and second quarters of 2019 and $0.51 per share in the third and fourth quarters of 2019.
(3) Includes treasury stock related to (i) certain activity on employee stock option program exercises where the employee delivers existing shares to cover the option exercise, or (ii) under Citi's employee restricted or deferred stock programs where shares are withheld to satisfy tax requirements.
(4) Primarily consists of open market purchases under Citi's Board of Directors-approved common stock repurchase programs.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

Citigroup Inc. and Subsidiaries

In millions of dollars	Years ended December 31, 2021	2020	2019
Cash flows from operating activities of continuing operations			
Net income before attribution of noncontrolling interests	**$ 22,025**	$ 11,087	$ 19,467
Net income attributable to noncontrolling interests	**73**	40	66
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Income (loss) from discontinued operations, net of taxes	**7**	(20)	(4)
Income from continuing operations—excluding noncontrolling interests	**$ 21,945**	$ 11,067	$ 19,405
Adjustments to reconcile net income to net cash provided by (used in) operating activities of continuing operations			
Net loss on significant disposals[1]	**700**	—	—
Depreciation and amortization	**3,964**	3,937	3,905
Deferred income taxes	**1,413**	(2,333)	(610)
Provision for credit losses on loans and unfunded lending commitments	**(3,891)**	17,368	8,310
Realized gains from sales of investments	**(665)**	(1,756)	(1,474)
Impairment losses on investments and other assets	**206**	165	32
Change in trading account assets	**43,059**	(98,997)	(20,124)
Change in trading account liabilities	**(6,498)**	48,133	(24,411)
Change in brokerage receivables net of brokerage payables	**1,412**	(3,066)	(20,377)
Change in loans HFS	**(3,809)**	1,202	(909)
Change in other assets	**(2,139)**	(1,012)	4,724
Change in other liabilities	**6,839**	558	1,737
Other, net	**(1,287)**	4,113	16,955
Total adjustments	**$ 39,304**	$ (31,688)	$ (32,242)
Net cash provided by (used in) operating activities of continuing operations	**$ 61,249**	$ (20,621)	$ (12,837)
Cash flows from investing activities of continuing operations			
Change in securities borrowed and purchased under agreements to resell	**$ (32,576)**	$ (43,390)	$ 19,362
Change in loans	**(1,173)**	14,249	(22,466)
Proceeds from sales and securitizations of loans	**2,918**	1,495	2,878
Purchases of investments	**(359,158)**	(334,900)	(274,491)
Proceeds from sales of investments	**126,728**	146,285	137,173
Proceeds from maturities of investments	**142,100**	124,229	119,051
Capital expenditures on premises and equipment and capitalized software	**(4,119)**	(3,446)	(5,336)
Proceeds from sales of premises and equipment, subsidiaries and affiliates and repossessed assets	**190**	50	259
Other, net	**185**	116	196
Net cash used in investing activities of continuing operations	**$ (124,905)**	$ (95,312)	$ (23,374)
Cash flows from financing activities of continuing operations			
Dividends paid	**$ (5,198)**	$ (5,352)	$ (5,447)
Issuance of preferred stock	**3,300**	2,995	1,496
Redemption of preferred stock	**(3,785)**	(1,500)	(1,980)
Treasury stock acquired	**(7,601)**	(2,925)	(17,571)
Stock tendered for payment of withholding taxes	**(337)**	(411)	(364)
Change in securities loaned and sold under agreements to repurchase	**(8,240)**	33,186	(11,429)
Issuance of long-term debt	**70,658**	76,458	59,134
Payments and redemptions of long-term debt	**(74,950)**	(63,402)	(51,029)
Change in deposits	**44,966**	210,081	57,420
Change in short-term borrowings	**(1,541)**	(15,535)	12,703

	Years ended December 31,		
In millions of dollars	**2021**	2020	2019
Net cash provided by financing activities of continuing operations	**$ 17,272**	$ 233,595	$ 42,933
Effect of exchange rate changes on cash and due from banks	**$ (1,198)**	$ (1,966)	$ (908)
Change in cash, due from banks and deposits with banks	**(47,582)**	115,696	5,814
Cash, due from banks and deposits with banks at beginning of year	**309,615**	193,919	188,105
Cash, due from banks and deposits with banks at end of year	**$ 262,033**	$ 309,615	$ 193,919
Cash and due from banks (including segregated cash and other deposits)	**$ 27,515**	$ 26,349	$ 23,967
Deposits with banks, net of allowance	**234,518**	283,266	169,952
Cash, due from banks and deposits with banks at end of year	**$ 262,033**	$ 309,615	$ 193,919
Supplemental disclosure of cash flow information for continuing operations			
Cash paid during the year for income taxes	**$ 4,028**	$ 4,797	$ 4,888
Cash paid during the year for interest	**7,143**	12,094	27,901
Non-cash investing activities[(1)(2)]			
Decrease in net loans associated with significant disposals reclassified to HFS	**$ 9,945**	$ —	$ —
Transfers to loans HFS (*Other assets*) from loans	**7,414**	2,614	5,500
Non-cash financing activities[(1)]			
Decrease in long-term debt associated with significant disposals reclassified to HFS	**$ 479**	$ —	$ —
Decrease in deposits associated with significant disposals reclassified to HFS	**8,407**	—	—

(1) See Note 2 to the Consolidated Financial Statements for further information on significant disposals.
(2) Operating and finance lease right-of-use assets and lease liabilities represent non-cash investing and financing activities, respectively, and are not included in the non-cash investing activities presented here. See Note 26 to the Consolidated Financial Statements for more information and balances.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Throughout these Notes, "Citigroup," "Citi" and the "Company" refer to Citigroup Inc. and its consolidated subsidiaries.

Certain reclassifications and updates have been made to the prior periods' financial statements and notes to conform to the current period's presentation.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of Citigroup and its subsidiaries prepared in accordance with U.S. generally accepted accounting principles (GAAP). The Company consolidates subsidiaries in which it holds, directly or indirectly, more than 50% of the voting rights or where it exercises control. Entities in which the Company holds 20% to 50% of the voting rights and/or has the ability to exercise significant influence, other than investments of designated venture capital subsidiaries or investments accounted for at fair value under the fair value option, are accounted for under the equity method, and the pro rata share of their income (loss) is included in *Other revenue*. Income from investments in less-than-20%-owned companies is recognized when dividends are received. As discussed in more detail in Note 21 to the Consolidated Financial Statements, Citigroup also consolidates entities deemed to be variable interest entities when Citigroup is determined to be the primary beneficiary. Gains and losses on the disposition of branches, subsidiaries, affiliates, buildings and other investments are included in *Other revenue*.

Citibank

Citibank, N.A. (Citibank) is a commercial bank and indirect wholly owned subsidiary of Citigroup. Citibank's principal offerings include investment banking, commercial banking, cash management, trade finance and e-commerce; private banking products and services; consumer finance, credit cards, and mortgage lending; and retail banking products and services.

Variable Interest Entities (VIEs)

An entity is a variable interest entity (VIE) if it meets either of the criteria outlined in Accounting Standards Codification (ASC) Topic 810, *Consolidation*, which are (i) the entity has equity that is insufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, or (ii) the entity has equity investors that cannot make significant decisions about the entity's operations or that do not absorb their proportionate share of the entity's expected losses or expected returns.

The Company consolidates a VIE when it has both the power to direct the activities that most significantly impact the VIE's economic performance and a right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE (that is, Citi is the primary beneficiary). In addition to variable interests held in consolidated VIEs, the Company has variable interests in other VIEs that are not consolidated because the Company is not the primary beneficiary.

All unconsolidated VIEs are monitored by the Company to assess whether any events have occurred to cause its primary beneficiary status to change.

All entities not deemed to be VIEs with which the Company has involvement are evaluated for consolidation under other subtopics of ASC 810. See Note 21 to the Consolidated Financial Statements for more detailed information.

Foreign Currency Translation

Assets and liabilities of Citi's foreign operations are translated from their respective functional currencies into U.S. dollars using period-end spot foreign exchange rates. The effects of those translation adjustments are reported in *Accumulated other comprehensive income (loss)*, a component of stockholders' equity, net of any related hedge and tax effects, until realized upon sale or substantial liquidation of the foreign entity, at which point such amounts are reclassified into earnings. Revenues and expenses of Citi's foreign operations are translated monthly from their respective functional currencies into U.S. dollars at amounts that approximate weighted average exchange rates.

For transactions that are denominated in a currency other than the functional currency, including transactions denominated in the local currencies of foreign operations that use the U.S. dollar as their functional currency, the effects of changes in exchange rates are primarily included in *Principal transactions*, along with the related effects of any economic hedges. Instruments used to hedge foreign currency exposures include foreign currency forward, option and swap contracts and, in certain instances, designated issues of non-U.S.-dollar debt. Foreign operations in countries with highly inflationary economies designate the U.S. dollar as their functional currency, with the effects of changes in exchange rates primarily included in *Other revenue*.

Investment Securities

Investments include debt and equity securities. Debt securities include bonds, notes and redeemable preferred stocks, as well as certain loan-backed and structured securities that are subject to prepayment risk. Equity securities include common and nonredeemable preferred stock.

Debt Securities

- Debt securities classified as "held-to-maturity" (HTM) are securities that the Company has both the ability and the intent to hold until maturity and are carried at amortized cost. Interest income on such securities is included in *Interest revenue*.
- Debt securities classified as "available-for-sale" (AFS) are carried at fair value with changes in fair value reported in *Accumulated other comprehensive income (loss)*, a component of stockholders' equity, net of applicable income taxes and hedges. Interest income on such securities is included in *Interest revenue*.

Equity Securities

- Marketable equity securities are measured at fair value with changes in fair value recognized in earnings.
- Non-marketable equity securities are measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost. Non-marketable equity securities under the measurement alternative are carried at cost less impairment (if any), plus or minus changes resulting from observed prices for orderly transactions for the identical or a similar investment of the same issuer.
- Certain investments that would otherwise have been accounted for using the equity method are carried at fair value with changes in fair value recognized in earnings, since the Company elected to apply fair value accounting.

For investments in debt securities classified as held-to-maturity (HTM) or available-for-sale (AFS), the accrual of interest income is suspended for investments that are in default or for which it is likely that future interest payments will not be made as scheduled.

Debt securities not measured at fair value through earnings include securities held in HTM or AFS, and equity securities accounted for under the Measurement Alternative or equity method and Federal Reserve Bank, Federal Home Loan Bank stock and certain exchange seats. These securities are subject to evaluation for impairment as described in Note 15 to the Consolidated Financial Statements for HTM securities and in Note 13 for AFS, Measurement Alternative and equity method investments. Realized gains and losses on sales of investments are included in earnings, primarily on a specific identification basis.

The Company uses a number of valuation techniques for investments carried at fair value, which are described in Note 24 to the Consolidated Financial Statements.

Trading Account Assets and Liabilities

Trading account assets include debt and marketable equity securities, derivatives in a receivable position, residual interests in securitizations and physical commodities inventory. In addition, as described in Note 25 to the Consolidated Financial Statements, certain assets that Citigroup has elected to carry at fair value under the fair value option, such as loans and purchased guarantees, are also included in *Trading account assets*.

Trading account liabilities include securities sold, not yet purchased (short positions) and derivatives in a net payable position, as well as certain liabilities that Citigroup has elected to carry at fair value (as described in Note 25 to the Consolidated Financial Statements).

Other than physical commodities inventory, all trading account assets and liabilities are carried at fair value. Revenues generated from trading assets and trading liabilities are generally reported in *Principal transactions* and include realized gains and losses as well as unrealized gains and losses resulting from changes in the fair value of such instruments. Interest income on trading assets is recorded in *Interest revenue* reduced by interest expense on trading liabilities.

Physical commodities inventory is carried at the lower of cost or market with related losses reported in *Principal transactions*, except when included in a hedge relationship. Realized gains and losses on sales of commodities inventory are included in *Principal transactions*. Investments in unallocated precious metals accounts (gold, silver, platinum and palladium) are accounted for as hybrid instruments containing a debt host contract and an embedded non-financial derivative instrument indexed to the price of the relevant precious metal. The embedded derivative instrument and debt host contract are carried at fair value under the fair value option, as described in Note 25 to the Consolidated Financial Statements.

Derivatives used for trading purposes include interest rate, currency, equity, credit and commodity swap agreements, options, caps and floors, warrants, and financial and commodity futures and forward contracts. Derivative asset and liability positions are presented net by counterparty on the Consolidated Balance Sheet when a valid master netting agreement exists and the other conditions set out in ASC Topic 210-20, *Balance Sheet—Offsetting*, are met. See Note 22 to the Consolidated Financial Statements.

The Company uses a number of techniques to determine the fair value of trading assets and liabilities, which are described in Note 24 to the Consolidated Financial Statements.

Securities Borrowed and Securities Loaned

Securities borrowing and lending transactions do not constitute a sale of the underlying securities for accounting purposes and are treated as collateralized financing transactions. Such transactions are recorded at the amount of proceeds advanced or received plus accrued interest. As described in Note 25 to the Consolidated Financial Statements, the Company has elected to apply fair value accounting to a number of securities borrowing and lending transactions. Fees received or paid for all securities borrowing and lending transactions are recorded in *Interest revenue* or *Interest expense* at the contractually specified rate.

Where the conditions of ASC 210-20-45-1, *Balance Sheet—Offsetting: Right of Setoff Conditions*, are met, securities borrowing and lending transactions are presented net on the Consolidated Balance Sheet.

The Company monitors the fair value of securities borrowed or loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 24 to the Consolidated Financial Statements, the Company uses a discounted cash flow technique to determine the fair value of securities lending and borrowing transactions.

Repurchase and Resale Agreements

Securities sold under agreements to repurchase (repos) and securities purchased under agreements to resell (reverse repos) do not constitute a sale (or purchase) of the underlying securities for accounting purposes and are treated as collateralized financing transactions. As described in Note 25 to the Consolidated Financial Statements, the Company has elected to apply fair value accounting to certain of such transactions, with changes in fair value reported in earnings. Any transactions for which fair value accounting has not been elected are recorded at the amount of cash advanced or received plus accrued interest. Irrespective of whether the Company has elected fair value accounting, interest paid or received on all repo and reverse repo transactions is recorded in *Interest expense* or *Interest revenue* at the contractually specified rate.

Where the conditions of ASC 210-20-45-11, *Balance Sheet—Offsetting: Repurchase and Reverse Repurchase Agreements*, are met, repos and reverse repos are presented net on the Consolidated Balance Sheet.

The Company's policy is to take possession of securities purchased under reverse repurchase agreements. The Company monitors the fair value of securities subject to repurchase or resale on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 24 to the Consolidated Financial Statements, the Company uses a discounted cash flow technique to determine the fair value of repo and reverse repo transactions.

Loans

Loans are reported at their outstanding principal balances net of any unearned income and unamortized deferred fees and costs, except for credit card receivable balances, which include accrued interest and fees. Loan origination fees and certain direct origination costs are generally deferred and recognized as adjustments to income over the lives of the related loans.

As described in Note 25 to the Consolidated Financial Statements, Citi has elected fair value accounting for certain loans. Such loans are carried at fair value with changes in fair value reported in earnings. Interest income on such loans is recorded in *Interest revenue* at the contractually specified rate.

Loans that are held-for-investment are classified as *Loans, net of unearned income* on the Consolidated Balance Sheet, and the related cash flows are included within the cash flows from investing activities category in the Consolidated Statement of Cash Flows on the line *Change in loans*. However, when the initial intent for holding a loan has changed from held-for-investment to held-for-sale (HFS), the loan is reclassified to HFS, but the related cash flows continue to be reported in cash flows from investing activities in the Consolidated Statement of Cash Flows on the line *Proceeds from sales and securitizations of loans*.

Consumer Loans

Consumer loans represent loans and leases managed primarily by the *Global Consumer Banking (GCB)* businesses and *Corporate/Other*.

Consumer Non-accrual and Re-aging Policies

As a general rule, interest accrual ceases for installment and real estate (both open- and closed-end) loans when payments are 90 days contractually past due. For credit cards and other unsecured revolving loans, however, Citi generally accrues interest until payments are 180 days past due. As a result of OCC guidance, home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Also as a result of OCC guidance, mortgage loans in regulated bank entities are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy, with the exception of Federal Housing Administration (FHA)-insured loans.

Loans that have been modified to grant a concession to a borrower in financial difficulty may not be accruing interest at the time of the modification. The policy for returning such modified loans to accrual status varies by product and/or region. In most cases, a minimum number of payments (ranging from one to six) is required, while in other cases the loan is never returned to accrual status. For regulated bank entities, such modified loans are returned to accrual status if a credit evaluation at the time of, or subsequent to, the modification indicates the borrower is able to meet the restructured terms, and the borrower is current and has demonstrated a reasonable period of sustained payment performance (minimum six months of consecutive payments).

For U.S. consumer loans, generally one of the conditions to qualify for modification (other than for loan modifications made through the CARES Act relief provisions or banking agency guidance for pandemic-related issues) is that a minimum number of payments (typically ranging from one to three) must be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for the loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years). Furthermore, FHA and Department of Veterans Affairs (VA) loans may only be modified under those respective agencies' guidelines, and payments are not always required in order to re-age a modified loan to current.

Consumer Charge-Off Policies

Citi's charge-off policies follow the general guidelines below:

- Unsecured installment loans are charged off at 120 days contractually past due.
- Unsecured revolving loans and credit card loans are charged off at 180 days contractually past due.
- Loans secured with non-real estate collateral are written down to the estimated value of the collateral, less costs to sell, at 120 days contractually past due.
- Real estate-secured loans are written down to the estimated value of the property, less costs to sell, at 180 days contractually past due.
- Real estate-secured loans are charged off no later than 180 days contractually past due if a decision has been made not to foreclose on the loans.
- Unsecured loans in bankruptcy are charged off within 60 days of notification of filing by the bankruptcy court or in accordance with Citi's charge-off policy, whichever occurs earlier.

- Real estate-secured loans in bankruptcy, other than FHA-insured loans, are written down to the estimated value of the property, less costs to sell, within 60 days of notification that the borrower has filed for bankruptcy or in accordance with Citi's charge-off policy, whichever is earlier.

Corporate Loans

Corporate loans represent loans and leases managed by *Institutional Clients Group* (*ICG*). Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days past due and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectability of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan.

Impaired corporate loans and leases are written down to the extent that principal is deemed to be uncollectible. Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral and there are no other available and reliable sources of repayment, are written down to the lower of carrying value or collateral value. Cash-basis loans are returned to accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance in accordance with the contractual terms.

Loans Held-for-Sale

Corporate and consumer loans that have been identified for sale are classified as loans HFS and included in *Other assets*. The practice of Citi's U.S. prime mortgage business has been to sell substantially all of its conforming loans. As such, U.S. prime mortgage conforming loans are classified as HFS and the fair value option is elected at origination, with changes in fair value recorded in *Other revenue*. With the exception of those loans for which the fair value option has been elected, HFS loans are accounted for at the lower of cost or market value, with any write-downs or subsequent recoveries charged to *Other revenue*. The related cash flows are classified in the Consolidated Statement of Cash Flows in the cash flows from operating activities category on the line *Change in loans held-for-sale*.

Allowances for Credit Losses (ACL)

Commencing January 1, 2020, Citi adopted Accounting Standards Update (ASC) 326, *Financial Instruments—Credit Losses*, using the methodologies described below. For information about Citi's accounting for loan losses prior to January 1, 2020, see "Superseded Accounting Principles" below.

The current expected credit losses (CECL) methodology is based on relevant information about past events, including historical experience, current conditions and reasonable and supportable (R&S) forecasts that affect the collectability of the reported financial asset balances. If the asset's life extends beyond the R&S forecast period, then historical experience is considered over the remaining life of the assets in the ACL. The resulting ACL is adjusted in each subsequent reporting period through *Provisions for credit losses* in the Consolidated Statement of Income to reflect changes in history, current conditions and forecasts as well as changes in asset positions and portfolios. ASC 326 defines the ACL as a valuation account that is deducted from the amortized cost of a financial asset to present the net amount that management expects to collect on the financial asset over its expected life. All financial assets carried at amortized cost are in the scope of ASC 326, while assets measured at fair value are excluded. See Note 13 to the Consolidated Financial Statements for a discussion of impairment on available-for-sale (AFS) securities.

Increases and decreases to the allowances are recorded in *Provisions for credit losses*. The CECL methodology utilizes a lifetime expected credit loss (ECL) measurement objective for the recognition of credit losses for held-for-investment (HFI) loans, held-to-maturity (HTM) debt securities, receivables and other financial assets measured at amortized cost at the time the financial asset is originated or acquired. Within the life of a loan or other financial asset, the methodology generally results in the earlier recognition of the provision for credit losses and the related ACL than prior U.S. GAAP.

Estimation of ECLs requires Citi to make assumptions regarding the likelihood and severity of credit loss events and their impact on expected cash flows, which drive the probability of default (PD), loss given default (LGD) and exposure at default (EAD) models and, where Citi discounts the ECL, using discounting techniques for certain products. Where the asset's life extends beyond the R&S forecast period, Citi considers historical experience over the remaining life of the assets in estimating the ACL.

Citi uses a multitude of variables in its macroeconomic forecast as part of its calculation of both the qualitative and quantitative components of the ACL, including both domestic and international variables for its global portfolios and exposures. Citi's forecasts of the U.S. unemployment rate and U.S. Real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of its consumer and corporate ACLs. Under the quantitative base scenario, Citi's 4Q21 forecasts are for U.S. unemployment to continue to improve as the U.S. continues to move past the peak of the pandemic-related health and economic crisis.

The following are the main factors and interpretations that Citi considers when estimating the ACL under the CECL methodology:

- The most important reasons for the change in the ACL during 2021 were the ACL releases resulting from the recovery from the pandemic.
- CECL reserves are estimated over the contractual term of the financial asset, which is adjusted for expected prepayments. Expected extensions are generally not considered unless the option to extend the loan cannot be canceled unilaterally by Citi. Modifications are also not

considered, unless Citi has a reasonable expectation that it will execute a troubled debt restructuring (TDR).
- Credit enhancements that are not freestanding (such as those that are included in the original terms of the contract or those executed in conjunction with the lending transaction) are considered loss mitigants for purposes of CECL reserve estimation.
- For unconditionally cancelable accounts such as credit cards, reserves are based on the expected life of the balance as of the evaluation date (assuming no further charges) and do not include any undrawn commitments that are unconditionally cancelable. Reserves are included for undrawn commitments for accounts that are not unconditionally cancelable (such as letters of credit and corporate loan commitments, home equity lines of credit (HELOCs), undrawn mortgage loan commitments and financial guarantees).
- CECL models are designed to be economically sensitive. They utilize the macroeconomic forecasts provided by Citi's economic forecasting team (EFT) that are approved by senior management. Analysis is performed and documented to determine the necessary qualitative management adjustment (QMA) to capture forward-looking macroeconomic expectations and model uncertainty.
- The portion of the forecast that reflects the EFT's reasonable and supportable (R&S) period indicates the maximum length of time its models can produce a R&S macroeconomic forecast, after which mean reversion reflecting historical loss experience is used for the remaining life of the loan to estimate expected credit losses. For the loss forecast, businesses consume the macroeconomic forecast as determined to be appropriate and justifiable.

Citi's ability to forecast credit losses over the reasonable and supportable (R&S) period is based on the ability to forecast economic activity over a reasonable and supportable time window. The R&S period reflects the overall ability to have a reasonable and supportable forecast of credit loss based on economic forecasts.

- The loss models consume all or a portion of the R&S economic forecast and then revert to historical loss experience. The R&S forecast period for consumer loans is 13 quarters and, in most cases, reverts to historically based loss experience either immediately or using a straight-line approach thereafter, while the R&S period for corporate loans is nine quarters with an additional straight-line reversion period of three quarters for ECL parameters.
- The ACL incorporates provisions for accrued interest on products that are not subject to a non-accrual and timely write-off policy (e.g., credit cards, etc.).
- The reserves for TDRs are calculated using the discounted cash flow method and considers appropriate macroeconomic forecast data for the exposure type. For TDR loans that are collateral dependent, the ACL is based on the fair value of the collateral.
- Citi uses the most recent available information to inform its macroeconomic forecasts, allowing sufficient time for analysis of the results and corresponding approvals. Key variables are reviewed for significant changes through year end and changes to portfolio positions are reflected in the ACL.
- Reserves are calculated at an appropriately granular level and on a pooled basis where financial assets share risk characteristics. At a minimum, reserves are calculated at a portfolio level (product and country). Where a financial asset does not share risk characteristics with any of the pools, it is evaluated for credit losses individually.

Quantitative and Qualitative Components of the ACL

The loss likelihood and severity models use both internal and external information and are sensitive to forecasts of different macroeconomic conditions. For the quantitative component, Citi uses a single forward-looking macroeconomic forecast, complemented by the qualitative component that reflects economic uncertainty due to a different possible more adverse scenario for estimating the ACL. Estimates of these ECLs are based upon (i) Citigroup's internal system of credit risk ratings; (ii) historical default and loss data, including comprehensive internal history and rating agency information regarding default rates and internal data on the severity of losses in the event of default; and (iii) a R&S forecast of future macroeconomic conditions. ECL is determined primarily by utilizing models for the borrowers' PD, LGD and EAD. Adjustments may be made to this data, including (i) statistically calculated estimates to cover the historical fluctuation of the default rates over the credit cycle, the historical variability of loss severity among defaulted loans and the degree to which there are large obligor concentrations in the global portfolio, and (ii) adjustments made for specifically known items, such as current environmental factors and credit trends.

Any adjustments needed to the modeled expected losses in the quantitative calculations are addressed through a qualitative adjustment. The qualitative adjustment considers, among other things: the uncertainty of forward-looking scenarios based on the likelihood and severity of a possible recession; the uncertainty of economic conditions related to an alternative downside scenario; certain portfolio characteristics and concentrations; collateral coverage; model limitations; idiosyncratic events; and other relevant criteria under banking supervisory guidance for loan loss reserves. The qualitative adjustment also reflects the estimated impact of the pandemic on the economic forecasts and the impact on credit loss estimates. The total ACL is composed of the quantitative and qualitative components.

Consumer Loans
For consumer loans, most portfolios including North America cards, mortgages and personal installment loans (PILs) are covered by the PD, LGD and EAD loss forecasting models. Some smaller international portfolios are covered by econometric models where the gross credit loss (GCL) rate is forecasted. The modeling of all retail products is performed by examining risk drivers for a given portfolio; these drivers relate to exposures with similar credit risk characteristics and consider past events, current conditions and R&S forecasts. Under the PD x LGD x EAD approach, GCLs and recoveries are captured on an undiscounted basis. Citi incorporates expected recoveries on loans into its reserve estimate, including expected recoveries on assets previously written off.

CECL defines the exposure's expected life as the remaining contractual maturity including any expected prepayments. Subsequent changes to the contractual terms that are the result of a re-underwriting are not included in the loan's expected CECL life.

Citi does not establish reserves for the uncollectible accrued interest on non-revolving consumer products, such as mortgages and installment loans, which are subject to a non-accrual and timely write-off policy. As such, only the principal balance is subject to the CECL reserve methodology and interest does not attract a further reserve. FAS 91-deferred origination costs and fees related to new account originations are amortized within a 12-month period, and an ACL is provided for components in the scope of the ASC.

Separate valuation allowances are determined for impaired smaller-balance homogeneous loans whose terms have been modified in a TDR. Long-term modification programs, and short-term (less than 12 months) modifications that provide concessions (such as interest rate reductions) to borrowers in financial difficulty, are reported as TDRs. In addition, loan modifications that involve a trial period are reported as TDRs at the start of the trial period. The ACL for TDRs is determined using a discounted cash flow (DCF) approach. When a DCF approach is used, the initial allowance for ECLs is calculated as the expected contractual cash flows discounted at the loan's original effective interest rate. DCF techniques are applied only for consumer loans classified as TDR loan exposures.

For credit cards, Citi uses the payment rate approach, which leverages payment rate curves, to determine the payments that should be applied to liquidate the end-of-period balance (CECL balance) in the estimation of EAD. The payment rate approach uses customer payment behavior (payment rate) to establish the portion of the CECL balance that will be paid each month. These payment rates are defined as the percentage of principal payments received in the respective month divided by the prior month's billed principal balance. The liquidation (CECL payment) amount for each forecast period is determined by multiplying the CECL balance by that period's forecasted payment rate. The cumulative sum of these payments less the CECL balance produces the balance liquidation curve. Citi does not apply a non-accrual policy to credit card receivables; rather, they are subject to full charge-off at 180 days past due. As such, the entire customer balance up until write-off, including accrued interest and fees, will be subject to the CECL reserve methodology.

Corporate Loans and HTM Securities
Citi records allowances for credit losses on all financial assets carried at amortized cost that are in the scope of CECL, including corporate loans classified as HFI and HTM debt securities. Discounting techniques are applied for corporate loans classified as HFI and HTM securities and non-accrual/ TDR loan exposures. All cash flows are fully discounted to the reporting date. The ACL includes Citi's estimate of all credit losses expected to be incurred over the estimated full contractual life of the financial asset. The contractual life of the financial asset does not include expected extensions, renewals or modifications, except for instances where the Company reasonably expects to extend the tenor of the financial asset pursuant to a future TDR. Where Citi has an unconditional option to extend the contractual term, Citi does not consider the potential extension in determining the contractual term; however, where the borrower has the sole right to exercise the extension option without Citi's approval, Citi does consider the potential extension in determining the contractual term. The decrease in credit losses under CECL at the date of adoption on January 1, 2020, compared with the prior incurred loss methodology, was largely due to more precise contractual maturities that resulted in shorter remaining tenors, the incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies.

The Company primarily bases its ACL on models that assess the likelihood and severity of credit events and their impact on cash flows under R&S forecasted economic scenarios. Allowances consider the probability of the borrower's default, the loss the Company would incur upon default and the borrower's exposure at default. Such models discount the present value of all future cash flows, using the asset's effective interest rate (EIR). Citi applies a more simplified approach based on historical loss rates to certain exposures recorded in *Other assets* and certain loan exposures in the private bank.

The Company considers the risk of nonpayment to be zero for U.S. Treasuries and U.S. government-sponsored agency guaranteed mortgage-backed securities (MBS) and, as such, Citi does not have an ACL for these securities. For all other HTM debt securities, ECLs are estimated using PD models and discounting techniques, which incorporate assumptions regarding the likelihood and severity of credit losses. For structured securities, specific models use relevant assumptions for the underlying collateral type. A discounting approach is applied to HTM direct obligations of a single issuer, similar to that used for corporate HFI loans.

Other Financial Assets with Zero Expected Credit Losses
For certain financial assets, zero expected credit losses will be recognized where the expectation of nonpayment of the amortized cost basis is zero, based on there being no history of loss and the nature of the receivables.

Secured Financing Transactions
Most of Citi's reverse repurchase agreements, securities borrowing arrangements and margin loans require that the borrower continually adjust the amount of the collateral securing Citi's interest, primarily resulting from changes in the fair value of such collateral. In such arrangements, ACLs are recorded based only on the amount by which the asset's amortized cost basis exceeds the fair value of the collateral. No ACLs are recorded where the fair value of the collateral is equal to or exceeds the asset's amortized cost basis, as Citi does not expect to incur credit losses on such well-collateralized exposures. For certain margin loans presented in *Loans* on the Consolidated Balance Sheet, credit losses are estimated using the same approach as corporate loans.

Accrued Interest
CECL permits entities to make an accounting policy election not to reserve for interest, if the entity has a policy in place that will result in timely reversal or write-off of interest. However, when a non-accrual or timely charge-off policy is not applied, an ACL is recognized on accrued interest. For HTM debt securities, Citi established a non-accrual policy that results in timely write-off of accrued interest. For corporate loans, where a timely charge-off policy is used, Citi has elected to recognize an ACL on accrued interest receivable. The LGD models for corporate loans include an adjustment for estimated accrued interest.

Reasonably Expected TDRs
For corporate loans, the reasonable expectation of TDR concept requires that the contractual life over which ECLs are estimated be extended when a TDR that results in a tenor extension is reasonably expected. Reasonably expected TDRs are included in the life of the asset. A discounting technique or collateral-dependent practical expedient is used for non-accrual and TDR loan exposures that do not share risk characteristics with other loans and are individually assessed. Loans modified in accordance with the CARES Act and bank regulatory guidance are not classified as TDRs.

Purchased Credit-Deteriorated (PCD) Assets
ASC 326 requires entities that have acquired financial assets (such as loans and HTM securities) with an intent to hold, to evaluate whether those assets have experienced a more-than-insignificant deterioration in credit quality since origination. These assets are subject to specialized accounting at initial recognition under CECL. Subsequent measurement of PCD assets will remain consistent with other purchased or originated assets, i.e., non-PCD assets. CECL introduces the notion of PCD assets, which replaces purchased credit impaired (PCI) accounting under prior U.S. GAAP.

CECL requires the estimation of credit losses to be performed on a pool basis unless a PCD asset does not share characteristics with any pool. If certain PCD assets do not meet the conditions for aggregation, those PCD assets should be accounted for separately. This determination must be made at the date the PCD asset is purchased. In estimating ECLs from day 2 onward, pools can potentially be reassembled based upon similar risk characteristics. When PCD assets are pooled, Citi determines the amount of the initial ACL at the pool level. The amount of the initial ACL for a PCD asset represents the portion of the total discount at acquisition that relates to credit and is recognized as a "gross-up" of the purchase price to arrive at the PCD asset's (or pool's) amortized cost. Any difference between the unpaid principal balance and the amortized cost is considered to be related to non-credit factors and results in a discount or premium, which is amortized to interest income over the life of the individual asset (or pool). Direct expenses incurred related to the acquisition of PCD assets and other assets and liabilities in a business combination are expensed as incurred. Subsequent accounting for acquired PCD assets is the same as the accounting for originated assets; changes in the allowance are recorded in *Provisions for credit losses*.

Consumer
Citi does not purchase whole portfolios of PCD assets in its retail businesses. However, there may be a small portion of a purchased portfolio that is identified as PCD at the purchase date. Interest income recognition does not vary between PCD and non-PCD assets. A consumer financial asset is considered to be more-than-insignificantly credit deteriorated if it is more than 30 days past due at the purchase date.

Corporate
Citi generally classifies wholesale loans and debt securities classified as HTM or AFS as PCD when both of the following criteria are met: (i) the purchase price discount is at least 10% of par and (ii) the purchase date is more than 90 days after the origination or issuance date. Citi classifies HTM beneficial interests rated AA- and lower obtained at origination from certain securitization transactions as PCD when there is a significant difference (i.e., 10% or greater) between contractual cash flows, adjusted for prepayments, and expected cash flows at the date of recognition.

Reserve Estimates and Policies
Management provides reserves for an estimate of lifetime ECLs in the funded loan portfolio on the Consolidated Balance Sheet in the form of an ACL. These reserves are established in accordance with Citigroup's credit reserve policies, as approved by the Audit Committee of the Citigroup Board of Directors. Citi's Chief Risk Officer and Chief Financial Officer review the adequacy of the credit loss reserves each quarter with risk management and finance representatives for each applicable business area. Applicable business areas include those having classifiably managed portfolios, where internal credit risk ratings are assigned (primarily *ICG*) and delinquency managed portfolios (primarily *GCB*) or modified consumer loans, where concessions were granted due to the borrowers' financial difficulties. The aforementioned representatives for these business areas present recommended reserve balances for their funded and unfunded lending portfolios along with supporting quantitative and qualitative data discussed below:

Estimated Credit Losses in the Delinquency-Managed Portfolios for Performing Exposures
In addition, risk management and finance representatives who cover business areas with delinquency-managed portfolios containing smaller-balance homogeneous loans present their recommended reserve balances based on leading credit indicators, including loan delinquencies and changes in portfolio size as well as economic trends, including current and future housing prices, unemployment, length of time in foreclosure, costs to sell and GDP. This methodology is applied separately for each product within each geographic region in which these portfolios exist. This evaluation process is subject to numerous estimates and judgments. The frequency of default, risk ratings, loss recovery rates, size and diversity of individual large credits and ability of borrowers with foreign currency obligations to obtain the foreign currency necessary for orderly debt servicing, among other things, are all taken into account during this review. Changes in these estimates could have a direct impact on the credit costs in any period and could result in a change in the allowance.

Allowance for Unfunded Lending Commitments
Credit loss reserves are recognized on all off-balance sheet commitments that are not unconditionally cancelable. Corporate loan EAD models include an incremental usage factor (or credit conversion factor) to estimate ECLs on amounts undrawn at the reporting date. Off-balance sheet commitments include unfunded exposures, revolving facilities, securities underwriting commitments, letters of credit, HELOCs and financial guarantees (excluding performance guarantees). This reserve is classified on the Consolidated Balance Sheet in *Other liabilities*. Changes to the allowance for unfunded lending commitments are recorded in *Provision for credit losses on unfunded lending commitments*.

Mortgage Servicing Rights (MSRs)
Mortgage servicing rights (MSRs) are recognized as intangible assets when purchased or when the Company sells or securitizes loans acquired through purchase or origination and retains the right to service the loans. Mortgage servicing rights are accounted for at fair value, with changes in value recorded in *Other revenue* in the Company's Consolidated Statement of Income.

For additional information on the Company's MSRs, see Notes 16 and 21 to the Consolidated Financial Statements.

Goodwill
Goodwill represents the excess of acquisition cost over the fair value of net tangible and intangible assets acquired in a business combination. Goodwill is subject to annual impairment testing and interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount.

Under ASC Topic 350, *Intangibles—Goodwill and Other* and upon the adoption of ASU No. 2017-04 on January 1, 2020, the Company has an option to assess qualitative factors to determine if it is necessary to perform the goodwill impairment test. If, after assessing the totality of events or circumstances, the Company determines that it is not more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, no further testing is necessary. If, however, the Company determines that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then the Company must perform the quantitative test.

The Company has an unconditional option to bypass the qualitative assessment for any reporting unit in any reporting period and proceed directly to the quantitative test.

The quantitative test requires a comparison of the fair value of the individual reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is in excess of the carrying value, the related goodwill is considered not impaired and no further analysis is necessary. If the carrying value of the reporting unit exceeds the fair value, an impairment loss is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Upon any business disposition, goodwill is allocated to, and derecognized with, the disposed business based on the ratio of the fair value of the disposed business to the fair value of the reporting unit.

Additional information on Citi's goodwill impairment testing can be found in Note 16 to the Consolidated Financial Statements.

Intangible Assets
Intangible assets—including core deposit intangibles, present value of future profits, purchased credit card relationships, credit card contract related intangibles, other customer relationships and other intangible assets, but excluding MSRs—are amortized over their estimated useful lives. Intangible assets that are deemed to have indefinite useful lives, primarily trade names, are not amortized and are subject to annual impairment tests. An impairment exists if the carrying value of the indefinite-lived intangible asset exceeds its fair value. For other intangible assets subject to amortization, an impairment is recognized if the carrying amount is not recoverable and exceeds the fair value of the intangible asset.

Other Assets and Other Liabilities
Other assets include, among other items, loans HFS, deferred tax assets, equity method investments, interest and fees receivable, lease right-of-use assets, premises and equipment (including purchased and developed software), repossessed assets and other receivables. *Other liabilities* include, among other items, accrued expenses and other payables, lease liabilities, deferred tax liabilities and reserves for legal claims, taxes, unfunded lending commitments, repositioning reserves and other payables.

Other Real Estate Owned and Repossessed Assets
Real estate or other assets received through foreclosure or repossession are generally reported in *Other assets*, net of a valuation allowance for selling costs and subsequent declines in fair value.

Securitizations
There are two key accounting determinations that must be made relating to securitizations. Citi first makes a determination as to whether the securitization entity must be consolidated. Second, it determines whether the transfer of financial assets to the entity is considered a sale under GAAP. If the securitization entity is a VIE, the Company consolidates the VIE if it is the primary beneficiary (as discussed in "Variable Interest Entities" above). For all other securitization entities determined not to be VIEs in which Citigroup participates, consolidation is based on which party has voting control of the entity, giving consideration to removal and liquidation rights in certain partnership structures. Only securitization entities controlled by Citigroup are consolidated.

Interests in the securitized and sold assets may be retained in the form of subordinated or senior interest-only strips, subordinated tranches, spread accounts and servicing rights. In credit card securitizations, the Company retains a seller's interest in the credit card receivables transferred to the trusts, which is not in securitized form. In the case of consolidated securitization entities, including the credit card trusts, these retained interests are not reported on Citi's Consolidated Balance Sheet. The securitized loans remain on the balance sheet. Substantially all of the consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Intangible assets* on Citigroup's Consolidated Balance Sheet.

Debt
Short-term borrowings and *Long-term debt* are accounted for at amortized cost, except where the Company has elected to report the debt instruments, including certain structured notes, at fair value, or the debt is in a fair value hedging relationship.

Transfers of Financial Assets
For a transfer of financial assets to be considered a sale: (i) the assets must be legally isolated from the Company, even in bankruptcy or other receivership, (ii) the purchaser must have the right to pledge or sell the assets transferred (or, if the purchaser is an entity whose sole purpose is to engage in securitization and asset-backed financing activities through the issuance of beneficial interests and that entity is constrained from pledging the assets it receives, each beneficial interest holder must have the right to sell or pledge their beneficial interests) and (iii) the Company may not have an option or obligation to reacquire the assets.

If these sale requirements are met, the assets are removed from the Company's Consolidated Balance Sheet. If the conditions for sale are not met, the transfer is considered to be a secured borrowing, the assets remain on the Consolidated Balance Sheet and the sale proceeds are recognized as the Company's liability. A legal opinion on a sale generally is obtained for complex transactions or where the Company has continuing involvement with assets transferred or with the securitization entity. For a transfer to be eligible for sale accounting, that opinion must state that the asset transfer would be considered a sale and that the assets transferred would not be consolidated with the Company's other assets in the event of the Company's insolvency.

For a transfer of a portion of a financial asset to be considered a sale, the portion transferred must meet the definition of a participating interest. A participating interest must represent a pro rata ownership in an entire financial asset; all cash flows must be divided proportionately, with the same priority of payment; no participating interest in the transferred asset may be subordinated to the interest of another participating interest holder; and no party may have the right to pledge or exchange the entire financial asset unless all participating interest holders agree. Otherwise, the transfer is accounted for as a secured borrowing.

See Note 21 to the Consolidated Financial Statements for further discussion.

Risk Management Activities—Derivatives Used for Hedging Purposes
The Company manages its exposures to market movements outside of its trading activities by modifying the asset and liability mix, either directly or through the use of derivative financial products, including interest rate swaps, futures, forwards, purchased options and commodities, as well as foreign-exchange contracts. These end-user derivatives are carried at fair value in *Trading account assets* and *Trading account liabilities*.

See Note 22 to the Consolidated Financial Statements for a further discussion of the Company's hedging and derivative activities.

Instrument-Specific Credit Risk
Citi presents separately in *AOCI* the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk, when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. Accordingly, the change in fair value of liabilities for which the fair value option was elected, related to changes in Citigroup's own credit spreads, is presented in *AOCI*.

Employee Benefits Expense
Employee benefits expense includes current service costs of pension and other postretirement benefit plans (which are accrued on a current basis), contributions and unrestricted awards under other employee plans, the amortization of restricted stock awards and costs of other employee benefits. For its most significant pension and postretirement benefit plans (Significant Plans), Citigroup measures and discloses plan obligations, plan assets and periodic plan expense quarterly, instead of annually. The effect of remeasuring the Significant Plan obligations and assets by updating plan actuarial assumptions on a quarterly basis is reflected in *Accumulated other comprehensive income (loss)* and periodic plan expense. All other plans (All Other Plans) are remeasured annually. See Note 8 to the Consolidated Financial Statements.

Stock-Based Compensation

The Company recognizes compensation expense related to stock and option awards over the requisite service period, generally based on the instruments' grant-date fair value, reduced by actual forfeitures as they occur. Compensation cost related to awards granted to employees who meet certain age plus years-of-service requirements (retirement-eligible employees) is accrued in the year prior to the grant date, in the same manner as the accrual for cash incentive compensation. Certain stock awards with performance conditions or certain clawback provisions are subject to variable accounting, pursuant to which the associated compensation expense fluctuates with changes in Citigroup's common stock price. See Note 7 to the Consolidated Financial Statements.

Income Taxes

The Company is subject to the income tax laws of the U.S. and its states and municipalities, as well as the non-U.S. jurisdictions in which it operates. These tax laws are complex and may be subject to different interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, the Company must make judgments and interpretations about these tax laws. The Company must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign.

Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of the various tax jurisdictions, or may be settled with the taxing authority upon examination or audit. The Company treats interest and penalties on income taxes as a component of *Income tax expense*.

Deferred taxes are recorded for the future consequences of events that have been recognized in financial statements or tax returns, based upon enacted tax laws and rates. Deferred tax assets are recognized subject to management's judgment about whether realization is more-likely-than-not. ASC 740, *Income Taxes*, sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain tax positions. This interpretation uses a two-step approach wherein a tax benefit is recognized if a position is more-likely-than-not to be sustained. The amount of the benefit is then measured to be the highest tax benefit that is more than 50% likely to be realized. ASC 740 also sets out disclosure requirements to enhance transparency of an entity's tax reserves.

See Note 9 to the Consolidated Financial Statements for a further description of the Company's tax provision and related income tax assets and liabilities.

Commissions, Underwriting and Principal Transactions

Commissions and fees revenues are recognized in income when earned. Underwriting revenues are recognized in income typically at the closing of the transaction. *Principal transactions* revenues are recognized in income on a trade-date basis. See Note 5 to the Consolidated Financial Statements for a description of the Company's revenue recognition policies for *Commissions and fees*, and Note 6 to the Consolidated Financial Statements for details of *Principal transactions* revenue.

Earnings per Share

Earnings per share (EPS) is computed after deducting preferred stock dividends. The Company has granted restricted and deferred share awards with dividend rights that are considered to be participating securities, which are akin to a second class of common stock. Accordingly, a portion of Citigroup's earnings is allocated to those participating securities in the EPS calculation.

Basic earnings per share is computed by dividing income available to common stockholders after the allocation of dividends and undistributed earnings to the participating securities by the weighted average number of common shares outstanding for the period. *Diluted earnings per share* reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised. It is computed after giving consideration to the weighted average dilutive effect of the Company's stock options and warrants and convertible securities and after the allocation of earnings to the participating securities. Anti-dilutive options and warrants are disregarded in the EPS calculations.

Use of Estimates

Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related Notes to the Consolidated Financial Statements. Such estimates are used in connection with certain fair value measurements. See Note 24 to the Consolidated Financial Statements for further discussions on estimates used in the determination of fair value. Moreover, estimates are significant in determining the amounts of other-than-temporary impairments, impairments of goodwill and other intangible assets, provisions for probable losses that may arise from credit-related exposures and probable and estimable losses related to litigation and regulatory proceedings, and income taxes. While management makes its best judgment, actual amounts or results could differ from those estimates.

Cash Flows

Cash equivalents are defined as those amounts included in *Cash and due from banks* and predominately all of *Deposits with banks*. Cash flows from risk management activities are classified in the same category as the related assets and liabilities.

Related Party Transactions

The Company has related party transactions with certain of its subsidiaries and affiliates. These transactions, which are primarily short-term in nature, include cash accounts, collateralized financing transactions, margin accounts, derivative transactions, charges for operational support and the borrowing and lending of funds, and are entered into in the ordinary course of business.

ACCOUNTING CHANGES

Accounting for Deposit Insurance Expenses

During the fourth quarter of 2021, Citi changed its presentation of accounting for deposit insurance costs paid to the Federal Deposit Insurance Corporation (FDIC) and similar foreign regulators. These costs were previously presented within *Interest expense* and, as a result of this change, are now presented within *Other operating expenses*. Citi concluded that this presentation was preferable in Citi's circumstances, as it better reflected the nature of these deposit insurance costs in that these costs do not directly represent interest payments to creditors, but are similar in nature to other payments to regulatory agencies that are accounted for as operating expenses.

This change in income statement presentation represents a "change in accounting principle" under ASC Topic 250, *Accounting Changes and Error Corrections*, with retrospective application to the earliest period presented. This change in accounting principle resulted in a reclassification of \$1,207 million, \$1,203 million and \$781 million of deposit insurance expenses from *Interest expense* to *Other operating expenses*, for the years ended December 31, 2021, 2020 and 2019, respectively. This change had no impact on Citi's net income or the total deposit insurance expense incurred by Citi.

Accounting for Financial Instruments—Credit Losses

Overview

In June 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326).* The ASU introduced a new credit loss methodology, the CECL methodology, which requires earlier recognition of credit losses while also providing additional disclosure about credit risk. Citi adopted the ASU as of January 1, 2020, which, as discussed below, resulted in an increase in Citi's *Allowance for credit losses* and a decrease to opening *Retained earnings*, net of deferred income taxes, at January 1, 2020.

The CECL methodology utilizes a lifetime "expected credit loss" measurement objective for the recognition of credit losses for loans, HTM debt securities, receivables and other financial assets measured at amortized cost at the time the financial asset is originated or acquired. The ACL is adjusted each period for changes in lifetime expected credit losses. The CECL methodology represents a significant change from prior U.S. GAAP and replaced the prior multiple existing impairment methods, which generally required that a loss be incurred before it was recognized. Within the life cycle of a loan or other financial asset, the methodology generally results in the earlier recognition of the provision for credit losses and the related ACL than prior U.S. GAAP. For available-for-sale debt securities where fair value is less than cost that Citi intends to hold or more-likely-than-not will not be required to sell, credit-related impairment, if any, is recognized through an ACL and adjusted each period for changes in credit risk.

January 1, 2020 CECL Transition (Day 1) Impact

The CECL methodology's impact on expected credit losses, among other things, reflects Citi's view of the current state of the economy, forecasted macroeconomic conditions and quality of Citi's portfolios. At the January 1, 2020 date of adoption, based on forecasts of macroeconomic conditions and exposures at that time, the aggregate impact to Citi was an approximate \$4.1 billion, or an approximate 29%, pretax increase in the *Allowance for credit losses*, along with a \$3.1 billion after-tax decrease in *Retained earnings* and a deferred tax asset increase of \$1.0 billion. This transition impact reflects (i) a \$4.9 billion build to the *Allowance for credit losses* for Citi's consumer exposures, primarily driven by the impact on credit card receivables of longer estimated tenors under the CECL lifetime expected credit loss methodology (loss coverage of approximately 23 months) compared to shorter estimated tenors under the probable loss methodology under prior U.S. GAAP (loss coverage of approximately 14 months), net of recoveries; and (ii) a release of \$0.8 billion of reserves primarily related to Citi's corporate net loan loss exposures, largely due to more precise contractual maturities that result in shorter remaining tenors, incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies.

Under the CECL methodology, the *Allowance for credit losses* consists of quantitative and qualitative components. Citi's quantitative component of the *Allowance for credit losses* is model based and utilizes a single forward-looking macroeconomic forecast and discounts inputs for the corporate classifiably managed portfolios, complemented by the qualitative component described below, in estimating expected credit losses and discounts inputs for the corporate classifiably managed portfolios. Reasonable and supportable forecast periods vary by product. For example, Citi's consumer models use a 13-quarter reasonable and supportable period and revert to historical loss experience thereafter, while its corporate loan models use a nine-quarter reasonable and supportable period followed by a three-quarter graduated transition to historical loss experience.

The qualitative management adjustment component includes, among other things, management adjustments to reflect economic uncertainty based on the likelihood and severity of downside scenarios and certain portfolio characteristics not captured in the quantitative component, such as concentrations, collateral coverage, model limitations, idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. The qualitative management adjustment component also includes management adjustments to reflect the uncertainty around the estimated impact of the pandemic on credit loss estimates.

Accounting for Variable Post-Charge-Off Third-Party Collection Costs

During the second quarter of 2020, Citi changed its accounting for variable post-charge-off third-party collection costs, whereby these costs were accounted for as an increase in expenses as incurred rather than a reduction in expected credit recoveries. Citi concluded that such a change in the method of accounting is preferable in Citi's circumstances as it better reflects the nature of these collection costs. That is, these costs do not represent reduced payments from borrowers and are similar to Citi's other executory third-party vendor contracts that are accounted for as operating expenses as incurred. As a result of this change, Citi had a consumer ACL release of $426 million in the second quarter of 2020 for its U.S. cards portfolios and $122 million in the third quarter of 2020 for its international portfolios.

In the fourth quarter of 2020, Citi revised the second quarter of 2020 accounting conclusion from a "change in accounting estimate effected by a change in accounting principle" to a "change in accounting principle," which required an adjustment to opening retained earnings rather than net income, with retrospective application to the earliest period presented. Citi considered the guidance in ASC Topic 250, *Accounting Changes and Error Corrections*; ASC Topic 270, *Interim Reporting*; ASC Topic 250-S99-1, *Assessing Materiality*; and ASC Topic 250-S99-23, *Accounting Changes Not Retroactively Applied Due to Immateriality, Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*. Citi believes that the effects of the revisions were not material to any previously reported quarterly or annual period. As a result, Citi's full-year and quarterly results were revised to reflect this change as if it were effective as of January 1, 2020 (impacts to 2018 and 2019 were de minimis). Accordingly, Citi recorded an increase to its beginning retained earnings on January 1, 2020 of $330 million and a decrease of $443 million to its ACL. Further, Citi recorded a decrease of $18 million to its provisions for credit losses on loans in the first quarter of 2020 and an increase of $339 million and $122 million to its provisions for credit losses on loans in the second and third quarters of 2020, respectively. In addition, Citi`s operating expenses increased by $49 million and $45 million, with a corresponding decrease in net credit losses, in the first and second quarters of 2020, respectively. As a result of these changes, Citi's net income for the year ended December 31, 2020 was $330 million lower, or $0.16 per share lower, than under the previous presentation as a change in accounting estimate effected by a change in accounting principle.

Reference Rate Reform

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides optional guidance to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. Specifically, the guidance permits an entity, when certain criteria are met, to consider amendments to contracts made to comply with reference rate reform to meet the definition of a modification under U.S. GAAP. It further allows hedge accounting to be maintained and permits a one-time transfer or sale of qualifying held-to-maturity securities. The expedients and exceptions provided by the amendments are permitted to be adopted any time through December 31, 2022 and do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022, except for certain optional expedients elected for certain hedging relationships existing as of December 31, 2022. The ASU was adopted by Citi as of June 30, 2020 with prospective application and did not impact financial results in 2020.

In January 2021, the FASB issued ASU No. 2021-01, *Reference Rate Reform (Topic 848): Scope*, which clarifies that the scope of the initial accounting relief issued by the FASB in March 2020 includes derivative instruments that do not reference a rate that is expected to be discontinued but that use an interest rate for margining, discounting or contract price alignment that is modified as a result of reference rate reform (commonly referred to as the "discounting transition"). The amendments do not apply to contract modifications made after December 31, 2022, new hedging relationships entered into after December 31, 2022 and existing hedging relationships evaluated for effectiveness in periods after December 31, 2022, except for hedging relationships existing as of December 31, 2022 that apply certain optional expedients in which the accounting effects are recorded through the end of the hedging relationship. The ASU was adopted by Citi on a full retrospective basis upon issuance and did not impact financial results in 2020.

Lease Accounting

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, which increases the transparency and comparability of accounting for lease transactions. The ASU requires lessees to recognize liabilities for operating leases and corresponding right-of-use (ROU) assets on the balance sheet. The ASU also requires quantitative and qualitative disclosures regarding key information about leasing arrangements. Lessee accounting for finance leases, as well as lessor accounting, is largely unchanged.

Effective January 1, 2019, Citi prospectively adopted the provisions of the ASU. At adoption, Citi recognized a lease liability and a corresponding ROU asset of approximately $4.4 billion on the Consolidated Balance Sheet related to its future lease payments as a lessee under operating leases. In addition, Citi recorded a $151 million increase in *Retained earnings* for the cumulative effect of recognizing previously deferred gains on sale/leaseback transactions. Adoption of the ASU did not have a material impact on the Consolidated Statement of Income. See Notes 14 and 26 for additional details.

Citi has elected not to separate lease and non-lease components in its lease contracts and accounts for them as a single lease component. Citi has also elected not to record an ROU asset for short-term leases that have a term of 12 months or less and do not contain purchase options that Citi is reasonably certain to exercise. The cost of short-term leases is recognized in the Consolidated Statement of Income on a straight-line basis over the lease term. In addition, Citi applies the portfolio approach to account for certain equipment leases with nearly identical contractual terms.

Lessee Accounting

Operating lease ROU assets and lease liabilities are included in *Other assets* and *Other liabilities*, respectively, on the Consolidated Balance Sheet. Finance lease assets and liabilities are included in *Other assets* and *Long-term debt*, respectively, on the Consolidated Balance Sheet. Citi uses its incremental borrowing rate, factoring in the lease term, to determine the lease liability, which is measured at the present value of future lease payments. The ROU asset is initially measured at the amount of the lease liability plus any prepaid rent and remaining initial direct costs, less any remaining lease incentives and accrued rent. The ROU asset is subject to impairment, during the lease term, in a manner consistent with the impairment of long-lived assets. The lease terms include periods covered by options to extend or terminate the lease depending on whether Citi is reasonably certain to exercise such options.

Lessor Accounting

Lessor accounting is largely unchanged under the ASU. Citi acts as a lessor for power, railcar, shipping and aircraft assets, where Citi has executed operating, direct financing and leveraged leasing arrangements. In a direct financing or a leveraged lease, Citi derecognizes the leased asset and records a lease financing receivable at lease commencement in *Loans*. Upon lease termination, Citi may obtain control of the asset, which is then recorded in *Other assets* on the Consolidated Balance Sheet and any remaining receivable for the asset's residual value is derecognized. Under the ASU, leveraged lease accounting is grandfathered and may continue to be applied until the leveraged lease is terminated or modified. Upon modification, the lease must be classified as an operating, direct finance or sales-type lease in accordance with the ASU.

Separately, as part of managing its real estate footprint, Citi subleases excess real estate space via operating lease arrangements.

FUTURE ACCOUNTING CHANGES

Long-Duration Insurance Contracts

In August 2018, the FASB issued ASU No. 2018-12, *Financial Services—Insurance: Targeted Improvements to the Accounting for Long-Duration Contracts*, which changes the existing recognition, measurement, presentation and disclosures for long-duration contracts issued by an insurance entity. Specifically, the guidance (i) improves the timeliness of recognizing changes in the liability for future policy benefits and prescribes the rate used to discount future cash flows for long-duration insurance contracts, (ii) simplifies and improves the accounting for certain market-based options or guarantees associated with deposit (or account balance) contracts, (iii) simplifies the amortization of deferred acquisition costs and (iv) introduces additional quantitative and qualitative disclosures. Citi has certain insurance subsidiaries, primarily in Mexico, that issue long-duration insurance contracts such as traditional life insurance policies and life-contingent annuity contracts that will be impacted by the requirements of ASU 2018-12.

The effective date of ASU 2018-12 was deferred for all insurance entities by ASU 2019-09, *Finance Services—Insurance: Effective Date* (issued in October 2019) and by ASU 2020-11, *Financial Services—Insurance: Effective Date and Early Application* (issued in November 2020). Citi plans to adopt the targeted improvements in ASU 2018-12 on January 1, 2023 and is currently evaluating the impact of the standard on its insurance subsidiaries. Citi does not expect a material impact to its results of operations as a result of adopting the standard.

SUPERSEDED ACCOUNTING PRINCIPLES

The following accounting principle was in effect for 2019 since ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326)* became effective beginning on January 1, 2020.

Allowance for Credit Losses

The allowance for credit losses on loans represents management's best estimate of probable credit losses inherent in the portfolio, including probable losses related to large individually evaluated impaired loans and troubled debt restructurings. Additions to the allowance are made through the *Provision for credit losses on loans*. Loan losses are deducted from the allowance and subsequent recoveries are added. Assets received in exchange for loan claims in a restructuring are initially recorded at fair value, with any gain or loss reflected as a recovery or charge-off in the provision.

2. DISCONTINUED OPERATIONS, SIGNIFICANT DISPOSALS AND OTHER BUSINESS EXITS

Summary of Discontinued Operations

The Company's results from *Discontinued operations* consisted of residual activities related to the sales of the Egg Banking plc credit card business in 2011 and the German retail banking business in 2008. All *Discontinued operations* results are recorded within *Corporate/Other.*

The following table summarizes financial information for all *Discontinued operations*:

In millions of dollars	2021	2020	2019
Total revenues, net of interest expense	**$ —**	$ —	$ —
Income (loss) from discontinued operations	**$ 7**	$ (20)	$ (31)
Benefit for income taxes	**—**	—	(27)
Income (loss) from discontinued operations, net of taxes	**$ 7**	$ (20)	$ (4)

Cash flows from *Discontinued operations* were not material for any period presented.

Significant Disposals

The following transactions were identified as significant disposals that are recorded within the *GCB* segment, including the assets and liabilities that were reclassified to held-for-sale within *Other assets* and *Other liabilities* on the Consolidated Balance Sheet and the *Income (loss) before taxes (benefits)* related to each business.

Agreement to Sell Australia Consumer Banking Business

On August 9, 2021, Citi entered into an agreement to sell its Australia consumer banking business, which is part of *Asia GCB*. The sale, which is subject to regulatory approvals and other closing conditions, is expected to close in the first half of 2022. As of December 31, 2021, Citi reported the business as held-for-sale, resulting in a pretax loss on sale of approximately $700 million recorded in *Other revenue* ($600 million after-tax), subject to closing adjustments. The loss on sale primarily reflected the impact of a pretax $625 million currency translation adjustment (CTA) loss (net of hedges) ($475 million after-tax) already reflected in the *Accumulated other comprehensive income (AOCI)* component of equity. Upon closing, the CTA-related balance will be removed from the *AOCI* component of equity, resulting in a neutral CTA impact to Citi's Common Equity Tier 1 Capital. Income before taxes, excluding the above referenced pretax loss on sale, for the Australia consumer banking business was as follows:

In millions of dollars	2021	2020	2019
Income before taxes	**$ 306**	$ 181	$ 302

The following assets and liabilities for the Australia consumer banking business were identified and reclassified to held-for-sale within *Other assets* and *Other liabilities* on the Consolidated Balance Sheet at December 31, 2021:

In millions of dollars	**December 31, 2021**
Assets	
Cash and deposits with banks	**$ 24**
Loans (net of allowance of $242 million at December 31, 2021)	**8,813**
Goodwill and intangible assets	**257**
Other assets	**81**
Total assets	**$ 9,175**
Liabilities	
Deposits	**$ 7,034**
Long-term debt	**479**
Other liabilities	**171**
Total liabilities	**$ 7,684**

Agreement to Sell Philippines Consumer Banking Business

On December 23, 2021, Citi entered into an agreement to sell its Philippines consumer banking business, which is part of *Asia GCB*. The sale, which is subject to regulatory approvals and other closing conditions, is expected to close in the second half of 2022 and result in an after-tax gain upon closing. Income before taxes for the period in which the individually significant component was classified as held-for-sale and for all prior periods was as follows:

In millions of dollars	2021	2020	2019
Income before taxes	**$ 145**	$ 42	$ 196

The following assets and liabilities for the Philippines consumer banking business were identified and reclassified to held-for-sale within *Other assets* and *Other liabilities* on the Consolidated Balance Sheet at December 31, 2021:

In millions of dollars	**December 31, 2021**
Assets	
Cash and deposits with banks	**$ 20**
Loans (net of allowance of $96 million at December 31, 2021)	**1,132**
Goodwill	**244**
Other assets, advances to/from subs	**588**
Other assets	**63**
Total assets	**$ 2,047**
Liabilities	
Deposits	**$ 1,373**
Other liabilities	**76**
Total liabilities	**$ 1,449**

Sale of Mexico Asset Management Business

On September 21, 2018, Citi completed the sale of its Mexico asset management business, which was part of *Latin America GCB*. As part of the sale, Citi derecognized total assets of $137 million and total liabilities of $41 million. The transaction resulted in a pretax gain on sale of approximately $250 million (approximately $150 million after-tax) recorded in *Other revenue* in 2018. Further, Citi and the buyer entered into a 10-year services framework agreement, with Citi acting as the distributor in exchange for an ongoing fee.

Income before taxes for the divested business, excluding the pretax gain on sale, was as follows:

In millions of dollars	**2021**	2020	2019
Income before taxes	**$ —**	$ —	$ 123

Other Business Exits

Wind-Down of Korea Consumer Banking Business

On October 25, 2021, Citi announced its decision to wind down and close its Korea consumer banking business, which is part of *Asia GCB*. In connection with the announcement, Citibank Korea Inc. (CKI) commenced a voluntary termination program (VERP). Due to the voluntary nature of this termination program, no liabilities for termination benefits are recorded until CKI makes formal offers to employees that are then irrevocably accepted by those employees. Related charges are recorded as *Compensation and benefits*.

For the year ended December 31, 2021, Citigroup recorded pretax charges of approximately $1.1 billion, composed of gross charges connected to the Korea voluntary termination program.

The following table summarizes the reserve charges related to the voluntary termination program and other initiatives reported in the *GCB* business segment:

In millions of dollars		**2021**
Employee termination costs (pretax)		
Original reserve charges	**$**	**1,052**
Utilization		**(1)**
Foreign exchange		**3**
Balance at December 31, 2021	**$**	**1,054**

The total estimated cash charges for the termination program are approximately $1.1 billion, of which most are already recognized in 2021. Citi expects to recognize the remaining charges throughout 2022, as voluntary retirements are phased in and irrevocably accepted in order to minimize business and operational impacts.

3. OPERATING SEGMENTS

As of December 31, 2021, Citigroup's primary activities were conducted through the following operating segments: *Institutional Clients Group (ICG)* and *Global Consumer Banking (GCB)*. Activities not assigned to the operating segments, as well as certain *North America* legacy consumer loan portfolios, discontinued operations and other legacy assets, were included in *Corporate/Other*.

The operating segments are determined based on how management allocates resources and measures financial performance to make business decisions, and are reflective of the types of customers served, and products and services provided.

ICG consisted of *Banking* and *Markets and securities services*, providing institutional, public sector and high-net-worth clients in 95 countries and jurisdictions with a broad range of banking and financial products and services.

GCB included a global, full-service consumer franchise delivering a wide array of banking, credit card, lending and investment services through a network of local branches, offices and electronic delivery systems and consisted of three *GCB* reporting units: *North America*, *Latin America* and *Asia* (including consumer banking activities in certain *EMEA* countries).

Corporate/Other included certain unallocated costs of global functions, other corporate expenses and net treasury results, offsets to certain line-item reclassifications and eliminations, and unallocated taxes.

Beginning in 2021, Citi changed its allocation for certain recurring expenses that are attributable to the operating segments from *Corporate/Other* to *GCB* and *ICG*. These expenses include incremental investments related to risks and controls, technology capabilities and information security initiatives, as well as some incremental spend related to the pandemic. The prior-period reportable operating segment results have been revised to conform to the current-year presentation for all periods to reflect this revised allocation methodology. Citi's consolidated results were unchanged for all periods presented as a result of the changes discussed above.

As part of its strategic refresh, Citi is making management reporting changes to align with its vision and strategy, including to assist Citi in decisions about resources and capital allocation and to assess business performance. In the first quarter of 2022, Citi plans to revise its financial reporting structure to align with these management reporting changes.

The accounting policies of these operating segments are the same as those disclosed in Note 1 to the Consolidated Financial Statements.

The following table presents certain information regarding the Company's continuing operations by operating segment and *Corporate/Other*:

	Revenues, net of interest expense(1)			Provision (benefits) for income taxes			Income (loss) from continuing operations(2)			Identifiable assets	
In millions of dollars, except identifiable assets in billions	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020
Institutional Clients Group	**$ 43,887**	$ 45,088	$ 39,824	**$ 4,524**	$ 3,303	$ 3,524	**$ 15,763**	$ 11,553	$ 12,776	**$ 1,762**	$ 1,730
Global Consumer Banking	**27,330**	30,342	33,221	**1,745**	143	1,708	**6,046**	663	5,579	**432**	434
Corporate/Other	**667**	71	2,022	**(818)**	(921)	(802)	**209**	(1,109)	1,116	**97**	96
Total	**$ 71,884**	$ 75,501	$ 75,067	**$ 5,451**	$ 2,525	$ 4,430	**$ 22,018**	$ 11,107	$ 19,471	**$ 2,291**	$ 2,260

(1) Includes total revenues, net of interest expense (excluding *Corporate/Other*), in *North America* of $34.2 billion, $36.8 billion and $34.1 billion; in *EMEA* of $13.1 billion, $13.0 billion and $12.2 billion; in *Latin America* of $9.2 billion, $9.4 billion and $10.6 billion; and in *Asia* of $14.7 billion, $16.2 billion and $16.2 billion in 2021, 2020 and 2019, respectively. These regional numbers exclude *Corporate/Other*, which largely reflects U.S. activities.

(2) Includes pretax provisions for credit losses and for benefits and claims in the *ICG* results of $(2.9) billion, $5.6 billion and $0.6 billion; in the *GCB* results of $(0.5) billion, $11.7 billion and $7.9 billion; and in the *Corporate/Other* results of $(0.4) billion, $0.2 billion and $(0.1) billion in 2021, 2020 and 2019, respectively.

4. INTEREST REVENUE AND EXPENSE

Interest revenue and *Interest expense* consisted of the following:

In millions of dollars	**2021**	2020	2019
Interest revenue			
Loan interest, including fees	**$ 35,440**	$ 40,185	$ 47,751
Deposits with banks	**577**	928	2,682
Securities borrowed and purchased under agreements to resell	**1,052**	2,283	6,872
Investments, including dividends	**7,388**	7,989	9,860
Trading account assets[2]	**5,365**	6,125	7,672
Other interest-bearing assets	**653**	579	1,673
Total interest revenue	**$ 50,475**	$ 58,089	$ 76,510
Interest expense			
Deposits[1]	**$ 2,896**	$ 5,334	$ 11,852
Securities loaned and sold under agreements to repurchase	**1,012**	2,077	6,263
Trading account liabilities[2]	**482**	628	1,308
Short-term borrowings and other interest-bearing liabilities	**121**	630	2,465
Long-term debt	**3,470**	4,669	6,494
Total interest expense	**$ 7,981**	$ 13,338	$ 28,382
Net interest income	**$ 42,494**	$ 44,751	$ 48,128
Provision for credit losses on loans	**(3,103)**	15,922	8,218
Net interest income after provision for credit losses on loans	**$ 45,597**	$ 28,829	$ 39,910

(1) During 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each year were $1,207 million for 2021, $1,203 million for 2020 and $781 million for 2019. For additional information, see Note 1 to the Consolidated Financial Statements.

(2) Interest expense on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue. Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.

5. COMMISSIONS AND FEES; ADMINISTRATION AND OTHER FIDUCIARY FEES

Commissions and Fees

The primary components of *Commissions and fees* revenue are investment banking fees, brokerage commissions, credit card and bank card income and deposit-related fees.

Investment banking fees are substantially composed of underwriting and advisory revenues. Such fees are recognized at the point in time when Citigroup's performance under the terms of a contractual arrangement is completed, which is typically at the closing of a transaction. Reimbursed expenses related to these transactions are recorded as revenue and are included within investment banking fees. In certain instances for advisory contracts, Citi will receive amounts in advance of the deal's closing. In these instances, the amounts received will be recognized as a liability and not recognized in revenue until the transaction closes. For the periods presented, the contract liability amount was negligible.

Out-of-pocket expenses associated with underwriting activity are deferred and recognized at the time the related revenue is recognized, while out-of-pocket expenses associated with advisory arrangements are expensed as incurred. In general, expenses incurred related to investment banking transactions, whether consummated or not, are recorded in *Other operating expenses*. The Company has determined that it acts as principal in the majority of these transactions and therefore presents expenses gross within *Other operating expenses*.

Brokerage commissions primarily include commissions and fees from the following: executing transactions for clients on exchanges and over-the-counter markets; sales of mutual funds and other annuity products; and assisting clients in clearing transactions, providing brokerage services and other such activities. Brokerage commissions are recognized in *Commissions and fees* at the point in time the associated service is fulfilled, generally on the trade execution date. Sales of certain investment products include a portion of variable consideration associated with the underlying product. In these instances, a portion of the revenue associated with the sale of the product is not recognized until the variable consideration becomes fixed. The Company recognized $639 million, $495 million and $485 million of revenue related to such variable consideration for the years ended December 31, 2021, 2020 and 2019, respectively. These amounts primarily relate to performance obligations satisfied in prior periods.

Credit card and bank card income is primarily composed of interchange fees, which are earned by card issuers based on purchase sales, and certain card fees, including annual fees. Costs related to customer reward programs and certain payments to partners (primarily based on program sales, profitability and customer acquisitions) are recorded as a reduction of credit card and bank card income. Citi's credit card programs have certain partner sharing agreements that vary by partner. These partner sharing agreements are subject to contractually based performance thresholds that, if met, would require Citi to make ongoing payments to the partner. The threshold is based on the profitability of a program and is generally calculated based on predefined program revenues less predefined program expenses. In most of Citi's partner sharing agreements, program expenses include net credit losses and, to the extent that the increase in net credit losses reduces Citi's liability for the partners' share for a given program year, it would generally result in lower payments to partners in total for that year and vice versa. Further, in some instances, other partner payments are based on program sales and new account acquisitions. Interchange revenues are recognized as earned on a daily basis when Citi's performance obligation to transmit funds to the payment networks has been satisfied. Annual card fees, net of origination costs, are deferred and amortized on a straight-line basis over a 12-month period. Costs related to card reward programs are recognized when the rewards are earned by the cardholders. Payments to partners are recognized when incurred.

Deposit-related fees consist of service charges on deposit accounts and fees earned from performing cash management activities and other deposit account services. Such fees are recognized in the period in which the related service is provided.

Transactional service fees primarily consist of fees charged for processing services such as cash management, global payments, clearing, international funds transfer and other trade services. Such fees are recognized as/when the associated service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi.

Insurance distribution revenue consists of commissions earned from third-party insurance companies for marketing and selling insurance policies on behalf of such entities. Such commissions are recognized in *Commissions and fees* at the point in time the associated service is fulfilled, generally when the insurance policy is sold to the policyholder. Sales of certain insurance products include a portion of variable consideration associated with the underlying product. In these instances, a portion of the revenue associated with the sale of the policy is not recognized until the variable consideration becomes determinable. The Company recognized $260 million, $290 million and $322 million of revenue related to such variable consideration for the years ended December 31, 2021, 2020 and 2019, respectively. These amounts primarily relate to performance obligations satisfied in prior periods.

Insurance premiums consist of premium income from insurance policies that Citi has underwritten and sold to policyholders.

The following table presents *Commissions and fees* revenue:

In millions of dollars	2021 ICG	2021 GCB	2021 Corp/ Other	2021 Total	2020 ICG	2020 GCB	2020 Corp/ Other	2020 Total	2019 ICG	2019 GCB	2019 Corp/ Other	2019 Total
Investment banking	**$ 6,007**	**$ —**	**$ —**	**$ 6,007**	$ 4,483	$ —	$ —	$ 4,483	$ 3,767	$ —	$ —	$ 3,767
Brokerage commissions	**2,080**	**1,156**	**—**	**3,236**	1,986	974	—	2,960	1,771	841	—	2,612
Credit card and bank card income												
Interchange fees	**817**	**9,004**	**—**	**9,821**	703	7,301	—	8,004	1,222	8,621	—	9,843
Card-related loan fees	**28**	**667**	**—**	**695**	23	626	—	649	60	718	—	778
Card rewards and partner payments[1]	**(405)**	**(9,830)**	**—**	**(10,235)**	(380)	(8,293)	—	(8,673)	(691)	(8,883)	—	(9,574)
Deposit-related fees[2]	**1,044**	**287**	**—**	**1,331**	958	376	—	1,334	1,048	470	—	1,518
Transactional service fees	**1,003**	**95**	**—**	**1,098**	886	88	—	974	824	123	—	947
Corporate finance[3]	**709**	**—**	**—**	**709**	457	—	—	457	616	—	—	616
Insurance distribution revenue	**11**	**462**	**—**	**473**	11	492	—	503	12	524	—	536
Insurance premiums	**—**	**94**	**—**	**94**	—	125	—	125	—	186	—	186
Loan servicing	**43**	**40**	**15**	**98**	82	30	25	137	78	55	21	154
Other	**104**	**237**	**4**	**345**	118	310	4	432	99	261	3	363
Total commissions and fees[4]	**$11,441**	**$ 2,212**	**$ 19**	**$13,672**	$ 9,327	$ 2,029	$ 29	$11,385	$ 8,806	$ 2,916	$ 24	$11,746

(1) Citi's consumer credit card programs have certain partner-sharing agreements that vary by partner. These agreements are subject to contractually based performance thresholds that, if met, would require Citi to make ongoing payments to the partner. The threshold is based on the profitability of a program and is generally calculated based on predefined program revenues less predefined program expenses. In most of Citi's partner-sharing agreements, program expenses include net credit losses and, to the extent that the increase in net credit losses reduces Citi's liability for the partners' share for a given program year, would generally result in lower payments to partners in total for that year and vice versa. Further, in some instances, other partner payments are based on program sales and new account acquisitions.

(2) Includes overdraft fees of $107 million, $100 million and $127 million for the years ended December 31, 2021, 2020 and 2019, respectively. Overdraft fees are accounted for under ASC 310.

(3) Consists primarily of fees earned from structuring and underwriting loan syndications or related financing activity. This activity is accounted for under ASC 310.

(4) *Commissions and fees* include $(8,516) million, $(7,160) million and $(7,695) million not accounted for under ASC 606, *Revenue from Contracts with Customers*, for the years ended December 31, 2021, 2020 and 2019, respectively. Amounts reported in *Commissions and fees* accounted for under other guidance primarily include card-related loan fees, card reward programs and certain partner payments, corporate finance fees, insurance premiums and loan servicing fees.

Administration and Other Fiduciary Fees

Administration and other fiduciary fees revenue is primarily composed of custody fees and fiduciary fees.

The custody product is composed of numerous services related to the administration, safekeeping and reporting for both U.S. and non-U.S. denominated securities. The services offered to clients include trade settlement, safekeeping, income collection, corporate action notification, record-keeping and reporting, tax reporting and cash management. These services are provided for a wide range of securities, including but not limited to equities, municipal and corporate bonds, mortgage- and asset-backed securities, money market instruments, U.S. Treasuries and agencies, derivative instruments, mutual funds, alternative investments and precious metals. Custody fees are recognized as or when the associated promised service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi.

Fiduciary fees consist of trust services and investment management services. As an escrow agent, Citi receives, safe-keeps, services and manages clients' escrowed assets, such as cash, securities, property (including intellectual property), contracts or other collateral. Citi performs its escrow agent duties by safekeeping the assets during the specified time period agreed upon by all parties and therefore earns its revenue evenly during the contract duration.

Investment management services consist of managing assets on behalf of Citi's retail and institutional clients. Revenue from these services primarily consists of asset-based fees for advisory accounts, which are based on the market value of the client's assets and recognized monthly, when the market value is fixed. In some instances, the Company contracts with third-party advisors and with third-party custodians. The Company has determined that it acts as principal in the majority of these transactions and therefore presents the amounts paid to third parties gross within *Other operating expenses*.

The following table presents *Administration and other fiduciary fees* revenue:

	2021				2020				2019			
In millions of dollars	**ICG**	**GCB**	**Corp/ Other**	**Total**	ICG	GCB	Corp/ Other	Total	ICG	GCB	Corp/ Other	Total
Custody fees	**$1,872**	**$ 25**	**$ 1**	**$1,898**	$ 1,590	$ 29	$ 38	$1,657	$1,453	$ 16	$ 73	$ 1,542
Fiduciary fees	**798**	**659**	**7**	**1,464**	668	602	4	1,274	647	621	28	1,296
Guarantee fees	**569**	**8**	**4**	**581**	529	7	5	541	558	8	7	573
Total administration and other fiduciary fees(1)	**$3,239**	**$ 692**	**$ 12**	**$3,943**	$ 2,787	$ 638	$ 47	$3,472	$2,658	$ 645	$ 108	$ 3,411

(1) *Administration and other fiduciary fees* include $581 million, $541 million and $573 million for the years ended December 31, 2021, 2020 and 2019, respectively, that are not accounted for under ASC 606, *Revenue from Contracts with Customers.* These generally include guarantee fees.

6. PRINCIPAL TRANSACTIONS

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. Trading activities include revenues from fixed income, equities, credit and commodities products and foreign exchange transactions that are managed on a portfolio basis and characterized below based on the primary risk managed by each trading desk. Not included in the table below is the impact of net interest income related to trading activities, which is an integral part of trading activities' profitability. See Note 4 to the Consolidated Financial Statements for information about net interest income related to trading activities. Principal transactions include CVA (credit valuation adjustments) and FVA (funding valuation adjustments) on over-the-counter derivatives, and gains (losses) on certain economic hedges on loans in *ICG*. These adjustments are discussed further in Note 24 to the Consolidated Financial Statements.

In certain transactions, Citi incurs fees and presents these fees paid to third parties in operating expenses.

The following table presents *Principal transactions* revenue:

In millions of dollars	**2021**	2020	2019
Interest rate risks(1)	**$ 2,790**	$ 5,561	$ 3,831
Foreign exchange risks(2)	**3,886**	4,158	3,850
Equity risks(3)	**2,197**	1,343	808
Commodity and other risks(4)	**1,123**	1,133	546
Credit products and risks(5)	**158**	1,690	(143)
Total	**$ 10,154**	$ 13,885	$ 8,892

(1) Includes revenues from government securities and corporate debt, municipal securities, mortgage securities and other debt instruments. Also includes spot and forward trading of currencies and exchange-traded and over-the-counter (OTC) currency options, options on fixed income securities, interest rate swaps, currency swaps, swap options, caps and floors, financial futures, OTC options and forward contracts on fixed income securities.
(2) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as foreign currency translation (FX translation) gains and losses.
(3) Includes revenues from common, preferred and convertible preferred stock, convertible corporate debt, equity-linked notes and exchange-traded and OTC equity options and warrants.
(4) Primarily includes revenues from crude oil, refined oil products, natural gas and other commodities trades.
(5) Includes revenues from structured credit products.

7. INCENTIVE PLANS

Discretionary Annual Incentive Awards

Citigroup grants immediate cash bonus payments and various forms of immediate and deferred awards as part of its discretionary annual incentive award program involving a large segment of Citigroup's employees worldwide.

Discretionary annual incentive awards are generally awarded in the first quarter of the year based on the previous year's performance. Awards valued at less than U.S. $100,000 (or the local currency equivalent) are generally paid entirely in the form of an immediate cash bonus. Pursuant to Citigroup policy and/or regulatory requirements, certain employees are subject to mandatory deferrals of incentive pay and generally receive 25%–60% of their awards in the form of deferred stock and deferred cash stock units. Discretionary annual incentive awards to many employees in the EU are subject to deferral requirements regardless of the total award value, with at least 50% of the immediate incentive delivered in the form of a stock payment award subject to a restriction on sale or transfer (generally, for 12 months).

Subject to certain exceptions (principally, for retirement-eligible employees), continuous employment within Citigroup is required to vest in deferred annual incentive awards. Post employment vesting by retirement-eligible employees and participants who meet other conditions is generally conditioned upon their refraining from competition with Citigroup during the remaining vesting period, unless the employment relationship has been terminated by Citigroup under certain conditions.

Generally, the deferred awards vest in equal annual installments over three- or four-year periods. Vested CAP awards are delivered in shares of common stock. Deferred cash awards are payable in cash and, except as prohibited by applicable regulatory guidance, earn a fixed notional rate of interest that is paid only if and when the underlying principal award amount vests. Deferred cash stock unit awards are payable in cash at the vesting value of the underlying stock. Generally, in the EU, vested CAP shares are subject to a restriction on sale or transfer after vesting, and vested deferred cash awards and deferred cash stock units are subject to hold back (generally, for 6 or 12 months based on the award type).

Unvested CAP, deferred cash stock units and deferred cash awards may be subject to performance conditions and are subject to one or more cancellation and clawback provisions that apply in certain circumstances, including gross misconduct.

Outstanding (Unvested) Stock Awards

A summary of the status of unvested stock awards granted as discretionary annual incentive or sign-on and replacement awards is presented below:

Unvested stock awards	Shares	Weighted-average grant date fair value per share
Unvested at December 31, 2020	28,226,292	$ 69.25
Granted[1]	17,535,978	62.10
Canceled	(1,453,029)	67.01
Vested[2]	(12,664,557)	67.17
Unvested at December 31, 2021	**31,644,684**	**$ 66.22**

(1) The weighted-average fair value of the shares granted during 2020 and 2019 was $76.68 and $61.78, respectively.
(2) The weighted-average fair value of the shares vesting during 2021 was approximately $64.23 per share on the vesting date, compared to $67.17 on the grant date.

Total unrecognized compensation cost related to unvested stock awards was $654 million at December 31, 2021. The cost is expected to be recognized over a weighted-average period of 1.6 years.

Performance Share Units

Executive officers were awarded performance share units (PSUs) every February from 2018 to 2021, for performance in the year prior to the award date based on two performance metrics. For PSUs awarded in 2018, 2019 and 2020, those metrics were return on tangible common equity and earnings per share. For PSUs awards in 2021, the metrics were return on tangible common equity and tangible book value per share. In each year, the metrics were equally weighted.

For all award years, if the total shareholder return is negative over the three-year performance period, executives may earn no more than 100% of the target PSUs, regardless of the extent to which Citigroup outperforms against performance goals and/or peer firms. The number of PSUs ultimately earned could vary from zero, if performance goals are not met, to as much as 150% of target, if performance goals are meaningfully exceeded.

For all award years, the value of each PSU is equal to the value of one share of Citi common stock. Dividend equivalents are accrued and paid on the number of earned PSUs after the end of the performance period.

PSUs are subject to variable accounting, pursuant to which the associated value of the award will fluctuate with changes in Citigroup's stock price and the attainment of the specified performance goals for each award, until the award is settled solely in cash after the end of the performance period. The value of the award, subject to the performance goals and taking into account any mandatory equitable adjustments as per the terms of the award agreement, is estimated using a simulation model that incorporates multiple valuation assumptions, including the probability of achieving the specified performance goals of each award. The risk-free rate used in the model is based on the applicable U.S. Treasury yield curve. Other significant assumptions for the awards are as follows:

Valuation assumptions	**2021**	2020	2019
Expected volatility	**40.88 %**	22.26 %	25.33 %
Expected dividend yield	**4.21**	2.82	2.67

A summary of the performance share unit activity for 2021 is presented below:

Performance share units	**Units**	**Weighted-average grant date fair value per unit**
Outstanding, beginning of year	**1,333,803**	**$ 79.39**
Granted[1]	**418,098**	**78.55**
Canceled	**(344,131)**	**83.24**
Payments	**(133,497)**	**83.24**
Outstanding, end of year	**1,274,273**	**$ 77.67**

(1) The weighted-average grant date fair value per unit awarded in 2020 and 2019 was $83.45 and $72.83, respectively.

Transformation Program

In order to provide an incentive for select employees to effectively execute Citi's transformation program, in August 2021 the Personnel and Compensation (P&C) Committee of Citigroup's Board of Directors approved a program for them to earn additional compensation based on the achievement of Citi's transformation goals from August 2021 through December 2024 and satisfaction of other conditions. Eligible employees were notified of their award under the program in November 2021. Performance under the program is divided into three consecutive periods, ending on December 31, 2022, 2023 and 2024. The awards will be subject to variable accounting, pursuant to which the associated value of the award will fluctuate with the attainment of the performance conditions for each tranche and changes to Citigroup's stock price. The amortization commenced after the service inception date of November 2021. Payment for each period will be in cash, in a lump sum, with the third payment indexed to changes in the value of Citi's common stock from the service inception date through the payment date. Earnings generally will be based on collective performance with respect to Citi's transformation goals and will be evaluated and approved by the Committee on an annual basis.

Payments in the event of any category of employment termination or change in job title or employment status are subject to Citi's discretion. Cancellation and clawback is provided for in the event of misconduct and certain other circumstances. The program applies to senior leaders critical to helping deliver a successful transformation with the value varying based on individual compensation levels.

Stock Option Programs

All outstanding stock options are fully vested, with the related expense recognized as a charge to income in prior periods. The following table presents information with respect to stock option activity under Citigroup's stock option programs:

	2021			2020			2019		
	Options	**Weighted-average exercise price**	**Intrinsic value per share**	Options	Weighted-average exercise price	Intrinsic value per share	Options	Weighted-average exercise price	Intrinsic value per share
Outstanding, beginning of year	**166,650**	**$ 47.42**	**$ 14.24**	166,650	$ 47.42	$ 32.47	762,225	$ 101.84	$ —
Canceled	—	—	—	—	—	—	(11,365)	40.80	—
Expired	—	—	—	—	—	—	(449,916)	142.30	—
Exercised	**(166,650)**	**52.50**	**20.49**	—	—	—	(134,294)	39.00	23.50
Outstanding, end of year	—	$ —	$ —	166,650	$ 47.42	$ 14.24	166,650	$ 47.42	$ 32.47
Exercisable, end of year	—			166,650			166,650		

As of December 31, 2021, Citigroup no longer has any stock options outstanding.

Other Variable Incentive Compensation

Citigroup has various incentive plans globally that are used to motivate and reward performance primarily in the areas of sales, operational excellence and customer satisfaction. Participation in these plans is generally limited to employees who are not eligible for discretionary annual incentive awards. Other forms of variable compensation include monthly commissions paid to financial advisors and mortgage loan officers.

Summary

Except for awards subject to variable accounting, the total expense recognized for stock awards represents the grant date fair value of such awards, which is generally recognized as a charge to income ratably over the vesting period, other than for awards to retirement-eligible employees and immediately vested awards. Whenever awards are made or are expected to be made to retirement-eligible employees, the charge to income is accelerated based on when the applicable conditions to retirement eligibility were or will be met. If the employee is retirement eligible on the grant date, or the award is vested at the grant date, Citi recognizes the expense each year equal to the grant date fair value of the awards that it estimates will be granted in the following year.

Recipients of Citigroup stock awards generally do not have any stockholder rights until shares are delivered upon vesting or exercise, or after the expiration of applicable required holding periods. Recipients of deferred stock awards and deferred cash stock unit awards, however, may, except as prohibited by applicable regulatory guidance, be entitled to receive or accrue dividends or dividend-equivalent payments during the vesting period. Recipients of stock payment awards generally are entitled to vote the shares in their award during the sale-restriction period. Once a stock award vests, the shares delivered to the participant are freely transferable, unless they are subject to a restriction on sale or transfer for a specified period.

All equity awards granted since April 19, 2005 have been made pursuant to stockholder-approved stock incentive plans that are administered by the P&C Committee, which is composed entirely of independent non-employee directors.

At December 31, 2021, approximately 39.0 million shares of Citigroup common stock were authorized and available for grant under Citigroup's 2019 Stock Incentive Plan, the only plan from which equity awards are currently granted.

The 2019 Stock Incentive Plan and predecessor plans permit the use of treasury stock or newly issued shares in connection with awards granted under the plans. Treasury shares were used to settle vestings from 2018 to 2021, and for the first quarter of 2022, except where local laws favor newly issued shares. The use of treasury stock or newly issued shares to settle stock awards does not affect the compensation expense recorded in the Consolidated Statement of Income for equity awards.

Incentive Compensation Cost

The following table shows components of compensation expense, relating to certain of the incentive compensation programs described above:

In millions of dollars	**2021**	2020	2019
Charges for estimated awards to retirement-eligible colleagues	**$ 807**	$ 748	$ 683
Amortization of deferred cash awards, deferred cash stock units and performance stock units	**384**	201	355
Immediately vested stock award expense[1]	**99**	95	82
Amortization of restricted and deferred stock awards[2]	**395**	420	404
Other variable incentive compensation	**435**	627	666
Total	**$ 2,120**	$ 2,091	$ 2,190

(1) Represents expense for immediately vested stock awards that generally were stock payments in lieu of cash compensation. The expense is generally accrued as cash incentive compensation in the year prior to grant.

(2) All periods include amortization expense for all unvested awards to non-retirement-eligible colleagues.

8. RETIREMENT BENEFITS

Pension and Postretirement Plans

The Company has several non-contributory defined benefit pension plans covering certain U.S. employees and has various defined benefit pension and termination indemnity plans covering employees outside the U.S.

The U.S. qualified defined benefit plan was frozen effective January 1, 2008 for most employees. Accordingly, no additional compensation-based contributions have been credited to the cash balance portion of the plan for existing plan participants after 2007. However, certain employees covered under the prior final pay plan formula continue to accrue benefits. The Company also offers postretirement health care and life insurance benefits to certain eligible U.S. retired employees, as well as to certain eligible employees outside the U.S.

The Company also sponsors a number of non-contributory, nonqualified pension plans. These plans, which are unfunded, provide supplemental defined pension benefits to certain U.S. employees. With the exception of certain employees covered under the prior final pay plan formula, the benefits under these plans were frozen in prior years.

The plan obligations, plan assets and periodic plan expense for the Company's most significant pension and postretirement benefit plans (Significant Plans) are measured and disclosed quarterly, instead of annually. The Significant Plans captured approximately 90% of the Company's global pension and postretirement plan obligations as of December 31, 2021. All other plans (All Other Plans) are measured annually with a December 31 measurement date.

Net (Benefit) Expense

The following table summarizes the components of net (benefit) expense recognized in the Consolidated Statement of Income for the Company's pension and postretirement plans for Significant Plans and All Other Plans:

	Pension plans						Postretirement benefit plans					
	U.S. plans			Non-U.S. plans			U.S. plans			Non-U.S. plans		
In millions of dollars	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Benefits earned during the year	**$ —**	$ —	$ 1	**$ 149**	$ 147	$ 146	**$ —**	$ —	$ —	**$ 6**	$ 7	$ 8
Interest cost on benefit obligation	**351**	378	469	**268**	246	287	**13**	17	24	**96**	93	104
Expected return on assets	**(683)**	(824)	(821)	**(253)**	(245)	(281)	**(13)**	(17)	(18)	**(84)**	(77)	(84)
Amortization of unrecognized:												
Prior service cost (benefit)	**2**	2	2	**(6)**	5	(4)	**(9)**	(2)	—	**(9)**	(9)	(10)
Net actuarial loss (gain)	**228**	233	200	**62**	70	61	**(3)**	—	—	**13**	20	23
Curtailment loss (gain)[1]	**—**	—	1	**1**	(8)	(6)	**—**	—	—	**—**	—	—
Settlement loss (gain)[1]	**—**	—	—	**10**	(1)	6	**—**	—	—	**—**	—	—
Total net (benefit) expense	**$ (102)**	$ (211)	$ (148)	**$ 231**	$ 214	$ 209	**$ (12)**	$ (2)	$ 6	**$ 22**	$ 34	$ 41

(1) Losses (gains) due to curtailment and settlement relate to repositioning and divestiture activities.

Contributions

The Company's funding practice for U.S. and non-U.S. pension and postretirement plans is generally to fund to minimum funding requirements in accordance with applicable local laws and regulations. The Company may increase its contributions above the minimum required contribution, if appropriate. In addition, management has the ability to change its funding practices. For the U.S. pension plans, there were no required minimum cash contributions for 2021 or 2020.

The following table summarizes the Company's actual contributions for the years ended December 31, 2021 and 2020, as well as expected Company contributions for 2022. Expected contributions are subject to change, since contribution decisions are affected by various factors, such as market performance, tax considerations and regulatory requirements.

	Pension plans[1]						Postretirement benefit plans[1]					
	U.S. plans[2]			Non-U.S. plans			U.S. plans			Non-U.S. plans		
In millions of dollars	**2022**	2021	2020	**2022**	2021	2020	**2022**	2021	2020	**2022**	2021	2020
Contributions made by the Company	**$ —**	$ —	$ —	**$ 74**	$ 104	$ 115	**$ —**	$ —	$ —	**$ 3**	$ 3	$ 4
Benefits paid directly by (reimbursements to) the Company[3]	**57**	56	56	**413**	51	43	**5**	22	(15)	**6**	5	5

(1) Amounts reported for 2022 are expected amounts.
(2) The U.S. pension plans include benefits paid directly by the Company for the nonqualified pension plans.
(3) Estimated 2022 benefit payments have increased due to the wind-down of Citi's consumer banking business in Korea, as it is expected that employees who elected the VERP plan will be withdrawing their pension plan assets. See Note 2 to the Consolidated Financial Statements for additional information.

Funded Status and *Accumulated Other Comprehensive Income (AOCI)*

The following table summarizes the funded status and amounts recognized on the Consolidated Balance Sheet for the Company's pension and postretirement plans:

	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Change in projected benefit obligation								
Projected benefit obligation at beginning of year	**$ 13,815**	$ 13,453	**$ 8,629**	$ 8,105	**$ 559**	$ 692	**$ 1,390**	$ 1,384
Benefits earned during the year	**—**	—	**149**	147	**—**	—	**6**	7
Interest cost on benefit obligation	**351**	378	**268**	246	**13**	17	**96**	93
Plan amendments(1)	**—**	—	**6**	(4)	**—**	(104)	**—**	—
Actuarial (gain) loss(2)	**(447)**	950	**(344)**	518	**(28)**	(18)	**(110)**	30
Benefits paid, net of participants' contributions and government subsidy(3)	**(953)**	(966)	**(345)**	(298)	**(43)**	(28)	**(78)**	(64)
Settlement gain(4)	**—**	—	**(124)**	(110)	**—**	—	**—**	—
Curtailment gain(4)	**—**	—	**(30)**	(14)	**—**	—	**—**	—
Foreign exchange impact and other	**—**	—	**(208)**	39	**—**	—	**(135)**	(60)
Projected benefit obligation at year end	**$ 12,766**	$ 13,815	**$ 8,001**	$ 8,629	**$ 501**	$ 559	**$ 1,169**	$ 1,390
Change in plan assets								
Plan assets at fair value at beginning of year	**$ 13,309**	$ 12,717	**$ 7,831**	$ 7,556	**$ 331**	$ 345	**$ 1,146**	$ 1,127
Actual return on assets(2)	**565**	1,502	**217**	584	**9**	29	**97**	129
Company contributions (reimbursements)	**56**	56	**155**	158	**22**	(15)	**8**	9
Benefits paid, net of participants' contributions and government subsidy(3)	**(953)**	(966)	**(345)**	(298)	**(43)**	(28)	**(78)**	(64)
Settlement gain(4)	**—**	—	**(124)**	(110)	**—**	—	**—**	—
Foreign exchange impact and other	**—**	—	**(120)**	(59)	**—**	—	**(130)**	(55)
Plan assets at fair value at year end	**$ 12,977**	$ 13,309	**$ 7,614**	$ 7,831	**$ 319**	$ 331	**$ 1,043**	$ 1,146
Funded status of the plans								
Qualified plans(5)	**$ 894**	$ 230	**$ (387)**	$ (798)	**$ (182)**	$ (228)	**$ (126)**	$ (244)
Nonqualified plans(6)	**(683)**	(736)	**—**	—	**—**	—	**—**	—
Funded status of the plans at year end	**$ 211**	$ (506)	**$ (387)**	$ (798)	**$ (182)**	$ (228)	**$ (126)**	$ (244)
Net amount recognized								
Qualified plans								
Benefit asset	**$ 894**	$ 230	**$ 963**	$ 741	**$ —**	$ —	**$ 165**	$ 25
Benefit liability	**—**	—	**(1,350)**	(1,539)	**(182)**	(228)	**(291)**	(269)
Qualified plans	**$ 894**	$ 230	**$ (387)**	$ (798)	**$ (182)**	$ (228)	**$ (126)**	$ (244)
Nonqualified plans	**(683)**	(736)	**—**	—	**—**	—	**—**	—
Net amount recognized on the balance sheet	**$ 211**	$ (506)	**$ (387)**	$ (798)	**$ (182)**	$ (228)	**$ (126)**	$ (244)
Amounts recognized in *AOCI*(7)								
Net transition obligation	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —
Prior service (cost) benefit	**(8)**	(10)	**5**	12	**92**	101	**47**	63
Net actuarial (loss) gain	**(6,575)**	(7,132)	**(1,400)**	(1,863)	**77**	56	**(182)**	(348)
Net amount recognized in equity (pretax)	**$ (6,583)**	$ (7,142)	**$ (1,395)**	$ (1,851)	**$ 169**	$ 157	**$ (135)**	$ (285)
Accumulated benefit obligation at year end	**$ 12,765**	$ 13,812	**$ 7,559**	$ 8,116	**$ 501**	$ 559	**$ 1,169**	$ 1,390

(1) The U.S. postretirement benefit plan was amended in 2020 to move grandfathered Medicare-eligible retirees to the Medicare individual marketplace.
(2) During 2021, the actuarial gain was primarily due to the increase in global discount rates partially offset by lower than expected asset returns. During 2020, the actuarial loss was primarily due to the decline in global discount rates partially offset by favorable asset returns.
(3) U.S. postretirement benefit plans were net of Employer Group Waiver Plan subsidies of $11 million and $40 million in 2021 and 2020, respectively.
(4) Curtailment and settlement gains relate to repositioning and divestiture activities.
(5) The U.S. qualified pension plan was fully funded under specified Employee Retirement Income Security Act (ERISA) funding rules as of January 1, 2022 and no minimum required funding is expected for 2022.
(6) The nonqualified plans of the Company are unfunded.

(7) The framework for the Company's pension oversight process includes monitoring of potential settlement charges for all plans. Settlement accounting is triggered when either the sum of all settlements (including lump sum payments) for the year is greater than service plus interest costs or if more than 10% of the plan's projected benefit obligation will be settled. Because some of Citi's significant plans are frozen and have no material service cost, settlement accounting may apply in the future.

The following table shows the change in *AOCI* related to the Company's pension, postretirement and post employment plans:

In millions of dollars	**2021**	2020	2019
Beginning of year balance, net of tax[1][2]	**$ (6,864)**	$ (6,809)	$ (6,257)
Actuarial assumptions changes and plan experience	**963**	(1,464)	(2,300)
Net asset gain (loss) due to difference between actual and expected returns	**(148)**	1,076	1,427
Net amortization	**280**	318	274
Prior service credit (cost)	**(7)**	108	(7)
Curtailment/settlement gain[3]	**11**	(8)	1
Foreign exchange impact and other	**153**	(108)	(66)
Change in deferred taxes, net	**(240)**	23	119
Change, net of tax	**$ 1,012**	$ (55)	$ (552)
End of year balance, net of tax[1][2]	**$ (5,852)**	$ (6,864)	$ (6,809)

(1) See Note 19 to the Consolidated Financial Statements for further discussion of net *AOCI* balance.
(2) Includes net-of-tax amounts for certain profit-sharing plans outside the U.S.
(3) Curtailment and settlement relate to repositioning and divestiture activities.

At December 31, 2021 and 2020, the aggregate projected benefit obligation (PBO), the aggregate accumulated benefit obligation (ABO) and the aggregate fair value of plan assets are presented for all defined benefit pension plans with a PBO in excess of plan assets and for all defined benefit pension plans with an ABO in excess of plan assets as follows:

	PBO exceeds fair value of plan assets				**ABO exceeds fair value of plan assets**			
	U.S. plans[1]		**Non-U.S. plans**		**U.S. plans**[1]		**Non-U.S. plans**	
In millions of dollars	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Projected benefit obligation	**$ 683**	$ 736	**$ 3,966**	$ 4,849	**$ 683**	$ 736	**$ 3,809**	$ 4,723
Accumulated benefit obligation	**682**	734	**3,574**	4,400	**682**	734	**3,477**	4,329
Fair value of plan assets	**—**	—	**2,616**	3,310	**—**	—	**2,486**	3,212

(1) As of December 31, 2021 and 2020, only the nonqualified plans' PBO and ABO exceeded plan assets.

Plan Assumptions

The Company utilizes a number of assumptions to determine plan obligations and expenses. Changes in one or a combination of these assumptions will have an impact on the Company's pension and postretirement PBO, funded status and (benefit) expense. Changes in the plans' funded status resulting from changes in the PBO and fair value of plan assets will have a corresponding impact on *Accumulated other comprehensive income (loss)*.

The actuarial assumptions at the respective years ended December 31 in the table below are used to measure the year-end PBO and the net periodic (benefit) expense for the subsequent year (period). Since Citi's Significant Plans are measured on a quarterly basis, the year-end rates for those plans are used to calculate the net periodic (benefit) expense for the subsequent year's first quarter.

As a result of the quarterly measurement process, the net periodic (benefit) expense for the Significant Plans is calculated at each respective quarter end based on the preceding quarter-end rates (as shown below for the U.S. and non-U.S. pension and postretirement plans). The actuarial assumptions for All Other Plans are measured annually.

Certain assumptions used in determining pension and postretirement benefit obligations and net benefit expense for the Company's plans are shown in the following table:

At year end	**2021**	2020
Discount rate		
U.S. plans		
Qualified pension	**2.80%**	2.45%
Nonqualified pension	**2.80**	2.35
Postretirement	**2.75**	2.20
Non-U.S. pension plans		
Range[1]	**-0.10 to 11.95**	-0.25 to 11.15
Weighted average	**3.96**	3.14
Non-U.S. postretirement plans		
Range	**1.05 to 10.00**	0.80 to 8.55
Weighted average	**8.28**	7.42
Future compensation increase rate[2]		
Non-U.S. pension plans		
Range	**1.30 to 11.25**	1.20 to 11.25
Weighted average	**3.10**	3.10
Expected return on assets		
U.S. plans		
Qualified pension	**5.00**	5.80
Postretirement[3]	**5.00/1.50**	5.80/1.50
Non-U.S. pension plans		
Range	**0.00 to 11.50**	0.00 to 11.50
Weighted average	**3.69**	3.39
Non-U.S. postretirement plans		
Range	**6.00 to 8.00**	5.95 to 8.00
Weighted average	**7.99**	7.99

(1) Due to historically low global interest rates, there were negative discount rates for plans with relatively short duration in certain major markets, such as the Eurozone and Switzerland.
(2) Not material for U.S. plans.
(3) For the years ended 2021 and 2020, the expected return on assets for the VEBA Trust was 1.50%.

During the year	**2021**	2020	2019
Discount rate			
U.S. plans			
Qualified pension	**2.45%/3.10%/ 2.75%/2.80%**	3.25%/3.20%/ 2.60%/2.55%	4.25%/3.85%/ 3.45%/3.10%
Nonqualified pension	**2.35/3.00/ 2.70/2.75**	3.25/3.25/ 2.55/2.50	4.25/3.90/ 3.50/3.10
Postretirement	**2.20/2.85/ 2.60/2.65**	3.15/3.20/ 2.45/2.35	4.20/3.80/ 3.35/3.00
Non-U.S. pension plans[1]			
Range[2]	**-0.25 to 11.15**	-0.10 to 11.30	-0.05 to 12.00
Weighted average	**3.14**	3.65	4.47
Non-U.S. postretirement plans[1]			
Range	**0.80 to 9.80**	0.90 to 9.75	1.75 to 10.75
Weighted average	**7.42**	7.76	9.05
Future compensation increase rate[3]			
Non-U.S. pension plans[1]			
Range	**1.20 to 11.25**	1.50 to 11.50	1.30 to 13.67
Weighted average	**3.10**	3.17	3.16
Expected return on assets			
U.S. plans			
Qualified pension[4]	**5.80/5.60/5.60/ 5.00**	6.70	6.70
Postretirement[4]	**5.80/1.50**	6.70/3.00	6.70/3.00
Non-U.S. pension plans[1]			
Range	**0.00 to 11.50**	0.00 to 11.50	1.00 to 11.50
Weighted average	**3.39**	3.95	4.30
Non-U.S. postretirement plans[1]			
Range	**5.95 to 8.00**	6.20 to 8.00	8.00 to 9.20
Weighted average	**7.99**	7.99	8.01

(1) Reflects rates utilized to determine the quarterly expense for Significant non-U.S. pension and postretirement plans.
(2) Due to historically low global interest rates, there were negative discount rates for plans with relatively short duration in certain major markets, such as the Eurozone and Switzerland.
(3) Not material for U.S. plans.
(4) The expected return on assets for the U.S. pension and postretirement plans was lowered from 5.80% to 5.60% effective April 1, 2021 and to 5.00% effective October 1, 2021 to reflect the change in target asset allocation.

Discount Rate
The discount rates for the U.S. pension and postretirement plans were selected by reference to a Citigroup-specific analysis using each plan's specific cash flows and compared with high-quality corporate bond indices for reasonableness. The discount rates for the non-U.S. pension and postretirement plans are selected by reference to high-quality corporate bond rates in countries that have developed corporate bond markets. However, where developed corporate bond markets do not exist, the discount rates are selected by reference to local government bond rates with a premium added to reflect the additional risk for corporate bonds in certain countries. Effective December 31, 2019, the established rounding convention is to the nearest 5 bps for all countries.

Expected Return on Assets
The Company determines its assumptions for the expected return on assets for its U.S. pension and postretirement plans using a "building block" approach, which focuses on ranges of anticipated rates of return for each asset class. A weighted average range of nominal rates is then determined based on target allocations to each asset class. Market performance over a number of earlier years is evaluated covering a wide range of economic conditions to determine whether there are sound reasons for projecting any past trends.

The Company considers the expected return on assets to be a long-term assessment of return expectations and does not anticipate changing this assumption unless there are significant changes in investment strategy or economic conditions. This contrasts with the selection of the discount rate and certain other assumptions, which are reconsidered annually (or quarterly for the Significant Plans) in accordance with GAAP.

The expected return on assets reflects the expected annual appreciation of the plan assets and reduces the Company's annual pension expense. The expected return on assets is deducted from the sum of service cost, interest cost and other components of pension expense to arrive at the net pension (benefit) expense.

The following table shows the expected return on assets used in determining the Company's pension expense compared to the actual return on assets during 2021, 2020 and 2019 for the U.S. pension and postretirement plans:

U.S. plans (During the year)	**2021**	2020	2019
Expected return on assets			
U.S. pension and postretirement trust	**5.80%/5.60%/ 5.60%/5.00%**	6.70%	6.70%
VEBA trust	**1.50**	3.00	3.00
Actual return on assets[1]			
U.S. pension and postretirement trust	**5.14**	12.84	15.20
VEBA trust	**1.52**	2.11	1.91 to 2.76

(1) Actual return on assets is presented net of fees.

Sensitivities of Certain Key Assumptions
The following tables summarize the effect on pension expense:

	Discount rate		
	One-percentage-point increase		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$ 35**	$ 34	$ 28
Non-U.S. plans	**(4)**	(16)	(19)

	One-percentage-point decrease		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$ (49)**	$ (52)	$ (44)
Non-U.S. plans	**25**	25	32

The U.S. Qualified Pension Plan was frozen in 2008, and as a result, most service costs have been eliminated. The pension expense for the U.S. Qualified Pension Plan is therefore driven primarily by interest cost rather than by service cost. An increase in the discount rate generally increases pension expense.

For Non-U.S. Pension Plans that are not frozen (in countries such as Mexico, the U.K. and South Korea), there is more service cost. The pension expense for the Non-U.S. Plans is driven by both service cost and interest cost. An increase in the discount rate generally decreases pension expense due to the greater impact on service cost compared to interest cost.

Since the U.S. Qualified Pension Plan was frozen, most of the prospective service cost has been eliminated and the gain/loss amortization period was changed to the life expectancy for inactive participants. As a result, pension expense for the U.S. Qualified Pension Plan is driven more by interest costs than service costs, and an increase in the discount rate would increase pension expense, while a decrease in the discount rate would decrease pension expense.

The following tables summarize the effect on pension expense:

	Expected return on assets		
	One-percentage-point increase		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$ (124)**	$ (123)	$ (123)
Non-U.S. plans	**(70)**	(66)	(64)

	One-percentage-point decrease		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$ 124**	$ 123	$ 123
Non-U.S. plans	**70**	66	64

Health Care Cost Trend Rate
Assumed health care cost trend rates were as follows:

	2021	2020
Health care cost increase rate for U.S. plans		
Following year	**6.25%**	6.50%
Ultimate rate to which cost increase is assumed to decline	**5.00**	5.00
Year in which the ultimate rate is reached	**2027**	2027
Health care cost increase rate for non-U.S. plans (weighted average)		
Following year	**6.92%**	6.85%
Ultimate rate to which cost increase is assumed to decline	**6.92**	6.85
Year in which the ultimate rate is reached	**2022**	2021

Interest Crediting Rate
The Company has cash balance plans and other plans with promised interest crediting rates. For these plans, the interest crediting rates are set in line with plan rules or country legislation and do not change with market conditions.

	Weighted average interest crediting rate		
At year end	**2021**	2020	2019
U.S. plans	**1.80%**	1.45%	2.25%
Non-U.S. plans	**1.61**	1.60	1.61

Plan Assets
Citigroup's pension and postretirement plans' asset allocations for the U.S. plans and the target allocations by asset category based on asset fair values are as follows:

	Target asset allocation	U.S. pension assets at December 31,		U.S. postretirement assets at December 31,	
Asset category[1]	2022	**2021**	2020	**2021**	2020
Equity securities[2]	0–22%	**7 %**	16 %	**7 %**	16 %
Debt securities[3]	55–114	**72**	59	**72**	59
Real estate	0–4	**2**	4	**2**	4
Private equity	0–5	**6**	3	**6**	3
Other investments	0–23	**13**	18	**13**	18
Total		**100 %**	100 %	**100 %**	100 %

(1) Asset allocations for the U.S. plans are set by investment strategy, not by investment product. For example, private equities with an underlying investment in real estate are classified in the real estate asset category, not private equity.
(2) Equity securities in the U.S. pension and postretirement plans do not include any Citigroup common stock at the end of 2021 and 2020.
(3) The VEBA Trust for postretirement benefits is primarily invested in cash equivalents and debt securities in 2021 and 2020 and is not reflected in the table above.

Third-party investment managers and advisors provide their services to Citigroup's U.S. pension and postretirement plans. Assets are rebalanced as the Company's Pension Plan Investment Committee deems appropriate. Citigroup's investment strategy, with respect to its assets, is to maintain a globally diversified investment portfolio across several asset classes that, when combined with Citigroup's contributions to the plans, will maintain the plans' ability to meet all required benefit obligations.

Citigroup's pension and postretirement plans' weighted-average asset allocations for the non-U.S. plans and the actual ranges, and the weighted-average target allocations by asset category based on asset fair values, are as follows:

	Non-U.S. pension plans				
	Target asset allocation	Actual range at December 31,		Weighted-average at December 31,	
Asset category[1]	2022	**2021**	2020	**2021**	2020
Equity securities	0–100%	**0–100%**	0–100%	**16 %**	15 %
Debt securities	0–100	**0–100**	0–100	**76**	77
Real estate	0–15	**0–14**	0–12	**1**	1
Other investments	0–100	**0–100**	0–100	**7**	7
Total				**100 %**	100 %

(1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.

	Non-U.S. postretirement plans				
	Target asset allocation	Actual range at December 31,		Weighted-average at December 31,	
Asset category[(1)]	2022	**2021**	2020	**2021**	2020
Equity securities	0–42%	**0–42%**	0–38%	**41 %**	38 %
Debt securities	54–100	**53–100**	56–100	**53**	56
Other investments	0–4	**0–6**	0–6	**6**	6
Total				**100 %**	100 %

(1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.

Fair Value Disclosure

For information on fair value measurements, including descriptions of Levels 1, 2 and 3 of the fair value hierarchy and the valuation methodology utilized by the Company, see Notes 1 and 24 to the Consolidated Financial Statements. Investments measured using the NAV per share practical expedient are excluded from Level 1, Level 2 and Level 3 in the tables below.

Certain investments may transfer between the fair value hierarchy classifications during the year due to changes in valuation methodology and pricing sources.

Plan assets by detailed asset categories and the fair value hierarchy are as follows:

In millions of dollars	U.S. pension and postretirement benefit plans[(1)] Fair value measurement at December 31, 2021			
Asset categories	**Level 1**	**Level 2**	**Level 3**	**Total**
U.S. equities	**$ 358**	**$ —**	**$ —**	**$ 358**
Non-U.S. equities	**460**	**—**	**—**	**460**
Mutual funds and other registered investment companies	**297**	**—**	**—**	**297**
Commingled funds	**—**	**1,143**	**—**	**1,143**
Debt securities	**1,657**	**5,770**	**—**	**7,427**
Annuity contracts	**—**	**—**	**4**	**4**
Derivatives	**2**	**17**	**—**	**19**
Other investments	**13**	**—**	**25**	**38**
Total investments	**$ 2,787**	**$ 6,930**	**$ 29**	**$ 9,746**
Cash and short-term investments	**$ 635**	**$ 75**	**$ —**	**$ 710**
Other investment liabilities	**(7)**	**(17)**	**—**	**(24)**
Net investments at fair value	**$ 3,415**	**$ 6,988**	**$ 29**	**$ 10,432**
Other investment liabilities redeemed at NAV				**$ (87)**
Securities valued at NAV				**2,951**
Total net assets				**$ 13,296**

(1) The investments of the U.S. pension and postretirement plans are commingled in one trust. At December 31, 2021, the allocable interests of the U.S. pension and postretirement plans were 98.0% and 2.0%, respectively. The investments of the VEBA Trust for postretirement benefits are reflected in the above table.

In millions of dollars	U.S. pension and postretirement benefit plans[(1)]			
	Fair value measurement at December 31, 2020			
Asset categories	Level 1	Level 2	Level 3	Total
U.S. equities	$ 813	$ —	$ —	$ 813
Non-U.S. equities	725	—	—	725
Mutual funds and other registered investment companies	447	—	—	447
Commingled funds	—	1,056	—	1,056
Debt securities	1,275	4,430	—	5,705
Annuity contracts	—	—	1	1
Derivatives	8	6	—	14
Other investments	16	—	57	73
Total investments	$ 3,284	$ 5,492	$ 58	$ 8,834
Cash and short-term investments	$ 72	$ 1,035	$ —	$ 1,107
Other investment liabilities	(2)	(10)	—	(12)
Net investments at fair value	$ 3,354	$ 6,517	$ 58	$ 9,929
Other investment receivables redeemed at NAV				$ 99
Securities valued at NAV				3,612
Total net assets				$ 13,640

(1) The investments of the U.S. pension and postretirement plans are commingled in one trust. At December 31, 2020, the allocable interests of the U.S. pension and postretirement plans were 98.0% and 2.0%, respectively. The investments of the VEBA Trust for postretirement benefits are reflected in the above table.

In millions of dollars	**Non-U.S. pension and postretirement benefit plans**			
	Fair value measurement at December 31, 2021			
Asset categories	**Level 1**	**Level 2**	**Level 3**	**Total**
U.S. equities	**$ 127**	**$ 19**	**$ —**	**$ 146**
Non-U.S. equities	**713**	**92**	**—**	**805**
Mutual funds and other registered investment companies	**2,888**	**66**	**—**	**2,954**
Commingled funds	**21**	**—**	**—**	**21**
Debt securities	**4,263**	**1,341**	**—**	**5,604**
Real estate	**—**	**3**	**2**	**5**
Annuity contracts	**—**	**—**	**2**	**2**
Derivatives	**—**	**239**	**—**	**239**
Other investments	**—**	**—**	**318**	**318**
Total investments	**$ 8,012**	**$ 1,760**	**$ 322**	**$ 10,094**
Cash and short-term investments	**$ 117**	**$ 5**	**$ —**	**$ 122**
Other investment liabilities	**—**	**(1,578)**	**—**	**(1,578)**
Net investments at fair value	**$ 8,129**	**$ 187**	**$ 322**	**$ 8,638**
Securities valued at NAV				**$ 19**
Total net assets				**$ 8,657**

In millions of dollars	Non-U.S. pension and postretirement benefit plans Fair value measurement at December 31, 2020			
Asset categories	Level 1	Level 2	Level 3	Total
U.S. equities	$ 5	$ 16	$ —	$ 21
Non-U.S. equities	105	670	—	775
Mutual funds and other registered investment companies	3,137	73	—	3,210
Commingled funds	24	—	—	24
Debt securities	6,705	1,420	—	8,125
Real estate	—	2	2	4
Annuity contracts	—	—	5	5
Derivatives	—	1,005	—	1,005
Other investments	—	—	312	312
Total investments	$ 9,976	$ 3,186	$ 319	$ 13,481
Cash and short-term investments	$ 129	$ 3	$ —	$ 132
Other investment liabilities	—	(4,650)	—	(4,650)
Net investments at fair value	$ 10,105	$ (1,461)	$ 319	$ 8,963
Securities valued at NAV				$ 14
Total net assets				$ 8,977

Level 3 Rollforward

The reconciliations of the beginning and ending balances during the year for Level 3 assets are as follows:

In millions of dollars	**U.S. pension and postretirement benefit plans**					
Asset categories	**Beginning Level 3 fair value at Dec. 31, 2020**	**Realized (losses)**	**Unrealized gains**	**Purchases, sales and issuances**	**Transfers in and/ or out of Level 3**	**Ending Level 3 fair value at Dec. 31, 2021**
Annuity contracts	$ 1	$ —	$ —	$ 3	$ —	**$ 4**
Other investments	57	(6)	2	(28)	—	**25**
Total investments	$ 58	$ (6)	$ 2	$ (25)	$ —	**$ 29**

In millions of dollars	U.S. pension and postretirement benefit plans					
Asset categories	Beginning Level 3 fair value at Dec. 31, 2019	Realized (losses)	Unrealized (losses)	Purchases, sales and issuances	Transfers in and/ or out of Level 3	Ending Level 3 fair value at Dec. 31, 2020
Annuity contracts	$ 1	$ —	$ —	$ —	$ —	$ 1
Other investments	75	(3)	3	(18)	—	57
Total investments	$ 76	$ (3)	$ 3	$ (18)	$ —	$ 58

In millions of dollars	**Non-U.S. pension and postretirement benefit plans**				
Asset categories	**Beginning Level 3 fair value at Dec. 31, 2020**	**Unrealized gains**	**Purchases, sales and issuances**	**Transfers in and/ or out of Level 3**	**Ending Level 3 fair value at Dec. 31, 2021**
Debt securities	$ —	$ —	$ —	$ —	**$ —**
Real estate	2	—	—	—	**2**
Annuity contracts	5	—	(3)	—	**2**
Other investments	312	4	2	—	**318**
Total investments	$ 319	$ 4	$ (1)	$ —	**$ 322**

In millions of dollars	Non-U.S. pension and postretirement benefit plans				
Asset categories	Beginning Level 3 fair value at Dec. 31, 2019	Unrealized (losses)	Purchases, sales and issuances	Transfers in and/ or out of Level 3	Ending Level 3 fair value at Dec. 31, 2020
Debt securities	$ 10	$ —	$ (10)	$ —	$ —
Real estate	1	1	—	—	2
Annuity contracts	5	—	—	—	5
Other investments	274	23	15	—	312
Total investments	$ 290	$ 24	$ 5	$ —	$ 319

Investment Strategy

The Company's global pension and postretirement funds' investment strategy is to invest in a prudent manner for the exclusive purpose of providing benefits to participants. The investment strategies are targeted to produce a total return that, when combined with the Company's contributions to the funds, will maintain the funds' ability to meet all required benefit obligations. Risk is controlled through diversification of asset types and investments in domestic and international equities, fixed income securities and cash and short-term investments. The target asset allocation in most locations outside the U.S. is primarily in equity and debt securities. These allocations may vary by geographic region and country depending on the nature of applicable obligations and various other regional considerations. The wide variation in the actual range of plan asset allocations for the funded non-U.S. plans is a result of differing local statutory requirements and economic conditions. For example, in certain countries local law requires that all pension plan assets must be invested in fixed income investments, government funds or local-country securities.

Significant Concentrations of Risk in Plan Assets

The assets of the Company's pension plans are diversified to limit the impact of any individual investment. The U.S. qualified pension plan is diversified across multiple asset classes, with publicly traded fixed income, publicly traded equity, hedge funds and real estate representing the most significant asset allocations. Investments in these four asset classes are further diversified across funds, managers, strategies, vintages, sectors and geographies, depending on the specific characteristics of each asset class. The pension assets for the Company's non-U.S. Significant Plans are primarily invested in publicly traded fixed income and publicly traded equity securities.

Oversight and Risk Management Practices

The framework for the Company's pension oversight process includes monitoring of retirement plans by plan fiduciaries and/or management at the global, regional or country level, as appropriate. Independent Risk Management contributes to the risk oversight and monitoring for the Company's U.S. qualified pension plan and non-U.S. Significant Pension Plans. Although the specific components of the oversight process are tailored to the requirements of each region, country and plan, the following elements are common to the Company's monitoring and risk management process:

- periodic asset/liability management studies and strategic asset allocation reviews;
- periodic monitoring of funding levels and funding ratios;
- periodic monitoring of compliance with asset allocation guidelines;
- periodic monitoring of asset class and/or investment manager performance against benchmarks; and
- periodic risk capital analysis and stress testing.

Estimated Future Benefit Payments

The Company expects to pay the following estimated benefit payments in future years:

	Pension plans		Postretirement benefit plans	
In millions of dollars	**U.S. plans**	**Non-U.S. plans[1]**	**U.S. plans**	**Non-U.S. plans**
2022	$ 956	$ 958	$ 64	$ 71
2023	837	452	50	74
2024	844	460	47	78
2025	846	462	44	82
2026	838	467	41	86
2027–2031	3,946	2,428	164	493

(1) Estimated 2022 benefit payments have increased due to the wind-down of Citi's consumer banking business in Korea, as it is expected that employees who elected the VERP plan will be withdrawing their pension plan assets. See Note 2 to the Consolidated Financial Statements for additional information.

Post Employment Plans

The Company sponsors U.S. post employment plans that provide income continuation and health and welfare benefits to certain eligible U.S. employees on long-term disability. The following table summarizes the funded status and amounts recognized on the Company's Consolidated Balance Sheet:

In millions of dollars	**2021**	2020
Funded status of the plan at year end	**$ (41)**	$ (40)
Net amount recognized in *AOCI* (pretax)	**$ (15)**	$ (17)

The following table summarizes the net expense recognized in the Consolidated Statement of Income for the Company's U.S. post employment plans:

In millions of dollars	**2021**	2020	2019
Net expense	**$ 10**	$ 9	$ 9

Defined Contribution Plans

The Company sponsors defined contribution plans in the U.S. and in certain non-U.S. locations, all of which are administered in accordance with local laws. The most significant defined contribution plan is the Citi Retirement Savings Plan sponsored by the Company in the U.S.

Under the Citi Retirement Savings Plan, eligible U.S. employees received matching contributions of up to 6% of their eligible compensation for 2021 and 2020, subject to statutory limits. In addition, for eligible employees whose eligible compensation is $100,000 or less, a fixed contribution of up to 2% of eligible compensation is provided. All Company contributions are invested according to participants' individual elections. The following tables summarize the Company contributions for the defined contribution plans:

	U.S. plans		
In millions of dollars	**2021**	2020	2019
Company contributions	**$ 436**	$ 414	$ 404

	Non-U.S. plans		
In millions of dollars	**2021**	2020	2019
Company contributions	**$ 364**	$ 304	$ 281

9. INCOME TAXES

Income Tax Provision

Details of the Company's income tax provision are presented below:

In millions of dollars	**2021**	2020	2019
Current			
Federal	**$ 522**	$ 305	$ 365
Non-U.S.	**3,288**	4,113	4,352
State	**228**	440	323
Total current income taxes	**$ 4,038**	$ 4,858	$ 5,040
Deferred			
Federal	**$ 1,059**	$ (1,430)	$ (907)
Non-U.S.	**8**	(690)	10
State	**346**	(213)	287
Total deferred income taxes	**$ 1,413**	$ (2,333)	$ (610)
Provision for income tax on continuing operations before noncontrolling interests(1)	**$ 5,451**	$ 2,525	$ 4,430
Provision (benefit) for income taxes on discontinued operations	—	—	(27)
Income tax expense (benefit) reported in stockholders' equity related to:			
FX translation	**(146)**	23	(11)
Investment securities	**(1,367)**	1,214	648
Employee stock plans	**(6)**	(4)	(16)
Cash flow hedges	**(476)**	455	269
Benefit plans	**240**	(23)	(119)
FVO DVA	**64**	(141)	(337)
Excluded fair value hedges	**2**	(8)	8
Retained earnings(2)	—	(911)	46
Income taxes before noncontrolling interests	**$ 3,762**	$ 3,130	$ 4,891

(1) Includes the tax on realized investment gains and impairment losses resulting in a provision (benefit) of $169 million and $(57) million in 2021, $454 million and $(14) million in 2020 and $373 million and $(9) million in 2019, respectively.

(2) 2020 reflects the tax effect of ASU 2016-13 for current expected credit losses (CECL). 2019 reflects the tax effect of the accounting change for ASU 2016-02 for lease transactions.

Tax Rate

The reconciliation of the federal statutory income tax rate to the Company's effective income tax rate applicable to income from continuing operations (before noncontrolling interests and the cumulative effect of accounting changes) for each of the periods indicated is as follows:

	2021	2020	2019
Federal statutory rate	**21.0 %**	21.0 %	21.0 %
State income taxes, net of federal benefit	**2.1**	1.3	1.9
Non-U.S. income tax rate differential	**1.6**	3.5	1.3
Nondeductible FDIC premiums	**0.6**	1.3	0.4
Tax advantaged investments	**(2.3)**	(4.4)	(2.3)
Valuation allowance releases(1)	**(1.7)**	(4.4)	(3.0)
Other, net	**(1.5)**	0.2	(0.8)
Effective income tax rate	**19.8 %**	18.5 %	18.5 %

(1) See "Deferred Tax Assets" below for a description of the components.

As set forth in the table above, Citi's effective tax rate for 2021 was 19.8%, compared to 18.5% in 2020, primarily due to the reduced effect of permanent differences, including the valuation allowance releases, on a much higher level of pretax income.

Deferred Income Taxes

Deferred income taxes at December 31 related to the following:

In millions of dollars	**2021**	2020
Deferred tax assets		
Credit loss deduction	**$ 5,330**	$ 6,791
Deferred compensation and employee benefits	**2,335**	2,510
U.S. tax on non-U.S. earnings	**1,138**	1,195
Investment and loan basis differences	**2,970**	1,486
Tax credit and net operating loss carry-forwards	**15,620**	17,416
Fixed assets and leases	**3,064**	2,935
Other deferred tax assets	**3,549**	3,832
Gross deferred tax assets	**$ 34,006**	$ 36,165
Valuation allowance	**$ 4,194**	$ 5,177
Deferred tax assets after valuation allowance	**$ 29,812**	$ 30,988
Deferred tax liabilities		
Intangibles and leases	**$ (2,446)**	$ (2,526)
Non-U.S. withholding taxes	**(987)**	(921)
Interest-related items	—	(597)
Other deferred tax liabilities	**(1,590)**	(2,104)
Gross deferred tax liabilities	**$ (5,023)**	$ (6,148)
Net deferred tax assets	**$ 24,789**	$ 24,840

Unrecognized Tax Benefits

The following is a rollforward of the Company's unrecognized tax benefits:

In millions of dollars	**2021**	2020	2019
Total unrecognized tax benefits at January 1	**$ 861**	$ 721	$ 607
Net amount of increases for current year's tax positions	**97**	51	50
Gross amount of increases for prior years' tax positions	**515**	217	151
Gross amount of decreases for prior years' tax positions	**(107)**	(74)	(44)
Amounts of decreases relating to settlements	**(64)**	(40)	(21)
Reductions due to lapse of statutes of limitation	**(2)**	(13)	(23)
Foreign exchange, acquisitions and dispositions	**(4)**	(1)	1
Total unrecognized tax benefits at December 31	**$ 1,296**	$ 861	$ 721

The portions of the total unrecognized tax benefits at December 31, 2021, 2020 and 2019 that, if recognized, would affect Citi's tax expense are $1.0 billion, $0.7 billion and $0.6 billion, respectively. The remaining uncertain tax positions have offsetting amounts in other jurisdictions or are temporary differences.

Interest and penalties (not included in unrecognized tax benefits above) are a component of *Provision for income taxes*.

	2021		2020		2019	
In millions of dollars	**Pretax**	**Net of tax**	Pretax	Net of tax	Pretax	Net of tax
Total interest and penalties on the Consolidated Balance Sheet at January 1	**$ 118**	**$ 96**	$ 100	$ 82	$ 103	$ 85
Total interest and penalties in the Consolidated Statement of Income	**32**	**24**	14	10	(4)	(4)
Total interest and penalties on the Consolidated Balance Sheet at December 31[(1)]	**214**	**164**	118	96	100	82

(1) Includes $3 million, $4 million and $3 million for non-U.S. penalties in 2021, 2020 and 2019, respectively. Also includes $0 million, $1 million and $1 million for state penalties in 2021, 2020 and 2019, respectively.

As of December 31, 2021, Citi was under audit by the Internal Revenue Service and other major taxing jurisdictions around the world. It is thus reasonably possible that significant changes in the gross balance of unrecognized tax benefits may occur within the next 12 months. The potential range of amounts that could affect Citi's effective tax rate is between $0 and $500 million.

The following are the major tax jurisdictions in which the Company and its affiliates operate and the earliest tax year subject to examination:

Jurisdiction	**Tax year**
United States	2016
Mexico	2016
New York State and City	2009
United Kingdom	2016
India	2017
Singapore	2019
Hong Kong	2015
Ireland	2017

Non-U.S. Earnings

Non-U.S. pretax earnings approximated $12.9 billion in 2021, $13.8 billion in 2020 and $16.7 billion in 2019. As a U.S. corporation, Citigroup and its U.S. subsidiaries are currently subject to U.S. taxation on all non-U.S. pretax earnings of non-U.S. branches. Beginning in 2018, there is a separate foreign tax credit (FTC) basket for branches. Also, dividends from a non-U.S. subsidiary or affiliate are effectively exempt from U.S. taxation. The Company provides income taxes on the book over tax basis differences of non-U.S. subsidiaries except to the extent that such differences are indefinitely reinvested outside the U.S.

At December 31, 2021, $6.5 billion of basis differences of non-U.S. entities was indefinitely invested. At the existing tax rates (including withholding taxes), additional taxes (net of U.S. FTCs and valuation allowances) of $1.8 billion would have to be provided if such assertions were reversed.

Income taxes are not provided for the Company's "savings bank base year bad debt reserves" that arose before 1988, because under current U.S. tax rules, such taxes will become payable only to the extent that such amounts are distributed in excess of limits prescribed by federal law. At December 31, 2021, the amount of the base year reserves totaled approximately $358 million (subject to a tax of $75 million).

Deferred Tax Assets

As of December 31, 2021, Citi had a valuation allowance of $4.2 billion, composed of valuation allowances of $0.8 billion on its general basket FTC carry-forwards, $1.7 billion on its branch basket FTC carry-forwards, $1.0 billion on its U.S. residual DTA related to its non-U.S. branches, $0.6 billion on local non-U.S. DTAs and $0.1 billion on state net operating loss carry-forwards. There was a decrease of $1.0 billion from the December 31, 2020 balance of $5.2 billion. The amount of Citi's valuation allowances (VA) may change in future years.

In 2021, Citi's VA for carry-forward FTCs in its branch basket decreased by $0.7 billion and the related VA for the U.S. tax effect on non-U.S. branch temporary differences was unchanged. Of this total branch-related change of $0.7 billion, $0.3 billion impacted the tax provision as discussed below. The remainder of the branch basket-related VA decrease of $0.4 billion was primarily due to carry-forward expirations.

The level of branch pretax income, the local branch tax rate and the allocations of overall domestic losses (ODL) and expenses for U.S. tax purposes to the branch basket are the main factors in determining the branch VA. The allocated ODL was enhanced by significant taxable income generated in the current year. In addition, the global interest rate environment and balance sheet requirements in non-U.S. branches resulted in a lower relative allocation of interest expense to non-U.S. branches. The combination of the factors enumerated resulted in a VA release of $0.2 billion in Citi's full-year effective tax rate. Citi also released branch basket VA of $0.1 billion with respect to future years, based upon Citi's Operating Plan and estimates of future branch basket factors, as outlined above.

In Citi's general basket for FTCs, changes in the forecasted amount of income in U.S. locations derived from sources outside the U.S., in addition to tax examination changes from prior years, could alter the amount of VA that is needed against such FTCs. The VA for the general basket decreased by $0.2 billion to $0.8 billion, primarily due to audit adjustments. Citi continues to look for additional actions that may become prudent and feasible, taking into account client, regulatory and operational considerations.

The VA for U.S. residual DTA related to its non-U.S. branches was unchanged at $1.0 billion. In addition, the non-U.S. local VA was unchanged at $0.6 billion.

The following table summarizes Citi's DTAs:

In billions of dollars

Jurisdiction/component[(1)]	**DTAs balance December 31, 2021**	DTAs balance December 31, 2020
U.S. federal[(2)]		
Net operating losses (NOLs)[(3)]	**$ 3.2**	$ 3.0
Foreign tax credits (FTCs)	**2.8**	4.4
General business credits (GBCs)	**4.5**	3.6
Future tax deductions and credits	**8.4**	7.9
Total U.S. federal	**$ 18.9**	$ 18.9
State and local		
New York NOLs	**$ 1.2**	$ 1.5
Other state NOLs	**0.2**	0.1
Future tax deductions	**1.8**	1.7
Total state and local	**$ 3.2**	$ 3.3
Non-U.S.		
NOLs	**$ 0.5**	$ 0.6
Future tax deductions	**2.2**	2.0
Total non-U.S.	**$ 2.7**	$ 2.6
Total	**$ 24.8**	$ 24.8

(1) All amounts are net of valuation allowances.
(2) Included in the net U.S. federal DTAs of $18.9 billion as of December 31, 2021 were deferred tax liabilities of $2.7 billion that will reverse in the relevant carry-forward period and may be used to support the DTAs.
(3) Consists of non-consolidated tax return NOL carry-forwards that are eventually expected to be utilized in Citigroup's consolidated tax return.

The following table summarizes the amounts of tax carry-forwards and their expiration dates:

In billions of dollars

Year of expiration	December 31, 2021	December 31, 2020
U.S. tax return general basket foreign tax credit carry-forwards[1]		
2022	**$ 0.5**	$ 2.3
2023	**0.4**	0.4
2025	**1.5**	1.4
2027	**1.1**	1.2
Total U.S. tax return general basket foreign tax credit carry-forwards	**$ 3.5**	$ 5.3
U.S. tax return branch basket foreign tax credit carry-forwards[1]		
2021	**$ —**	$ 0.7
2022	**1.0**	1.0
2028	**0.6**	0.6
2029	**0.2**	0.2
Total U.S. tax return branch basket foreign tax credit carry-forwards	**$ 1.8**	$ 2.5
U.S. tax return general business credit carry-forwards		
2032	**$ 0.4**	$ 0.3
2033	**0.3**	0.3
2034	**0.2**	0.2
2035	**0.2**	0.2
2036	**0.2**	0.2
2037	**0.5**	0.5
2038	**0.5**	0.5
2039	**0.7**	0.7
2040	**0.7**	0.7
2041	**0.8**	—
Total U.S. tax return general business credit carry-forwards	**$ 4.5**	$ 3.6
U.S. subsidiary separate federal NOL carry-forwards		
2027	**$ 0.1**	$ 0.1
2028	**0.1**	0.1
2030	**0.3**	0.3
2033	**1.6**	1.5
2034	**2.0**	2.0
2035	**3.3**	3.3
2036	**2.1**	2.1
2037	**1.0**	1.0
Unlimited carry-forward period	**4.6**	3.9
Total U.S. subsidiary separate federal NOL carry-forwards[2]	**$ 15.1**	$ 14.3
New York State NOL carry-forwards[2]		
2034	**$ 6.6**	$ 8.1
New York City NOL carry-forwards[2]		
2034	**$ 7.2**	$ 8.7
Non-U.S. NOL carry-forwards[1]		
Various	**$ 1.1**	$ 1.2

(1) Before valuation allowance.
(2) Pretax.

The time remaining for utilization of the FTC component has shortened, given the passage of time. Although realization is not assured, Citi believes that the realization of the recognized net DTAs of $24.8 billion at December 31, 2021 is more-likely-than-not, based upon expectations as to future taxable income in the jurisdictions in which the DTAs arise and consideration of available tax planning strategies (as defined in ASC 740, *Income Taxes*).

The majority of Citi's U.S. federal net operating loss carry-forward and all of its New York State and City net operating loss carry-forwards are subject to a carry-forward period of 20 years. This provides enough time to fully utilize the DTAs pertaining to these existing NOL carry-forwards. This is due to Citi's forecast of sufficient U.S. taxable income and because New York State and City continue to tax Citi's non-U.S. income.

With respect to the FTCs component of the DTAs, the carry-forward period is 10 years. Utilization of FTCs in any year is generally limited to 21% of foreign source taxable income in that year. However, ODL that Citi has incurred of approximately $15 billion as of December 31, 2021 are allowed to be reclassified as foreign source income to the extent of 50%–100% (at taxpayer's election) of domestic source income produced in subsequent years. Such resulting foreign source income would support the realization of the FTC carry-forwards after VA. As noted in the tables above, Citi's FTC carry-forwards were $2.8 billion ($5.3 billion before VA) as of December 31, 2021, compared to $4.4 billion as of December 31, 2020. Citi believes that it will more-likely-than-not generate sufficient U.S. taxable income within the 10-year carry-forward period to be able to utilize the net FTCs after the VA, after considering any FTCs produced in the tax return for such period, which must be used prior to any carry-forward utilization.

10. EARNINGS PER SHARE

The following table reconciles the income and share data used in the basic and diluted earnings per share (EPS) computations:

In millions of dollars, except per share amounts	**2021**	2020	2019
Earnings per common share			
Income from continuing operations before attribution of noncontrolling interests	**$ 22,018**	$ 11,107	$ 19,471
Less: Noncontrolling interests from continuing operations	**73**	40	66
Net income from continuing operations (for EPS purposes)	**$ 21,945**	$ 11,067	$ 19,405
Loss from discontinued operations, net of taxes	**7**	(20)	(4)
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Less: Preferred dividends[1]	**1,040**	1,095	1,109
Net income available to common shareholders	**$ 20,912**	$ 9,952	$ 18,292
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with rights to dividends, applicable to basic EPS	**154**	73	121
Net income allocated to common shareholders for basic EPS	**$ 20,758**	$ 9,879	$ 18,171
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**2,033.0**	2,085.8	2,249.2
Basic earnings per share[2]			
Income from continuing operations	**$ 10.21**	$ 4.75	$ 8.08
Discontinued operations	**—**	(0.01)	—
Net income per share—basic	**$ 10.21**	$ 4.74	$ 8.08
Diluted earnings per share			
Net income allocated to common shareholders for basic EPS	**$ 20,758**	$ 9,879	$ 18,171
Add back: Dividends allocated to employee restricted and deferred shares with rights to dividends that are forfeitable	**31**	30	33
Net income allocated to common shareholders for diluted EPS	**$ 20,789**	$ 9,909	$ 18,204
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**$ 2,033.0**	$ 2,085.8	$ 2,249.2
Effect of dilutive securities			
Options[3]	**—**	0.1	0.1
Other employee plans	**16.4**	13.1	16.0
Adjusted weighted-average common shares outstanding applicable to diluted EPS *(in millions)*[4]	**2,049.4**	2,099.0	2,265.3
Diluted earnings per share[2]			
Income from continuing operations	**$ 10.14**	$ 4.73	$ 8.04
Discontinued operations	**—**	(0.01)	—
Net income per share—diluted	**$ 10.14**	$ 4.72	$ 8.04

(1) See Note 20 to the Consolidated Financial Statements for the potential future impact of preferred stock dividends.
(2) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.
(3) During 2021, there were no weighted-average options outstanding. During 2021, no significant options to purchase shares of common stock were outstanding. During 2020, weighted-average options to purchase 0.1 million shares of common stock were outstanding but not included in the computation of earnings per share because the weighted-average exercise price of $56.25 per share was anti-dilutive.
(4) Due to rounding, weighted-average common shares outstanding applicable to basic EPS and the effect of dilutive securities may not sum to weighted-average common shares outstanding applicable to diluted EPS.

11. SECURITIES BORROWED, LOANED AND SUBJECT TO REPURCHASE AGREEMENTS

Securities borrowed and purchased under agreements to resell, at their respective carrying values, consisted of the following:

		December 31,		
In millions of dollars		**2021**		2020
Securities purchased under agreements to resell	**$**	**236,252**	$	204,655
Deposits paid for securities borrowed		**91,042**		90,067
Total, net[(1)]	**$**	**327,294**	$	294,722
Allowance for credit losses on securities purchased and borrowed[(2)]		**(6)**		(10)
Total, net of allowance	**$**	**327,288**	$	294,712

Securities loaned and sold under agreements to repurchase, at their respective carrying values, consisted of the following:

		December 31,		
In millions of dollars		**2021**		2020
Securities sold under agreements to repurchase	**$**	**174,255**	$	181,194
Deposits received for securities loaned		**17,030**		18,331
Total, net[(1)]	**$**	**191,285**	$	199,525

(1) The above tables do not include securities-for-securities lending transactions of $3.6 billion and $6.8 billion at December 31, 2021 and 2020, respectively, where the Company acts as lender and receives securities that can be sold or pledged as collateral. In these transactions, the Company recognizes the securities received at fair value within *Other assets* and the obligation to return those securities as a liability within *Brokerage payables*.

(2) See Note 15 to the Consolidated Financial Statements for further information.

The resale and repurchase agreements represent collateralized financing transactions. Citi executes these transactions primarily through its broker-dealer subsidiaries to facilitate customer matched-book activity and to efficiently fund a portion of Citi's trading inventory. Transactions executed by Citi's bank subsidiaries primarily facilitate customer financing activity.

To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and stipulating financing tenor. Citi manages the risks in its collateralized financing transactions by conducting daily stress tests to account for changes in capacity, tenors, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress.

It is the Company's policy to take possession of the underlying collateral, monitor its market value relative to the amounts due under the agreements and, when necessary, require prompt transfer of additional collateral in order to maintain contractual margin protection. For resale and repurchase agreements, when necessary, the Company posts additional collateral in order to maintain contractual margin protection.

Collateral typically consists of government and government-agency securities, corporate and municipal bonds, equities and mortgage- and other asset-backed securities.

The resale and repurchase agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other type of default under the relevant master agreement. Events of default generally include (i) failure to deliver cash or securities as required under the transaction, (ii) failure to provide or return cash or securities as used for margining purposes, (iii) breach of representation, (iv) cross-default to another transaction entered into among the parties, or, in some cases, their affiliates and (v) a repudiation of obligations under the agreement. The counterparty that receives the securities in these transactions is generally unrestricted in its use of the securities, with the exception of transactions executed on a tri-party basis, where the collateral is maintained by a custodian and operational limitations may restrict its use of the securities.

A substantial portion of the resale and repurchase agreements is recorded at fair value, as described in Notes 24 and 25 to the Consolidated Financial Statements. The remaining portion is carried at the amount of cash initially advanced or received, plus accrued interest, as specified in the respective agreements.

The securities borrowing and lending agreements also represent collateralized financing transactions similar to the resale and repurchase agreements. Collateral typically consists of government and government-agency securities and corporate debt and equity securities.

Similar to the resale and repurchase agreements, securities borrowing and lending agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other default by the other party under the relevant master agreement. Events of default and rights to use securities under the securities borrowing and lending agreements are similar to the resale and repurchase agreements referenced above.

A substantial portion of securities borrowing and lending agreements is recorded at the amount of cash advanced or received. The remaining portion is recorded at fair value as the Company elected the fair value option for certain securities borrowed and loaned portfolios, as described in Note 25 to the Consolidated Financial Statements. With respect to securities loaned, the Company receives cash collateral in an amount generally in excess of the market value of the securities loaned. The Company monitors the market value of securities borrowed and securities loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

The enforceability of offsetting rights incorporated in the master netting agreements for resale and repurchase agreements, and securities borrowing and lending agreements, is evidenced to the extent that (i) a supportive legal opinion has been obtained from counsel of recognized standing that provides the requisite level of certainty regarding the enforceability of these agreements and (ii) the exercise of rights by the non-defaulting party to terminate and close out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default including bankruptcy, insolvency or similar proceeding.

A legal opinion may not have been sought or obtained for certain jurisdictions where local law is silent or sufficiently ambiguous to determine the enforceability of offsetting rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law for a particular counterparty type may be nonexistent or unclear as overlapping regimes may exist. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

The following tables present the gross and net resale and repurchase agreements and securities borrowing and lending agreements and the related offsetting amounts permitted under ASC 210-20-45. The tables also include amounts related to financial instruments that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting rights has been obtained. Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

	As of December 31, 2021				
In millions of dollars	**Gross amounts of recognized assets**	**Gross amounts offset on the Consolidated Balance Sheet[(1)]**	**Net amounts of assets included on the Consolidated Balance Sheet**	**Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]**	**Net amounts[(3)]**
Securities purchased under agreements to resell	**$ 367,594**	**$ 131,342**	**$ 236,252**	**$ 205,349**	**$ 30,903**
Deposits paid for securities borrowed	**107,041**	**15,999**	**91,042**	**17,326**	**73,716**
Total	**$ 474,635**	**$ 147,341**	**$ 327,294**	**$ 222,675**	**$ 104,619**

In millions of dollars	**Gross amounts of recognized liabilities**	**Gross amounts offset on the Consolidated Balance Sheet[(1)]**	**Net amounts of liabilities included on the Consolidated Balance Sheet**	**Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]**	**Net amounts[(3)]**
Securities sold under agreements to repurchase	**$ 305,597**	**$ 131,342**	**$ 174,255**	**$ 85,184**	**$ 89,071**
Deposits received for securities loaned	**33,029**	**15,999**	**17,030**	**2,868**	**14,162**
Total	**$ 338,626**	**$ 147,341**	**$ 191,285**	**$ 88,052**	**$ 103,233**

	As of December 31, 2020				
In millions of dollars	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet[(1)]	Net amounts of assets included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]	Net amounts[(3)]
Securities purchased under agreements to resell	$ 362,025	$ 157,370	$ 204,655	$ 159,232	$ 45,423
Deposits paid for securities borrowed	96,425	6,358	90,067	13,474	76,593
Total	$ 458,450	$ 163,728	$ 294,722	$ 172,706	$ 122,016

In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet[(1)]	Net amounts of liabilities included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]	Net amounts[(3)]
Securities sold under agreements to repurchase	$ 338,564	$ 157,370	$ 181,194	$ 95,563	$ 85,631
Deposits received for securities loaned	24,689	6,358	18,331	7,982	10,349
Total	$ 363,253	$ 163,728	$ 199,525	$ 103,545	$ 95,980

(1) Includes financial instruments subject to enforceable master netting agreements that are permitted to be offset under ASC 210-20-45.
(2) Includes financial instruments subject to enforceable master netting agreements that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting right has been obtained.
(3) Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by remaining contractual maturity:

	As of December 31, 2021				
In millions of dollars	**Open and overnight**	**Up to 30 days**	**31–90 days**	**Greater than 90 days**	**Total**
Securities sold under agreements to repurchase	**$ 127,679**	**$ 93,257**	**$ 32,908**	**$ 51,753**	**$ 305,597**
Deposits received for securities loaned	**23,387**	**6**	**1,392**	**8,244**	**33,029**
Total	**$ 151,066**	**$ 93,263**	**$ 34,300**	**$ 59,997**	**$ 338,626**

	As of December 31, 2020				
In millions of dollars	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
Securities sold under agreements to repurchase	$ 160,754	$ 98,226	$ 41,679	$ 37,905	$ 338,564
Deposits received for securities loaned	17,038	3	2,770	4,878	24,689
Total	$ 177,792	$ 98,229	$ 44,449	$ 42,783	$ 363,253

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by class of underlying collateral:

	As of December 31, 2021		
In millions of dollars	**Repurchase agreements**	**Securities lending agreements**	**Total**
U.S. Treasury and federal agency securities	**$ 85,861**	**$ 90**	**$ 85,951**
State and municipal securities	**1,053**	**—**	**1,053**
Foreign government securities	**133,352**	**212**	**133,564**
Corporate bonds	**20,398**	**152**	**20,550**
Equity securities	**25,653**	**32,517**	**58,170**
Mortgage-backed securities	**33,573**	**—**	**33,573**
Asset-backed securities	**1,681**	**—**	**1,681**
Other	**4,026**	**58**	**4,084**
Total	**$ 305,597**	**$ 33,029**	**$ 338,626**

In millions of dollars	As of December 31, 2020 Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$ 112,437	$ —	$ 112,437
State and municipal securities	664	2	666
Foreign government securities	130,017	194	130,211
Corporate bonds	20,149	78	20,227
Equity securities	21,497	24,149	45,646
Mortgage-backed securities	45,566	—	45,566
Asset-backed securities	3,307	—	3,307
Other	4,927	266	5,193
Total	$ 338,564	$ 24,689	$ 363,253

12. BROKERAGE RECEIVABLES AND BROKERAGE PAYABLES

The Company has receivables and payables for financial instruments sold to and purchased from brokers, dealers and customers, which arise in the ordinary course of business. Citi is exposed to risk of loss from the inability of brokers, dealers or customers to pay for purchases or to deliver the financial instruments sold, in which case Citi would have to sell or purchase the financial instruments at prevailing market prices. Credit risk is reduced to the extent that an exchange or clearing organization acts as a counterparty to the transaction and replaces the broker, dealer or customer in question.

Citi seeks to protect itself from the risks associated with customer activities by requiring customers to maintain margin collateral in compliance with regulatory and internal guidelines. Margin levels are monitored daily, and customers deposit additional collateral as required. Where customers cannot meet collateral requirements, Citi may liquidate sufficient underlying financial instruments to bring the customer into compliance with the required margin level.

Exposure to credit risk is impacted by market volatility, which may impair the ability of clients to satisfy their obligations to Citi. Credit limits are established and closely monitored for customers and for brokers and dealers engaged in forwards, futures and other transactions deemed to be credit sensitive.

Brokerage receivables and *Brokerage payables* consisted of the following:

	December 31,	
In millions of dollars	**2021**	2020
Receivables from customers, net	**$ 26,403**	$ 18,097
Receivables from brokers, dealers and clearing organizations	**27,937**	26,709
Total brokerage receivables[(1)]	**$ 54,340**	$ 44,806
Payables to customers	**$ 52,158**	$ 39,319
Payables to brokers, dealers and clearing organizations	**9,272**	11,165
Total brokerage payables[(1)]	**$ 61,430**	$ 50,484

(1) Includes brokerage receivables and payables recorded by Citi broker-dealer entities that are accounted for in accordance with the AICPA Accounting Guide for Brokers and Dealers in Securities as codified in ASC 940-320.

13. INVESTMENTS

The following table presents Citi's investments by category:

In millions of dollars	December 31, 2021	2020
Debt securities available-for-sale (AFS)	**$ 288,522**	$ 335,084
Debt securities held-to-maturity (HTM)(1)	**216,963**	104,943
Marketable equity securities carried at fair value(2)	**543**	515
Non-marketable equity securities carried at fair value(2)	**489**	551
Non-marketable equity securities measured using the measurement alternative(3)	**1,413**	962
Non-marketable equity securities carried at cost(4)	**4,892**	5,304
Total investments	**$ 512,822**	$ 447,359

(1) Carried at adjusted amortized cost basis, net of any ACL.
(2) Unrealized gains and losses are recognized in earnings.
(3) Impairment losses and adjustments to the carrying value as a result of observable price changes are recognized in earnings. See "Non-Marketable Equity Securities Not Carried at Fair Value" below.
(4) Represents shares issued by the Federal Reserve Bank, Federal Home Loan Banks and certain exchanges of which Citigroup is a member.

The following table presents interest and dividend income on investments:

In millions of dollars	**2021**	2020	2019
Taxable interest	**$ 6,975**	$ 7,554	$ 9,269
Interest exempt from U.S. federal income tax	**279**	301	404
Dividend income	**134**	134	187
Total interest and dividend income on investments	**$ 7,388**	$ 7,989	$ 9,860

The following table presents realized gains and losses on the sales of investments, which exclude impairment losses:

In millions of dollars	**2021**	2020	2019
Gross realized investment gains	**$ 860**	$ 1,895	$ 1,599
Gross realized investment losses	**(195)**	(139)	(125)
Net realized gains on sales of investments	**$ 665**	$ 1,756	$ 1,474

Debt Securities Available-for-Sale

The amortized cost and fair value of AFS debt securities were as follows:

	December 31, 2021					December 31, 2020				
In millions of dollars	**Amortized cost**	**Gross unrealized gains**	**Gross unrealized losses**	**Allowance for credit losses**	**Fair value**	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value
Debt securities AFS										
Mortgage-backed securities[1]										
U.S. government-sponsored agency guaranteed	**$ 33,064**	**$ 453**	**$ 301**	**$ —**	**$ 33,216**	$ 42,836	$ 1,134	$ 52	$ —	$ 43,918
Non-U.S. residential	**380**	**1**	**1**	**—**	**380**	568	3	—	—	571
Commercial	**25**	**—**	**—**	**—**	**25**	49	1	—	—	50
Total mortgage-backed securities	**$ 33,469**	**$ 454**	**$ 302**	**$ —**	**$ 33,621**	$ 43,453	$ 1,138	$ 52	$ —	$ 44,539
U.S. Treasury and federal agency securities										
U.S. Treasury	**$ 122,669**	**$ 615**	**$ 844**	**$ —**	**$ 122,440**	$ 144,094	$ 2,108	$ 49	$ —	$ 146,153
Agency obligations	**—**	**—**	**—**	**—**	**—**	50	1	—	—	51
Total U.S. Treasury and federal agency securities	**$ 122,669**	**$ 615**	**$ 844**	**$ —**	**$ 122,440**	$ 144,144	$ 2,109	$ 49	$ —	$ 146,204
State and municipal	**$ 2,643**	**$ 79**	**$ 101**	**$ —**	**$ 2,621**	$ 3,753	$ 123	$ 157	$ —	$ 3,719
Foreign government	**119,426**	**337**	**1,023**	**—**	**118,740**	123,467	1,623	122	—	124,968
Corporate	**5,972**	**33**	**77**	**8**	**5,920**	10,444	152	91	5	10,500
Asset-backed securities[1]	**304**	**—**	**1**	**—**	**303**	277	5	4	—	278
Other debt securities	**4,880**	**1**	**4**	**—**	**4,877**	4,871	5	—	—	4,876
Total debt securities AFS	**$ 289,363**	**$ 1,519**	**$ 2,352**	**$ 8**	**$ 288,522**	$ 330,409	$ 5,155	$ 475	$ 5	$ 335,084

(1) The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage- and asset-backed securitizations in which the Company has other involvement, see Note 21 to the Consolidated Financial Statements.

At December 31, 2021, the amortized cost of fixed income securities exceeded their fair value by $2,352 million. Of the $2,352 million, $1,895 million represented unrealized losses on fixed income investments that have been in a gross-unrealized-loss position for less than a year and, of these, 77% were rated investment grade; and $457 million represented unrealized losses on fixed income investments that have been in a gross-unrealized-loss position for a year or more and, of these, 99% were rated investment grade. Of the $457 million, $197 million represents foreign government securities.

The following table shows the fair value of AFS debt securities that have been in an unrealized loss position:

	Less than 12 months		12 months or longer		Total	
In millions of dollars	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
December 31, 2021						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	**$ 17,039**	**$ 270**	**$ 698**	**$ 31**	**$ 17,737**	**$ 301**
Non-U.S. residential	**96**	**1**	**1**	**—**	**97**	**1**
Commercial	**—**	**—**	**—**	**—**	**—**	**—**
Total mortgage-backed securities	**$ 17,135**	**$ 271**	**$ 699**	**$ 31**	**$ 17,834**	**$ 302**
U.S. Treasury and federal agency securities						
U.S. Treasury	**$ 56,448**	**$ 713**	**$ 6,310**	**$ 131**	**$ 62,758**	**$ 844**
Agency obligations	**—**	**—**	**—**	**—**	**—**	**—**
Total U.S. Treasury and federal agency securities	**$ 56,448**	**$ 713**	**$ 6,310**	**$ 131**	**$ 62,758**	**$ 844**
State and municipal	**$ 229**	**$ 3**	**$ 874**	**$ 98**	**$ 1,103**	**$ 101**
Foreign government	**64,319**	**826**	**9,924**	**197**	**74,243**	**1,023**
Corporate	**2,655**	**77**	**22**	**—**	**2,677**	**77**
Asset-backed securities	**108**	**1**	**—**	**—**	**108**	**1**
Other debt securities	**3,439**	**4**	**—**	**—**	**3,439**	**4**
Total debt securities AFS	**$ 144,333**	**$ 1,895**	**$ 17,829**	**$ 457**	**$ 162,162**	**$ 2,352**
December 31, 2020						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ 3,588	$ 30	$ 298	$ 22	$ 3,886	$ 52
Non-U.S. residential	1	—	—	—	1	—
Commercial	7	—	4	—	11	—
Total mortgage-backed securities	$ 3,596	$ 30	$ 302	$ 22	$ 3,898	$ 52
U.S. Treasury and federal agency securities						
U.S. Treasury	$ 25,031	$ 49	$ —	$ —	$ 25,031	$ 49
Agency obligations	50	—	—	—	50	—
Total U.S. Treasury and federal agency securities	$ 25,081	$ 49	$ —	$ —	$ 25,081	$ 49
State and municipal	$ 836	$ 34	$ 893	$ 123	$ 1,729	$ 157
Foreign government	29,344	61	3,502	61	32,846	122
Corporate	1,083	90	24	1	1,107	91
Asset-backed securities	194	3	39	1	233	4
Other debt securities	182	—	—	—	182	—
Total debt securities AFS	$ 60,316	$ 267	$ 4,760	$ 208	$ 65,076	$ 475

The following table presents the amortized cost and fair value of AFS debt securities by contractual maturity dates:

	December 31,				
	2021			2020	
In millions of dollars	**Amortized cost**	**Fair value**	**Weighted average yield[1]**	Amortized cost	Fair value
Mortgage-backed securities[2]					
Due within 1 year	**$ 188**	**$ 189**	**0.79 %**	$ 27	$ 27
After 1 but within 5 years	**211**	**211**	**1.07**	567	571
After 5 but within 10 years	**523**	**559**	**3.41**	688	757
After 10 years	**32,547**	**32,662**	**2.73**	42,171	43,184
Total	**$ 33,469**	**$ 33,621**	**2.72 %**	$ 43,453	$ 44,539
U.S. Treasury and federal agency securities					
Due within 1 year	**$ 34,321**	**$ 34,448**	**1.05 %**	$ 34,834	$ 34,951
After 1 but within 5 years	**87,987**	**87,633**	**0.81**	108,160	110,091
After 5 but within 10 years	**361**	**359**	**1.42**	1,150	1,162
After 10 years	**—**	**—**	**—**	—	—
Total	**$ 122,669**	**$ 122,440**	**0.87 %**	$ 144,144	$ 146,204
State and municipal					
Due within 1 year	**$ 40**	**$ 40**	**2.09 %**	$ 427	$ 428
After 1 but within 5 years	**121**	**124**	**3.16**	189	198
After 5 but within 10 years	**156**	**161**	**3.18**	276	267
After 10 years	**2,326**	**2,296**	**3.15**	2,861	2,826
Total	**$ 2,643**	**$ 2,621**	**3.14 %**	$ 3,753	$ 3,719
Foreign government					
Due within 1 year	**$ 49,263**	**$ 49,223**	**2.53 %**	$ 48,133	$ 48,258
After 1 but within 5 years	**64,555**	**63,961**	**3.14**	67,365	68,586
After 5 but within 10 years	**3,736**	**3,656**	**1.72**	5,908	6,011
After 10 years	**1,872**	**1,900**	**1.52**	2,061	2,113
Total	**$ 119,426**	**$ 118,740**	**2.82 %**	$ 123,467	$ 124,968
All other[3]					
Due within 1 year	**$ 5,175**	**$ 5,180**	**0.94 %**	$ 6,661	$ 6,665
After 1 but within 5 years	**5,177**	**5,149**	**1.91**	7,814	7,891
After 5 but within 10 years	**750**	**750**	**2.08**	1,018	1,034
After 10 years	**54**	**21**	**4.28**	99	64
Total	**$ 11,156**	**$ 11,100**	**1.48 %**	$ 15,592	$ 15,654
Total debt securities AFS	**$ 289,363**	**$ 288,522**	**1.94 %**	$ 330,409	$ 335,084

(1) Weighted average yields are weighted based on the amortized cost of each security. The average yield considers the contractual coupon, amortization of premiums and accretion of discounts and excludes the effects of any related hedging derivatives.
(2) Includes mortgage-backed securities of U.S. government-sponsored agencies. The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions.
(3) Includes corporate, asset-backed and other debt securities.

Debt Securities Held-to-Maturity

The carrying value and fair value of debt securities HTM were as follows:

In millions of dollars	Amortized cost, net[1]	Gross unrealized gains	Gross unrealized losses	Fair value
December 31, 2021				
Debt securities HTM				
Mortgage-backed securities[2]				
U.S. government-sponsored agency guaranteed	**$ 63,885**	**$ 1,076**	**$ 925**	**$ 64,036**
Non-U.S. residential	**736**	**3**	**—**	**739**
Commercial	**1,070**	**4**	**2**	**1,072**
Total mortgage-backed securities	**$ 65,691**	**$ 1,083**	**$ 927**	**$ 65,847**
U.S. Treasury securities	**$ 111,819**	**$ 30**	**$ 1,632**	**$ 110,217**
State and municipal[3]	**8,923**	**589**	**12**	**9,500**
Foreign government	**1,651**	**4**	**36**	**1,619**
Asset-backed securities[2]	**28,879**	**8**	**32**	**28,855**
Total debt securities HTM, net	**$ 216,963**	**$ 1,714**	**$ 2,639**	**$ 216,038**
December 31, 2020				
Debt securities HTM				
Mortgage-backed securities[2]				
U.S. government-sponsored agency guaranteed	$ 49,004	$ 2,162	$ 15	$ 51,151
Non-U.S. residential	1,124	3	1	1,126
Commercial	825	1	1	825
Total mortgage-backed securities	$ 50,953	$ 2,166	$ 17	$ 53,102
U.S. Treasury securities[4]	$ 21,293	$ 4	$ 55	$ 21,242
State and municipal	9,185	755	11	9,929
Foreign government	1,931	91	—	2,022
Asset-backed securities[2]	21,581	6	92	21,495
Total debt securities HTM	$ 104,943	$ 3,022	$ 175	$ 107,790

(1) Amortized cost is reported net of ACL of $87 million and $86 million at December 31, 2021 and December 31, 2020, respectively.
(2) The Company invests in mortgage- and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage- and asset-backed securitizations in which the Company has other involvement, see Note 21 to the Consolidated Financial Statements.
(3) In February 2021, the Company transferred $237 million of state and municipal bonds from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized gain position of $14 million. The gain amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.
(4) In August 2020, Citibank transferred $13.1 billion of investments in U.S. Treasury securities from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized gain position of $144 million. The gain amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

The Company has the positive intent and ability to hold these securities to maturity or, where applicable, until the exercise of any issuer call option, absent any unforeseen significant changes in circumstances, including deterioration in credit or changes in regulatory capital requirements.

The net unrealized losses classified in *AOCI* for HTM debt securities primarily relate to debt securities previously classified as AFS that were transferred to HTM, and include any cumulative fair value hedge adjustments. The net unrealized loss amount also includes any non-credit-related changes in fair value of HTM debt securities that have suffered credit impairment recorded in earnings. The *AOCI* balance related to HTM debt securities is amortized as an adjustment of yield, in a manner consistent with the accretion of any difference between the carrying value at the transfer date and par value of the same debt securities.

The following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

	December 31,				
	2021			2020	
In millions of dollars	**Amortized cost**(1)	**Fair value**	**Weighted average yield**(2)	Amortized cost(1)	Fair value
Mortgage-backed securities					
Due within 1 year	**$ 152**	**$ 151**	**1.70 %**	$ 81	$ 81
After 1 but within 5 years	**684**	**725**	**3.01**	463	477
After 5 but within 10 years	**1,655**	**1,739**	**2.74**	1,699	1,873
After 10 years	**63,200**	**63,232**	**2.55**	48,710	50,671
Total	**$ 65,691**	**$ 65,847**	**2.56 %**	$ 50,953	$ 53,102
U.S. Treasury securities					
After 1 but within 5 years	**$ 65,498**	**$ 64,516**	**0.69 %**	$ 18,955	$ 19,127
After 5 but within 10 years	**46,321**	**45,701**	**1.15**	2,338	2,115
After 10 years	**—**	**—**	**—**	—	—
Total	**$ 111,819**	**$ 110,217**	**0.88 %**	$ 21,293	$ 21,242
State and municipal					
Due within 1 year	**$ 51**	**$ 50**	**3.82 %**	$ 6	$ 6
After 1 but within 5 years	**166**	**170**	**2.82**	139	142
After 5 but within 10 years	**908**	**951**	**3.23**	818	869
After 10 years	**7,798**	**8,329**	**2.65**	8,222	8,912
Total	**$ 8,923**	**$ 9,500**	**2.72 %**	$ 9,185	$ 9,929
Foreign government					
Due within 1 year	**$ 292**	**$ 291**	**7.86 %**	$ 361	$ 360
After 1 but within 5 years	**1,359**	**1,328**	**6.30**	1,570	1,662
After 5 but within 10 years	**—**	**—**	**—**	—	—
After 10 years	**—**	**—**	**—**	—	—
Total	**$ 1,651**	**$ 1,619**	**6.58 %**	$ 1,931	$ 2,022
All other(3)					
Due within 1 year	**$ —**	**$ —**	**— %**	$ —	$ —
After 1 but within 5 years	**—**	**—**	**—**	—	—
After 5 but within 10 years	**11,520**	**11,515**	**2.78**	11,795	15,020
After 10 years	**17,359**	**17,340**	**1.34**	9,786	6,475
Total	**$ 28,879**	**$ 28,855**	**1.92 %**	$ 21,581	$ 21,495
Total debt securities HTM	**$ 216,963**	**$ 216,038**	**1.65 %**	$ 104,943	$ 107,790

(1) Amortized cost is reported net of ACL of $87 million and $86 million at December 31, 2021 and December 30, 2020, respectively.
(2) Weighted average yields are weighted based on the amortized cost of each security. The average yield considers the contractual coupon, amortization of premiums and accretion of discounts and excludes the effects of any related hedging derivatives.
(3) Includes corporate and asset-backed securities.

HTM Debt Securities Delinquency and Non-Accrual Details

Citi did not have any HTM debt securities that were delinquent or on non-accrual status at December 31, 2021 and 2020.

There were no purchased credit-deteriorated HTM debt securities held by the Company as of December 31, 2021 and 2020.

Evaluating Investments for Impairment

AFS Debt Securities

Overview—AFS Debt Securities
The Company conducts periodic reviews of all AFS debt securities with unrealized losses to evaluate whether the impairment resulted from expected credit losses or from other factors and to evaluate the Company's intent to sell such securities.

An AFS debt security is impaired when the current fair value of an individual AFS debt security is less than its amortized cost basis.

The Company recognizes the entire difference between amortized cost basis and fair value in earnings for impaired AFS debt securities that Citi has an intent to sell or for which Citi believes it will more-likely-than-not be required to sell prior to recovery of the amortized cost basis. However, for those AFS debt securities that the Company does not intend to sell and is not likely to be required to sell, only the credit-related impairment is recognized in earnings by recording an allowance for credit losses. Any remaining fair value decline for such securities is recorded in *AOCI*. The Company does not consider the length of time that the fair value of a security is below its amortized cost when determining if a credit loss exists.

For AFS debt securities, credit losses exist where Citi does not expect to receive contractual principal and interest cash flows sufficient to recover the entire amortized cost basis of a security. The allowance for credit losses is limited to the amount by which the AFS debt security's amortized cost basis exceeds its fair value. The allowance is increased or decreased if credit conditions subsequently worsen or improve. Reversals of credit losses are recognized in earnings.

The Company's review for impairment of AFS debt securities generally entails:

- identification and evaluation of impaired investments;
- consideration of evidential matter, including an evaluation of factors or triggers that could cause individual positions to qualify as credit impaired and those that would not support credit impairment; and
- documentation of the results of these analyses, as required under business policies.

The sections below describe the Company's process for identifying expected credit impairments for debt security types that have the most significant unrealized losses as of December 31, 2021.

Mortgage-Backed Securities
Citi records no allowances for credit losses on U.S. government-agency-guaranteed mortgage-backed securities, because the Company expects to incur no credit losses in the event of default due to a history of incurring no credit losses and due to the nature of the counterparties.

State and Municipal Securities
The process for estimating credit losses in Citigroup's AFS state and municipal bonds is primarily based on a credit analysis that incorporates third-party credit ratings. Citi monitors the bond issuers and any insurers providing default protection in the form of financial guarantee insurance. The average external credit rating, disregarding any insurance, is Aa2/AA. In the event of an external rating downgrade or other indicator of credit impairment (i.e., based on instrument-specific estimates of cash flows or probability of issuer default), the subject bond is specifically reviewed for adverse changes in the amount or timing of expected contractual principal and interest payments.

For AFS state and municipal bonds with unrealized losses that Citi plans to sell or would more-likely-than-not be required to sell, the full impairment is recognized in earnings. For AFS state and municipal bonds where Citi has no intent to sell and it is more-likely-than-not that the Company will not be required to sell, Citi records an allowance for expected credit losses for the amount it expects not to collect, capped at the difference between the bond's amortized cost basis and fair value.

Equity Method Investments
Management assesses equity method investments that have fair values that are less than their respective carrying values for other-than-temporary impairment (OTTI). Fair value is measured as price multiplied by quantity if the investee has publicly listed securities. If the investee is not publicly listed, other methods are used (see Note 24 to the Consolidated Financial Statements).

For impaired equity method investments that Citi plans to sell prior to recovery of value or would more-likely-than-not be required to sell, with no expectation that the fair value will recover prior to the expected sale date, the full impairment is recognized as OTTI in *Other revenue* regardless of severity and duration. The measurement of the OTTI does not include partial projected recoveries subsequent to the balance sheet date.

For impaired equity method investments that management does not plan to sell and is not more-likely-than-not to be required to sell prior to recovery of value, the evaluation of whether an impairment is other-than-temporary is based on (i) whether and when an equity method investment will recover in value and (ii) whether the investor has the intent and ability to hold that investment for a period of time sufficient to recover the value. The determination of whether the impairment is considered other-than-temporary considers the following indicators:

- the cause of the impairment and the financial condition and near-term prospects of the issuer, including any specific events that may influence the operations of the issuer;
- the intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value; and
- the length of time and extent to which fair value has been less than the carrying value.

Recognition and Measurement of Impairment

The following tables present total impairment on *Investments* recognized in earnings:

	Year ended December 31, 2021		
In millions of dollars	**AFS**	**Other assets**	**Total**
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:			
Total impairment losses recognized during the period	**$ —**	**$ —**	**$ —**
Less: portion of impairment loss recognized in *AOCI* (before taxes)	**—**	**—**	**—**
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	**$ —**	**$ —**	**$ —**
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	**181**	**—**	**181**
Total impairment losses recognized in earnings	**$ 181**	**$ —**	**$ 181**

	Year ended December 31, 2020			
In millions of dollars	AFS	HTM	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:				
Total impairment losses recognized during the period	$ —	$ —	$ —	$ —
Less: portion of impairment loss recognized in *AOCI* (before taxes)	—	—	—	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	$ —	$ —	$ —	$ —
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	109	—	—	109
Total impairment losses recognized in earnings	$ 109	$ —	$ —	$ 109

	Year ended December 31, 2019			
In millions of dollars	AFS	HTM	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:				
Total impairment losses recognized during the period	$ 1	$ —	$ 1	$ 2
Less: portion of impairment loss recognized in *AOCI* (before taxes)	—	—	—	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	$ 1	$ —	$ 1	$ 2
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	20	—	1	21
Total impairment losses recognized in earnings	$ 21	$ —	$ 2	$ 23

The following presents the credit-related impairments recognized in earnings for AFS securities held that the Company does not intend to sell nor will likely be required to sell at December 31, 2021 and 2020:

Allowance for Credit Losses on AFS Debt Securities

	Year ended December 31, 2021					
In millions of dollars	**Mortgage-backed**	**U.S. Treasury and federal agency**	**State and municipal**	**Foreign government**	**Corporate**	**Total AFS**
Allowance for credit losses at beginning of year	**$ —**	**$ —**	**$ —**	**$ —**	**$ 5**	**$ 5**
Gross write-offs	—	—	—	—	—	—
Gross recoveries	—	—	—	—	—	—
Net credit losses (NCLs)	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
NCLs	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Credit losses on securities without previous credit losses	—	—	—	—	**3**	**3**
Net reserve builds (releases) on securities with previous credit losses	—	—	—	—	—	—
Total provision for credit losses	**$ —**	**$ —**	**$ —**	**$ —**	**$ 3**	**$ 3**
Initial allowance on newly purchased credit-deteriorated securities during the year	—	—	—	—	—	—
Allowance for credit losses at end of year	**$ —**	**$ —**	**$ —**	**$ —**	**$ 8**	**$ 8**

	Year ended December 31, 2020					
In millions of dollars	Mortgage-backed	U.S. Treasury and federal agency	State and municipal	Foreign government	Corporate	Total AFS
Allowance for credit losses at beginning of year	$ —	$ —	$ —	$ —	$ —	$ —
Gross write-offs	—	—	—	—	—	—
Gross recoveries	—	—	—	—	2	2
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ 2	$ 2
NCLs	$ —	$ —	$ —	$ —	$ (2)	$ (2)
Credit losses on securities without previous credit losses	—	—	—	3	5	8
Net reserve builds (releases) on securities with previous credit losses	—	—	—	(3)	—	(3)
Total provision for credit losses	$ —	$ —	$ —	$ —	$ 3	$ 3
Initial allowance on newly purchased credit-deteriorated securities during the year	—	—	—	—	—	—
Allowance for credit losses at end of year	$ —	$ —	$ —	$ —	$ 5	$ 5

Non-Marketable Equity Securities Not Carried at Fair Value

Non-marketable equity securities are required to be measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost.

The election to measure a non-marketable equity security using the measurement alternative is made on an instrument-by-instrument basis. Under the measurement alternative, an equity security is carried at cost plus or minus changes resulting from observable prices in orderly transactions for the identical or a similar investment of the same issuer. The carrying value of the equity security is adjusted to fair value on the date of an observed transaction. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Equity securities under the measurement alternative are also assessed for impairment. On a quarterly basis, management qualitatively assesses whether each equity security under the measurement alternative is impaired. Impairment indicators that are considered include, but are not limited to, the following:

- a significant deterioration in the earnings performance, credit rating, asset quality or business prospects of the investee;
- a significant adverse change in the regulatory, economic or technological environment of the investee;
- a significant adverse change in the general market condition of either the geographical area or the industry in which the investee operates;
- a bona fide offer to purchase, an offer by the investee to sell or a completed auction process for the same or similar investment for an amount less than the carrying amount of that investment; and
- factors that raise significant concerns about the investee's ability to continue as a going concern, such as negative cash flows from operations, working capital deficiencies or noncompliance with statutory capital requirements or debt covenants.

When the qualitative assessment indicates that impairment exists, the investment is written down to fair value, with the full difference between the fair value of the investment and its carrying amount recognized in earnings.

Below is the carrying value of non-marketable equity securities measured using the measurement alternative at December 31, 2021 and 2020:

In millions of dollars	**December 31, 2021**	December 31, 2020
Measurement alternative:		
Carrying value	**$ 1,413**	$ 962

Below are amounts recognized in earnings and life-to-date amounts for non-marketable equity securities measured using the measurement alternative:

	Years ended December 31,	
In millions of dollars	**2021**	2020
Measurement alternative(1):		
Impairment losses	**$ 25**	$ 56
Downward changes for observable prices	**—**	19
Upward changes for observable prices	**406**	144

(1) See Note 24 to the Consolidated Financial Statements for additional information on these nonrecurring fair value measurements.

In millions of dollars	**Life-to-date amounts on securities still held December 31, 2021**
Measurement alternative:	
Impairment losses	**$ 87**
Downward changes for observable prices	**3**
Upward changes for observable prices	**699**

A similar impairment analysis is performed for non-marketable equity securities carried at cost. For the years ended December 31, 2021 and 2020, there was no impairment loss recognized in earnings for non-marketable equity securities carried at cost.

Investments in Alternative Investment Funds That Calculate Net Asset Value

The Company holds investments in certain alternative investment funds that calculate net asset value (NAV), or its equivalent, including private equity funds, funds of funds and real estate funds, as provided by third-party asset managers. Investments in such funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV of the Company's ownership interest in the funds. Some of these investments are in "covered funds" for purposes of the Volcker Rule, which prohibits certain proprietary investment activities and limits the ownership of, and relationships with, covered funds. On April 21, 2017, Citi's request for extension of the permitted holding period under the Volcker Rule for certain of its investments in illiquid funds was approved, allowing the Company to hold such investments until the earlier of five years from the July 21, 2017 expiration date of the general conformance period or the date such investments mature or are otherwise conformed with the Volcker Rule.

	Fair value		**Unfunded commitments**		**Redemption frequency (if currently eligible) monthly, quarterly, annually**	**Redemption notice period**
In millions of dollars	**December 31, 2021**	December 31, 2020	**December 31, 2021**	December 31, 2020		
Private equity funds[1][2]	**$ 123**	$ 123	**$ 60**	$ 62	—	—
Real estate funds[2][3]	**2**	9	**1**	20	—	—
Mutual/collective investment funds	**20**	20	**—**	—		
Total	**$ 145**	$ 152	**$ 61**	$ 82	—	—

(1) Private equity funds include funds that invest in infrastructure, emerging markets and venture capital.

(2) With respect to the Company's investments in private equity funds and real estate funds, distributions from each fund will be received as the underlying assets held by these funds are liquidated. It is estimated that the underlying assets of these funds will be liquidated over a period of several years as market conditions allow. Private equity and real estate funds do not allow redemption of investments by their investors. Investors are permitted to sell or transfer their investments, subject to the approval of the general partner or investment manager of these funds, which generally may not be unreasonably withheld.

(3) Includes several real estate funds that invest primarily in commercial real estate in the U.S., Europe and Asia.

14. LOANS

Citigroup loans are reported in two categories: consumer and corporate. These categories are classified primarily according to the operating segment and business that manage the loans.

Consumer Loans

Consumer loans represent loans and leases managed primarily by *GCB* and *Corporate/Other.*

Citigroup has established a risk management process to monitor, evaluate and manage the principal risks associated with its consumer loan portfolio. Credit quality indicators that are actively monitored include delinquency status, consumer credit scores under Fair Isaac Corporation (FICO) and loan to value (LTV) ratios, each as discussed in more detail below.

Delinquency Status

Delinquency status is monitored and considered a key indicator of credit quality of consumer loans. Principally, the U.S. residential first mortgage loans use the Mortgage Bankers Association (MBA) method of reporting delinquencies, which considers a loan delinquent if a monthly payment has not been received by the end of the day immediately preceding the loan's next due date. All other loans use a method of reporting delinquencies that considers a loan delinquent if a monthly payment has not been received by the close of business on the loan's next due date.

As a general policy, residential first mortgages, home equity loans and installment loans are classified as non-accrual when loan payments are 90 days contractually past due. Credit cards and unsecured revolving loans generally accrue interest until payments are 180 days past due. Home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Mortgage loans, other than Federal Housing Administration (FHA)-insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy.

The policy for re-aging modified U.S. consumer loans to current status varies by product. Generally, one of the conditions to qualify for these modifications is that a minimum number of payments (typically ranging from one to three) be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for a loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years).

Furthermore, FHA and Department of Veterans Affairs (VA) loans are modified under those respective agencies' guidelines and payments are not always required in order to re-age a modified loan to current.

The following tables provide Citi's consumer loans by type:

Consumer Loans, Delinquencies and Non-Accrual Status at December 31, 2021

In millions of dollars	Total current[1][2]	30–89 days past due[3][4]	≥ 90 days past due[3][4]	Past due government guaranteed[5]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[6]									
Residential first mortgages[7]	**$ 42,894**	**$ 245**	**$ 280**	**$ 394**	**$ 43,813**	**$ 134**	**$ 339**	**$ 473**	**$ 282**
Home equity loans[8][9]	**4,899**	**43**	**159**	**—**	**5,101**	**63**	**206**	**269**	**—**
Credit cards	**132,050**	**947**	**871**	**—**	**133,868**	**—**	**—**	**—**	**871**
Personal, small business and other	**3,091**	**19**	**10**	**38**	**3,158**	**2**	**15**	**17**	**28**
Total	**$ 182,934**	**$ 1,254**	**$ 1,320**	**$ 432**	**$ 185,940**	**$ 199**	**$ 560**	**$ 759**	**$ 1,181**
In offices outside North America[6]									
Residential mortgages[7]	**$ 34,289**	**$ 159**	**$ 153**	**$ —**	**$ 34,601**	**$ —**	**$ 403**	**$ 403**	**$ —**
Credit cards	**17,428**	**192**	**188**	**—**	**17,808**	**—**	**140**	**140**	**120**
Personal, small business and other	**32,662**	**144**	**81**	**—**	**32,887**	**—**	**200**	**200**	**22**
Total	**$ 84,379**	**$ 495**	**$ 422**	**$ —**	**$ 85,296**	**$ —**	**$ 743**	**$ 743**	**$ 142**
Total Citigroup[10]	**$ 267,313**	**$ 1,749**	**$ 1,742**	**$ 432**	**$ 271,236**	**$ 199**	**$ 1,303**	**$ 1,502**	**$ 1,323**

Consumer Loans, Delinquencies and Non-Accrual Status at December 31, 2020

In millions of dollars	Total current[1][2]	30–89 days past due[3][4]	≥ 90 days past due[3][4]	Past due government guaranteed[5]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[6]									
Residential first mortgages[7]	$ 46,471	$ 402	$ 381	$ 524	$ 47,778	$ 136	$ 509	$ 645	$ 332
Home equity loans[8][9]	6,829	78	221	—	7,128	72	307	379	—
Credit cards	127,827	1,228	1,330	—	130,385	—	—	—	1,330
Personal, small business and other	4,472	27	10	—	4,509	2	33	35	—
Total	$ 185,599	$ 1,735	$ 1,942	$ 524	$ 189,800	$ 210	$ 849	$ 1,059	$ 1,662
In offices outside North America[6]									
Residential mortgages[7]	$ 39,557	$ 213	$ 199	$ —	$ 39,969	$ —	$ 486	$ 486	$ —
Credit cards	21,718	429	545	—	22,692	—	384	384	324
Personal, small business and other	35,925	319	134	—	36,378	—	212	212	52
Total	$ 97,200	$ 961	$ 878	$ —	$ 99,039	$ —	$ 1,082	$ 1,082	$ 376
Total Citigroup[10]	$ 282,799	$ 2,696	$ 2,820	$ 524	$ 288,839	$ 210	$ 1,931	$ 2,141	$ 2,038

(1) Loans less than 30 days past due are presented as current.
(2) Includes $12 million and $14 million at December 31, 2021 and 2020, respectively, of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies.
(4) Loans modified under Citi's consumer relief programs continue to be reported in the same delinquency bucket they were in at the time of modification. Most modified loans in North America would not be reported as 30–89 or 90+ days past due for the duration of the programs (which have various durations, and certain of which may be renewed by the customer). Consumer relief programs in Asia and Mexico largely expired during the fourth quarter of 2020 and began to age at that time.
(5) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of $0.1 billion and $0.2 billion and 90 days or more past due of $0.3 billion and $0.3 billion at December 31, 2021 and 2020, respectively.
(6) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(7) Includes approximately $0.1 billion and $0.1 billion at December 31, 2021 and 2020, respectively, of residential first mortgage loans in process of foreclosure.
(8) Includes approximately $0.1 billion and $0.1 billion at December 31, 2021 and 2020, respectively, of home equity loans in process of foreclosure.
(9) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(10) Consumer loans are net of unearned income of $659 million and $749 million at December 31, 2021 and 2020, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

Interest Income Recognized for Non-Accrual Consumer Loans

	For the years ended	
In millions of dollars	**December 31, 2021**	December 31, 2020
In North America offices[1]		
Residential first mortgages	**$ 13**	$ 15
Home equity loans	**7**	8
Credit cards	**—**	—
Personal, small business and other	**—**	—
Total	**$ 20**	$ 23
In offices outside North America[1]		
Residential mortgages	**$ 1**	$ —
Credit cards	**—**	—
Personal, small business and other	**—**	—
Total	**$ 1**	$ —
Total Citigroup	**$ 21**	$ 23

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

During the years ended December 31, 2021 and 2020, the Company sold and/or reclassified to HFS $1,473 million and $414 million of consumer loans, respectively. Loans of businesses that are HFS are not included in the above. For additional information, see Note 2 to the Consolidated Financial Statements.

Consumer Credit Scores (FICO)

In the U.S., independent credit agencies rate an individual's risk for assuming debt based on the individual's credit history and assign every consumer a Fair Isaac Corporation (FICO) credit score. These scores are continually updated by the agencies based upon an individual's credit actions (e.g., taking out a loan or missed or late payments).

The following tables provide details on the FICO scores for Citi's U.S. consumer loan portfolio based on end-of-period receivables by year of origination. FICO scores are updated monthly for substantially all of the portfolio or, otherwise, on a quarterly basis for the remaining portfolio.

FICO score distribution in U.S. portfolio[1][2]	**December 31, 2021**				
In millions of dollars	**Less than 680**	**680 to 760**	**Greater than 760**	**FICO not available**	**Total loans**
Residential first mortgages					
2021	$ **201**	$ **3,415**	$ **7,363**		
2020	**200**	**2,732**	**7,339**		
2019	**140**	**1,178**	**3,082**		
2018	**196**	**431**	**747**		
2017	**240**	**625**	**1,143**		
Prior	**1,507**	**3,817**	**7,903**		
Total residential first mortgages	$ **2,484**	$ **12,198**	$ **27,577**	$ **1,554**	$ **43,813**
Home equity loans (pre-reset)	$ **222**	$ **836**	$ **1,309**		
Home equity loans (post-reset)	**609**	**989**	**1,095**		
Total home equity loans	$ **831**	$ **1,825**	$ **2,404**	$ **41**	$ **5,101**
Credit cards[3]	$ **23,115**	$ **52,907**	$ **55,137**	$ **2,192**	$ **133,351**
Personal, small business and other					
2021	$ **59**	$ **201**	$ **319**		
2020	**22**	**41**	**64**		
2019	**42**	**53**	**68**		
2018	**34**	**35**	**37**		
2017	**7**	**8**	**9**		
Prior	**120**	**179**	**143**		
Total personal, small business and other	$ **284**	$ **517**	$ **640**	$ **1,717**	$ **3,158**
Total	$ **26,714**	$ **67,447**	$ **85,758**	$ **5,504**	$ **185,423**

FICO score distribution in U.S. portfolio[1][2]	December 31, 2020				
In millions of dollars	Less than 680	680 to 760	Greater than 760	FICO not available	Total loans
Residential first mortgages					
2020	$ 187	$ 3,741	$ 9,052		
2019	150	1,857	5,384		
2018	246	655	1,227		
2017	298	846	1,829		
2016	323	1,368	3,799		
Prior	1,708	4,133	9,105		
Total residential first mortgages	$ 2,912	$ 12,600	$ 30,396	$ 1,870	$ 47,778
Home equity loans (pre-reset)	$ 292	$ 1,014	$ 1,657		
Home equity loans (post-reset)	1,055	1,569	1,524		
Total home equity loans	$ 1,347	$ 2,583	$ 3,181	$ 17	$ 7,128
Credit cards[3]	$ 26,227	$ 52,778	$ 49,767	$ 1,041	$ 129,813
Personal, small business and other					
2020	$ 23	$ 58	$ 95		
2019	79	106	134		
2018	82	80	84		
2017	26	27	30		
2016	10	9	8		
Prior	214	393	529		
Total personal, small business and other	$ 434	$ 673	$ 880	$ 2,522	$ 4,509
Total	$ 30,920	$ 68,634	$ 84,224	$ 5,450	$ 189,228

(1) The FICO bands in the tables are consistent with general industry peer presentations.
(2) FICO scores are updated on either a monthly or quarterly basis. For updates that are made only quarterly, certain current-period loans by year of origination are greater than those disclosed in the prior periods. Loans that did not have FICO scores as of the prior period have been updated with FICO scores as they become available.
(3) Excludes $517 million and $572 million of balances related to Canada for December 31, 2021 and December 31, 2020, respectively.

Loan to Value (LTV) Ratios
LTV ratios (loan balance divided by appraised value) are calculated at origination and updated by applying market price data.

The following tables provide details on the LTV ratios for Citi's U.S. consumer mortgage portfolios by year of origination. LTV ratios are updated monthly using the most recent Core Logic Home Price Index data available for substantially all of the portfolio applied at the Metropolitan Statistical Area level, if available, or the state level if not. The remainder of the portfolio is updated in a similar manner using the Federal Housing Finance Agency indices.

LTV distribution in U.S. portfolio	**December 31, 2021**				
In millions of dollars	**Less than or equal to 80%**	**> 80% but less than or equal to 100%**	**Greater than 100%**	**LTV not available**	**Total**
Residential first mortgages					
2021	**$ 10,515**	**$ 474**	**$ 1**		
2020	**10,206**	**75**	**—**		
2019	**4,372**	**35**	**1**		
2018	**1,300**	**74**	**5**		
2017	**1,986**	**27**	**2**		
Prior	**13,271**	**34**	**8**		
Total residential first mortgages	**$ 41,650**	**$ 719**	**$ 17**	**$ 1,427**	**$ 43,813**
Home equity loans (pre-reset)	**$ 2,315**	**$ 26**	**$ 9**		
Home equity loans (post-reset)	**2,608**	**48**	**25**		
Total home equity loans	**$ 4,923**	**$ 74**	**$ 34**	**$ 70**	**$ 5,101**
Total	**$ 46,573**	**$ 793**	**$ 51**	**$ 1,497**	**$ 48,914**

LTV distribution in U.S. portfolio	December 31, 2020				
In millions of dollars	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available	Total
Residential first mortgages					
2020	$ 11,447	$ 1,543	$ —		
2019	7,029	376	2		
2018	1,617	507	11		
2017	2,711	269	4		
2016	5,423	84	2		
Prior	14,966	66	16		
Total residential first mortgages	$ 43,193	$ 2,845	$ 35	$ 1,705	$ 47,778
Home equity loans (pre-reset)	$ 2,876	$ 50	$ 16		
Home equity loans (post-reset)	3,782	290	58		
Total home equity loans	$ 6,658	$ 340	$ 74	$ 56	$ 7,128
Total	$ 49,851	$ 3,185	$ 109	$ 1,761	$ 54,906

Impaired Consumer Loans

A loan is considered impaired when Citi believes it is probable that all amounts due according to the original contractual terms of the loan will not be collected. Impaired consumer loans include non-accrual loans, as well as smaller-balance homogeneous loans whose terms have been modified due to the borrower's financial difficulties and where Citi has granted a concession to the borrower. These modifications may include interest rate reductions and/or principal forgiveness. Impaired consumer loans exclude smaller-balance homogeneous loans that have not been modified and are carried on a non-accrual basis.

The following tables present information about impaired consumer loans and interest income recognized on impaired consumer loans:

	At and for the year ended December 31, 2021				
In millions of dollars	**Recorded investment**[(1)(2)]	**Unpaid principal balance**	**Related specific allowance**[(3)(4)]	**Average carrying value**[(5)]	**Interest income recognized**[(6)]
Mortgage and real estate					
Residential first mortgages	**$ 1,457**	**$ 1,531**	**$ 87**	**$ 1,548**	**$ 87**
Home equity loans	**188**	**342**	**(1)**	**335**	**9**
Credit cards	**1,582**	**1,609**	**594**	**1,795**	**116**
Personal, small business and other	**454**	**461**	**120**	**505**	**52**
Total	**$ 3,681**	**$ 3,943**	**$ 800**	**$ 4,183**	**$ 264**

	At and for the year ended December 31, 2020				
In millions of dollars	Recorded investment[(1)(2)]	Unpaid principal balance	Related specific allowance[(3)]	Average carrying value[(5)]	Interest income recognized[(6)]
Mortgage and real estate					
Residential first mortgages	$ 1,787	$ 1,962	$ 157	$ 1,661	$ 68
Home equity loans	478	651	60	527	13
Credit cards	1,982	2,135	918	1,926	106
Personal, small business and other	552	552	210	463	63
Total	$ 4,799	$ 5,300	$ 1,345	$ 4,577	$ 250

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount and direct write-downs and includes accrued interest only on credit card loans.
(2) For December 31, 2021, $190 million of residential first mortgages and $94 million of home equity loans do not have a specific allowance. For December 31, 2020, $211 million of residential first mortgages and $147 million of home equity loans do not have a specific allowance.
(3) Included in the *Allowance for credit losses on loans*.
(4) The negative allowance on home equity loans resulted from expected recoveries on previously written-off accounts.
(5) Average carrying value represents the average recorded investment ending balance for the last four quarters and does not include the related specific allowance.
(6) Includes amounts recognized on both an accrual and cash basis.

Consumer Troubled Debt Restructurings[1]

In millions of dollars, except number of loans modified	For the year ended December 31, 2021[1] Number of loans modified	Post-modification recorded investment[2][3]	Deferred principal[4]	Contingent principal forgiveness[5]	Principal forgiveness[6]	Average interest rate reduction
North America						
Residential first mortgages	**1,333**	**$ 227**	**$ —**	**$ —**	**$ —**	**1 %**
Home equity loans	**187**	**12**	**—**	**—**	**—**	**1**
Credit cards	**165,098**	**794**	**—**	**—**	**—**	**18**
Personal, small business and other	**1,000**	**13**	**—**	**—**	**—**	**3**
Total[7]	**167,618**	**$ 1,046**	**$ —**	**$ —**	**$ —**	
International						
Residential mortgages	**1,975**	**$ 86**	**$ —**	**$ —**	**$ —**	**— %**
Credit cards	**74,202**	**339**	**—**	**—**	**13**	**13**
Personal, small business and other	**28,206**	**201**	**—**	**—**	**7**	**10**
Total[7]	**104,383**	**$ 626**	**$ —**	**$ —**	**$ 20**	

In millions of dollars, except number of loans modified	For the year ended December 31, 2020[1] Number of loans modified	Post-modification recorded investment[2][8]	Deferred principal[4]	Contingent principal forgiveness[5]	Principal forgiveness[6]	Average interest rate reduction
North America						
Residential first mortgages	1,225	$ 209	$ —	$ —	$ —	— %
Home equity loans	296	27	—	—	—	1
Credit cards	215,466	1,038	—	—	—	17
Personal, small business and other	2,452	28	—	—	—	5
Total[7]	219,439	$ 1,302	$ —	$ —	$ —	
International						
Residential mortgages	2,542	$ 141	$ 3	$ —	$ —	2 %
Credit cards	90,694	401	—	—	12	15
Personal, small business and other	41,079	301	—	—	8	10
Total[7]	134,315	$ 843	$ 3	$ —	$ 20	

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) or the interagency guidance.
(2) Post-modification balances include past-due amounts that are capitalized at the modification date.
(3) Post-modification balances in *North America* include $15 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2021. These amounts include $5 million of residential first mortgages that were newly classified as TDRs during 2021, based on previously received OCC guidance.
(4) Represents the portion of contractual loan principal that is non-interest bearing, but still due from the borrower. Such deferred principal is charged off at the time of permanent modification to the extent that the related loan balance exceeds the underlying collateral value.
(5) Represents the portion of contractual loan principal that is non-interest bearing and, depending upon borrower performance, eligible for forgiveness.
(6) Represents the portion of contractual loan principal that was forgiven at the time of permanent modification.
(7) The above tables reflect activity for restructured loans that were considered TDRs during the year.
(8) Post-modification balances in *North America* include $13 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2020. These amounts include $9 million of residential first mortgages that were newly classified as TDRs during 2020, based on previously received OCC guidance.

The following table presents consumer TDRs that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due.

In millions of dollars	Years ended December 31, 2021	2020
North America		
Residential first mortgages	**$ 57**	$ 71
Home equity loans	**8**	14
Credit cards	**252**	317
Personal, small business and other	**4**	4
Total	**$ 321**	$ 406
International		
Residential mortgages	**$ 38**	$ 26
Credit cards	**152**	178
Personal, small business and other	**96**	78
Total	**$ 286**	$ 282

Purchased Credit-Deteriorated Assets

	Years ended December 31,					
	2021			2020		
In millions of dollars	**Credit cards**	**Mortgages**(1)	**Installment and other**	Credit cards	Mortgages(1)	Installment and other
Purchase price	**$ —**	**$ 23**	**$ —**	$ 4	$ 49	$ —
Allowance for credit losses at acquisition date	**—**	**—**	**—**	4	—	—
Discount or premium attributable to non-credit factors	**—**	**—**	**—**	—	—	—
Par value (amortized cost basis)	**$ —**	**$ 23**	**$ —**	$ 8	$ 49	$ —

(1) Includes loans sold to agencies that were bought back at par due to repurchase agreements.

Corporate Loans

Corporate loans represent loans and leases managed by *ICG*. The following table presents information by corporate loan type:

In millions of dollars		**December 31, 2021**		December 31, 2020
In North America offices[1]				
Commercial and industrial	**$**	**51,999**	$	57,731
Financial institutions		**66,936**		55,809
Mortgage and real estate[2]		**63,357**		60,675
Installment and other		**29,143**		26,744
Lease financing		**413**		673
Total	**$**	**211,848**	$	201,632
In offices outside North America[1]				
Commercial and industrial	**$**	**103,167**	$	104,072
Financial institutions		**32,203**		32,334
Mortgage and real estate[2]		**10,412**		11,371
Installment and other		**34,436**		33,759
Lease financing		**42**		65
Governments and official institutions		**4,423**		3,811
Total	**$**	**184,683**	$	185,412
Corporate loans, net of unearned income[3]	**$**	**396,531**	$	387,044

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.

(2) Loans secured primarily by real estate.

(3) Corporate loans are net of unearned income of ($799) million and ($844) million at December 31, 2021 and 2020, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

The Company sold and/or reclassified to held-for-sale $5.9 billion and $2.2 billion of corporate loans during the years ended December 31, 2021 and 2020, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the years ended December 31, 2021 or 2020.

Lease financing

Citi is a lessor in the power, railcars, shipping and aircraft sectors, where the Company has executed operating, direct financing and leveraged leases. Citi's $0.5 billion of lease financing receivables, as of December 31, 2021, is composed of approximately equal balances of direct financing lease receivables and net investments in leveraged leases. Citi uses the interest rate implicit in the lease to determine the present value of its lease financing receivables. Interest income on direct financing and leveraged leases during the year ended December 31, 2021 was not material.

The Company's leases have an average remaining maturity of approximately three and a half years. In certain cases, Citi obtains residual value insurance from third parties and/or the lessee to manage the risk associated with the residual value of the leased assets. The receivable related to the residual value of the leased assets is $0.2 billion as of December 31, 2021, while the amount covered by residual value guarantees is nil.

The Company's operating leases, where Citi is a lessor, are not significant to the Consolidated Financial Statements.

Delinquency Status

Citi generally does not manage corporate loans on a delinquency basis. Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectability of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan. While corporate loans are generally managed based on their internally assigned risk rating (see further discussion below), the following tables present delinquency information by corporate loan type.

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2021

In millions of dollars	30–89 days past due and accruing(1)	≥ 90 days past due and accruing(1)	Total past due and accruing	Total non-accrual(2)	Total current(3)	Total loans(4)
Commercial and industrial	$ 1,100	$ 249	$ 1,349	$ 1,264	$ 148,459	$ 151,072
Financial institutions	505	233	738	33	98,172	98,943
Mortgage and real estate	283	1	284	419	73,066	73,769
Lease financing	—	—	—	14	441	455
Other	128	26	154	147	65,921	66,222
Loans at fair value						6,070
Total	$ 2,016	$ 509	$ 2,525	$ 1,877	$ 386,059	$ 396,531

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2020

In millions of dollars	30–89 days past due and accruing(1)	≥ 90 days past due and accruing(1)	Total past due and accruing	Total non-accrual(2)	Total current(3)	Total loans(4)
Commercial and industrial	$ 400	$ 109	$ 509	$ 2,795	$ 153,036	$ 156,340
Financial institutions	668	65	733	92	86,864	87,689
Mortgage and real estate	450	247	697	505	70,836	72,038
Lease financing	62	12	74	24	640	738
Other	112	19	131	111	63,157	63,399
Loans at fair value						6,840
Total	$ 1,692	$ 452	$ 2,144	$ 3,527	$ 374,533	$ 387,044

(1) Corporate loans that are 90 days past due are generally classified as non-accrual. Corporate loans are considered past due when principal or interest is contractually due but unpaid.
(2) Non-accrual loans generally include those loans that are 90 days or more past due or those loans for which Citi believes, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful.
(3) Loans less than 30 days past due are presented as current.
(4) Total loans include loans at fair value, which are not included in the various delinquency columns.

Citigroup has a risk management process to monitor, evaluate and manage the principal risks associated with its corporate loan portfolio. As part of its risk management process, Citi assigns numeric risk ratings to its corporate loan facilities based on quantitative and qualitative assessments of the obligor and facility. These risk ratings are reviewed at least annually or more often if material events related to the obligor or facility warrant. Factors considered in assigning the risk ratings include financial condition of the obligor, qualitative assessment of management and strategy, amount and sources of repayment, amount and type of collateral and guarantee arrangements, amount and type of any contingencies associated with the obligor and the obligor's industry and geography.

The obligor risk ratings are defined by ranges of default probabilities. The facility risk ratings are defined by ranges of loss norms, which are the product of the probability of default and the loss given default. The investment-grade rating categories are similar to the category BBB-/Baa3 and above as defined by S&P and Moody's. Loans classified according to the bank regulatory definitions as special mention, substandard, doubtful and loss will have risk ratings within the non-investment-grade categories.

Corporate Loans Credit Quality Indicators

	Recorded investment in loans[1]							
	Term loans by year of origination							
In millions of dollars	2021	2020	2019	2018	2017	Prior	Revolving line of credit arrangements[2]	December 31, 2021
Investment grade[3]								
Commercial and industrial[4]	$ 42,730	$ 5,744	$ 4,762	$ 3,825	$ 3,060	$ 8,928	$ 32,894	$ 101,943
Financial institutions[4]	14,096	1,985	1,290	1,118	599	2,536	67,184	88,808
Mortgage and real estate	4,423	6,013	5,421	3,630	1,801	3,561	1,341	26,190
Other[5]	11,928	3,993	1,392	2,974	524	6,321	32,807	59,939
Total investment grade	$ 73,177	$ 17,735	$ 12,865	$ 11,547	$ 5,984	$ 21,346	$ 134,226	$ 276,880
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 16,814	$ 2,313	$ 2,466	$ 2,024	$ 1,412	$ 3,987	$ 18,849	$ 47,865
Financial institutions[4]	4,471	399	571	107	74	586	3,894	10,102
Mortgage and real estate	1,819	980	1,842	1,163	640	761	644	7,849
Other[5]	1,517	399	594	384	148	383	3,152	6,577
Non-accrual								
Commercial and industrial[4]	54	119	64	104	94	117	712	1,264
Financial institutions	—	—	—	—	—	—	33	33
Mortgage and real estate	13	10	2	49	10	25	310	419
Other[5]	19	5	19	19	—	90	9	161
Total non-investment grade	$ 24,707	$ 4,225	$ 5,558	$ 3,850	$ 2,378	$ 5,949	$ 27,603	$ 74,270
Non-rated private bank loans managed on a delinquency basis[3][6]	$ 9,984	$ 8,901	$ 5,926	$ 2,895	$ 2,925	$ 8,680	$ —	$ 39,311
Loans at fair value[7]								6,070
Corporate loans, net of unearned income	$ 107,868	$ 30,861	$ 24,349	$ 18,292	$ 11,287	$ 35,975	$ 161,829	$ 396,531

	Recorded investment in loans[1]							
	Term loans by year of origination							
In millions of dollars	2020	2019	2018	2017	2016	Prior	Revolving line of credit arrangements[2]	December 31, 2020
Investment grade[3]								
Commercial and industrial[4]	$ 38,398	$ 7,607	$ 5,929	$ 3,909	$ 2,094	$ 8,670	$ 25,819	$ 92,426
Financial institutions[4]	10,560	2,964	2,106	782	681	2,030	56,239	75,362
Mortgage and real estate	6,793	6,714	5,174	2,568	1,212	1,719	1,557	25,737
Other[5]	10,874	3,566	4,597	952	780	5,290	31,696	57,755
Total investment grade	$ 66,625	$ 20,851	$ 17,806	$ 8,211	$ 4,767	$ 17,709	$ 115,311	$ 251,280
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 19,683	$ 4,794	$ 4,645	$ 2,883	$ 1,182	$ 4,533	$ 23,400	$ 61,120
Financial institutions[4]	7,413	700	654	274	141	197	2,855	12,234
Mortgage and real estate	1,882	1,919	2,058	1,457	697	837	551	9,401
Other[5]	1,407	918	725	370	186	657	1,986	6,249
Non-accrual								
Commercial and industrial[4]	260	203	192	143	57	223	1,717	2,795
Financial institutions	1	—	—	—	—	—	91	92
Mortgage and real estate	13	4	3	18	8	32	427	505
Other[5]	15	3	12	29	2	65	9	135
Total non-investment grade	$ 30,674	$ 8,541	$ 8,289	$ 5,174	$ 2,273	$ 6,544	$ 31,036	$ 92,531
Non-rated private bank loans managed on a delinquency basis[3][6]	$ 9,823	$ 7,121	$ 3,533	$ 3,674	$ 4,300	$ 7,942	$ —	$ 36,393
Loans at fair value[7]								6,840
Corporate loans, net of unearned income	$ 107,122	$ 36,513	$ 29,628	$ 17,059	$ 11,340	$ 32,195	$ 146,347	$ 387,044

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
(2) There were no significant revolving line of credit arrangements that converted to term loans during the year.
(3) Held-for-investment loans are accounted for on an amortized cost basis.
(4) Includes certain short-term loans with less than one year in tenor.
(5) Other includes installment and other, lease financing and loans to government and official institutions.
(6) Non-rated private bank loans mainly include mortgage and real estate loans to private banking clients.
(7) Loans at fair value include loans to commercial and industrial, financial institutions, mortgage and real estate and other.

Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral with no other available and reliable sources of repayment, are written down to the lower of carrying value or collateral value, less cost to sell. Cash-basis loans are returned to an accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance, generally six months, in accordance with the contractual terms of the loan.

Non-Accrual Corporate Loans

The following tables present non-accrual loan information by corporate loan type and interest income recognized on non-accrual corporate loans:

	At and for the year ended December 31, 2021				
In millions of dollars	**Recorded investment[1]**	**Unpaid principal balance**	**Related specific allowance**	**Average carrying value[2]**	**Interest income recognized[3]**
Non-accrual corporate loans					
Commercial and industrial	**$ 1,264**	**$ 1,863**	**$ 198**	**$ 1,840**	**$ 37**
Financial institutions	**33**	**98**	**4**	**40**	**—**
Mortgage and real estate	**419**	**582**	**15**	**448**	**—**
Lease financing	**14**	**14**	**—**	**20**	**—**
Other	**147**	**241**	**8**	**142**	**18**
Total non-accrual corporate loans	**$ 1,877**	**$ 2,798**	**$ 225**	**$ 2,490**	**$ 55**

	At and for the year ended December 31, 2020				
In millions of dollars	Recorded investment[1]	Unpaid principal balance	Related specific allowance	Average carrying value[2]	Interest income recognized[3]
Non-accrual corporate loans					
Commercial and industrial	$ 2,795	$ 3,664	$ 442	$ 2,649	$ 14
Financial institutions	92	181	17	132	—
Mortgage and real estate	505	803	38	413	—
Lease financing	24	24	—	34	—
Other	111	235	18	174	21
Total non-accrual corporate loans	$ 3,527	$ 4,907	$ 515	$ 3,402	$ 35

	December 31, 2021		December 31, 2020	
In millions of dollars	**Recorded investment[1]**	**Related specific allowance**	Recorded investment[1]	Related specific allowance
Non-accrual corporate loans with specific allowances				
Commercial and industrial	**$ 638**	**$ 198**	$ 1,523	$ 442
Financial institutions	**27**	**4**	90	17
Mortgage and real estate	**294**	**15**	246	38
Lease financing	**—**	**—**	—	—
Other	**37**	**8**	68	18
Total non-accrual corporate loans with specific allowances	**$ 996**	**$ 225**	$ 1,927	$ 515
Non-accrual corporate loans without specific allowances				
Commercial and industrial	**$ 626**		$ 1,272	
Financial institutions	**6**		2	
Mortgage and real estate	**125**		259	
Lease financing	**14**		24	
Other	**110**		43	
Total non-accrual corporate loans without specific allowances	**$ 881**	**N/A**	$ 1,600	N/A

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
(2) Average carrying value represents the average recorded investment balance and does not include related specific allowances.
(3) Interest income recognized for the year ended December 31, 2019 was $42 million.
N/A Not applicable

Corporate Troubled Debt Restructurings[1]

For the year ended December 31, 2021

In millions of dollars	Carrying value of TDRs modified during the year	TDRs involving changes in the amount and/or timing of principal payments[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$ 82	$ —	$ —	$ 82
Mortgage and real estate	8	—	—	8
Other	10	1		9
Total	$ 100	$ 1	$ —	$ 99

For the year ended December 31, 2020

In millions of dollars	Carrying value of TDRs modified during the year	TDRs involving changes in the amount and/or timing of principal payments[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$ 247	$ —	$ —	$ 247
Mortgage and real estate	19	—	—	19
Other	19	6	—	13
Total	$ 285	$ 6	$ —	$ 279

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the CARES Act or the interagency guidance.
(2) TDRs involving changes in the amount or timing of principal payments may involve principal forgiveness or deferral of periodic and/or final principal payments. Because forgiveness of principal is rare for corporate loans, modifications typically have little to no impact on the loans' projected cash flows and thus little to no impact on the allowance established for the loans. Charge-offs for amounts deemed uncollectible may be recorded at the time of the restructuring or may have already been recorded in prior periods such that no charge-off is required at the time of the modification.
(3) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.

The following table presents total corporate loans modified in a TDR as well as those TDRs that defaulted and for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due, except for classifiably managed commercial banking loans, where default is defined as 90 days past due.

In millions of dollars	**TDR balances at December 31, 2021**	**TDR loans that re-defaulted in 2021 within one year of modification**	TDR balances at December 31, 2020	TDR loans that re-defaulted in 2020 within one year of modification
Commercial and industrial	$ 236	$ —	$ 325	$ —
Financial institutions	—	—	—	—
Mortgage and real estate	73	—	92	—
Lease financing	—	—	—	—
Other	41	—	33	—
Total[1]	$ 350	$ —	$ 450	$ —

(1) The above table reflects activity for loans outstanding that were considered TDRs as of the end of the reporting period.

15. ALLOWANCE FOR CREDIT LOSSES

In millions of dollars		**2021**		2020		2019
Allowance for credit losses on loans (ACLL) at beginning of year	**$**	**24,956**	$	12,783	$	12,315
Adjustments to opening balance[1]:						
Financial instruments—credit losses (CECL) adoption		—		4,201		—
Variable post-charge-off third-party collection costs		—		(443)		—
Adjusted ACLL at beginning of year	**$**	**24,956**	$	16,541	$	12,315
Gross credit losses on loans	**$**	**(6,720)**	$	(9,263)	$	(9,341)
Gross recoveries on loans		**1,825**		1,652		1,573
Net credit losses on loans (NCLs)	**$**	**(4,895)**	$	(7,611)	$	(7,768)
Replenishment of NCLs	**$**	**4,895**	$	7,611	$	7,768
Net reserve builds (releases) for loans		**(7,283)**		7,635		364
Net specific reserve builds (releases) for loans		**(715)**		676		86
Total provision for credit losses on loans (PCLL)	**$**	**(3,103)**	$	15,922	$	8,218
Initial allowance for credit losses on newly purchased credit-deteriorated assets during the period		—		4		—
Other, net (see table below)		**(503)**		100		18
ACLL at end of year	**$**	**16,455**	$	24,956	$	12,783
Allowance for credit losses on unfunded lending commitments (ACLUC) at beginning of year[2]	**$**	**2,655**	$	1,456	$	1,367
Adjustment to opening balance for CECL adoption[1]		—		(194)		—
Provision (release) for credit losses on unfunded lending commitments		**(788)**		1,446		92
Other, net[3]		**4**		(53)		(3)
ACLUC at end of year[2]	**$**	**1,871**	$	2,655	$	1,456
Total allowance for credit losses on loans, leases and unfunded lending commitments	**$**	**18,326**	$	27,611	$	14,239

Other, net details

In millions of dollars		**2021**		2020		2019
Sales or transfers of various consumer loan portfolios to HFS						
Reclass of Australia consumer ACLL to HFS	**$**	**(280)**	$	—	$	—
Reclass of the Philippines consumer ACLL to HFS		**(90)**		—		—
Transfer of real estate loan portfolios		—		(4)		(42)
Sales or transfers of various consumer loan portfolios to HFS	**$**	**(370)**	$	(4)	$	(42)
FX translation and other		**(133)**		104		60
Other, net	**$**	**(503)**	$	100	$	18

(1) See “Accounting Changes” in Note 1 to the Consolidated Financial Statements for additional details.
(2) Represents additional credit loss reserves for unfunded lending commitments and letters of credit recorded in *Other liabilities* on the Consolidated Balance Sheet.
(3) 2020 includes a non-provision transfer of $68 million, representing reserves on performance guarantees. The reserves on these contracts have been reclassified out of the allowance for credit losses on unfunded lending commitments and into *Other liabilities* on the Consolidated Balance Sheet beginning in 2020.

Allowance for Credit Losses on Loans and End-of-Period Loans at December 31, 2021

In millions of dollars	Corporate	Consumer	Total
ACLL at beginning of year	$ 5,402	$ 19,554	$ 24,956
Gross credit losses on loans	(522)	$ (6,198)	$ (6,720)
Gross recoveries on loans	127	1,698	1,825
Replenishment of NCLs	395	4,500	4,895
Net reserve builds (releases)	(2,254)	(5,029)	(7,283)
Net specific reserve builds (releases)	(278)	(437)	(715)
Initial allowance for credit losses on newly purchased credit-deteriorated assets during the year	—	—	—
Other	(31)	(472)	(503)
Ending balance	$ 2,839	$ 13,616	$ 16,455
ACLL			
Collectively evaluated	$ 2,614	$ 12,816	$ 15,430
Individually evaluated	225	800	1,025
Purchased credit deteriorated	—	—	—
Total ACLL	$ 2,839	$ 13,616	$ 16,455
Loans, net of unearned income			
Collectively evaluated	$ 388,584	$ 267,424	$ 656,008
Individually evaluated	1,877	3,681	5,558
Purchased credit deteriorated	—	119	119
Held at fair value	6,070	12	6,082
Total loans, net of unearned income	$ 396,531	$ 271,236	$ 667,767

Allowance for Credit Losses on Loans and End-of-Period Loans at December 31, 2020

In millions of dollars	Corporate	Consumer	Total
ACLL at beginning of year	$ 2,886	$ 9,897	$ 12,783
Adjustments to opening balance:			
Financial instruments—credit losses (CECL)[1]	(721)	4,922	4,201
Variable post-charge-off third-party collection costs[1]	—	(443)	(443)
Adjusted ACLL at beginning of year	$ 2,165	$ 14,376	$ 16,541
Gross credit losses on loans	$ (1,072)	$ (8,191)	$ (9,263)
Gross recoveries on loans	86	1,566	1,652
Replenishment of NCLs	986	6,625	7,611
Net reserve builds (releases)	2,890	4,745	7,635
Net specific reserve builds (releases)	282	394	676
Initial allowance for credit losses on newly purchased credit-deteriorated assets during the year	—	4	4
Other	65	35	100
Ending balance	$ 5,402	$ 19,554	$ 24,956
ACLL			
Collectively evaluated	$ 4,887	$ 18,207	$ 23,094
Individually evaluated	515	1,345	1,860
Purchased credit deteriorated	—	2	2
Total ACLL	$ 5,402	$ 19,554	$ 24,956
Loans, net of unearned income			
Collectively evaluated	$ 376,677	$ 283,885	$ 660,562
Individually evaluated	3,527	4,799	8,326
Purchased credit deteriorated	—	141	141
Held at fair value	6,840	14	6,854
Total loans, net of unearned income	$ 387,044	$ 288,839	$ 675,883

(1) See “Accounting Changes” in Note 1 to the Consolidated Financial Statements for additional details.

Allowance for Credit Losses on Loans at December 31, 2019

In millions of dollars	Corporate	Consumer	Total
ACLL at beginning of year	$ 2,811	$ 9,504	$ 12,315
Gross credit losses on loans	(487)	(8,854)	(9,341)
Gross recoveries on loans	95	1,478	1,573
Replenishment of NCLs	392	7,376	7,768
Net reserve builds (releases)	96	268	364
Net specific reserve builds (releases)	(21)	107	86
Other	—	18	18
Ending balance	$ 2,886	$ 9,897	$ 12,783

Allowance for Credit Losses on HTM Debt Securities

	Year ended December 31, 2021					
In millions of dollars	**Mortgage-backed**	**State and municipal**	**Foreign government**	**Asset-backed**	**All other debt securities**	**Total HTM**
Allowance for credit losses on HTM debt securities at beginning of year	**$ 3**	**$ 74**	**$ 6**	**$ 3**	**$ —**	**$ 86**
Gross credit losses	**—**	**—**	**—**	**—**	**—**	**—**
Gross recoveries	**3**	**—**	**—**	**—**	**—**	**3**
Net credit losses (NCLs)	**$ 3**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 3**
Replenishment of NCLs	**$ (3)**	**$ —**	**$ —**	**$ —**	**$ —**	**$ (3)**
Net reserve builds (releases)	**7**	**1**	**(2)**	**(2)**	**—**	**4**
Net specific reserve builds (releases)	**(4)**	**—**	**—**	**—**	**—**	**(4)**
Total provision for credit losses on HTM debt securities	**$ —**	**$ 1**	**$ (2)**	**$ (2)**	**$ —**	**$ (3)**
Other, net	**$ —**	**$ —**	**$ —**	**$ 1**	**$ —**	**$ 1**
Initial allowance for credit losses on newly purchased credit-deteriorated securities during the year	**—**	**—**	**—**	**—**	**—**	**—**
Allowance for credit losses on HTM debt securities at end of year	**$ 6**	**$ 75**	**$ 4**	**$ 2**	**$ —**	**$ 87**

Allowance for Credit Losses on HTM Debt Securities

	Year ended December 31, 2020					
In millions of dollars	Mortgage-backed	State and municipal	Foreign government	Asset-backed	All other debt securities	Total HTM
Allowance for credit losses on HTM debt securities at beginning of year	$ —	$ —	$ —	$ —	$ —	$ —
Adjustment to opening balance for CECL adoption	—	61	4	5		70
Gross credit losses	—	—	—	—	—	—
Gross recoveries	—	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(2)	10	(2)	1	—	7
Net specific reserve builds (releases)	—	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ (2)	$ 10	$ (2)	$ 1	$ —	$ 7
Other, net	$ 5	$ 3	$ 4	$ (3)	$ —	$ 9
Initial allowance for credit losses on newly purchased credit-deteriorated securities during the year	—	—	—	—	—	—
Allowance for credit losses on HTM debt securities at end of year	$ 3	$ 74	$ 6	$ 3	$ —	$ 86

Allowance for Credit Losses on Other Assets

In millions of dollars	Year ended December 31, 2021 Cash and due from banks	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[1]	Total
Allowance for credit losses on other assets at beginning of year	**$ —**	**$ 20**	**$ 10**	**$ —**	**$ 25**	**$ 55**
Gross credit losses	**—**	**—**	**—**	**—**	**(2)**	**(2)**
Gross recoveries	**—**	**—**	**—**	**—**	**—**	**—**
Net credit losses (NCLs)	**$ —**	**$ —**	**$ —**	**$ —**	**$ (2)**	**$ (2)**
Replenishment of NCLs	**$ —**	**$ —**	**$ —**	**$ —**	**$ 2**	**$ 2**
Net reserve builds (releases)	**—**	**2**	**(4)**	**—**	**—**	**(2)**
Total provision for credit losses	**$ —**	**$ 2**	**$ (4)**	**$ —**	**$ 2**	**$ —**
Other, net	**$ —**	**$ (1)**	**$ —**	**$ —**	**$ 1**	**$ —**
Allowance for credit losses on other assets at end of year	**$ —**	**$ 21**	**$ 6**	**$ —**	**$ 26**	**$ 53**

(1) Primarily accounts receivable.

Allowance for Credit Losses on Other Assets

In millions of dollars	Year ended December 31, 2020 Cash and due from banks	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[1]	Total
Allowance for credit losses on other assets at beginning of year	$ —	$ —	$ —	$ —	$ —	$ —
Adjustment to opening balance for CECL adoption	6	14	2	1	3	26
Gross credit losses	—	—	—	—	—	—
Gross recoveries	—	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(6)	5	8	(1)	1	7
Total provision for credit losses	$ (6)	$ 5	$ 8	$ (1)	$ 1	$ 7
Other, net	$ —	$ 1	$ —	$ —	$ 21	$ 22
Allowance for credit losses on other assets at end of year	$ —	$ 20	$ 10	$ —	$ 25	$ 55

(1) Primarily accounts receivable.

For ACL on AFS debt securities, see Note 13 to the Consolidated Financial Statements.

16. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in *Goodwill* were as follows:

In millions of dollars	Institutional Clients Group	Global Consumer Banking	Total
Balance at December 31, 2018	$ 9,959	$ 12,087	$ 22,046
Foreign exchange translation	65	15	80
Balance at December 31, 2019	$ 10,024	$ 12,102	$ 22,126
Foreign exchange translation	(4)	40	36
Balance at December 31, 2020	$ 10,020	$ 12,142	$ 22,162
Foreign exchange translation	(267)	(116)	(383)
Divestitures[1]	—	(480)	(480)
Balance at December 31, 2021	**$ 9,753**	**$ 11,546**	**$ 21,299**

(1) Goodwill allocated primarily to the Australia and the Philippines consumer banking businesses, which were reclassified as HFS during 2021. See Note 2 to the Consolidated Financial Statements.

The Company performed its annual goodwill impairment test using data as of July 1, 2021, at the level below each operating segment (referred to as a reporting unit). The fair values of the Company's reporting units as a percentage of their carrying values ranged from approximately 125% to 153%, resulting in no impairment. While the inherent risk related to uncertainty is embedded in the key assumptions used in the valuations, the economic and business environments continue to evolve as management implements its strategic refresh, which includes, among others, the exits of consumer businesses in 13 markets in *Asia* and *EMEA*, as well as the exit of the Mexico consumer, small business and middle-market banking operations, and Citi's implementation of its new operating segment and reporting unit structure in the first quarter of 2022. If management's future estimate of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future. Citi expects that the implementation of its new operating segments and reporting units in the first quarter of 2022, as well as the timing and sequencing of the sales of its *Asia* consumer banking businesses, may result in goodwill impairment.

For additional information regarding Citi's goodwill impairment testing process, see the following Notes to the Consolidated Financial Statements: Note 1 for Citi's accounting policy for goodwill, and Note 3 for a description of Citi's operating segments.

Intangible Assets

The components of intangible assets were as follows:

	December 31, 2021			December 31, 2020		
In millions of dollars	**Gross carrying amount**	**Accumulated amortization**	**Net carrying amount**	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships	**$ 5,579**	**$ 4,348**	**$ 1,231**	$ 5,648	$ 4,229	$ 1,419
Credit card contract-related intangibles[1]	**3,912**	**1,372**	**2,540**	3,929	1,276	2,653
Core deposit intangibles	**39**	**39**	**—**	45	44	1
Other customer relationships	**429**	**305**	**124**	455	314	141
Present value of future profits	**31**	**29**	**2**	32	30	2
Indefinite-lived intangible assets	**183**	**—**	**183**	190	—	190
Other	**37**	**26**	**11**	72	67	5
Intangible assets (excluding MSRs)	**$ 10,210**	**$ 6,119**	**$ 4,091**	$ 10,371	$ 5,960	$ 4,411
Mortgage servicing rights (MSRs)[2]	**404**	**—**	**404**	336	—	336
Total intangible assets	**$ 10,614**	**$ 6,119**	**$ 4,495**	$ 10,707	$ 5,960	$ 4,747

(1) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represented 97% of the aggregate net carrying amount as of December 31, 2021.
(2) For additional information on Citi's MSRs, see Note 21 to the Consolidated Financial Statements.

Intangible assets amortization expense was $360 million, $419 million and $564 million for 2021, 2020 and 2019, respectively. Intangible assets amortization expense is estimated to be $345 million in 2022, $347 million in 2023, $367 million in 2024, $371 million in 2025 and $342 million in 2026.

The changes in intangible assets were as follows:

In millions of dollars	Net carrying amount at December 31, 2020	**Acquisitions/ renewals/ divestitures**	**Amortization**	**Impairments**	**FX translation and other**	**Net carrying amount at December 31, 2021**
Purchased credit card relationships[1]	$ 1,419	**$ (15)**	**$ (171)**	**$ —**	**$ (2)**	**$ 1,231**
Credit card contract-related intangibles[2]	2,653	**29**	**(140)**	**(1)**	**(1)**	**2,540**
Core deposit intangibles	1	**—**	**(1)**	**—**	**—**	**—**
Other customer relationships	141	**20**	**(24)**	**—**	**(13)**	**124**
Present value of future profits	2	**—**	**—**	**—**	**—**	**2**
Indefinite-lived intangible assets	190	**—**	**—**	**—**	**(7)**	**183**
Other	5	**29**	**(24)**	**—**	**1**	**11**
Intangible assets (excluding MSRs)	$ 4,411	**$ 63**	**$ (360)**	**$ (1)**	**$ (22)**	**$ 4,091**
Mortgage servicing rights (MSRs)[3]	336					**404**
Total intangible assets	$ 4,747					**$ 4,495**

(1) Reflects intangibles for the value of cardholder relationships, which are discrete from partner contract-related intangibles, and includes credit card accounts primarily in the Costco, Macy's and Sears portfolios.
(2) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represent 97% and 96% of the aggregate net carrying amount at December 31, 2021 and 2020, respectively.
(3) For additional information on Citi's MSRs, including the rollforward from 2020 to 2021, see Note 21 to the Consolidated Financial Statements.

17. DEBT

Short-Term Borrowings

	December 31,			
	2021		2020	
In millions of dollars	**Balance**	**Weighted average coupon**	Balance	Weighted average coupon
Commercial paper				
Bank[1]	**$ 9,026**		$ 10,022	
Broker-dealer and other[2]	**6,992**		7,988	
Total commercial paper	**$ 16,018**	**0.22 %**	$ 18,010	0.24 %
Other borrowings[3]	**11,955**	**0.91**	11,504	0.48
Total	**$ 27,973**		$ 29,514	

(1) Represents Citibank entities as well as other bank entities.
(2) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company.
(3) Includes borrowings from Federal Home Loan Banks and other market participants. At December 31, 2021 and 2020, collateralized short-term advances from Federal Home Loan Banks were $0.0 billion and $4.0 billion, respectively.

Borrowings under bank lines of credit may be at interest rates based on LIBOR, CD rates, the prime rate or bids submitted by the banks. Citigroup pays commitment fees for its lines of credit.

Some of Citigroup's non-bank subsidiaries have credit facilities with Citigroup's subsidiary depository institutions, including Citibank. Borrowings under these facilities are secured in accordance with Section 23A of the Federal Reserve Act.

Citigroup Global Markets Holdings Inc. (CGMHI) has borrowing agreements consisting of facilities that CGMHI has been advised are available, but where no contractual lending obligation exists. These arrangements are reviewed on an ongoing basis to ensure flexibility in meeting CGMHI's short-term requirements.

Long-Term Debt

			Balances at December 31,	
In millions of dollars	**Weighted average coupon[1]**	**Maturities**	**2021**	2020
Citigroup Inc.[2]				
Senior debt	2.88 %	2022–2098	**$ 137,651**	$ 142,197
Subordinated debt[3]	4.65	2022–2046	**25,560**	26,636
Trust preferred securities	6.30	2036–2067	**1,734**	1,730
Bank[4]				
Senior debt	1.54	2022–2039	**23,567**	44,742
Broker-dealer[5]				
Senior debt	0.84	2022–2070	**65,652**	55,896
Subordinated debt[3]	—	2022–2046	**210**	485
Total	2.94 %		**$ 254,374**	$ 271,686
Senior debt			**$ 226,870**	$ 242,835
Subordinated debt[3]			**25,770**	27,121
Trust preferred securities			**1,734**	1,730
Total			**$ 254,374**	$ 271,686

(1) The weighted average coupon excludes structured notes accounted for at fair value.
(2) Represents the parent holding company.
(3) Includes notes that are subordinated within certain countries, regions or subsidiaries.
(4) Represents Citibank entities as well as other bank entities. At December 31, 2021 and 2020, collateralized long-term advances from Federal Home Loan Banks were $5.3 billion and $10.9 billion, respectively.
(5) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company. Certain Citigroup consolidated hedging activities are also included in this line.

The Company issues both fixed- and variable-rate debt in a range of currencies. It uses derivative contracts, primarily interest rate swaps, to effectively convert a portion of its fixed-rate debt to variable-rate debt. The maturity structure of the derivatives generally corresponds to the maturity structure of the debt being hedged. In addition, the Company uses other derivative contracts to manage the foreign exchange impact of certain debt issuances. At December 31, 2021, the Company's overall weighted average interest rate for long-term debt, excluding structured notes accounted for at fair value, was 2.94% on a contractual basis and 3.12% including the effects of derivative contracts.

Aggregate annual maturities of long-term debt obligations (based on final maturity dates) including trust preferred securities are as follows:

In millions of dollars	2022	2023	2024	2025	2026	Thereafter	Total
Citigroup Inc.	$ 9,955	$ 14,440	$ 12,475	$ 16,798	$ 21,483	$ 89,794	$ 164,945
Bank	9,839	4,227	5,028	473	68	3,932	23,567
Broker-dealer	13,199	11,813	8,066	3,995	5,499	23,290	65,862
Total	$ 32,993	$ 30,480	$ 25,569	$ 21,266	$ 27,050	$ 117,016	$ 254,374

The following table summarizes Citi's outstanding trust preferred securities at December 31, 2021:

						Junior subordinated debentures owned by trust		
Trust	**Issuance date**	**Securities issued**	**Liquidation value(1)**	**Coupon rate(2)**	**Common shares issued to parent**	**Amount**	**Maturity**	**Redeemable by issuer beginning**
In millions of dollars, except securities and share amounts								
Citigroup Capital III	Dec. 1996	194,053	$ 194	7.625 %	6,003	$ 200	Dec. 1, 2036	Not redeemable
Citigroup Capital XIII	Sept. 2010	89,840,000	2,246	3 mo LIBOR + 637 bps	1,000	2,246	Oct. 30, 2040	Oct. 30, 2015
Citigroup Capital XVIII	June 2007	99,901	135	3 mo sterling LIBOR + 88.75 bps	50	135	June 28, 2067	June 28, 2017
Total obligated			**$ 2,575**			**$ 2,581**		

Note: Distributions on the trust preferred securities and interest on the subordinated debentures are payable semiannually for Citigroup Capital III and Citigroup Capital XVIII and quarterly for Citigroup Capital XIII.

(1) Represents the notional value received by outside investors from the trusts at the time of issuance. This differs from Citi's balance sheet carrying value due primarily to unamortized discount and issuance costs.

(2) In each case, the coupon rate on the subordinated debentures is the same as that on the trust preferred securities.

18. REGULATORY CAPITAL

Citigroup is subject to risk-based capital and leverage standards issued by the Federal Reserve Board, which constitute the U.S. Basel III rules. Citi's U.S.-insured depository institution subsidiaries, including Citibank, are subject to similar standards issued by their respective primary bank regulatory agencies. These standards are used to evaluate capital adequacy and include the required minimums shown in the following table. The regulatory agencies are required by law to take specific, prompt corrective actions with respect to institutions that do not meet minimum capital standards.

The following table sets forth for Citigroup and Citibank the regulatory capital tiers, total risk-weighted assets, quarterly adjusted average total assets, Total Leverage Exposure, risk-based capital ratios and leverage ratios:

		Citigroup[4]			Citibank[4]		
In millions of dollars, except ratios	**Stated minimum**	**Well-capitalized minimum**	**December 31, 2021**	December 31, 2020	**Well-capitalized minimum**	**December 31, 2021**	December 31, 2020
Common Equity Tier 1 Capital			**$ 149,305**	$ 147,274		**$ 148,548**	$ 142,854
Tier 1 Capital			**169,568**	167,053		**150,679**	144,962
Total Capital (Tier 1 Capital + Tier 2 Capital)—Standardized Approach			**203,838**	205,002		**175,427**	169,449
Total Capital (Tier 1 Capital + Tier 2 Capital)—Advanced Approaches			**194,006**	196,051		**166,921**	161,447
Total risk-weighted assets—Standardized Approach			**1,219,175**	1,242,381		**1,066,015**	1,054,056
Total risk-weighted assets—Advanced Approaches			**1,209,374**	1,278,977		**1,017,774**	1,047,088
Quarterly adjusted average total assets[1]			**2,351,434**	2,265,615		**1,716,596**	1,667,105
Total Leverage Exposure[2]			**2,957,764**	2,391,033		**2,236,839**	2,172,052
Common Equity Tier 1 Capital ratio[3]	**4.5 %**	**N/A**	**12.25 %**	11.51 %	**6.5 %**	**13.93 %**	13.55 %
Tier 1 Capital ratio[3]	**6.0**	**6.0 %**	**13.91**	13.06	**8.0**	**14.13**	13.75
Total Capital ratio[3]	**8.0**	**10.0**	**16.04**	15.33	**10.0**	**16.40**	15.42
Tier 1 Leverage ratio	**4.0**	**N/A**	**7.21**	7.37	**5.0**	**8.78**	8.70
Supplementary Leverage ratio	**3.0**	**N/A**	**5.73**	6.99	**6.0**	**6.74**	6.67

(1) Tier 1 Leverage ratio denominator.
(2) Supplementary Leverage ratio denominator.
(3) Citigroup's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach and the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework as of December 31, 2021, whereas Citigroup's reportable Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios as of December 31, 2020 were the lower derived under the Basel III Advanced Approaches framework. As of December 31, 2021 and 2020, Citibank's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas the Total Capital ratios were the lower derived under the Basel III Advanced Approaches framework.
(4) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.
N/A Not applicable

As indicated in the table above, Citigroup and Citibank were "well capitalized" under the current federal bank regulatory agency definitions as of December 31, 2021 and 2020.

Banking Subsidiaries—Constraints on Dividends

There are various legal limitations on the ability of Citigroup's subsidiary depository institutions to extend credit, pay dividends or otherwise supply funds to Citigroup and its non-bank subsidiaries. The approval of the Office of the Comptroller of the Currency is required if total dividends declared in any calendar year were to exceed amounts specified by the agency's regulations.

In determining the dividends, each subsidiary depository institution must also consider its effect on applicable risk-based capital and leverage ratio requirements, as well as policy statements of the federal bank regulatory agencies that indicate that banking organizations should generally pay dividends out of current operating earnings. Citigroup received $6.2 billion and $2.3 billion in dividends from Citibank during 2021 and 2020, respectively.

19. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

Changes in each component of Citigroup's *Accumulated other comprehensive income (loss)* were as follows:

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)(1)	Cash flow hedges(2)	Benefit plans(3)	Foreign currency translation adjustment (CTA), net of hedges(4)(5)	Excluded component of fair value hedges	Accumulated other comprehensive income (loss)
Balance, December 31, 2018	$ (2,250)	$ 192	$ (728)	$ (6,257)	$ (28,070)	$ (57)	$ (37,170)
Other comprehensive income before reclassifications	3,065	(1,151)	549	(758)	(321)	25	1,409
Increase (decrease) due to amounts reclassified from *AOCI*	(1,080)	15	302	206	—	—	(557)
Change, net of taxes	$ 1,985	$ (1,136)	$ 851	$ (552)	$ (321)	$ 25	$ 852
Balance, December 31, 2019	$ (265)	$ (944)	$ 123	$ (6,809)	$ (28,391)	$ (32)	$ (36,318)
Other comprehensive income before reclassifications	4,837	(490)	2,027	(287)	(250)	(15)	5,822
Increase (decrease) due to amounts reclassified from *AOCI*	(1,252)	15	(557)	232	—	—	(1,562)
Change, net of taxes	$ 3,585	$ (475)	$ 1,470	$ (55)	$ (250)	$ (15)	$ 4,260
Balance, December 31, 2020	$ 3,320	$ (1,419)	$ 1,593	$ (6,864)	$ (28,641)	$ (47)	$ (32,058)
Other comprehensive income before reclassifications	**(3,556)**	**121**	**(679)**	**797**	**(2,537)**	**(11)**	**(5,865)**
Increase (decrease) due to amounts reclassified from *AOCI*	**(378)**	**111**	**(813)**	**215**	**12**	**11**	**(842)**
Change, net of taxes	**$ (3,934)**	**$ 232**	**$ (1,492)**	**$ 1,012**	**$ (2,525)**	**$ —**	**$ (6,707)**
Balance, December 31, 2021	**$ (614)**	**$ (1,187)**	**$ 101**	**$ (5,852)**	**$ (31,166)**	**$ (47)**	**$ (38,765)**

(1) Reflects the after-tax valuation of Citi's fair value option liabilities. See "Market Valuation Adjustments" in Note 24 to the Consolidated Financial Statements.
(2) Primarily driven by Citi's pay fixed/receive floating interest rate swap programs that hedge the floating rates on liabilities.
(3) Primarily reflects adjustments based on the quarterly actuarial valuations of the Company's significant pension and postretirement plans, annual actuarial valuations of all other plans and amortization of amounts previously recognized in other comprehensive income.
(4) Primarily reflects the movements in (by order of impact) the Mexican peso, Euro, South Korean won, Chilean peso and Japanese yen against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2021. Primarily reflects the movements in (by order of impact) the Mexican peso, Brazilian real, South Korean won and Euro against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2020. Primarily reflects the movements in (by order of impact) the Indian rupee, Brazilian real, Chilean peso and Euro against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2019. Amounts recorded in the CTA component of *AOCI* remain in *AOCI* until the sale or substantial liquidation of the foreign entity, at which point such amounts related to the foreign entity are reclassified into earnings.
(5) December 31, 2021 includes an approximate $475 million (after-tax) ($625 million pretax) currency translation adjustment (CTA) loss (net of hedges) associated with Citi's agreement to sell its consumer banking business in Australia (see Note 2 to the Consolidated Financial Statements). The loss on sale primarily reflects the impact of the CTA loss (net of hedges) already reflected in *AOCI*. Upon closing, the CTA-related balance will be removed from *AOCI*, resulting in a neutral impact from CTA to Citi's Common Equity Tier 1 Capital.

The pretax and after-tax changes in each component of *Accumulated other comprehensive income (loss)* were as follows:

In millions of dollars	Pretax	Tax effect	After-tax
Balance, December 31, 2018	$ (44,082)	$ 6,912	$ (37,170)
Change in net unrealized gains (losses) on debt securities	2,633	(648)	1,985
Debt valuation adjustment (DVA)	(1,473)	337	(1,136)
Cash flow hedges	1,120	(269)	851
Benefit plans	(671)	119	(552)
Foreign currency translation adjustment	(332)	11	(321)
Excluded component of fair value hedges	33	(8)	25
Change	$ 1,310	$ (458)	$ 852
Balance, December 31, 2019	$ (42,772)	$ 6,454	$ (36,318)
Change in net unrealized gains (losses) on debt securities	4,799	(1,214)	3,585
Debt valuation adjustment (DVA)	(616)	141	(475)
Cash flow hedges	1,925	(455)	1,470
Benefit plans	(78)	23	(55)
Foreign currency translation adjustment	(227)	(23)	(250)
Excluded component of fair value hedges	(23)	8	(15)
Change	$ 5,780	$ (1,520)	$ 4,260
Balance, December 31, 2020	$ (36,992)	$ 4,934	$ (32,058)
Change in net unrealized gains (losses) on debt securities	**(5,301)**	**1,367**	**(3,934)**
Debt valuation adjustment (DVA)	**296**	**(64)**	**232**
Cash flow hedges	**(1,969)**	**477**	**(1,492)**
Benefit plans	**1,252**	**(240)**	**1,012**
Foreign currency translation adjustment	**(2,671)**	**146**	**(2,525)**
Excluded component of fair value hedges	**2**	**(2)**	**—**
Change	**$ (8,391)**	**$ 1,684**	**$ (6,707)**
Balance, December 31, 2021	**$ (45,383)**	**$ 6,618**	**$ (38,765)**

The Company recognized pretax (gains) losses related to amounts in *AOCI* reclassified to the Consolidated Statement of Income as follows:

	Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income		
	Year ended December 31,		
In millions of dollars	**2021**	2020	2019
Realized (gains) losses on sales of investments	**$ (665)**	$ (1,756)	$ (1,474)
Gross impairment losses	**181**	109	23
Subtotal, pretax	**$ (484)**	$ (1,647)	$ (1,451)
Tax effect	**106**	395	371
Net realized (gains) losses on investments, after-tax[(1)]	**$ (378)**	$ (1,252)	$ (1,080)
Realized DVA (gains) losses on fair value option liabilities, pretax	**$ 144**	$ 20	$ 20
Tax effect	**(33)**	(5)	(5)
Net realized DVA, after-tax	**$ 111**	$ 15	$ 15
Interest rate contracts	**$ (1,075)**	$ (734)	$ 384
Foreign exchange contracts	**4**	4	7
Subtotal, pretax	**$ (1,071)**	$ (730)	$ 391
Tax effect	**258**	173	(89)
Amortization of cash flow hedges, after-tax[(2)]	**$ (813)**	$ (557)	$ 302
Amortization of unrecognized:			
Prior service cost (benefit)	**$ (23)**	$ (5)	$ (12)
Net actuarial loss	**302**	322	286
Curtailment/settlement impact[(3)]	**11**	(8)	1
Subtotal, pretax	**$ 290**	$ 309	$ 275
Tax effect	**(75)**	(77)	(69)
Amortization of benefit plans, after-tax[(3)]	**$ 215**	$ 232	$ 206
Excluded component of fair value hedges, pretax	**$ 15**	$ —	$ —
Tax effect	**(4)**	—	—
Excluded component of fair value hedges, after-tax	**$ 11**	$ —	$ —
Foreign currency translation adjustment, pretax	**$ 19**	$ —	$ —
Tax effect	**(7)**	—	—
Foreign currency translation adjustment, after-tax	**$ 12**	$ —	$ —
Total amounts reclassified out of *AOCI*, pretax	**$ (1,087)**	$ (2,048)	$ (765)
Total tax effect	**245**	486	208
Total amounts reclassified out of *AOCI*, after-tax	**$ (842)**	$ (1,562)	$ (557)

(1) The pretax amount is reclassified to *Realized gains (losses) on sales of investments, net* and *Gross impairment losses* in the Consolidated Statement of Income. See Note 13 to the Consolidated Financial Statements for additional details.
(2) See Note 22 to the Consolidated Financial Statements for additional details.
(3) See Note 8 to the Consolidated Financial Statements for additional details.

20. PREFERRED STOCK

The following table summarizes the Company's preferred stock outstanding:

	Issuance date	Redeemable by issuer beginning	Dividend rate	Redemption price per depositary share/ preference share	Number of depositary shares	Carrying value *in millions of dollars* December 31, 2021	December 31, 2020
Series A(1)	October 29, 2012	January 30, 2023	5.950 %	$ 1,000	1,500,000	**$ 1,500**	$ 1,500
Series B(2)	December 13, 2012	February 15, 2023	5.900	1,000	750,000	**750**	750
Series D(3)	April 30, 2013	May 15, 2023	5.350	1,000	1,250,000	**1,250**	1,250
Series J(4)	September 19, 2013	September 30, 2023	7.125	25	38,000,000	**950**	950
Series K(5)	October 31, 2013	November 15, 2023	6.875	25	59,800,000	**1,495**	1,495
Series M(6)	April 30, 2014	May 15, 2024	6.300	1,000	1,750,000	**1,750**	1,750
Series P(7)	April 24, 2015	May 15, 2025	5.950	1,000	2,000,000	**2,000**	2,000
Series Q(8)	August 12, 2015	August 15, 2020	4.316	1,000	1,250,000	**—**	1,250
Series R(9)	November 13, 2015	November 15, 2020	4.699	1,000	1,500,000	**—**	1,500
Series S(10)	February 2, 2016	February 12, 2021	6.300	25	41,400,000	**—**	1,035
Series T(11)	April 25, 2016	August 15, 2026	6.250	1,000	1,500,000	**1,500**	1,500
Series U(12)	September 12, 2019	September 12, 2024	5.000	1,000	1,500,000	**1,500**	1,500
Series V(13)	January 23, 2020	January 30, 2025	4.700	1,000	1,500,000	**1,500**	1,500
Series W(14)	December 10, 2020	December 10, 2025	4.000	1,000	1,500,000	**1,500**	1,500
Series X(15)	February 18, 2021	February 18, 2026	3.875	1,000	2,300,000	**2,300**	—
Series Y(16)	October 20, 2021	October 20, 2026	4.150	1,000	1,000,000	**1,000**	—
						$ 18,995	$ 19,480

(1) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on January 30 and July 30 at a fixed rate until, but excluding, January 30, 2023, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(2) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on February 15 and August 15 at a fixed rate until, but excluding, February 15, 2023, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(3) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2023, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(4) Issued as depositary shares, each representing a 1/1,000th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on March 30, June 30, September 30 and December 30 at a fixed rate until, but excluding, September 30, 2023, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(5) Issued as depositary shares, each representing a 1/1,000th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, November 15, 2023, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(6) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2024, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(7) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2025, and thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(8) The Series Q preferred stock was redeemed in full on May 17, 2021.

(9) The Series R preferred stock was redeemed in full on May 17, 2021.

(10) The Series S preferred stock was redeemed in full on February 12, 2021.

(11) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on February 15 and August 15 at a fixed rate until, but excluding, August 15, 2026, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(12) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on March 12 and September 12 at a fixed rate until, but excluding, September 12, 2024, thereafter payable quarterly on March 12, June 12, September 12 and December 12 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(13) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on January 30 and July 30 at a fixed rate until, but excluding, January 30, 2025, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(14) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on March 10, June 10, September 10 and December 10 at a fixed rate until, but excluding, December 10, 2025, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(15) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 18, May 18, August 18 and November 18 at a fixed rate until, but excluding, February 18, 2026, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(16) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, November 15, 2026, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

21. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

Uses of Special Purpose Entities

A special purpose entity (SPE) is an entity designed to fulfill a specific limited need of the company that organized it. The principal uses of SPEs by Citi are to assist clients in securitizing their financial assets and to create investment products for clients and to obtain liquidity and optimize capital efficiency by securitizing certain of Citi's financial assets. SPEs may be organized in various legal forms, including trusts, partnerships or corporations. In a securitization, through the SPE's issuance of debt and equity instruments, certificates, commercial paper or other notes of indebtedness, the company transferring assets to the SPE converts all (or a portion) of those assets into cash before they would have been realized in the normal course of business. These issuances are recorded on the balance sheet of the SPE, which may or may not be consolidated onto the balance sheet of the company that organized the SPE.

Investors usually have recourse only to the assets in the SPE, but may also benefit from other credit enhancements, such as a collateral account, a line of credit or a liquidity facility, such as a liquidity put option or asset purchase agreement. Because of these enhancements, the SPE issuances typically obtain a more favorable credit rating than the transferor could obtain for its own debt issuances. This results in less expensive financing costs than unsecured debt. The SPE may also enter into derivative contracts in order to convert the yield or currency of the underlying assets to match the needs of the SPE investors or to limit or change the credit risk of the SPE. Citigroup may be the provider of certain credit enhancements as well as the counterparty to any related derivative contracts.

Most of Citigroup's SPEs are variable interest entities (VIEs).

Variable Interest Entities

VIEs are described in Note 1 to the Consolidated Financial Statements. Investors that finance the VIE through debt or equity interests or other counterparties providing other forms of support, such as guarantees, certain fee arrangements or certain types of derivative contracts, are variable interest holders in the entity.

The variable interest holder, if any, that has a controlling financial interest in a VIE is deemed to be the primary beneficiary and must consolidate the VIE.

The Company must evaluate each VIE to understand the purpose and design of the entity, the role the Company had in the entity's design and its involvement in the VIE's ongoing activities. The Company then must evaluate which activities most significantly impact the economic performance of the VIE and who has the power to direct such activities.

For those VIEs where the Company determines that it has the power to direct the activities that most significantly impact the VIE's economic performance, the Company must then evaluate its economic interests, if any, and determine whether it could absorb losses or receive benefits that could potentially be significant to the VIE. When evaluating whether the Company has an obligation to absorb losses that could potentially be significant, it considers the maximum exposure to such loss without consideration of probability. Such obligations could be in various forms, including, but not limited to, debt and equity investments, guarantees, liquidity agreements and certain derivative contracts.

In various other transactions, the Company may (i) act as a derivative counterparty (e.g., interest rate swap, cross-currency swap or purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE), (ii) act as underwriter or placement agent, (iii) provide administrative, trustee or other services or (iv) make a market in debt securities or other instruments issued by VIEs. The Company generally considers such involvement, by itself, not to be variable interests and thus not an indicator of power or potentially significant benefits or losses.

Citigroup's involvement with consolidated and unconsolidated VIEs with which the Company holds significant variable interests or has continuing involvement through servicing a majority of the assets in a VIE is presented below:

	As of December 31, 2021							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		**Unfunded exposures**		
In millions of dollars	**Total involvement with SPE assets**	**Consolidated VIE/SPE assets**	**Significant unconsolidated VIE assets**[3]	**Debt investments**	**Equity investments**	**Funding commitments**	**Guarantees and derivatives**	**Total**
Credit card securitizations	**$ 31,518**	**$ 31,518**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Mortgage securitizations[4]								
U.S. agency-sponsored	**113,641**	**—**	**113,641**	**1,582**	**—**	**—**	**43**	**1,625**
Non-agency-sponsored	**60,851**	**632**	**60,219**	**2,479**	**—**	**5**	**—**	**2,484**
Citi-administered asset-backed commercial paper conduits	**14,018**	**14,018**	**—**	**—**	**—**	**—**	**—**	**—**
Collateralized loan obligations (CLOs)	**8,302**	**—**	**8,302**	**2,636**	**—**	**—**	**—**	**2,636**
Asset-based financing[5]	**246,632**	**11,085**	**235,547**	**32,242**	**1,139**	**12,189**	**—**	**45,570**
Municipal securities tender option bond trusts (TOBs)	**3,251**	**905**	**2,346**	**2**	**—**	**1,498**	**—**	**1,500**
Municipal investments	**20,597**	**3**	**20,594**	**2,512**	**3,617**	**3,562**	**—**	**9,691**
Client intermediation	**904**	**297**	**607**	**75**	**—**	**—**	**224**	**299**
Investment funds	**498**	**179**	**319**	**—**	**—**	**12**	**1**	**13**
Other	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total	**$ 500,212**	**$ 58,637**	**$ 441,575**	**$ 41,528**	**$ 4,756**	**$ 17,266**	**$ 268**	**$ 63,818**

	As of December 31, 2020							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets[3]	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$ 32,423	$ 32,423	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations[4]								
U.S. agency-sponsored	123,999	—	123,999	1,948	—	—	61	2,009
Non-agency-sponsored	46,132	939	45,193	2,550	—	2	1	2,553
Citi-administered asset-backed commercial paper conduits	16,730	16,730	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	18,332	—	18,332	4,273	—	—	—	4,273
Asset-based financing[5]	222,274	8,069	214,205	25,153	1,587	9,114	—	35,854
Municipal securities tender option bond trusts (TOBs)	3,349	835	2,514	0	—	1,611	—	1,611
Municipal investments	20,335	—	20,335	2,569	4,056	3,041	—	9,666
Client intermediation	1,352	910	442	88	—	—	56	144
Investment funds	488	153	335	—	—	15	—	15
Other	0	0	0	0	—	—	—	0
Total	$ 485,414	$ 60,059	$ 425,355	$ 36,581	$ 5,643	$ 13,783	$ 118	$ 56,125

(1) The definition of maximum exposure to loss is included in the text that follows this table.
(2) Included on Citigroup's December 31, 2021 and 2020 Consolidated Balance Sheet.
(3) A significant unconsolidated VIE is an entity in which the Company has any variable interest or continuing involvement considered to be significant, regardless of the likelihood of loss.
(4) Citigroup mortgage securitizations also include agency and non-agency (private label) re-securitization activities. These re-securitization SPEs are not consolidated. See "Re-securitizations" below for further discussion.
(5) Included within this line are loans to third-party sponsored private equity funds, which represent $100 billion and $78 billion in unconsolidated VIE assets and $497 million and $425 million in maximum exposure to loss as of December 31, 2021 and 2020, respectively.

The previous tables do not include:

- certain venture capital investments made by some of the Company's private equity subsidiaries, as the Company accounts for these investments in accordance with the Investment Company Audit Guide (codified in ASC 946);
- certain investment funds for which the Company provides investment management services and personal estate trusts for which the Company provides administrative, trustee and/or investment management services;
- certain third-party sponsored private equity funds to which the Company provides secured credit facilities. The Company has no decision-making power and does not consolidate these funds, some of which may meet the definition of a VIE. The Company's maximum exposure to loss is generally limited to a loan or lending-related commitment. As of December 31, 2021 and 2020, the Company's maximum exposure to loss related to these deals was $55.6 billion and $57.0 billion, respectively (for more information on these positions, see Notes 14 and 26 to the Consolidated Financial Statements);
- certain VIEs structured by third parties in which the Company holds securities in inventory, as these investments are made on arm's-length terms;
- certain positions in mortgage- and asset-backed securities held by the Company, which are classified as *Trading account assets* or *Investments*, in which the Company has no other involvement with the related securitization entity deemed to be significant (for more information on these positions, see Notes 13 and 24 to the Consolidated Financial Statements);
- certain representations and warranties exposures in Citigroup residential mortgage securitizations, in which the original mortgage loan balances are no longer outstanding; and
- VIEs such as trust preferred securities trusts used in connection with the Company's funding activities. The Company does not have a variable interest in these trusts.

The asset balances for consolidated VIEs represent the carrying amounts of the assets consolidated by the Company. The carrying amount may represent the amortized cost or the current fair value of the assets depending on the classification of the asset (e.g., loan or security) and the associated accounting model ascribed to that classification.

The asset balances for unconsolidated VIEs in which the Company has significant involvement represent the most current information available to the Company. In most cases, the asset balances represent an amortized cost basis without regard to impairments, unless fair value information is readily available to the Company.

The maximum funded exposure represents the balance sheet carrying amount of the Company's investment in the VIE. It reflects the initial amount of cash invested in the VIE, adjusted for any accrued interest and cash principal payments received. The carrying amount may also be adjusted for increases or declines in fair value or any impairment in value recognized in earnings. The maximum exposure of unfunded positions represents the remaining undrawn committed amount, including liquidity and credit facilities provided by the Company or the notional amount of a derivative instrument considered to be a variable interest. In certain transactions, the Company has entered into derivative instruments or other arrangements that are not considered variable interests in the VIE (e.g., interest rate swaps, cross-currency swaps or where the Company is the purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE). Receivables under such arrangements are not included in the maximum exposure amounts.

Funding Commitments for Significant Unconsolidated VIEs—Liquidity Facilities and Loan Commitments

The following table presents the notional amount of liquidity facilities and loan commitments that are classified as funding commitments in the VIE tables above:

In millions of dollars	**December 31, 2021**		December 31, 2020	
	Liquidity facilities	**Loan/equity commitments**	Liquidity facilities	Loan/equity commitments
Non-agency-sponsored mortgage securitizations	**$ —**	**$ 5**	$ —	$ 2
Asset-based financing	**—**	**12,189**	—	9,114
Municipal securities tender option bond trusts (TOBs)	**1,498**	**—**	1,611	—
Municipal investments	**—**	**3,562**	—	3,041
Investment funds	**—**	**12**	—	15
Other	**—**	**—**	—	—
Total funding commitments	**$ 1,498**	**$ 15,768**	$ 1,611	$ 12,172

Consolidated VIEs

The Company engages in on-balance sheet securitizations, which are securitizations that do not qualify for sales treatment; thus, the assets remain on Citi's Consolidated Balance Sheet, and any proceeds received are recognized as secured liabilities. In general, the third-party investors in the obligations of consolidated VIEs have legal recourse only to the assets of the respective VIEs and do not have such recourse to the Company, except where Citi has provided a guarantee to the investors or is the counterparty to certain derivative transactions involving the VIE. Thus, Citigroup's maximum legal exposure to loss related to consolidated VIEs is significantly less than the carrying value of the consolidated VIE assets due to outstanding third-party financing. Intercompany assets and liabilities are excluded from Citi's Consolidated Balance Sheet. All VIE assets are restricted from being sold or pledged as collateral. The cash flows from these assets are the only source used to pay down the associated liabilities, which are non-recourse to Citi's general assets. See the Consolidated Balance Sheet for more information about these Consolidated VIE assets and liabilities.

Significant Interests in Unconsolidated VIEs—Balance Sheet Classification

The following table presents the carrying amounts and classification of significant variable interests in unconsolidated VIEs:

In billions of dollars	**December 31, 2021**	December 31, 2020
Cash	**$ —**	$ —
Trading account assets	**1.4**	2.0
Investments	**8.8**	10.6
Total loans, net of allowance	**35.4**	29.3
Other	**0.8**	0.3
Total assets	**$ 46.4**	$ 42.2

Credit Card Securitizations

The Company securitizes credit card receivables through trusts established to purchase the receivables. Citigroup transfers receivables into the trusts on a non-recourse basis. Credit card securitizations are revolving securitizations: as customers pay their credit card balances, the cash proceeds are used to purchase new receivables and replenish the receivables in the trust.

Substantially all of the Company's credit card securitization activity is through two trusts—Citibank Credit Card Master Trust (Master Trust) and Citibank Omni Trust (Omni Trust), with the substantial majority through the Master Trust. These trusts are consolidated entities because, as servicer, Citigroup has the power to direct the activities that most significantly impact the economic performance of the trusts. Citigroup holds a seller's interest and certain securities issued by the trusts, which could result in exposure to potentially significant losses or benefits from the trusts. Accordingly, the transferred credit card receivables remain on Citi's Consolidated Balance Sheet with no gain or loss recognized. The debt issued by the trusts to third parties is included on Citi's Consolidated Balance Sheet.

Citi utilizes securitizations as one of the sources of funding for its business in *North America*. The following table reflects amounts related to the Company's securitized credit card receivables:

In billions of dollars	**December 31, 2021**	December 31, 2020
Ownership interests in principal amount of trust credit card receivables		
Sold to investors via trust-issued securities	**$ 9.7**	$ 15.7
Retained by Citigroup as trust-issued securities	**7.2**	7.9
Retained by Citigroup via non-certificated interests	**16.1**	11.1
Total	**$ 33.0**	$ 34.7

The following table summarizes selected cash flow information related to Citigroup's credit card securitizations:

In billions of dollars	**2021**	2020	2019
Proceeds from new securitizations	**$ —**	$ 0.3	$ —
Pay down of maturing notes	**(6.0)**	(4.3)	(7.6)

Managed Loans

After securitization of credit card receivables, the Company continues to maintain credit card customer account relationships and provides servicing for receivables transferred to the trusts. As a result, the Company considers the securitized credit card receivables to be part of the business it manages. As Citigroup consolidates the credit card trusts, all managed securitized card receivables are on-balance sheet.

Funding, Liquidity Facilities and Subordinated Interests

As noted above, Citigroup securitizes credit card receivables through two securitization trusts—Master Trust and Omni Trust. The liabilities of the trusts are included on the Consolidated Balance Sheet, excluding those retained by Citigroup.

Master Trust Liabilities (at Par Value)

The Master Trust issues fixed- and floating-rate term notes. Some of the term notes may be issued to multi-seller commercial paper conduits. The weighted average maturity of the third-party term notes issued by the Master Trust was 3.6 years as of December 31, 2021 and 2.9 years as of December 31, 2020.

In billions of dollars	**Dec. 31, 2021**	Dec. 31, 2020
Term notes issued to third parties	**$ 8.4**	$ 13.9
Term notes retained by Citigroup affiliates	**2.2**	2.7
Total Master Trust liabilities	**$ 10.6**	$ 16.6

Omni Trust Liabilities (at Par Value)

The Omni Trust issues fixed- and floating-rate term notes, some of which are purchased by multi-seller commercial paper conduits. The weighted average maturity of the third-party term notes issued by the Omni Trust was 1.6 years as of December 31, 2021 and 1.1 years as of December 31, 2020.

In billions of dollars	**Dec. 31, 2021**	Dec. 31, 2020
Term notes issued to third parties	**$ 1.3**	$ 1.8
Term notes retained by Citigroup affiliates	**5.0**	5.2
Total Omni Trust liabilities	**$ 6.3**	$ 7.0

Mortgage Securitizations

Citigroup provides a wide range of mortgage loan products to a diverse customer base. Once originated, the Company often securitizes these loans through the use of VIEs. These VIEs are funded through the issuance of trust certificates backed solely by the transferred assets. These certificates have the same life as the transferred assets. In addition to providing a source of liquidity and less expensive funding, securitizing these assets also reduces Citi's credit exposure to the borrowers. These mortgage loan securitizations are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of the securities issued by the trust.

Citi's U.S. consumer mortgage business generally retains the servicing rights and in certain instances retains investment securities, interest-only strips and residual interests in future cash flows from the trusts and also provides servicing for a limited number of *ICG* securitizations. Citi's *ICG* business may hold investment securities pursuant to credit risk retention rules or in connection with secondary market-making activities.

The Company securitizes mortgage loans generally through either a U.S. government-sponsored agency, such as Ginnie Mae, Fannie Mae or Freddie Mac (U.S. agency-sponsored mortgages), or private label (non-agency-sponsored mortgages) securitization. Citi is not the primary beneficiary of its U.S. agency-sponsored mortgage securitization entities because Citigroup does not have the power to direct the activities of the VIEs that most significantly impact the entities' economic performance. Therefore, Citi does not consolidate these U.S. agency-sponsored mortgage securitization entities. Substantially all of the consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated agency-sponsored mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Other assets* on Citigroup's Consolidated Balance Sheet.

Citigroup does not consolidate certain non-agency-sponsored mortgage securitization entities because Citi is either not the servicer with the power to direct the significant activities of the entity or Citi is the servicer, but the servicing relationship is deemed to be a fiduciary relationship; therefore, Citi is not deemed to be the primary beneficiary of the entity.

In certain instances, the Company has (i) the power to direct the activities that most significantly impact the entities' economic performance and (ii) the obligation to either absorb losses or the right to receive benefits that could be potentially significant to its non-agency-sponsored mortgage securitization entities and, therefore, is the primary beneficiary and, thus, consolidates the VIE.

The following tables summarize selected cash flow information and retained interests related to Citigroup mortgage securitizations:

	2021		2020		2019	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$ 6.1**	**$ 25.2**	$ 9.4	$ 11.3	$ 5.3	$ 15.6
Proceeds from new securitizations(1)	**6.4**	**25.4**	10.0	11.4	5.5	15.5
Contractual servicing fees received	**0.1**	**—**	0.1	—	0.1	—
Cash flows received on retained interests and other net cash flows	**—**	**0.1**	—	—	—	—
Purchases of previously transferred financial assets	**0.2**	**—**	0.4	—	0.2	—

Note: Excludes re-securitization transactions.

(1) The proceeds from new securitizations in 2019 include $0.2 billion related to personal loan securitizations.

For non-consolidated mortgage securitization entities where the transfer of loans to the VIE meets the conditions for sale accounting, Citi recognizes a gain or loss based on the difference between the carrying value of the transferred assets and the proceeds received (generally cash but may be beneficial interests or servicing rights).

Agency and non-agency securitization gains for the year ended December 31, 2021 were $3.9 million and $493.4 million, respectively.

Agency and non-agency securitization gains for the year ended December 31, 2020 were $88.4 million and $139.4 million, respectively, and $16 million and $73.4 million, respectively, for the year ended December 31, 2019.

	2021			2020		
		Non-agency-sponsored mortgages(1)			Non-agency-sponsored mortgages(1)	
In millions of dollars	**U.S. agency-sponsored mortgages**	**Senior interests(2)**	**Subordinated interests**	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Carrying value of retained interests(3)	**$ 374**	**$ 1,452**	**$ 955**	$ 315	$ 1,210	$ 145

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Senior interests in non-agency-sponsored mortgages include $73 million related to personal loan securitizations at December 31, 2021.
(3) Retained interests consist of Level 2 and Level 3 assets depending on the observability of significant inputs. See Note 24 to the Consolidated Financial Statements for more information about fair value measurements.

Key assumptions used in measuring the fair value of retained interests at the date of sale or securitization of mortgage receivables were as follows:

	December 31, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	**Senior interests**	**Subordinated interests**
Weighted average discount rate	**8.7%**	**2.2 %**	**2.8 %**
Weighted average constant prepayment rate	**5.5%**	**6.3 %**	**11.0 %**
Weighted average anticipated net credit losses[2]	**NM**	**1.8 %**	**1.0 %**
Weighted average life	**7.4 years**	**3.9 years**	**5.4 years**

	December 31, 2020		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	5.4%	1.7 %	3.0 %
Weighted average constant prepayment rate	25.8%	3.4 %	25.0 %
Weighted average anticipated net credit losses[2]	NM	1.7 %	0.5 %
Weighted average life	4.8 years	3.8 years	2.3 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.
NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The interests retained by the Company range from highly rated and/or senior in the capital structure to unrated and/or residual interests. Key assumptions used in measuring the fair value of retained interests in securitizations of mortgage receivables at period end were as follows:

	December 31, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	**Senior interests**	**Subordinated interests**
Weighted average discount rate	**3.7%**	**16.2%**	**4.0%**
Weighted average constant prepayment rate	**14.5%**	**6.8%**	**9.0%**
Weighted average anticipated net credit losses[2]	**NM**	**1.0%**	**2.0%**
Weighted average life	**5.1 years**	**8.8 years**	**18.0 years**

	December 31, 2020		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	5.9%	7.2%	4.3%
Weighted average constant prepayment rate	22.7%	5.3%	4.7%
Weighted average anticipated net credit losses[2]	NM	1.2%	1.4%
Weighted average life	4.5 years	5.3 years	4.7 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The sensitivity of the fair value to adverse changes of 10% and 20% in each of the key assumptions is presented in the tables below. The negative effect of each change is calculated independently, holding all other assumptions constant. Because the key assumptions may not be independent, the net effect of simultaneous adverse changes in the key assumptions may be less than the sum of the individual effects shown below.

	December 31, 2021		
		Non-agency-sponsored mortgages	
In millions of dollars	**U.S. agency-sponsored mortgages**	**Senior interests**	**Subordinated interests**
Discount rate			
Adverse change of 10%	**$ (6)**	**$ (1)**	**$ —**
Adverse change of 20%	**(11)**	**(1)**	**—**
Constant prepayment rate			
Adverse change of 10%	**(19)**	**—**	**—**
Adverse change of 20%	**(37)**	**—**	**—**
Anticipated net credit losses			
Adverse change of 10%	**NM**	**—**	**—**
Adverse change of 20%	**NM**	**—**	**—**

	December 31, 2020		
		Non-agency-sponsored mortgages	
In millions of dollars	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	$ (8)	$ —	$ (1)
Adverse change of 20%	(15)	(1)	(1)
Constant prepayment rate			
Adverse change of 10%	(21)	—	—
Adverse change of 20%	(40)	—	—
Anticipated net credit losses			
Adverse change of 10%	NM	—	—
Adverse change of 20%	NM	—	—

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The following table includes information about loan delinquencies and liquidation losses for assets held in non-consolidated, non-agency-sponsored securitization entities:

	Securitized assets		**90 days past due**		**Liquidation losses**	
In billions of dollars, except liquidation losses in millions	**2021**	2020	**2021**	2020	**2021**	2020
Securitized assets						
Residential mortgages[(1)]	**$ 29.2**	$ 16.9	**$ 0.4**	$ 0.5	**$ 10.6**	$ 26.2
Commercial and other	**26.2**	23.9	**—**	—	**—**	—
Total	**$ 55.4**	$ 40.8	**$ 0.4**	$ 0.5	**$ 10.6**	$ 26.2

(1) Securitized assets include $0.2 billion of personal loan securitizations as of December 31, 2021.

Mortgage Servicing Rights (MSRs)

In connection with the securitization of mortgage loans, Citi's U.S. consumer mortgage business generally retains the servicing rights, which entitle the Company to a future stream of cash flows based on the outstanding principal balances of the loans and the contractual servicing fee. Failure to service the loans in accordance with contractual requirements may lead to a termination of the servicing rights and the loss of future servicing fees.

These transactions create intangible assets referred to as MSRs, which are recorded at fair value on Citi's Consolidated Balance Sheet. The fair value of Citi's capitalized MSRs was $404 million and $336 million at December 31, 2021 and 2020, respectively. The MSRs correspond to principal loan balances of $47 billion and $53 billion as of December 31, 2021 and 2020, respectively.

The following table summarizes the changes in capitalized MSRs:

In millions of dollars	**2021**	2020
Balance, beginning of year	**$ 336**	$ 495
Originations	**92**	123
Changes in fair value of MSRs due to changes in inputs and assumptions	**43**	(204)
Other changes[(1)]	**(67)**	(78)
Sales of MSRs	**—**	—
Balance, as of December 31	**$ 404**	$ 336

(1) Represents changes due to customer payments and passage of time.

The fair value of the MSRs is primarily affected by changes in prepayments of mortgages that result from shifts in mortgage interest rates. Specifically, higher interest rates tend to lead to declining prepayments, which causes the fair value of the MSRs to increase. In managing this risk, Citigroup economically hedges a significant portion of the value of its MSRs through the use of interest rate derivative contracts, forward purchase and sale commitments of mortgage-backed securities and purchased securities, all classified as *Trading account assets*.

The Company receives fees during the course of servicing previously securitized mortgages. The amounts of these fees were as follows:

In millions of dollars	**2021**	2020	2019
Servicing fees	**$ 131**	$ 142	$ 148
Late fees	**3**	5	8
Ancillary fees	**—**	—	1
Total MSR fees	**$ 134**	$ 147	$ 157

In the Consolidated Statement of Income these fees are primarily classified as *Commissions and fees*, and changes in MSR fair values are classified as *Other revenue*.

Re-securitizations

The Company engages in re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. Citi did not transfer non-agency (private label) securities to re-securitization entities during the years ended December 31, 2021 and 2020. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of December 31, 2021 and December 31, 2020, Citi held no retained interests in private label re-securitization transactions structured by Citi.

The Company also re-securitizes U.S. government-agency-guaranteed mortgage-backed (agency) securities. During the years ended December 31, 2021 and 2020, Citi transferred agency securities with a fair value of approximately $46.6 billion and $42.8 billion, respectively, to re-securitization entities.

As of December 31, 2021, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately $1.2 billion (including $641 million related to re-securitization transactions executed in 2021) compared to $1.6 billion as of December 31, 2020 (including $916 million related to re-securitization transactions executed in 2020), which is recorded in *Trading account assets*. The original fair values of agency re-securitization transactions in which Citi holds a retained interest as of December 31, 2021 and 2020 were approximately $78.4 billion and $83.6 billion, respectively.

As of December 31, 2021 and 2020, the Company did not consolidate any private label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

The Company is active in the asset-backed commercial paper conduit business as administrator of several multi-seller commercial paper conduits and also as a service provider to single-seller and other commercial paper conduits sponsored by third parties.

Citi's multi-seller commercial paper conduits are designed to provide the Company's clients access to low-cost funding in the commercial paper markets. The conduits purchase assets from or provide financing facilities to clients and are funded by issuing commercial paper to third-party investors. The conduits generally do not purchase assets originated by Citi. The funding of the conduits is facilitated by the liquidity support and credit enhancements provided by the Company.

As administrator to Citi's conduits, the Company is generally responsible for selecting and structuring assets purchased or financed by the conduits, making decisions regarding the funding of the conduits, including determining the tenor and other features of the commercial paper issued, monitoring the quality and performance of the conduits' assets and facilitating the operations and cash flows of the conduits. In return, the Company earns structuring fees from customers for individual transactions and earns an administration fee from the conduit, which is equal to the income from the client program and liquidity fees of the conduit after payment of conduit expenses. This administration fee is fairly stable, since most risks and rewards of the underlying assets are passed back to the clients. Once the asset pricing is negotiated, most ongoing income, costs and fees are relatively stable as a percentage of the conduit's size.

The conduits administered by Citi do not generally invest in liquid securities that are formally rated by third parties. The assets are privately negotiated and structured transactions that are generally designed to be held by the conduit, rather than actively traded and sold. The yield earned by the conduit on each asset is generally tied to the rate on the commercial paper issued by the conduit, thus passing interest rate risk to the client. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on Citi's internal risk ratings. At December 31, 2021 and 2020, the commercial paper conduits administered by Citi had approximately $14.0 billion and $16.7 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately $18.3 billion and $17.1 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At December 31, 2021 and 2020, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 70 and 54 days, respectively.

The primary credit enhancement provided to the conduit investors is in the form of transaction-specific credit enhancements described above. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on Citi's internal risk ratings. In addition to the transaction-specific credit enhancements, the conduits, other than the government-guaranteed loan conduit, have obtained letters of credit from the Company, which equal at least 8% to 10% of the conduit's assets with a minimum of $200 million. The letters of credit provided by the Company to the conduits total approximately $1.3 billion as of December 31, 2021 and $1.5 billion as of December 31, 2020. The net result across multi-seller conduits administered by the Company is that, in the event that defaulted assets exceed the transaction-specific credit enhancements described above, any losses in each conduit are allocated first to the Company and then to the commercial paper investors.

Citigroup also provides the conduits with two forms of liquidity agreements that are used to provide funding to the conduits in the event of a market disruption, among other events. Each asset of the conduits is supported by a transaction-specific liquidity facility in the form of an asset purchase agreement (APA). Under the APA, the Company has generally agreed to purchase non-defaulted eligible receivables from the conduit at par. The APA is not designed to provide credit support to the conduit, as it generally does not permit the purchase of defaulted or impaired assets. Any funding under the APA will likely subject the underlying conduit clients to increased interest costs. In addition, the Company provides the conduits with program-wide liquidity in the form of short-term lending commitments. Under these commitments, the Company has agreed to lend to the conduits in the event of a short-term disruption in the commercial paper market, subject to specified conditions. The Company receives fees for providing both types of liquidity agreements and considers these fees to be on fair market terms.

Finally, Citi is one of several named dealers in the commercial paper issued by the conduits and earns a market-based fee for providing such services. Along with third-party dealers, the Company makes a market in the commercial paper and may from time to time fund commercial paper pending sale to a third party. On specific dates with less liquidity in the market, the Company may hold in inventory commercial paper issued by conduits administered by the Company, as well as conduits administered by third parties. Separately, in the normal course of business, Citi purchases commercial paper, including commercial paper issued by Citigroup's conduits. At December 31, 2021 and 2020, the Company owned $4.9 billion and $6.6 billion, respectively, of the commercial paper issued by its administered conduits. The Company's investments were not driven by market illiquidity and the Company is not obligated under any agreement to purchase the commercial paper issued by the conduits.

The asset-backed commercial paper conduits are consolidated by Citi. The Company has determined that, through its roles as administrator and liquidity provider, it has the power to direct the activities that most significantly impact the entities' economic performance. These powers include its ability to structure and approve the assets purchased by the conduits, its ongoing surveillance and credit mitigation activities, its ability to sell or repurchase assets out of the conduits and its liability management. In addition, as a result of all the Company's involvement described above, it was concluded that Citi has an economic interest that could potentially be significant. However, the assets and liabilities of the conduits are separate and apart from those of Citigroup. No assets of any conduit are available to satisfy the creditors of Citigroup or any of its other subsidiaries.

Collateralized Loan Obligations (CLOs)

A collateralized loan obligation (CLO) is a VIE that purchases a portfolio of assets consisting primarily of non-investment grade corporate loans. CLOs issue multiple tranches of debt and equity to investors to fund the asset purchases and pay upfront expenses associated with forming the CLO. A third-party asset manager is contracted by the CLO to purchase the underlying assets from the open market and monitor the credit risk associated with those assets. Over the term of a CLO, the asset manager directs purchases and sales of assets in a manner consistent with the CLO's asset management agreement and indenture. In general, the CLO asset manager will have the power to direct the activities of the entity that most significantly impact the economic performance of the CLO. Investors in a CLO, through their ownership of debt and/or equity in it, can also direct certain activities of the CLO, including removing its asset manager under limited circumstances, optionally redeeming the notes, voting on amendments to the CLO's operating documents and other activities. A CLO has a finite life, typically 12 years.

Citi serves as a structuring and placement agent with respect to the CLOs. Typically, the debt and equity of the

CLOs are sold to third-party investors. On occasion, certain Citi entities may purchase some portion of a CLO's liabilities for investment purposes. In addition, Citi may purchase, typically in the secondary market, certain securities issued by the CLOs to support its market-making activities.

The Company generally does not have the power to direct the activities that most significantly impact the economic performance of the CLOs, as this power is generally held by a third-party asset manager of the CLO. As such, those CLOs are not consolidated.

The following tables summarize selected cash flow information and retained interests related to Citigroup CLOs:

In billions of dollars	**2021**	2020	2019
Principal securitized	**$ —**	$ 0.1	$ —
Proceeds from new securitizations	**—**	0.1	—
Cash flows received on retained interests and other net cash flows	**1.1**	—	—
Purchases of previously transferred financial assets	**0.2**	—	—

In millions of dollars	**Dec. 31, 2021**	Dec. 31, 2020	Dec. 31, 2019
Carrying value of retained interests	**$ 921**	$ 1,611	$ 1,404

All of Citi's retained interests were held-to-maturity securities as of December 31, 2021 and 2020.

Asset-Based Financing

The Company provides loans and other forms of financing to VIEs that hold assets. Those loans are subject to the same credit approvals as all other loans originated or purchased by the Company. Financings in the form of debt securities or derivatives are, in most circumstances, reported in *Trading account assets* and accounted for at fair value through earnings. The Company generally does not have the power to direct the activities that most significantly impact these VIEs' economic performance; thus, it does not consolidate them.

The primary types of Citi's asset-based financings, total assets of the unconsolidated VIEs with significant involvement and Citi's maximum exposure to loss are shown below. For Citi to realize the maximum loss, the VIE (borrower) would have to default with no recovery from the assets held by the VIE.

	December 31, 2021	
In millions of dollars	**Total unconsolidated VIE assets**	**Maximum exposure to unconsolidated VIEs**
Type		
Commercial and other real estate	**$ 32,932**	**$ 7,461**
Corporate loans	**18,257**	**12,581**
Other (including investment funds, airlines and shipping)	**184,358**	**25,528**
Total	**$ 235,547**	**$ 45,570**

	December 31, 2020	
In millions of dollars	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type		
Commercial and other real estate	$ 34,570	$ 7,758
Corporate loans	12,022	7,654
Other (including investment funds, airlines and shipping)	167,613	20,442
Total	$ 214,205	$ 35,854

Municipal Securities Tender Option Bond (TOB) Trusts

Municipal TOB trusts may hold fixed- or floating-rate, taxable or tax-exempt securities issued by state and local governments and municipalities. TOB trusts are typically structured as single-issuer entities whose assets are purchased from either the Company or from other investors in the municipal securities market. TOB trusts finance the purchase of their municipal assets by issuing two classes of certificates: long-dated, floating rate certificates ("Floaters") that are putable pursuant to a liquidity facility and residual interest certificates ("Residuals"). The Floaters are purchased by third-party investors, typically tax-exempt money market funds. The Residuals are purchased by the original owner of the municipal securities that are being financed.

From Citigroup's perspective, there are two types of TOB trusts: customer and non-customer. Customer TOB trusts are those trusts utilized by customers of the Company to finance their securities, generally municipal securities. The Residuals issued by these trusts are purchased by the customer being financed. Non-customer TOB trusts are generally used by the Company to finance its own municipal securities investments; the Residuals issued by non-customer TOB trusts are purchased by the Company.

With respect to both customer and non-customer TOB trusts, Citi may provide remarketing agent services. If Floaters are optionally tendered and the Company, in its role as remarketing agent, is unable to find a new investor to purchase the optionally tendered Floaters within a specified period of time, Citigroup may, but is not obligated to, purchase the tendered Floaters into its own inventory. The level of the Company's inventory of such Floaters fluctuates.

For certain customer TOB trusts, Citi may also serve as a voluntary advance provider. In this capacity, the Company may, but is not obligated to, make loan advances to customer TOB trusts to purchase optionally tendered Floaters that have not otherwise been successfully remarketed to new investors. Such loans are secured by pledged Floaters. As of December 31, 2021, Citi had no outstanding voluntary advances to customer TOB trusts.

For certain non-customer trusts, the Company also provides credit enhancement. At December 31, 2021 and 2020, none of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

Citigroup also provides liquidity services to many customer and non-customer trusts. If a trust is unwound early due to an event other than a credit event on the underlying municipal bonds, the underlying municipal bonds are sold out of the trust and bond sale proceeds are used to redeem the outstanding trust certificates. If this results in a shortfall between the bond sale proceeds and the redemption price of the tendered Floaters, the Company, pursuant to the liquidity agreement, would be obligated to make a payment to the trust to satisfy that shortfall. For certain customer TOB trusts, Citigroup has also executed a reimbursement agreement with the holder of the Residual, pursuant to which the Residual holder is obligated to reimburse the Company for any payment the Company makes under the liquidity arrangement. These reimbursement agreements may be subject to daily margining based on changes in the market value of the underlying municipal bonds. In cases where a third party provides liquidity to a non-customer TOB trust, a similar reimbursement arrangement may be executed, whereby the Company (or a consolidated subsidiary of the Company), as Residual holder, would absorb any losses incurred by the liquidity provider.

For certain other non-customer TOB trusts, Citi serves as tender option provider. The tender option provider arrangement allows Floater holders to put their interests directly to the Company at any time, subject to the requisite notice period requirements, at a price of par.

At December 31, 2021 and 2020, liquidity agreements provided with respect to customer TOB trusts totaled $1.5 billion and $1.6 billion, respectively, of which $0.6 billion and $0.8 billion, respectively, were offset by reimbursement agreements. For the remaining exposure related to TOB transactions, where the residual owned by the customer was at least 25% of the bond value at the inception of the transaction, no reimbursement agreement was executed.

Citi considers both customer and non-customer TOB trusts to be VIEs. Customer TOB trusts are not consolidated by the Company, as the power to direct the activities that most significantly impact the trust's economic performance rests with the customer Residual holder, which may unilaterally cause the sale of the trust's bonds.

Non-customer TOB trusts generally are consolidated because the Company holds the Residual interest and thus has the unilateral power to cause the sale of the trust's bonds.

The Company also provides other liquidity agreements or letters of credit to customer-sponsored municipal investment funds, which are not variable interest entities, and municipality-related issuers that totaled $2 billion as of December 31, 2021 and $3.6 billion as of December 31, 2020. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

Municipal Investments

Municipal investment transactions include debt and equity interests in partnerships that finance the construction and rehabilitation of low-income housing, facilitate lending in new or underserved markets or finance the construction or operation of renewable municipal energy facilities. Citi generally invests in these partnerships as a limited partner and earns a return primarily through the receipt of tax credits and grants earned from the investments made by the partnership. The Company may also provide construction loans or permanent loans for the development or operation of real estate properties held by partnerships. These entities are generally considered VIEs. The power to direct the activities of these entities is typically held by the general partner. Accordingly, these entities are not consolidated by Citigroup.

Client Intermediation

Client intermediation transactions represent a range of transactions designed to provide investors with specified returns based on the returns of an underlying security, referenced asset or index. These transactions include credit-linked notes and equity-linked notes. In these transactions, the VIE typically obtains exposure to the underlying security, referenced asset or index through a derivative instrument, such as a total-return swap or a credit-default swap. In turn, the VIE issues notes to investors that pay a return based on the specified underlying security, referenced asset or index. The VIE invests the proceeds in a financial asset or a guaranteed insurance contract that serves as collateral for the derivative contract over the term of the transaction. The Company's involvement in these transactions includes being the counterparty to the VIE's derivative instruments and investing in a portion of the notes issued by the VIE. In certain transactions, the investor's maximum risk of loss is limited and the Company absorbs risk of loss above a specified level. Citi does not have the power to direct the activities of the VIEs that most significantly impact their economic performance and thus it does not consolidate them.

Citi's maximum risk of loss in these transactions is defined as the amount invested in notes issued by the VIE and the notional amount of any risk of loss absorbed by Citi through a separate instrument issued by the VIE. The derivative instrument held by the Company may generate a receivable from the VIE (e.g., where the Company purchases credit protection from the VIE in connection with the VIE's issuance of a credit-linked note), which is collateralized by the assets owned by the VIE. These derivative instruments are not considered variable interests and any associated receivables are not included in the calculation of maximum exposure to the VIE.

Investment Funds

The Company is the investment manager for certain investment funds and retirement funds that invest in various asset classes including private equity, hedge funds, real estate, fixed income and infrastructure. Citigroup earns a management fee, which is a percentage of capital under management, and may earn performance fees. In addition, for some of these funds the Company has an ownership interest in the investment funds. Citi has also established a number of investment funds as opportunities for qualified colleagues to invest in private equity investments. The Company acts as investment manager for these funds and may provide colleagues with financing on both recourse and non-recourse bases for a portion of the colleagues' investment commitments.

22. DERIVATIVES

In the ordinary course of business, Citigroup enters into various types of derivative transactions, which include:

- *Futures and forward contracts*, which are commitments to buy or sell at a future date a financial instrument, commodity or currency at a contracted price that may be settled in cash or through delivery of an item readily convertible to cash.
- *Swap contracts*, which are commitments to settle in cash at a future date or dates that may range from a few days to a number of years, based on differentials between specified indices or financial instruments, as applied to a notional principal amount.
- *Option contracts*, which give the purchaser, for a premium, the right, but not the obligation, to buy or sell within a specified time a financial instrument, commodity or currency at a contracted price that may also be settled in cash, based on differentials between specified indices or prices.

Swaps, forwards and some option contracts are over-the-counter (OTC) derivatives that are bilaterally negotiated with counterparties and settled with those counterparties, except for swap contracts that are novated and "cleared" through central counterparties (CCPs). Futures contracts and other option contracts are standardized contracts that are traded on an exchange with a CCP as the counterparty from the inception of the transaction. Citigroup enters into derivative contracts relating to interest rate, foreign currency, commodity and other market/credit risks for the following reasons:

- *Trading Purposes*: Citigroup trades derivatives as an active market maker. Citigroup offers its customers derivatives in connection with their risk management actions to transfer, modify or reduce their interest rate, foreign exchange and other market/credit risks or for their own trading purposes. Citigroup also manages its derivative risk positions through offsetting trade activities, controls focused on price verification and daily reporting of positions to senior managers.
- *Hedging*: Citigroup uses derivatives in connection with its own risk management activities to hedge certain risks or reposition the risk profile of the Company. Hedging may be accomplished by applying hedge accounting in accordance with ASC 815, *Derivatives and Hedging*, or by an economic hedge. For example, Citigroup issues fixed-rate long-term debt and then enters into a receive-fixed, pay-variable-rate interest rate swap with the same tenor and notional amount to synthetically convert the interest payments to a net variable-rate basis. This strategy is the most common form of an interest rate hedge, as it minimizes net interest cost in certain yield curve environments. Derivatives are also used to manage market risks inherent in specific groups of on-balance sheet assets and liabilities, including AFS securities, commodities and borrowings, as well as other interest-sensitive assets and liabilities. In addition, foreign exchange contracts are used to hedge non-U.S.-dollar-denominated debt, foreign currency-denominated AFS securities and net investment exposures.

Derivatives may expose Citigroup to market, credit or liquidity risks in excess of the amounts recorded on the Consolidated Balance Sheet. Market risk on a derivative product is the exposure created by potential fluctuations in interest rates, market prices, foreign exchange rates and other factors and is a function of the type of product, the volume of transactions, the tenor and terms of the agreement and the underlying volatility. Credit risk is the exposure to loss in the event of nonperformance by the other party to satisfy a derivative liability where the value of any collateral held by Citi is not adequate to cover such losses. The recognition in earnings of unrealized gains on derivative transactions is subject to management's assessment of the probability of counterparty default. Liquidity risk is the potential exposure that arises when the size of a derivative position may affect the ability to monetize the position in a reasonable period of time and at a reasonable cost in periods of high volatility and financial stress.

Derivative transactions are customarily documented under industry standard master netting agreements, which provide that following an event of default, the non-defaulting party may promptly terminate all transactions between the parties and determine the net amount due to be paid to, or by, the defaulting party. Events of default include (i) failure to make a payment on a derivative transaction that remains uncured following applicable notice and grace periods, (ii) breach of agreement that remains uncured after applicable notice and grace periods, (iii) breach of a representation, (iv) cross default, either to third-party debt or to other derivative transactions entered into between the parties, or, in some cases, their affiliates, (v) the occurrence of a merger or consolidation that results in the creditworthiness of a party becoming materially weaker and (vi) the cessation or repudiation of any applicable guarantee or other credit support document. Obligations under master netting agreements are often secured by collateral posted under an industry standard credit support annex to the master netting agreement. An event of default may also occur under a credit support annex if a party fails to make a collateral delivery that remains uncured following applicable notice and grace periods.

The netting and collateral rights incorporated in the master netting agreements are considered to be legally enforceable if a supportive legal opinion has been obtained from counsel of recognized standing that provides (i) the requisite level of certainty regarding enforceability and (ii) that the exercise of rights by the non-defaulting party to terminate and close-out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default, including bankruptcy, insolvency or similar proceeding.

A legal opinion may not be sought for certain jurisdictions where local law is silent or unclear as to the enforceability of such rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law may not provide the requisite level of certainty. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

Exposure to credit risk on derivatives is affected by market volatility, which may impair the ability of counterparties to satisfy their obligations to the Company. Credit limits are established and closely monitored for customers engaged in derivatives transactions. Citi considers the level of legal certainty regarding enforceability of its offsetting rights under master netting agreements and credit support annexes to be an important factor in its risk management process. Specifically, Citi generally transacts much lower volumes of derivatives under master netting agreements where Citi does not have the requisite level of legal certainty regarding enforceability, because such derivatives consume greater amounts of single counterparty credit limits than those executed under enforceable master netting agreements.

Cash collateral and security collateral in the form of G10 government debt securities are often posted by a party to a master netting agreement to secure the net open exposure of the other party; the receiving party is free to commingle/ rehypothecate such collateral in the ordinary course of its business. Nonstandard collateral such as corporate bonds, municipal bonds, U.S. agency securities and/or MBS may also be pledged as collateral for derivative transactions. Security collateral posted to open and maintain a master netting agreement with a counterparty, in the form of cash and/or securities, may from time to time be segregated in an account at a third-party custodian pursuant to a tri-party account control agreement.

Information pertaining to Citigroup's derivatives activities, based on notional amounts, is presented in the table below. Derivative notional amounts are reference amounts from which contractual payments are derived and do not represent a complete measure of Citi's exposure to derivative transactions. Citi's derivative exposure arises primarily from market fluctuations (i.e., market risk), counterparty failure (i.e., credit risk) and/or periods of high volatility or financial stress (i.e., liquidity risk), as well as any market valuation adjustments that may be required on the transactions. Moreover, notional amounts do not reflect the netting of offsetting trades. For example, if Citi enters into a receive-fixed interest rate swap with $100 million notional, and offsets this risk with an identical but opposite pay-fixed position with a different counterparty, $200 million in derivative notionals is reported, although these offsetting positions may result in de minimis overall market risk.

In addition, aggregate derivative notional amounts can fluctuate from period to period in the normal course of business based on Citi's market share, levels of client activity and other factors. All derivatives are recorded in *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet.

Derivative Notionals

In millions of dollars	Hedging instruments under ASC 815		Trading derivative instruments	
	December 31, 2021	December 31, 2020	**December 31, 2021**	December 31, 2020
Interest rate contracts				
Swaps	**$ 267,035**	$ 334,351	**$ 21,873,538**	$ 17,724,147
Futures and forwards	**—**	—	**2,383,702**	4,142,514
Written options	**—**	—	**1,584,451**	1,573,483
Purchased options	**—**	—	**1,428,376**	1,418,255
Total interest rate contracts	**$ 267,035**	$ 334,351	**$ 27,270,067**	$ 24,858,399
Foreign exchange contracts				
Swaps	**$ 47,298**	$ 65,709	**$ 6,288,193**	$ 6,567,304
Futures, forwards and spot	**50,926**	37,080	**4,316,242**	3,945,391
Written options	**—**	47	**664,942**	907,338
Purchased options	**—**	53	**651,958**	900,626
Total foreign exchange contracts	**$ 98,224**	$ 102,889	**$ 11,921,335**	$ 12,320,659
Equity contracts				
Swaps	**$ —**	$ —	**$ 269,062**	$ 274,098
Futures and forwards	**—**	—	**71,363**	67,025
Written options	**—**	—	**492,433**	441,003
Purchased options	**—**	—	**398,129**	328,202
Total equity contracts	**$ —**	$ —	**$ 1,230,987**	$ 1,110,328
Commodity and other contracts				
Swaps	**$ —**	$ —	**$ 91,962**	$ 80,127
Futures and forwards	**2,096**	924	**157,195**	143,175
Written options	**—**	—	**51,224**	71,376
Purchased options	**—**	—	**47,868**	67,849
Total commodity and other contracts	**$ 2,096**	$ 924	**$ 348,249**	$ 362,527
Credit derivatives(1)				
Protection sold	**$ —**	$ —	**$ 572,486**	$ 543,607
Protection purchased	**—**	—	**645,996**	612,770
Total credit derivatives	**$ —**	$ —	**$ 1,218,482**	$ 1,156,377
Total derivative notionals	**$ 367,355**	$ 438,164	**$ 41,989,120**	$ 39,808,290

(1) Credit derivatives are arrangements designed to allow one party (protection purchaser) to transfer the credit risk of a “reference asset” to another party (protection seller). These arrangements allow a protection seller to assume the credit risk associated with the reference asset without directly purchasing that asset. The Company enters into credit derivative positions for purposes such as risk management, yield enhancement, reduction of credit concentrations and diversification of overall risk.

The following tables present the gross and net fair values of the Company's derivative transactions and the related offsetting amounts as of December 31, 2021 and 2020. Gross positive fair values are offset against gross negative fair values by counterparty, pursuant to enforceable master netting agreements. Under ASC 815-10-45, payables and receivables in respect of cash collateral received from or paid to a given counterparty pursuant to a credit support annex are included in the offsetting amount if a legal opinion supporting the enforceability of netting and collateral rights has been obtained. GAAP does not permit similar offsetting for security collateral.

In addition, the following tables reflect rules adopted by clearing organizations that require or allow entities to treat certain derivative assets, liabilities and the related variation margin as settlement of the related derivative fair values for legal and accounting purposes, as opposed to presenting gross derivative assets and liabilities that are subject to collateral, whereby the counterparties would also record a related collateral payable or receivable. As a result, the tables reflect a reduction of approximately $340 billion and $280 billion as of December 31, 2021 and 2020, respectively, of derivative assets and derivative liabilities that previously would have been reported on a gross basis, but are now legally settled and not subject to collateral. The tables also present amounts that are not permitted to be offset, such as security collateral or cash collateral posted at third-party custodians, but which would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the netting and collateral rights has been obtained.

Derivative Mark-to-Market (MTM) Receivables/Payables

In millions of dollars at December 31, 2021	Derivatives classified in Trading account assets/liabilities[1][2]	
Derivatives instruments designated as ASC 815 hedges	**Assets**	**Liabilities**
Over-the-counter	$ 1,167	$ 6
Cleared	122	89
Interest rate contracts	**$ 1,289**	**$ 95**
Over-the-counter	$ 1,338	$ 1,472
Cleared	6	—
Foreign exchange contracts	**$ 1,344**	**$ 1,472**
Total derivatives instruments designated as ASC 815 hedges	**$ 2,633**	**$ 1,567**
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 152,524	$ 138,114
Cleared	11,579	11,821
Exchange traded	96	44
Interest rate contracts	**$ 164,199**	**$ 149,979**
Over-the-counter	$ 133,357	$ 133,548
Cleared	848	278
Foreign exchange contracts	**$ 134,205**	**$ 133,826**
Over-the-counter	$ 23,452	$ 28,352
Cleared	19	—
Exchange traded	21,781	21,332
Equity contracts	**$ 45,252**	**$ 49,684**
Over-the-counter	$ 29,279	$ 29,833
Exchange traded	1,065	1,546
Commodity and other contracts	**$ 30,344**	**$ 31,379**
Over-the-counter	$ 6,896	$ 6,959
Cleared	3,322	4,056
Credit derivatives	**$ 10,218**	**$ 11,015**
Total derivatives instruments not designated as ASC 815 hedges	**$ 384,218**	**$ 375,883**
Total derivatives	**$ 386,851**	**$ 377,450**
Less: Netting agreements[3]	$ (292,628)	$ (292,628)
Less: Netting cash collateral received/paid[4]	(24,447)	(29,306)
Net receivables/payables included on the Consolidated Balance Sheet[5]	**$ 69,776**	**$ 55,516**
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	**$ (907)**	**$ (538)**
Less: Non-cash collateral received/paid	**(5,777)**	**(13,607)**
Total net receivables/payables[5]	**$ 63,092**	**$ 41,371**

(1) The derivatives fair values are also presented in Note 24 to the Consolidated Financial Statements.

(2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.

(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately $259 billion, $14 billion and $20 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.

(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(5) The net receivables/payables include approximately $10 billion of derivative asset and $11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

In millions of dollars at December 31, 2020	Derivatives classified in Trading account assets/liabilities[1][2]	
Derivatives instruments designated as ASC 815 hedges	Assets	Liabilities
Over-the-counter	$ 1,781	$ 161
Cleared	74	319
Interest rate contracts	$ 1,855	$ 480
Over-the-counter	$ 2,037	$ 2,042
Foreign exchange contracts	$ 2,037	$ 2,042
Total derivatives instruments designated as ASC 815 hedges	$ 3,892	$ 2,522
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 228,519	$ 209,330
Cleared	11,041	12,563
Exchange traded	46	38
Interest rate contracts	$ 239,606	$ 221,931
Over-the-counter	$ 153,791	$ 152,784
Cleared	842	1,239
Exchange traded	—	1
Foreign exchange contracts	$ 154,633	$ 154,024
Over-the-counter	$ 29,244	$ 41,036
Cleared	1	18
Exchange traded	21,274	22,515
Equity contracts	$ 50,519	$ 63,569
Over-the-counter	$ 13,659	$ 17,076
Exchange traded	879	1,017
Commodity and other contracts	$ 14,538	$ 18,093
Over-the-counter	$ 7,826	$ 7,951
Cleared	1,963	2,178
Credit derivatives	$ 9,789	$ 10,129
Total derivatives instruments not designated as ASC 815 hedges	$ 469,085	$ 467,746
Total derivatives	$ 472,977	$ 470,268
Less: Netting agreements[3]	$ (364,879)	$ (364,879)
Less: Netting cash collateral received/paid[4]	(31,137)	(37,432)
Net receivables/payables included on the Consolidated Balance Sheet[5]	$ 76,961	$ 67,957
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	$ (1,567)	$ (473)
Less: Non-cash collateral received/paid	(7,408)	(13,087)
Total net receivables/payables[5]	$ 67,986	$ 54,397

(1) The derivatives fair values are also presented in Note 24 to the Consolidated Financial Statements.

(2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.

(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately $336 billion, $9 billion and $20 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.

(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(5) The net receivables/payables include approximately $6 billion of derivative asset and $8 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

For the years ended December 31, 2021, 2020 and 2019, amounts recognized in *Principal transactions* in the Consolidated Statement of Income include certain derivatives not designated in a qualifying hedging relationship. Citigroup presents this disclosure by business classification, showing derivative gains and losses related to its trading activities together with gains and losses related to non-derivative instruments within the same trading portfolios, as this represents how these portfolios are risk managed. See Note 6 to the Consolidated Financial Statements for further information.

The amounts recognized in *Other revenue* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship are shown below. The table below does not include any offsetting gains (losses) on the economically hedged items to the extent that such amounts are also recorded in *Other revenue*.

	Gains (losses) included in Other revenue		
	Year ended December 31,		
In millions of dollars	**2021**	2020	2019
Interest rate contracts	**$ (70)**	$ 63	$ 57
Foreign exchange	**(102)**	(57)	(29)
Total	**$ (172)**	$ 6	$ 28

Accounting for Derivative Hedging

Citigroup accounts for its hedging activities in accordance with ASC 815, *Derivatives and Hedging*. As a general rule, hedge accounting is permitted where the Company is exposed to a particular risk, such as interest rate or foreign exchange risk, that causes changes in the fair value of an asset or liability or variability in the expected future cash flows of an existing asset, liability or a forecasted transaction that may affect earnings.

Derivative contracts hedging the risks associated with changes in fair value are referred to as fair value hedges, while contracts hedging the variability of expected future cash flows are cash flow hedges. Hedges that utilize derivatives or debt instruments to manage the foreign exchange risk associated with equity investments in non-U.S.-dollar-functional-currency foreign subsidiaries (net investment in a foreign operation) are net investment hedges.

To qualify as an accounting hedge under the hedge accounting rules (versus an economic hedge where hedge accounting is not applied), a hedging relationship must be highly effective in offsetting the risk designated as being hedged. The hedging relationship must be formally documented at inception, detailing the particular risk management objective and strategy for the hedge. This includes the item and risk(s) being hedged, the hedging instrument being used and how effectiveness will be assessed. The effectiveness of these hedging relationships is evaluated at hedge inception and on an ongoing basis both on a retrospective and prospective basis, typically using quantitative measures of correlation, with hedge ineffectiveness measured and recorded in current earnings. Hedge effectiveness assessment methodologies are performed in a similar manner for similar hedges, and are used consistently throughout the hedging relationships. The assessment of effectiveness may exclude changes in the value of the hedged item that are unrelated to the risks being hedged and the changes in fair value of the derivative associated with time value. Citi excludes changes in the cross-currency basis associated with cross-currency swaps from the assessment of hedge effectiveness and records it in *Other comprehensive income*.

Discontinued Hedge Accounting

A hedging instrument must be highly effective in accomplishing the hedge objective of offsetting either changes in the fair value or cash flows of the hedged item for the risk being hedged. Management may voluntarily de-designate an accounting hedge at any time, but if a hedging relationship is not highly effective, it no longer qualifies for hedge accounting and must be de-designated. Subsequent changes in the fair value of the derivative are recognized in *Other revenue* or *Principal transactions*, similar to trading derivatives, with no offset recorded related to the hedged item.

For fair value hedges, any changes in the fair value of the hedged item remain as part of the basis of the asset or liability and are ultimately realized as an element of the yield on the item. For cash flow hedges, changes in fair value of the end-user derivative remain in *Accumulated other comprehensive income (loss) (AOCI)* and are included in the earnings of future periods when the forecasted hedged cash flows impact earnings. However, if it becomes probable that some or all of the hedged forecasted transactions will not occur, any amounts that remain in *AOCI* related to these transactions must be immediately reflected in *Other revenue*.

The foregoing criteria are applied on a decentralized basis, consistent with the level at which market risk is managed, but are subject to various limits and controls. The underlying asset, liability or forecasted transaction may be an individual item or a portfolio of similar items.

Fair Value Hedges

Hedging of Benchmark Interest Rate Risk
Citigroup's fair value hedges are primarily hedges of fixed-rate long-term debt or assets, such as available-for-sale debt securities or loans.

For qualifying fair value hedges of interest rate risk, the changes in the fair value of the derivative and the change in the fair value of the hedged item attributable to the hedged risk are presented within *Interest revenue* or *Interest expense* based on whether the hedged item is an asset or a liability.

Citigroup has executed a last-of-layer hedge, which permits an entity to hedge the interest rate risk of a stated portion of a closed portfolio of prepayable financial assets that are expected to remain outstanding for the designated tenor of the hedge. In accordance with ASC 815, an entity may exclude prepayment risk when measuring the change in fair value of the hedged item attributable to interest rate risk under the last-of-layer approach. Similar to other fair value hedges, where the hedged item is an asset, the fair value of the hedged item attributable to interest rate risk will be presented in *Interest revenue* along with the change in the fair value of the hedging instrument.

Hedging of Foreign Exchange Risk
Citigroup hedges the change in fair value attributable to foreign exchange rate movements in available-for-sale debt securities and long-term debt that are denominated in currencies other than the functional currency of the entity holding the securities or issuing the debt. The hedging instrument is generally a forward foreign exchange contract or a cross-currency swap contract. Citigroup considers the premium associated with forward contracts (i.e., the differential between the spot and contractual forward rates) as the cost of hedging; this amount is excluded from the assessment of hedge effectiveness and is generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in cross-currency basis associated with cross-currency swaps from the assessment of hedge effectiveness and records it in *Other comprehensive income.*

Hedging of Commodity Price Risk
Citigroup hedges the change in fair value attributable to spot price movements in physical commodities inventories. The hedging instrument is a futures contract to sell the underlying commodity. In this hedge, the change in the value of the hedged inventory is reflected in earnings, which offsets the change in the fair value of the futures contract that is also reflected in earnings. Although the change in the fair value of the hedging instrument recorded in earnings includes changes in forward rates, Citigroup excludes the differential between the spot and the contractual forward rates under the futures contract from the assessment of hedge effectiveness, and it is generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in forward rates from the assessment of hedge effectiveness and records it in *Other comprehensive income*.

The following table summarizes the gains (losses) on the Company's fair value hedges:

	Gains (losses) on fair value hedges[1]					
	Year ended December 31,					
	2021		2020		2019	
In millions of dollars	**Other revenue**	**Net interest income**	Other revenue	Net interest income	Other revenue	Net interest income
Gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges						
Interest rate hedges	**$ —**	**$ (5,425)**	$ —	$ 4,189	$ —	$ 2,273
Foreign exchange hedges	**(627)**	**—**	1,442	—	337	—
Commodity hedges	**(3,983)**	**—**	(164)	—	(33)	—
Total gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges	**$ (4,610)**	**$ (5,425)**	$ 1,278	$ 4,189	$ 304	$ 2,273
Gain (loss) on the hedged item in designated and qualifying fair value hedges						
Interest rate hedges	**$ —**	**$ 5,043**	$ —	$ (4,537)	$ —	$ (2,085)
Foreign exchange hedges	**628**	**—**	(1,442)	—	(337)	—
Commodity hedges	**3,973**	**—**	164	—	33	—
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	**$ 4,601**	**$ 5,043**	$ (1,278)	$ (4,537)	$ (304)	$ (2,085)
Net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges						
Interest rate hedges	**$ —**	**$ (9)**	$ —	$ (23)	$ —	$ 3
Foreign exchange hedges[2]	**79**	**—**	(73)	—	(109)	—
Commodity hedges	**5**	**—**	131	—	41	—
Total net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges	**$ 84**	**$ (9)**	$ 58	$ (23)	$ (68)	$ 3

(1) Gain (loss) amounts for interest rate risk hedges are included in *Interest revenue/Interest expense.* The accrued interest income on fair value hedges is recorded in *Net interest income* and is excluded from this table.

(2) Amounts relate to the premium associated with forward contracts (differential between spot and contractual forward rates) that are excluded from the assessment of hedge effectiveness and are generally reflected directly in earnings. Amounts related to cross-currency basis, which are recognized in *AOCI*, are not reflected in the table above. The amount of cross-currency basis included in *AOCI* was $2 million and $(23) million for the years ended December 31, 2021 and 2020, respectively.

Cumulative Basis Adjustment

Upon electing to apply ASC 815 fair value hedge accounting, the carrying value of the hedged item is adjusted to reflect the cumulative changes in the hedged risk. This cumulative hedge basis adjustment becomes part of the carrying value of the hedged item until the hedged item is derecognized from the balance sheet. The table below presents the carrying amount of Citi's hedged assets and liabilities under qualifying fair value hedges at December 31, 2021 and 2020, along with the cumulative hedge basis adjustments included in the carrying value of those hedged assets and liabilities, that would reverse through earnings in future periods.

In millions of dollars

Balance sheet line item in which hedged item is recorded	Carrying amount of hedged asset/ liability	Cumulative fair value hedging adjustment increasing (decreasing) the carrying amount	
		Active	De-designated
As of December 31, 2021			
Debt securities AFS[1][3]	**$ 62,733**	**$ 149**	**$ 212**
Long-term debt	**149,305**	**623**	**3,936**
As of December 31, 2020			
Debt securities AFS[2][3]	$ 81,082	$ 28	$ 342
Long-term debt	169,026	5,554	4,989

(1) These amounts include a cumulative basis adjustment of $24 million for active hedges and $(92) million for de-designated hedges as of December 31, 2021, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $6 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $25 billion as of December 31, 2021) in a last-of-layer hedging relationship.

(2) These amounts include a cumulative basis adjustment of $(18) million for active hedges and $62 million for de-designated hedges as of December 31, 2020, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $3 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $19 billion as of December 31, 2020) in a last-of-layer hedging relationship.

(3) Carrying amount represents the amortized cost.

Cash Flow Hedges

Citigroup hedges the variability of forecasted cash flows due to changes in contractually specified interest rates associated with floating-rate assets/liabilities and other forecasted transactions. Variable cash flows from those liabilities are synthetically converted to fixed-rate cash flows by entering into receive-variable, pay-fixed interest rate swaps and receive-variable, pay-fixed forward-starting interest rate swaps. Variable cash flows associated with certain assets are synthetically converted to fixed-rate cash flows by entering into receive-fixed, pay-variable interest rate swaps. These cash flow hedging relationships use either regression analysis or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

Citigroup hedges the variability from changes in a contractually specified rate and recognizes the entire change in fair value of the cash flow hedging instruments in *AOCI*. The full change in the value of the hedging instrument is required to be recognized in *AOCI*, and then recognized in earnings in the same period that the cash flows impact earnings. The pretax change in *AOCI* from cash flow hedges is presented below:

In millions of dollars	**2021**		2020		2019	
Amount of gain (loss) recognized in *AOCI* on derivatives						
Interest rate contracts		**$ (847)**		$ 2,670		$ 746
Foreign exchange contracts		**(51)**		(15)		(17)
Total gain (loss) recognized in *AOCI*		**$ (898)**		$ 2,655		$ 729
	Other revenue	**Net interest income**	Other revenue	Net interest income	Other revenue	Net interest income
Amount of gain (loss) reclassified from *AOCI* to earnings[(1)]						
Interest rate contracts	**$ —**	**$ 1,075**	$ —	$ 734	$ —	$ (384)
Foreign exchange contracts	**(4)**	**—**	(4)	—	(7)	—
Total gain (loss) reclassified from *AOCI* into earnings	**$ (4)**	**$ 1,075**	$ (4)	$ 734	$ (7)	$ (384)
Net pretax change in cash flow hedges included within *AOCI*		**$ (1,969)**		$ 1,925		$ 1,120

(1) All amounts reclassified into earnings for interest rate contracts are included in *Interest revenue/Interest expense (Net interest income)*. For all other hedges, the amounts reclassified to earnings are included primarily in *Other revenue* and *Net interest income* in the Consolidated Statement of Income.

For cash flow hedges, the entire change in the fair value of the hedging derivative is recognized in *AOCI* and then reclassified to earnings in the same period that the forecasted hedged cash flows impact earnings. The net gain (loss) associated with cash flow hedges expected to be reclassified from *AOCI* within 12 months of December 31, 2021 is approximately $614 million. The maximum length of time over which forecasted cash flows are hedged is 10 years.

The after-tax impact of cash flow hedges on *AOCI* is shown in Note 19 to the Consolidated Financial Statements.

Net Investment Hedges

Consistent with ASC 830-20, *Foreign Currency Matters—Foreign Currency Transactions*, ASC 815 allows the hedging of the foreign currency risk of a net investment in a foreign operation. Citigroup uses foreign currency forwards, cross-currency swaps, options and foreign currency-denominated debt instruments to manage the foreign exchange risk associated with Citigroup's equity investments in several non-U.S.-dollar-functional-currency foreign subsidiaries. Citigroup records the change in the carrying amount of these investments in *Foreign currency translation adjustment* within *AOCI*. Simultaneously, the effective portion of the hedge of this exposure is also recorded in *Foreign currency translation adjustment* and any ineffective portion is immediately recorded in earnings.

For derivatives designated as net investment hedges, Citigroup follows the forward-rate method outlined in ASC 815-35-35. According to that method, all changes in fair value, including changes related to the forward-rate component of the foreign currency forward contracts and the time value of foreign currency options, are recorded in *Foreign currency translation adjustment* within *AOCI*.

For foreign currency-denominated debt instruments that are designated as hedges of net investments, the translation gain or loss that is recorded in *Foreign currency translation adjustment* is based on the spot exchange rate between the functional currency of the respective subsidiary and the U.S. dollar, which is the functional currency of Citigroup. To the extent that the notional amount of the hedging instrument exactly matches the hedged net investment, and the underlying exchange rate of the derivative hedging instrument relates to the exchange rate between the functional currency of the net investment and Citigroup's functional currency (or, in the case of a non-derivative debt instrument, such instrument is denominated in the functional currency of the net investment), no ineffectiveness is recorded in earnings.

The pretax gain (loss) recorded in *Foreign currency translation adjustment* within *AOCI*, related to net investment hedges, was $855 million, $(600) million and $(569) million for the years ended December 31, 2021, 2020 and 2019, respectively.

Economic Hedges

Citigroup often uses economic hedges when hedge accounting would be too complex or operationally burdensome. End-user derivatives that are economic hedges are carried at fair value, with changes in value included in either *Principal transactions* or *Other revenue*.

For asset/liability management hedging, fixed-rate long-term debt is recorded at amortized cost under GAAP.

For other hedges that either do not meet the ASC 815 hedging criteria or for which management decides not to apply ASC 815 hedge accounting, the derivative is recorded at fair value on the balance sheet with the associated changes in fair value recorded in earnings, while the debt continues to be carried at amortized cost. Therefore, current earnings are affected by the interest rate shifts and other factors that cause a change in the swap's value, but for which no offsetting change in value is recorded on the debt.

Citigroup may alternatively elect to account for the debt at fair value under the fair value option. Once the irrevocable election is made upon issuance of the debt, the full change in fair value of the debt is reported in earnings. The changes in fair value of the related interest rate swap are also reflected in earnings, which provides a natural offset to the debt's fair value change. To the extent that the two amounts differ because the full change in the fair value of the debt includes risks not offset by the interest rate swap, the difference is automatically captured in current earnings.

Additional economic hedges include hedges of the credit risk component of commercial loans and loan commitments. Citigroup periodically evaluates its hedging strategies in other areas and may designate either an accounting hedge or an economic hedge after considering the relative costs and benefits. Economic hedges are also employed when the hedged item itself is marked to market through current earnings, such as hedges of commitments to originate one- to four-family mortgage loans to be HFS and MSRs.

Credit Derivatives

Citi is a market maker and trades a range of credit derivatives. Through these contracts, Citi either purchases or writes protection on either a single name or a portfolio of reference credits. Citi also uses credit derivatives to help mitigate credit risk in its corporate and consumer loan portfolios and other cash positions and to facilitate client transactions.

Citi monitors its counterparty credit risk in credit derivative contracts. As of December 31, 2021 and 2020, approximately 99% and 97%, respectively, of the gross receivables are from counterparties with which Citi maintains master netting agreements, collateral agreements or settles daily. A majority of Citi's top 15 counterparties (by receivable balance owed to Citi) are central clearing houses, banks, financial institutions or other dealers. Contracts with these counterparties do not include ratings-based termination events. However, counterparty ratings downgrades may have an incremental effect by lowering the threshold at which Citi may call for additional collateral.

The range of credit derivatives entered into includes credit default swaps, total return swaps, credit options and credit-linked notes.

A credit default swap is a contract in which, for a fee, a protection seller agrees to reimburse a protection buyer for any losses that occur due to a predefined credit event on a reference entity. These credit events are defined by the terms of the derivative contract and the reference entity and are generally limited to the market standard of failure to pay on indebtedness and bankruptcy of the reference entity and, in a more limited range of transactions, debt restructuring. Credit derivative transactions that reference emerging market entities also typically include additional credit events to cover the acceleration of indebtedness and the risk of repudiation or a payment moratorium. In certain transactions, protection may be provided on a portfolio of reference entities or asset-backed securities. If there is no credit event, as defined by the specific derivative contract, then the protection seller makes no payments to the protection buyer and receives only the contractually specified fee. However, if a credit event occurs as defined in the specific derivative contract sold, the protection seller will be required to make a payment to the protection buyer. Under certain contracts, the seller of protection may not be required to make a payment until a specified amount of losses has occurred with respect to the portfolio and/or may only be required to pay for losses up to a specified amount.

A total return swap typically transfers the total economic performance of a reference asset, which includes all associated cash flows, as well as capital appreciation or depreciation. The protection buyer receives a floating rate of interest and any depreciation on the reference asset from the protection seller and, in return, the protection seller receives the cash flows associated with the reference asset plus any appreciation. Thus, according to the total return swap agreement, the protection seller will be obligated to make a payment any time the floating interest rate payment plus any depreciation of the reference asset exceeds the cash flows associated with the underlying asset. A total return swap may terminate upon a default of the reference asset or a credit event with respect to the reference entity, subject to the provisions of the related total return swap agreement between the protection seller and the protection buyer.

A credit option is a credit derivative that allows investors to trade or hedge changes in the credit quality of a reference entity. For example, in a credit spread option, the option writer assumes the obligation to purchase or sell credit protection on the reference entity at a specified “strike” spread level. The option purchaser buys the right to sell credit default protection on the reference entity to, or purchase it from, the option writer at the strike spread level. The payments on credit spread options depend either on a particular credit spread or the price of the underlying credit-sensitive asset or other reference entity. The options usually terminate if a credit event occurs with respect to the underlying reference entity.

A credit-linked note is a form of credit derivative structured as a debt security with an embedded credit default swap. The purchaser of the note effectively provides credit protection to the issuer by agreeing to receive a return that could be negatively affected by credit events on the underlying reference entity. If the reference entity defaults, the note may be cash settled or physically settled by delivery of a debt security of the reference entity. Thus, the maximum amount of the note purchaser’s exposure is the amount paid for the credit-linked note.

The following tables summarize the key characteristics of Citi's credit derivatives portfolio by counterparty and derivative form:

In millions of dollars at December 31, 2021	Fair values		Notionals	
	Receivable[(1)]	**Payable[(2)]**	**Protection purchased**	**Protection sold**
By industry of counterparty				
Banks	**$ 2,375**	**$ 3,031**	**$ 108,415**	**$ 103,756**
Broker-dealers	**1,962**	**1,139**	**44,364**	**40,068**
Non-financial	**113**	**306**	**2,785**	**2,728**
Insurance and other financial institutions	**5,768**	**6,539**	**490,432**	**425,934**
Total by industry of counterparty	**$ 10,218**	**$ 11,015**	**$ 645,996**	**$ 572,486**
By instrument				
Credit default swaps and options	**$ 9,923**	**$ 10,234**	**$ 628,136**	**$ 565,131**
Total return swaps and other	**295**	**781**	**17,860**	**7,355**
Total by instrument	**$ 10,218**	**$ 11,015**	**$ 645,996**	**$ 572,486**
By rating of reference entity				
Investment grade	**$ 4,149**	**$ 4,258**	**$ 511,652**	**$ 448,944**
Non-investment grade	**6,069**	**6,757**	**134,344**	**123,542**
Total by rating of reference entity	**$ 10,218**	**$ 11,015**	**$ 645,996**	**$ 572,486**
By maturity				
Within 1 year	**$ 878**	**$ 1,462**	**$ 133,866**	**$ 115,603**
From 1 to 5 years	**6,674**	**6,638**	**454,617**	**413,174**
After 5 years	**2,666**	**2,915**	**57,513**	**43,709**
Total by maturity	**$ 10,218**	**$ 11,015**	**$ 645,996**	**$ 572,486**

(1) The fair value amount receivable is composed of $3,705 million under protection purchased and $6,513 million under protection sold.
(2) The fair value amount payable is composed of $7,354 million under protection purchased and $3,661 million under protection sold.

In millions of dollars at December 31, 2020	Fair values		Notionals	
	Receivable[(1)]	Payable[(2)]	Protection purchased	Protection sold
By industry of counterparty				
Banks	$ 2,902	$ 3,187	$ 117,685	$ 120,739
Broker-dealers	1,770	1,215	46,928	44,692
Non-financial	109	90	5,740	2,217
Insurance and other financial institutions	5,008	5,637	442,417	375,959
Total by industry of counterparty	$ 9,789	$ 10,129	$ 612,770	$ 543,607
By instrument				
Credit default swaps and options	$ 9,254	$ 9,254	$ 599,633	$ 538,426
Total return swaps and other	535	875	13,137	5,181
Total by instrument	$ 9,789	$ 10,129	$ 612,770	$ 543,607
By rating of reference entity				
Investment grade	$ 4,136	$ 4,037	$ 478,643	$ 418,147
Non-investment grade	5,653	6,092	134,127	125,460
Total by rating of reference entity	$ 9,789	$ 10,129	$ 612,770	$ 543,607
By maturity				
Within 1 year	$ 914	$ 1,355	$ 134,080	$ 125,464
From 1 to 5 years	6,022	5,991	421,682	374,376
After 5 years	2,853	2,783	57,008	43,767
Total by maturity	$ 9,789	$ 10,129	$ 612,770	$ 543,607

(1) The fair value amount receivable is composed of $3,514 million under protection purchased and $6,275 million under protection sold.
(2) The fair value amount payable is composed of $7,037 million under protection purchased and $3,092 million under protection sold.

Fair values included in the above tables are prior to application of any netting agreements and cash collateral. For notional amounts, Citi generally has a mismatch between the total notional amounts of protection purchased and sold, and it may hold the reference assets directly rather than entering into offsetting credit derivative contracts as and when desired. The open risk exposures from credit derivative contracts are largely matched after certain cash positions in reference assets are considered and after notional amounts are adjusted, either to a duration-based equivalent basis or to reflect the level of subordination in tranched structures. The ratings of the credit derivatives portfolio presented in the tables and used to evaluate payment/performance risk are based on the assigned internal or external ratings of the reference asset or entity. Where external ratings are used, investment-grade ratings are considered to be "Baa/BBB" and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system.

Citigroup evaluates the payment/performance risk of the credit derivatives for which it stands as a protection seller based on the credit rating assigned to the underlying reference credit. Credit derivatives written on an underlying non-investment-grade reference entity represent greater payment risk to the Company. The non-investment-grade category in the table above also includes credit derivatives where the underlying reference entity has been downgraded subsequent to the inception of the derivative.

The maximum potential amount of future payments under credit derivative contracts presented in the table above is based on the notional value of the derivatives. The Company believes that the notional amount for credit protection sold is not representative of the actual loss exposure based on historical experience. This amount has not been reduced by the value of the reference assets and the related cash flows. In accordance with most credit derivative contracts, should a credit event occur, the Company usually is liable for the difference between the protection sold and the value of the reference assets. Furthermore, the notional amount for credit protection sold has not been reduced for any cash collateral paid to a given counterparty, as such payments would be calculated after netting all derivative exposures, including any credit derivatives with that counterparty in accordance with a related master netting agreement. Due to such netting processes, determining the amount of collateral that corresponds to credit derivative exposures alone is not possible. The Company actively monitors open credit-risk exposures and manages this exposure by using a variety of strategies, including purchased credit derivatives, cash collateral or direct holdings of the referenced assets. This risk mitigation activity is not captured in the table above.

Credit Risk-Related Contingent Features in Derivatives

Certain derivative instruments contain provisions that require the Company to either post additional collateral or immediately settle any outstanding liability balances upon the occurrence of a specified event related to the credit risk of the Company. These events, which are defined by the existing derivative contracts, are primarily downgrades in the credit ratings of the Company and its affiliates.

The fair value (excluding CVA) of all derivative instruments with credit risk-related contingent features that were in a net liability position at December 31, 2021 and 2020 was $19 billion and $25 billion, respectively. The Company posted $16 billion and $22 billion as collateral for this exposure in the normal course of business as of December 31, 2021 and 2020, respectively.

A downgrade could trigger additional collateral or cash settlement requirements for the Company and certain affiliates. In the event that Citigroup and Citibank were downgraded a single notch by all three major rating agencies as of December 31, 2021, the Company could be required to post an additional $1.3 billion as either collateral or settlement of the derivative transactions. In addition, the Company could be required to segregate with third-party custodians collateral previously received from existing derivative counterparties in the amount of $0.1 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately $1.4 billion.

Derivatives Accompanied by Financial Asset Transfers

The Company executes total return swaps that provide it with synthetic exposure to substantially all of the economic return of the securities or other financial assets referenced in the contract. In certain cases, the derivative transaction is accompanied by the Company's transfer of the referenced financial asset to the derivative counterparty, most typically in response to the derivative counterparty's desire to hedge, in whole or in part, its synthetic exposure under the derivative contract by holding the referenced asset in funded form. In certain jurisdictions these transactions qualify as sales, resulting in derecognition of the securities transferred (see Note 1 to the Consolidated Financial Statements for further discussion of the related sale conditions for transfers of financial assets). For a significant portion of the transactions, the Company has also executed another total return swap where the Company passes on substantially all of the economic return of the referenced securities to a different third party seeking the exposure. In those cases, the Company is not exposed, on a net basis, to changes in the economic return of the referenced securities.

These transactions generally involve the transfer of the Company's liquid government bonds, convertible bonds or publicly traded corporate equity securities from the trading portfolio and are executed with third-party financial institutions. The accompanying derivatives are typically total return swaps. The derivatives are cash settled and subject to ongoing margin requirements.

When the conditions for sale accounting are met, the Company reports the transfer of the referenced financial asset as a sale and separately reports the accompanying derivative transaction. These transactions generally do not result in a gain or loss on the sale of the security, because the transferred security was held at fair value in the Company's trading portfolio. For transfers of financial assets accounted for as a sale by the Company, and for which the Company has retained substantially all of the economic exposure to the transferred asset through a total return swap executed with the same counterparty in contemplation of the initial sale (and still outstanding), both the asset amounts derecognized and the gross cash proceeds received as of the date of derecognition were $2.9 billion and $2.0 billion as of December 31, 2021 and 2020, respectively.

At December 31, 2021, the fair value of these previously derecognized assets was $2.9 billion. The fair value of the total return swaps as of December 31, 2021 was $13 million recorded as gross derivative assets and $58 million recorded as gross derivative liabilities. At December 31, 2020, the fair value of these previously derecognized assets was $2.2 billion, and the fair value of the total return swaps was $135 million recorded as gross derivative assets and $7 million recorded as gross derivative liabilities.

The balances for the total return swaps are on a gross basis, before the application of counterparty and cash collateral netting, and are included primarily as equity derivatives in the tabular disclosures in this Note.

23. CONCENTRATIONS OF CREDIT RISK

Concentrations of credit risk exist when changes in economic, industry or geographic factors similarly affect groups of counterparties whose aggregate credit exposure is material in relation to Citigroup's total credit exposure. Although Citigroup's portfolio of financial instruments is broadly diversified along industry, product and geographic lines, material transactions are completed with other financial institutions, particularly in the securities trading, derivatives and foreign exchange businesses.

In connection with the Company's efforts to maintain a diversified portfolio, the Company limits its exposure to any one geographic region, country or individual creditor and monitors this exposure on a continuous basis. At December 31, 2021, Citigroup's most significant concentration of credit risk was with the U.S. government and its agencies. The Company's exposure, which primarily results from trading assets and investments issued by the U.S. government and its agencies, amounted to $414.5 billion and $370.1 billion at December 31, 2021 and 2020, respectively. The German, United Kingdom and Japanese governments and their agencies, which are rated investment grade by both Moody's and S&P, were the next largest exposures. The Company's exposure to Germany amounted to $48.9 billion and $51.8 billion at December 31, 2021 and 2020, respectively. The Company's exposure to the United Kingdom amounted to $31.1 billion and $26.0 billion at December 31, 2021 and 2020, respectively. The Company's exposure to Japan amounted to $30.1 billion and $35.5 billion at December 31, 2021 and 2020, respectively. The foreign government exposures are composed of investment securities, loans and trading assets.

The Company's exposure to states and municipalities amounted to $22.0 billion and $26.1 billion at December 31, 2021 and 2020, respectively, and was composed of trading assets, investment securities, derivatives and lending activities.

24. FAIR VALUE MEASUREMENT

ASC 820-10, *Fair Value Measurement*, defines fair value, establishes a consistent framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, and therefore represents an exit price. Among other things, the standard requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

Under ASC 820-10, the probability of counterparty default is factored into the valuation of derivative and other positions, and the impact of Citigroup's own credit risk is also factored into the valuation of derivatives and other liabilities that are measured at fair value.

Fair Value Hierarchy

ASC 820-10 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs are developed using market data and reflect market participant assumptions, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for *identical* instruments in active markets.
- Level 2: Quoted prices for *similar* instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations in which all significant inputs and significant value drivers are *observable* in the market.
- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are *unobservable*.

As required under the fair value hierarchy, the Company considers relevant and observable market inputs in its valuations where possible.

The fair value hierarchy classification approach typically utilizes rules-based and data driven selection criteria to determine whether an instrument is classified as Level 1, Level 2, or Level 3:

- The determination of whether an instrument is quoted in an active market and therefore considered a Level 1 instrument is based upon the frequency of observed transactions and the quality of independent market data available on the measurement date.
- A Level 2 classification is assigned where there is observability of prices / market inputs to models, or where any unobservable inputs are not significant to the valuation. The determination of whether an input is considered observable is based on the availability of independent market data and its corroboration, for example through observed transactions in the market.
- Otherwise, an instrument is classified as Level 3.

Determination of Fair Value

For assets and liabilities carried at fair value, the Company measures fair value using the procedures set out below, irrespective of whether the assets and liabilities are measured at fair value as a result of an election, a non-recurring lower-of-cost-or-market (LOCOM) adjustment, or because they are required to be measured at fair value.

When available, the Company uses quoted market prices from active markets to determine fair value and classifies such items as Level 1. In some specific cases where a market price is available, the Company will apply practical expedients (such as matrix pricing) to calculate fair value, in which case the items may be classified as Level 2.

The Company may also apply a price-based methodology that utilizes, where available, quoted prices or other market information obtained from recent trading activity in positions with the same or similar characteristics to the position being valued. If relevant and observable prices are available, those valuations may be classified as Level 2. However, when there are one or more significant unobservable "price" inputs, those valuations will be classified as Level 3. Furthermore, when a quoted price is considered stale, a significant adjustment to the price of a similar security may be necessary to reflect differences in the terms of the actual security or loan being valued, or alternatively, when prices from independent sources may be insufficient to corroborate a valuation, the "price" inputs are considered unobservable and the fair value measurements are classified as Level 3.

If quoted market prices are not available, fair value is based upon internally developed valuation techniques that use, where possible, current market-based parameters, such as interest rates, currency rates and option volatilities. Items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified as Level 3 even though there may be some significant inputs that are readily observable.

Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendors' and brokers' valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models, and the Company assesses the quality and relevance of this information in determining the estimate of fair value. The following section describes the valuation methodologies used by the Company to measure various financial instruments at fair value. Where appropriate, the description includes details of the valuation models, the key inputs to those models and any significant assumptions.

Market Valuation Adjustments

Generally, the unit of account for a financial instrument is the individual financial instrument. The Company applies market valuation adjustments that are consistent with the unit of account, which does not include adjustment due to the size of the Company's position, except as follows. ASC 820-10 permits an exception, through an accounting policy election, to measure the fair value of a portfolio of financial assets and financial liabilities on the basis of the net open risk position when certain criteria are met. Citi has elected to measure certain portfolios of financial instruments that meet those criteria, such as derivatives, on the basis of the net open risk position. The Company applies market valuation adjustments, including adjustments to account for the size of the net open risk position, consistent with market participant assumptions.

Valuation adjustments are applied to items classified as Level 2 or Level 3 in the fair value hierarchy to ensure that the fair value reflects the price at which the net open risk position could be exited. These valuation adjustments are based on the bid/offer spread for an instrument in the market. When Citi has elected to measure certain portfolios of financial investments, such as derivatives, on the basis of the net open risk position, the valuation adjustment may take into account the size of the position.

Credit valuation adjustments (CVA) and funding valuation adjustments (FVA) are applied to the relevant population of over-the-counter (OTC) derivative instruments where adjustments to reflect counterparty credit risk, own credit risk and term funding risk are required to estimate fair value. This principally includes derivatives with a base valuation (e.g., discounted using overnight indexed swap (OIS)) requiring adjustment for these effects, such as uncollateralized interest rate swaps. The CVA represents a portfolio-level adjustment to reflect the risk premium associated with the counterparty's (assets) or Citi's (liabilities) non-performance risk.

The FVA represents a market funding risk premium inherent in the uncollateralized portion of a derivative portfolio and in certain collateralized derivative portfolios that do not include standard credit support annexes (CSAs), such as where the CSA does not permit the reuse of collateral received. Citi's FVA methodology leverages the existing CVA methodology to estimate a funding exposure profile. The calculation of this exposure profile considers collateral agreements in which the terms do not permit the Company to reuse the collateral received, including where counterparties post collateral to third-party custodians. Citi's CVA and FVA methodologies consist of two steps:

- First, the exposure profile for each counterparty is determined using the terms of all individual derivative positions and a Monte Carlo simulation or other quantitative analysis to generate a series of expected cash flows at future points in time. The calculation of this exposure profile considers the effect of credit risk mitigants and sources of funding, including pledged cash or other collateral and any legal right of offset that exists with a counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated as a netting set for this purpose, since it is those aggregate net cash flows that are subject to nonperformance risk. This process identifies specific, point-in-time future cash flows that are subject to nonperformance and term funding risk, rather than using the current recognized net asset or liability as a basis to measure the CVA and FVA.
- Second, for CVA, market-based views of default probabilities derived from observed credit spreads in the credit default swap (CDS) market are applied to the expected future cash flows determined in step one. Citi's own credit CVA is determined using Citi-specific CDS spreads for the relevant tenor. Generally, counterparty CVA is determined using CDS spread indices for each credit rating and tenor. For certain identified netting sets where individual analysis is practicable (e.g., exposures to counterparties with liquid CDSs), counterparty-specific CDS spreads are used. For FVA, a term structure of spreads is applied to the expected funding exposures (e.g., the market liquidity spread used to represent the term funding premium associated with certain OTC derivatives).

The CVA and FVA are designed to incorporate a market view of the credit and funding risk, respectively, inherent in the derivative portfolio. However, most unsecured derivative instruments are negotiated bilateral contracts and are not commonly transferred to third parties. Derivative instruments are normally settled contractually or, if terminated early, are terminated at a value negotiated bilaterally between the counterparties. Thus, the CVA and FVA may not be realized upon a settlement or termination in the normal course of business. In addition, all or a portion of these adjustments may be reversed or otherwise adjusted in future periods in the event of changes in the credit or funding risk associated with the derivative instruments.

The table below summarizes the CVA and FVA applied to the fair value of derivative instruments at December 31, 2021 and 2020:

	Credit and funding valuation adjustments contra-liability (contra-asset)	
In millions of dollars	**December 31, 2021**	December 31, 2020
Counterparty CVA	**$ (705)**	$ (800)
Asset FVA	**(433)**	(525)
Citigroup (own credit) CVA	**379**	403
Liability FVA	**110**	67
Total CVA and FVA — derivative instruments	**$ (649)**	$ (855)

The table below summarizes pretax gains (losses) related to changes in CVA on derivative instruments, net of hedges, FVA on derivatives and debt valuation adjustments (DVA) on Citi's own fair value option (FVO) liabilities for the years indicated:

	Credit/funding/debt valuation adjustments gain (loss)		
In millions of dollars	**2021**	2020	2019
Counterparty CVA	**$ 79**	$ (101)	$ 149
Asset FVA	**96**	(95)	13
Own credit CVA	**(33)**	133	(131)
Liability FVA	**(22)**	(6)	(63)
Total CVA and FVA — derivative instruments	**$ 120**	$ (69)	$ (32)
DVA related to own FVO liabilities(1)	**$ 296**	$ (616)	$ (1,473)
Total CVA, FVA and FVO DVA	**$ 416**	$ (685)	$ (1,505)

(1) See Notes 1, 17 and 19 to the Consolidated Financial Statements.

Securities Purchased Under Agreements to Resell and Securities Sold Under Agreements to Repurchase

No quoted prices exist for these instruments, since fair value is determined using a discounted cash flow technique. Cash flows are estimated based on the terms of the contract, taking into account any embedded derivative or other features. These cash flows are discounted using interest rates appropriate to the maturity of the instrument as well as the nature of the underlying collateral. Generally, when such instruments are recorded at fair value, they are classified within Level 2 of the fair value hierarchy, as the inputs used in the valuation are readily observable. However, certain long-dated positions are classified within Level 3 of the fair value hierarchy.

Trading Account Assets and Liabilities—Trading Securities and Trading Loans

When available, the Company uses quoted market prices in active markets to determine the fair value of trading securities; such items are classified as Level 1 of the fair value hierarchy. Examples include government securities and exchange-traded equity securities.

For bonds and secondary market loans traded over the counter, the Company generally determines fair value utilizing various valuation techniques, including discounted cash flows, price-based and internal models. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors. A price-based methodology utilizes, where available, quoted prices or other market information obtained from recent trading activity of assets with similar characteristics to the bond or loan being valued. The yields used in discounted cash flow models are derived from the same price information. Trading securities and loans priced using such methods are generally classified as Level 2. However, when the primary inputs to the valuation are unobservable, or prices from independent sources are insufficient to corroborate valuation, a loan or security is generally classified as Level 3. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors.

When the Company's principal exit market for a portfolio of loans is through securitization, the Company uses the securitization price as a key input into the fair value of the loan portfolio. The securitization price is determined from the assumed proceeds of a hypothetical securitization within the current market environment. Where such a price verification is possible, loan portfolios are typically classified as Level 2 in the fair value hierarchy.

For most of the subprime mortgage backed security (MBS) exposures, fair value is determined utilizing observable transactions where available, or other valuation techniques such as discounted cash flow analysis utilizing valuation assumptions derived from similar, more observable securities as market proxies. The valuation of certain asset-backed security (ABS) CDO positions is inferred through the net asset value of the underlying assets of the ABS CDO.

Trading Account Assets and Liabilities—Derivatives

Exchange-traded derivatives, measured at fair value using quoted (i.e., exchange) prices in active markets, where available, are classified as Level 1 of the fair value hierarchy.

Derivatives without a quoted price in an active market and derivatives executed over the counter are valued using internal valuation techniques. These derivative instruments are classified as either Level 2 or Level 3 depending on the observability of the significant inputs to the model.

The valuation techniques depend on the type of derivative and the nature of the underlying instrument. The principal techniques used to value these instruments are discounted cash flows and internal models, such as derivative pricing models (e.g., Black-Scholes and Monte Carlo simulations).

The key inputs depend upon the type of derivative and the nature of the underlying instrument and include interest rate yield curves, foreign exchange rates, volatilities and correlation.

Investments

The investments category includes available-for-sale debt and marketable equity securities whose fair values are generally determined by utilizing similar procedures described for trading securities above or, in some cases, using vendor pricing as the primary source.

Also included in investments are nonpublic investments in private equity and real estate entities. Determining the fair value of nonpublic securities involves a significant degree of management's judgment, as no quoted prices exist and such securities are not generally traded. In addition, there may be transfer restrictions on private equity securities. The Company's process for determining the fair value of such securities utilizes commonly accepted valuation techniques, including guideline public company analysis and comparable transactions. In determining the fair value of nonpublic securities, the Company also considers events such as a proposed sale of the investee company, initial public offerings, equity issuances or other observable transactions. Private equity securities are generally classified as Level 3 of the fair value hierarchy.

In addition, the Company holds investments in certain alternative investment funds that calculate NAV per share, including hedge funds, private equity funds and real estate funds. Investments in funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV per share of the Company's ownership interest in the funds where it is not probable that the investment will be realized at a price other than the NAV. Consistent with the provisions of ASU 2015-07, these investments are categorized within the fair value hierarchy and are not included in the tables below. See Note 13 to the Consolidated Financial Statements for additional information.

Short-Term Borrowings and Long-Term Debt

Where fair value accounting has been elected, the fair value of non-structured liabilities is determined by utilizing internal models using the appropriate discount rate for the applicable maturity. Such instruments are classified as Level 2 of the fair value hierarchy when all significant inputs are readily observable.

The Company determines the fair value of hybrid financial instruments, including structured liabilities, using the appropriate derivative valuation methodology (described above in "Trading Account Assets and Liabilities—Derivatives") given the nature of the embedded risk profile. Such instruments are classified as Level 2 or Level 3 depending on the observability of significant inputs to the model.

Items Measured at Fair Value on a Recurring Basis

The following tables present for each of the fair value hierarchy levels the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31, 2021 and 2020. The Company may hedge positions that have been classified in the Level 3 category with other financial instruments (hedging instruments) that may be classified as Level 3, but also with financial instruments classified as Level 1 or Level 2. The effects of these hedges are presented gross in the following tables:

Fair Value Levels

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 342,030	$ 231	$ 342,261	$ (125,795)	$ 216,466
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	34,534	496	35,030	—	35,030
Residential	1	643	104	748	—	748
Commercial	—	778	81	859	—	859
Total trading mortgage-backed securities	$ 1	$ 35,955	$ 681	$ 36,637	$ —	$ 36,637
U.S. Treasury and federal agency securities	$ 44,900	$ 3,230	$ 4	$ 48,134	$ —	$ 48,134
State and municipal	—	1,995	37	2,032	—	2,032
Foreign government	39,176	31,485	23	70,684	—	70,684
Corporate	1,544	16,156	412	18,112	—	18,112
Equity securities	53,833	10,047	174	64,054	—	64,054
Asset-backed securities	—	981	613	1,594	—	1,594
Other trading assets[2]	—	20,346	576	20,922	—	20,922
Total trading non-derivative assets	$ 139,454	$ 120,195	$ 2,520	$ 262,169	$ —	$ 262,169
Trading derivatives						
Interest rate contracts	$ 90	$ 161,500	$ 3,898	$ 165,488		
Foreign exchange contracts	—	134,912	637	135,549		
Equity contracts	41	43,904	1,307	45,252		
Commodity contracts	—	28,547	1,797	30,344		
Credit derivatives	—	9,299	919	10,218		
Total trading derivatives—before netting and collateral	$ 131	$ 378,162	$ 8,558	$ 386,851		
Netting agreements					$ (292,628)	
Netting of cash collateral received [3]					(24,447)	
Total trading derivatives—after netting and collateral	$ 131	$ 378,162	$ 8,558	$ 386,851	$ (317,075)	$ 69,776
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 33,165	$ 51	$ 33,216	$ —	$ 33,216
Residential	—	286	94	380	—	380
Commercial	—	25	—	25	—	25
Total investment mortgage-backed securities	$ —	$ 33,476	$ 145	$ 33,621	$ —	$ 33,621
U.S. Treasury and federal agency securities	$ 122,271	$ 168	$ 1	$ 122,440	$ —	$ 122,440
State and municipal	—	1,849	772	2,621	—	2,621
Foreign government	56,842	61,112	786	118,740	—	118,740
Corporate	2,861	2,871	188	5,920	—	5,920
Marketable equity securities	350	177	16	543	—	543
Asset-backed securities	—	300	3	303	—	303
Other debt securities	—	4,877	—	4,877	—	4,877
Non-marketable equity securities[4]	—	28	316	344	—	344
Total investments	$ 182,324	$ 104,858	$ 2,227	$ 289,409	$ —	$ 289,409

Table continues on the next page.

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting(1)	Net balance
Loans	$ —	$ 5,371	$ 711	$ 6,082	$ —	$ 6,082
Mortgage servicing rights	—	—	404	404	—	404
Non-trading derivatives and other financial assets measured on a recurring basis	$ 4,075	$ 8,194	$ 73	$ 12,342	$ —	$ 12,342
Total assets	$ 325,984	$ 958,810	$ 14,724	$ 1,299,518	$ (442,870)	$ 856,648
Total as a percentage of gross assets(5)	25.1 %	73.8 %	1.1 %			
Liabilities						
Interest-bearing deposits	$ —	$ 1,483	$ 183	$ 1,666	$ —	$ 1,666
Securities loaned and sold under agreements to repurchase	—	174,318	643	174,961	(118,267)	56,694
Trading account liabilities						
Securities sold, not yet purchased	82,675	23,268	65	106,008	—	106,008
Other trading liabilities	—	5	—	5	—	5
Total trading liabilities	$ 82,675	$ 23,273	$ 65	$ 106,013	$ —	$ 106,013
Trading derivatives						
Interest rate contracts	$ 56	$ 147,846	$ 2,172	$ 150,074		
Foreign exchange contracts	—	134,572	726	135,298		
Equity contracts	60	46,177	3,447	49,684		
Commodity contracts	—	30,004	1,375	31,379		
Credit derivatives	—	10,065	950	11,015		
Total trading derivatives—before netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450		
Netting agreements					$ (292,628)	
Netting of cash collateral paid (3)					(29,306)	
Total trading derivatives—after netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450	$ (321,934)	$ 55,516
Short-term borrowings	$ —	$ 7,253	$ 105	$ 7,358	$ —	$ 7,358
Long-term debt	—	57,100	25,509	82,609	—	82,609
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$ 3,574	$ —	$ 1	$ 3,575	$ —	$ 3,575
Total liabilities	$ 86,365	$ 632,091	$ 35,176	$ 753,632	$ (440,201)	$ 313,431
Total as a percentage of gross liabilities(5)	11.5 %	83.9 %	4.7 %			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.
(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 25 to the Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.
(3) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
(4) Amounts exclude $0.1 billion of investments measured at net asset value (NAV) in accordance with ASU No. 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*
(5) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Fair Value Levels

In millions of dollars at December 31, 2020	Level 1	Level 2	Level 3	Gross inventory	Netting[(1)]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 335,073	$ 320	$ 335,393	$ (150,189)	$185,204
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	42,903	27	42,930	—	42,930
Residential	—	391	340	731	—	731
Commercial	—	893	136	1,029	—	1,029
Total trading mortgage-backed securities	$ —	$ 44,187	$ 503	$ 44,690	$ —	$ 44,690
U.S. Treasury and federal agency securities	$ 64,529	$ 2,269	$ —	$ 66,798	$ —	$ 66,798
State and municipal	—	1,224	94	1,318	—	1,318
Foreign government	68,195	15,143	51	83,389	—	83,389
Corporate	1,607	18,840	375	20,822	—	20,822
Equity securities	54,117	12,289	73	66,479	—	66,479
Asset-backed securities	—	776	1,606	2,382	—	2,382
Other trading assets[(2)]	—	11,295	945	12,240	—	12,240
Total trading non-derivative assets	$ 188,448	$ 106,023	$ 3,647	$ 298,118	$ —	$298,118
Trading derivatives						
Interest rate contracts	$ 42	$ 238,026	$ 3,393	$ 241,461		
Foreign exchange contracts	2	155,994	674	156,670		
Equity contracts	66	48,362	2,091	50,519		
Commodity contracts	—	13,546	992	14,538		
Credit derivatives	—	8,634	1,155	9,789		
Total trading derivatives—before netting and collateral	$ 110	$ 464,562	$ 8,305	$ 472,977		
Netting agreements					$ (364,879)	
Netting of cash collateral received[(3)]					(31,137)	
Total trading derivatives—after netting and collateral	$ 110	$ 464,562	$ 8,305	$ 472,977	$ (396,016)	$ 76,961
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 43,888	$ 30	$ 43,918	$ —	$ 43,918
Residential	—	571	—	571	—	571
Commercial	—	50	—	50	—	50
Total investment mortgage-backed securities	$ —	$ 44,509	$ 30	$ 44,539	$ —	$ 44,539
U.S. Treasury and federal agency securities	$ 146,032	$ 172	$ —	$ 146,204	$ —	$146,204
State and municipal	—	2,885	834	3,719	—	3,719
Foreign government	77,056	47,644	268	124,968	—	124,968
Corporate	6,326	4,114	60	10,500	—	10,500
Marketable equity securities	287	228	—	515	—	515
Asset-backed securities	—	277	1	278	—	278
Other debt securities	—	4,876	—	4,876	—	4,876
Non-marketable equity securities[(4)]	—	50	349	399	—	399
Total investments	$ 229,701	$ 104,755	$ 1,542	$ 335,998	$ —	$335,998

Table continues on the next page.

In millions of dollars at December 31, 2020	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Loans	$ —	$ 4,869	$ 1,985	$ 6,854	$ —	$ 6,854
Mortgage servicing rights	—	—	336	336	—	336
Non-trading derivatives and other financial assets measured on a recurring basis	$ 6,230	$ 8,383	$ —	$ 14,613	$ —	$ 14,613
Total assets	$424,489	$1,023,665	$16,135	$ 1,464,289	$ (546,205)	$918,084
Total as a percentage of gross assets[5]	29.0 %	69.9 %	1.1 %			
Liabilities						
Interest-bearing deposits	$ —	$ 1,752	$ 206	$ 1,958	$ —	$ 1,958
Securities loaned and sold under agreements to repurchase	—	156,644	631	157,275	(97,069)	60,206
Trading account liabilities						
Securities sold, not yet purchased	85,353	14,477	214	100,044	—	100,044
Other trading liabilities	—	—	26	26	—	26
Total trading account liabilities	$ 85,353	$ 14,477	$ 240	$ 100,070	$ —	$100,070
Trading derivatives						
Interest rate contracts	$ 25	$ 220,607	$ 1,779	$ 222,411		
Foreign exchange contracts	3	155,441	622	156,066		
Equity contracts	53	58,212	5,304	63,569		
Commodity contracts	—	17,393	700	18,093		
Credit derivatives	—	9,022	1,107	10,129		
Total trading derivatives—before netting and collateral	$ 81	$ 460,675	$ 9,512	$ 470,268		
Netting agreements					$ (364,879)	
Netting of cash collateral paid [3]					(37,432)	
Total trading derivatives—after netting and collateral	$ 81	$ 460,675	$ 9,512	$ 470,268	$ (402,311)	$ 67,957
Short-term borrowings	$ —	$ 4,464	$ 219	$ 4,683	$ —	$ 4,683
Long-term debt	—	41,853	25,210	67,063	—	67,063
Non-trading derivatives and other financial liabilities measured on a recurring basis	$ 6,762	$ 72	$ 1	$ 6,835	$ —	$ 6,835
Total liabilities	$ 92,196	$ 679,937	$36,019	$ 808,152	$ (499,380)	$308,772
Total as a percentage of gross liabilities[5]	11.4 %	84.1 %	4.5 %			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 25 to the Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(3) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(4) Amounts exclude $0.2 billion of investments measured at NAV in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*

(5) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the years ended December 31, 2021 and 2020. The gains and losses presented below include changes in the fair value related to both observable and unobservable inputs.

The Company often hedges positions with offsetting positions that are classified in a different level. For example, the gains and losses for assets and liabilities in the Level 3 category presented in the tables below do not reflect the effect of offsetting losses and gains on hedging instruments that may be classified in the Level 1 and Level 2 categories. In addition, the Company hedges items classified in the Level 3 category with instruments also classified in Level 3 of the fair value hierarchy. The hedged items and related hedges are presented gross in the following tables:

Level 3 Fair Value Rollforward

		Net realized/unrealized gains (losses) included in[1]		Transfers							
In millions of dollars	Dec. 31, 2020	Principal transactions	Other[1][2]	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2021	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 320	$ (36)	$ —	$ 45	$ (49)	$ 362	$ —	$ —	$ (411)	$ 231	$ —
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	27	8	—	355	(131)	447	—	(210)	—	496	11
Residential	340	25	—	89	(96)	282	—	(536)	—	104	13
Commercial	136	23	—	96	(58)	62	—	(178)	—	81	—
Total trading mortgage-backed securities	$ 503	$ 56	$ —	$ 540	$ (285)	$ 791	$ —	$ (924)	$ —	$ 681	$ 24
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ 4	$ —	$ —	$ —	$ —	$ —	$ 4	$ —
State and municipal	94	(4)	—	20	(29)	17	—	(61)	—	37	(6)
Foreign government	51	29	—	143	(129)	83	—	(154)	—	23	(2)
Corporate	375	74	—	461	(384)	867	—	(981)	—	412	(38)
Equity securities	73	67	—	156	(52)	118	—	(188)	—	174	23
Asset-backed securities	1,606	371	—	173	(297)	1,313	—	(2,553)	—	613	(43)
Other trading assets	945	97	—	158	(457)	980	4	(1,147)	(4)	576	(37)
Total trading non-derivative assets	$ 3,647	$ 690	$ —	$ 1,655	$ (1,633)	$ 4,169	$ 4	$ (6,008)	$ (4)	$ 2,520	$ (79)
Trading derivatives, net[4]											
Interest rate contracts	$ 1,614	$ (376)	$ —	$ 102	$ 562	$ 27	$ (84)	$ —	$ (119)	$ 1,726	$ 4
Foreign exchange contracts	52	(8)	—	(57)	104	220	—	(326)	(74)	(89)	7
Equity contracts	(3,213)	964	—	(1,101)	1,923	364	—	(364)	(713)	(2,140)	(729)
Commodity contracts	292	474	—	174	(454)	162	—	(238)	12	422	261
Credit derivatives	48	(136)	—	(96)	40	—	—	—	113	(31)	(130)
Total trading derivatives, net[4]	$ (1,207)	$ 918	$ —	$ (978)	$ 2,175	$ 773	$ (84)	$ (928)	$ (781)	$ (112)	$ (587)

Table continues on the next page.

In millions of dollars	Dec. 31, 2020	Net realized/unrealized gains (losses) included in(1)		Transfers							
		Principal transactions	Other(1)(2)	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2021	Unrealized gains (losses) still held(3)
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 30	$ —	$ 2	$ 42	$ (10)	$ 3	$ —	$ (16)	$ —	$ 51	$ 2
Residential	—	—	—	54	(12)	52	—	—	—	94	(1)
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 30	$ —	$ 2	$ 96	$ (22)	$ 55	$ —	$ (16)	$ —	$ 145	$ 1
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ 1	$ —	$ —	$ —	$ —	$ —	$ 1	$ —
State and municipal	834	—	(21)	58	(108)	49	—	(40)	—	772	(12)
Foreign government	268	—	(49)	512	(565)	871	—	(251)	—	786	(2)
Corporate	60	—	(14)	183	(44)	37	—	(34)	—	188	2
Marketable equity securities	—	—	—	16	—	—	—	—	—	16	—
Asset-backed securities	1	—	(21)	36	—	—	—	(13)	—	3	(2)
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	349	—	(27)	2	—	—	—	(8)	—	316	(6)
Total investments	$ 1,542	$ —	$ (130)	$ 904	$ (739)	$ 1,012	$ —	$ (362)	$ —	$ 2,227	$ (19)
Loans	$ 1,985	$ —	$ 90	$ 311	$ (2,071)	$ —	$ 529	$ —	$ (133)	$ 711	$ (77)
Mortgage servicing rights	336	—	43	—	—	—	92	—	(67)	404	52
Other financial assets measured on a recurring basis	—	—	6	65	(27)	58	—	(26)	(3)	73	—
Liabilities											
Interest-bearing deposits	$ 206	$ —	$ (18)	$ —	$ (44)	$ —	$ 38	$ —	$ (35)	$ 183	$ (19)
Securities loaned and sold under agreements to repurchase	631	(9)	—	183	(483)	488	—	—	(185)	643	32
Trading account liabilities											
Securities sold, not yet purchased	214	48	—	87	(34)	59	—	—	(213)	65	(4)
Other trading liabilities	26	26	—	—	—	—	—	—	—	—	—
Short-term borrowings	219	43	—	137	(57)	—	49	—	(200)	105	(2)
Long-term debt	25,210	2,774	—	8,611	(9,771)	—	10,262	—	(6,029)	25,509	1,756
Other financial liabilities measured on a recurring basis	1	—	(3)	—	(4)	—	14	—	(13)	1	—

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.

(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at December 31, 2021.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2019	Net realized/unrealized gains (losses) included in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2020	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 303	$ 23	$ —	$ —	$ —	$ 194	$ —	$ —	$ (200)	$ 320	$ 43
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	10	(79)	—	21	(11)	392	—	(306)	—	27	(1)
Residential	123	79	—	234	(68)	486	—	(514)	—	340	(20)
Commercial	61	—	—	162	(35)	174	—	(226)	—	136	(14)
Total trading mortgage-backed securities	$ 194	$ —	$ —	$ 417	$ (114)	$ 1,052	$ —	$ (1,046)	$ —	$ 503	$ (35)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	64	2	—	33	(3)	62	—	(64)	—	94	4
Foreign government	52	(35)	—	9	(1)	169	—	(143)	—	51	(7)
Corporate	313	246	—	211	(136)	770	—	(1,023)	(6)	375	(37)
Marketable equity securities	100	(16)	—	43	(2)	240	—	(292)	—	73	(11)
Asset-backed securities	1,177	(105)	—	677	(131)	1,406	—	(1,418)	—	1,606	(248)
Other trading assets	555	315	—	471	(343)	387	19	(440)	(19)	945	(56)
Total trading non-derivative assets	$ 2,455	$ 407	$ —	$ 1,861	$ (730)	$ 4,086	$ 19	$ (4,426)	$ (25)	$ 3,647	$ (390)
Trading derivatives, net[4]											
Interest rate contracts	$ 1	$ 429	$ —	$ 1,644	$ 16	$ 41	$ 134	$ (34)	$ (617)	$ 1,614	$ 161
Foreign exchange contracts	(5)	105	—	(61)	48	74	—	(55)	(54)	52	130
Equity contracts	(1,596)	(536)	—	(519)	378	35	—	(886)	(89)	(3,213)	(3,868)
Commodity contracts	(59)	(1)	—	99	(108)	101	—	(61)	321	292	407
Credit derivatives	(56)	123	—	173	(334)	—	—	—	142	48	(136)
Total trading derivatives, net[4]	$ (1,715)	$ 120	$ —	$ 1,336	$ —	$ 251	$ 134	$ (1,036)	$ (297)	$ (1,207)	$ (3,306)
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 32	$ —	$ (5)	$ 2	$ —	$ 1	$ —	$ —	$ —	$ 30	$ (104)
Residential	—	—	76	—	—	—	—	(76)	—	—	5
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 32	$ —	$ 71	$ 2	$ —	$ 1	$ —	$ (76)	$ —	$ 30	$ (99)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	623	—	(3)	322	(131)	121	—	(98)	—	834	(20)
Foreign government	96	—	11	27	(64)	381	—	(183)	—	268	(4)
Corporate	45	—	6	49	(152)	162	—	(50)	—	60	—
Marketable equity securities	—	—	(1)	1	—	—	—	—	—	—	—
Asset-backed securities	22	—	(1)	—	—	—	—	(20)	—	1	(4)
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	441	—	(35)	—	(2)	2	3	(3)	(57)	349	10
Total investments	$ 1,259	$ —	$ 48	$ 401	$ (349)	$ 667	$ 3	$ (430)	$ (57)	$ 1,542	$ (117)

Table continues on the next page.

In millions of dollars	Dec. 31, 2019	Net realized/unrealized gains (losses) included in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2020	Unrealized gains (losses) still held[3]
Loans	$ 402	$ —	$ 1,143	$ 451	$ (6)	$ —	$ —	$ —	$ (5)	$ 1,985	$ 1,424
Mortgage servicing rights	495	—	(204)	—	—	—	123	—	(78)	336	(180)
Other financial assets measured on a recurring basis	1	—	—	—	—	—	—	(1)	—	—	—
Liabilities											
Interest-bearing deposits	$ 215	$ —	$ 11	$ 278	$ (152)	$ —	$ 34	$ —	$ (158)	$ 206	$ (142)
Securities loaned and sold under agreements to repurchase	757	5	—	—	—	—	—	—	(121)	631	(18)
Trading account liabilities											
Securities sold, not yet purchased	48	(102)	—	271	(17)	—	—	10	(200)	214	(163)
Other trading liabilities	—	9	—	35	—	—	—	—	—	26	23
Short-term borrowings	13	78	—	220	(6)	—	86	—	(16)	219	(91)
Long-term debt	17,169	(1,489)	—	6,553	(2,615)	—	10,270	—	(7,656)	25,210	(1,679)
Other financial liabilities measured on a recurring basis	—	—	—	—	—	—	3	—	(2)	1	—

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.
(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.
(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at December 31, 2020.
(4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

Level 3 Fair Value Rollforward

The following were the significant Level 3 transfers for the period December 31, 2020 to December 31, 2021:

- During the 12 months ended December 31, 2021, transfers of *Loans* of $2.1 billion from Level 3 to Level 2 were primarily driven by equity forward and volatility inputs that have been assessed as not significant to the overall valuation of certain hybrid loan instruments, including equity options and long dated equity call spreads.
- During the 12 months ended December 31, 2021, transfers of *Equity contracts* of $1.1 billion from Level 2 to Level 3 were due to equity forward and volatility inputs becoming an unobservable and/or significant input relative to the overall valuation of equity options and equity swaps. In other instances, market changes have resulted in observable equity forward and volatility inputs becoming an insignificant input to the overall valuation of the instrument (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $1.9 billion of certain Equity contracts being transferred from Level 3 to Level 2.
- During the 12 months ended December 31, 2021, transfers of *Long-term debt* were $8.6 billion from Level 2 to Level 3. Of the $8.6 billion transfer in, approximately $7.2 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $1.0 billion related to equity volatility inputs (in addition to other volatility inputs, e.g., interest rate volatility inputs) becoming unobservable and/or significant to their overall valuation. In other instances, market changes have resulted in some inputs becoming more observable, and some unobservable inputs becoming less significant to the overall valuation of the instruments (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $9.8 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the 12 months ended December 31, 2021.

The following were the significant Level 3 transfers for the period December 31, 2019 to December 31, 2020:

- During the 12 months ended December 31, 2020, transfers of *Interest rate contracts* of $1.6 billion from Level 2 to Level 3 were due to interest rate option volatility becoming an unobservable and/or significant input relative to the overall valuation of inflation and other interest rate derivatives.
- During the 12 months ended December 31, 2020, $6.6 billion of *Long-term debt* containing embedded derivatives was transferred from Level 2 to Level 3, as a result of interest rate option volatility, equity correlation and credit derivative inputs becoming unobservable and/or significant input relative to the overall valuation of certain structured long-term debt products. In other instances, market changes resulted in unobservable

volatility inputs becoming insignificant to the overall valuation of the instrument (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $2.6 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the 12 months ended December 31, 2020.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The Company's Level 3 inventory consists of both cash instruments and derivatives of varying complexity.

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements. Differences between this table and amounts presented in the Level 3 Fair Value Rollforward table represent individually immaterial items that have been measured using a variety of valuation techniques other than those listed.

As of December 31, 2021	**Fair value[1]** *(in millions)*	**Methodology**	**Input**	**Low[2][3]**	**High[2][3]**	**Weighted average[4]**
Assets						
Securities borrowed and purchased under agreements to resell	$ 231	Model-based	Credit spread	15 bps	15 bps	15 bps
			Interest rate	0.26 %	0.72 %	0.50 %
Mortgage-backed securities	$ 279	Price-based	Price	$ 4	$ 118	$ 79
	526	Yield analysis	Yield	1.43 %	23.79 %	7.25 %
State and municipal, foreign government, corporate and other debt securities	$ 2,264	Price-based	Price	$ —	$ 995	$ 193
	415	Model-based	Equity volatility	0.08 %	290.64 %	53.94 %
Marketable equity securities[5]	$ 128	Price-based	Price	$ —	$ 73,000	$ 6,477
	43	Model-based	WAL	1.73 years	1.73 years	1.73 years
			Recovery *(in millions)*	$ 7,148	$ 7,148	$ 7,148
Asset-backed securities	$ 386	Price-based	Price	$ 5	$ 754	$ 87
	208	Yield analysis	Yield	2.43 %	19.35 %	8.18 %
Non-marketable equities	$ 121	Price-based	Illiquidity discount	10.00 %	36.00 %	26.43 %
	112	Comparables analysis	PE ratio	11.00x	29.00x	15.42x
	83	Model-based	Price	$ 3	$ 2,601	$ 2,029
			Adjustment factor	0.33x	0.44x	0.34x
			Revenue multiple	19.80x	30.00x	20.48x
			Cost of capital	17.50 %	20.00 %	17.57 %
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 6,054	Model-based	IR normal volatility	0.24 %	0.94 %	0.70 %
Foreign exchange contracts (gross)	$ 1,364	Model-based	IR Normal volatility	0.24 %	0.74 %	0.58 %
			FX volatility	2.13 %	107.42 %	11.21 %
			Credit spread	140 bps	696 bps	639 bps
Equity contracts (gross)[7]	$ 4,690	Model-based	Equity volatility	0.08 %	290.64 %	47.67 %
			Equity forward	57.99 %	165.83 %	89.45 %
			Equity-FX Correlation	(95.00)%	80.00 %	(16.00)%
			Equity-Equity Correlation	(6.49)%	99.00 %	85.61 %
Commodity and other contracts (gross)	$ 3,172	Model-based	Forward price	8.00 %	599.44 %	123.22 %
			Commodity volatility	10.87 %	188.30 %	26.85 %
			Commodity correlation	(50.52)%	89.83 %	(7.11)%
Credit derivatives (gross)	$ 1,480	Model-based	Credit spread	1.00 bps	874.72 bps	68.83 bps
	427	Price-based	Recovery rate	20.00 %	75.00 %	44.72 %
			Upfront points	2.74 %	99.96 %	59.37 %
			Price	$ 40	$ 103	$ 80
			Credit correlation	30.00 %	80.00 %	54.57 %
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	$ 69	Price-based	Price	$ 94	$ 2,598	$ 591
Loans and leases	$ 691	Model-based	Equity volatility	22.48 %	85.44 %	50.56 %

As of December 31, 2021	Fair value[1] *(in millions)*	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
			Forward price	**26.95 %**	**333.08 %**	**106.97 %**
			Commodity volatility	**10.87 %**	**188.30 %**	**26.85 %**
			Commodity correlation	**(50.52)%**	**89.83 %**	**(7.11)%**
Mortgage servicing rights	**$ 331**	Cash flow	Yield	**(1.20)%**	**12.10 %**	**4.51 %**
	73	Model-based	WAL	**2.75 years**	**5.86 years**	**5.14 years**
Liabilities						
Interest-bearing deposits	**$ 183**	Model-based	IR Normal volatility	**0.34 %**	**0.88 %**	**0.68 %**
			Equity volatility	**0.08 %**	**290.64 %**	**54.05 %**
			Equity forward	**57.99 %**	**165.83 %**	**89.39 %**
Securities loaned and sold under agreements to repurchase	**$ 643**	Model-based	Interest rate	**0.12 %**	**1.95 %**	**1.47 %**
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	**$ 63**	Price-based	Price	**$ —**	**$ 12,875**	**$ 1,707**
Short-term borrowings and long-term debt	**$ 25,514**	Model-based	IR Normal volatility	**0.07 %**	**0.88 %**	**0.60 %**
			Equity volatility	**0.08 %**	**290.64 %**	**53.21 %**
			Equity-IR correlation	**(3.53)%**	**60.00 %**	**32.12 %**
			Equity-FX correlation	**(95.00)%**	**80.00 %**	**(15.98)%**
			FX volatility	**0.06 %**	**41.76 %**	**9.38 %**

As of December 31, 2020	Fair value[1] *(in millions)*	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Securities borrowed and purchased under agreements to resell	$ 320	Model-based	Credit spread	15 bps	15 bps	15 bps
			Interest rate	0.30 %	0.35 %	0.32 %
Mortgage-backed securities	$ 344	Price-based	Price	$ 30	$ 111	$ 80
	168	Yield analysis	Yield	2.63 %	21.80 %	10.13 %
State and municipal, foreign government, corporate and other debt securities	$ 1,566	Price-based	Price	$ —	$ 2,265	$ 90
	852	Model-based	Credit spread	35 bps	375 bps	226 bps
Marketable equity securities[5]	$ 36	Model-based	Price	$ —	$ 31,000	$ 5,132
	36	Price-based	WAL	1.48 years	1.48 years	1.48 years
			Recovery *(in millions)*	$ 5,733	$ 5,733	$ 5,733
Asset-backed securities	$ 863	Price-based	Price	$ 2	$ 157	$ 59
	744	Yield analysis	Yield	3.77 %	21.77 %	9.01 %
Non-marketable equities	$ 205	Comparables analysis	Illiquidity discount	10.00 %	45.00 %	25.29 %
			PE ratio	13.60x	28.00x	22.83x
	142	Price-based	Price	$ 136	$ 2,041	$ 1,647
			EBITDA multiples	3.30x	36.70x	15.10x
			Adjustment factor	0.20x	0.61x	0.25x
			Appraised value *(in thousands)*	$ 287	$ 39,745	$ 21,754
			Revenue multiple	2.70x	28.00x	8.92x
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 5,143	Model-based	Inflation volatility	0.27 %	2.36 %	0.78 %
			IR normal volatility	0.11 %	0.73 %	0.52 %
Foreign exchange contracts (gross)	$ 1,296	Model-based	FX volatility	1.70 %	12.63 %	5.41 %

As of December 31, 2020	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
			Contingent event	100.00 %	100.00 %	100.00 %
			Interest rate	0.84 %	84.09 %	17.55 %
			IR normal volatility	0.11 %	0.52 %	0.46 %
			IR-FX correlation	40.00 %	60.00 %	50.00 %
			IR-IR correlation	(21.71)%	40.00 %	38.09 %
Equity contracts (gross)[7]	$ 7,330	Model-based	Equity volatility	5.00 %	91.43 %	42.74 %
			Forward price	65.88 %	105.20 %	91.82 %
Commodity and other contracts (gross)	$ 1,636	Model-based	Commodity correlation	(44.92)%	95.91 %	70.60 %
			Commodity volatility	0.16 %	80.17 %	23.72 %
			Forward price	15.40 %	262.00 %	98.53 %
Credit derivatives (gross)	$ 1,854	Model-based	Credit spread	3.50 bps	352.35 bps	99.89 bps
	408	Price-based	Recovery rate	20.00 %	60.00 %	41.60 %
			Credit correlation	25.00 %	80.00 %	43.36 %
			Upfront points	— %	107.20 %	48.10 %
Loans and leases	$ 1,804	Model-based	Equity volatility	24.65 %	83.09 %	58.23 %
Mortgage servicing rights	$ 258	Cash flow	Yield	2.86 %	16.00 %	6.32 %
	78	Model-based	WAL	2.66 years	5.40 years	4.46 years
Liabilities						
Interest-bearing deposits	$ 206	Model-based	IR Normal volatility	0.11 %	0.73 %	0.54 %
Securities loaned and sold under agreements to repurchase	$ 631	Model-based	Interest rate	0.08 %	1.86 %	0.71 %
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	$ 178	Model-based	IR lognormal volatility	52.06 %	128.87 %	89.82 %
	$ 62	Price-based	Price	$ —	$ 866	$ 80
			Interest rate	10.03 %	20.07 %	13.70 %
Short-term borrowings and long-term debt	$ 24,827	Model-based	IR normal volatility	0.11 %	0.73 %	0.51 %
			Forward price	15.40 %	262.00 %	92.48 %

(1) The tables above include the fair values for the items listed and may not foot to the total population for each category.
(2) Some inputs are shown as zero due to rounding.
(3) When the low and high inputs are the same, there is either a constant input applied to all positions, or the methodology involving the input applies to only one large position.
(4) Weighted averages are calculated based on the fair values of the instruments.
(5) For equity securities, the price inputs are expressed on an absolute basis, not as a percentage of the notional amount.
(6) Both trading and non-trading account derivatives—assets and liabilities—are presented on a gross absolute value basis.
(7) Includes hybrid products.

Uncertainty of Fair Value Measurements Relating to Unobservable Inputs

Valuation uncertainty arises when there is insufficient or disperse market data to allow a precise determination of the exit value of a fair-valued position or portfolio in today's market. This is especially prevalent in Level 3 fair value instruments, where uncertainty exists in valuation inputs that may be both unobservable and significant to the instrument's (or portfolio's) overall fair value measurement. The uncertainties associated with key unobservable inputs on the Level 3 fair value measurements may not be independent of one another. In addition, the amount and direction of the uncertainty on a fair value measurement for a given change in an unobservable input depends on the nature of the instrument as well as whether the Company holds the instrument as an asset or a liability. For certain instruments, the pricing, hedging and risk management are sensitive to the correlation between various inputs rather than on the analysis and aggregation of the individual inputs.

The following section describes some of the most significant unobservable inputs used by the Company in Level 3 fair value measurements.

Correlation

Correlation is a measure of the extent to which two or more variables change in relation to each other. A variety of correlation-related assumptions are required for a wide range of instruments, including equity and credit baskets, foreign exchange options, Credit Index Tranches and many other instruments. For almost all of these instruments, correlations are not directly observable in the market and must be calculated using alternative sources, including historical information. Estimating correlation can be especially difficult where it may vary over time, and calculating correlation information from market data requires significant assumptions regarding the informational efficiency of the market (e.g., swaption markets). Uncertainty therefore exists when an estimate of the appropriate level of correlation as an input into some fair value measurements is required.

Changes in correlation levels can have a substantial impact, favorable or unfavorable, on the value of an instrument, depending on its nature. A change in the default correlation of the fair value of the underlying bonds comprising a CDO structure would affect the fair value of the senior tranche. For example, an increase in the default correlation of the underlying bonds would reduce the fair value of the senior tranche, because highly correlated instruments produce greater losses in the event of default and a portion of these losses would become attributable to the senior tranche. That same change in default correlation would have a different impact on junior tranches of the same structure.

Volatility

Volatility represents the speed and severity of market price changes and is a key factor in pricing options. Volatility generally depends on the tenor of the underlying instrument and the strike price or level defined in the contract. Volatilities for certain combinations of tenor and strike are not observable and need to be estimated using alternative methods, such as comparable instruments, historical analysis or other sources of market information. This leads to uncertainty around the final fair value measurement of instruments with unobservable volatilities.

The general relationship between changes in the value of an instrument (or a portfolio) to changes in volatility also depends on changes in interest rates and the level of the underlying index. Generally, long option positions (assets) benefit from increases in volatility, whereas short option positions (liabilities) will suffer losses. Some instruments are more sensitive to changes in volatility than others. For example, an at-the-money option would experience a greater percentage change in its fair value than a deep-in-the-money option. In addition, the fair value of an option with more than one underlying security (e.g., an option on a basket of equities) depends on the volatility of the individual underlying securities as well as their correlations.

Yield

In some circumstances, the yield of an instrument is not observable in the market and must be estimated from historical data or from yields of similar securities. This estimated yield may need to be adjusted to capture the characteristics of the security being valued. Whenever the amount of the adjustment is significant to the value of the security, the fair value measurement is classified as Level 3.

Adjusted yield is generally used to discount the projected future principal and interest cash flows on instruments, such as asset-backed securities. Adjusted yield is impacted by changes in the interest rate environment and relevant credit spreads.

Prepayment

Voluntary unscheduled payments (prepayments) change the future cash flows for the investor and thereby change the fair value of the security. The effect of prepayments is more pronounced for residential mortgage-backed securities. Prepayment is generally negatively correlated with delinquency and interest rate. A combination of low prepayments and high delinquencies amplifies each input's negative impact on a mortgage securities' valuation. As prepayment speeds change, the weighted average life of the security changes, which impacts the valuation either positively or negatively, depending upon the nature of the security and the direction of the change in the weighted average life.

Recovery

Recovery is the proportion of the total outstanding balance of a bond or loan that is expected to be collected in a liquidation scenario. For many credit securities (e.g., commercial mortgage backed securities), the expected recovery amount of a defaulted property is typically unknown until a liquidation of the property is imminent. The assumed recovery of a security may differ from its actual recovery that will be observable in the future. Generally, an increase in the recovery rate assumption increases the fair value of the security. An increase in loss severity, the inverse of the recovery rate, reduces the amount of principal available for distribution and, as a result, decreases the fair value of the security.

Credit Spread

Credit spread is a component of the security representing its credit quality. Credit spread reflects the market perception of changes in prepayment, delinquency and recovery rates, therefore capturing the impact of other variables on the fair value. Changes in credit spread affect the fair value of securities differently depending on the characteristics and maturity profile of the security. For example, credit spread is a more significant driver of the fair value measurement of a high yield bond as compared to an investment grade bond. Generally, the credit spread for an investment grade bond is also more observable and less volatile than its high yield counterpart.

Items Measured at Fair Value on a Nonrecurring Basis
Certain assets and liabilities are measured at fair value on a nonrecurring basis and, therefore, are not included in the tables above. These include assets measured at cost that have been written down to fair value during the periods as a result of an impairment. These also include non-marketable equity securities that have been measured using the measurement alternative and are either (i) written down to fair value during the periods as a result of an impairment or (ii) adjusted upward or downward to fair value as a result of a transaction observed during the periods for the identical or similar investment of the same issuer. In addition, these assets include loans held-for-sale and other real estate owned that are measured at the lower of cost or market value.

The following tables present the carrying amounts of all assets that were still held for which a nonrecurring fair value measurement was recorded:

In millions of dollars	Fair value	Level 2	Level 3
December 31, 2021			
Loans HFS[1]	**$ 2,298**	**$ 986**	**$ 1,312**
Other real estate owned	**11**	**—**	**11**
Loans[2]	**144**	**—**	**144**
Non-marketable equity securities measured using the measurement alternative	**655**	**104**	**551**
Total assets at fair value on a nonrecurring basis	**$ 3,108**	**$ 1,090**	**$ 2,018**

In millions of dollars	Fair value	Level 2	Level 3
December 31, 2020			
Loans HFS[1]	$ 2,430	$ 207	$ 2,223
Other real estate owned	17	4	13
Loans[2]	703	—	703
Non-marketable equity securities measured using the measurement alternative	458	403	55
Total assets at fair value on a nonrecurring basis	$ 3,608	$ 614	$ 2,994

(1) Net of fair value amounts on the unfunded portion of loans HFS recognized as *Other liabilities* on the Consolidated Balance Sheet.
(2) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

The fair value of loans HFS is determined where possible using quoted secondary-market prices. If no such quoted price exists, the fair value of a loan is determined using quoted prices for a similar asset or assets, adjusted for the specific attributes of that loan. Fair value for the other real estate owned is based on appraisals. For loans whose carrying amount is based on the fair value of the underlying collateral, the fair values depend on the type of collateral. Fair value of the collateral is typically estimated based on quoted market prices if available, appraisals or other internal valuation techniques.

Where the fair value of the related collateral is based on an appraised value, the loan is generally classified as Level 3. In addition, for corporate loans, appraisals of the collateral are often based on sales of similar assets; however, because the prices of similar assets require significant adjustments to reflect the unique features of the underlying collateral, these fair value measurements are generally classified as Level 3.

The fair value of non-marketable equity securities under the measurement alternative is based on observed transaction prices for the identical or similar investment of the same issuer, or an internal valuation technique in the case of an impairment. Where there are insufficient market observations to conclude the inputs are observable, where significant adjustments are made to the observed transaction prices or when an internal valuation technique is used, the security is classified as Level 3. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Valuation Techniques and Inputs for Level 3 Nonrecurring Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 nonrecurring fair value measurements and the most significant unobservable inputs used in those measurements:

As of December 31, 2021	**Fair value[1]** *(in millions)*	**Methodology**	**Input**	**Low[2]**	**High**	**Weighted average[3]**
Loans HFS	**$ 1,312**	Price-based	Price	**$ 89**	**$ 100**	**$ 99**
Other real estate owned	**$ 4**	Price-based	Appraised value[4]	**$ 14,000**	**$ 2,392,464**	**$ 1,660,120**
	5	Recovery analysis				
Loans[5]	**$ 120**	Recovery analysis	Appraised value[4]	**$ 10,000**	**$ 3,900,000**	**$ 247,018**
	24	Price-based	Price	**$ 3**	**$ 75**	**$ 35**
			Recovery rate	**84.00 %**	**100.00 %**	**84.00 %**
Non-marketable equity securities measured using the measurement alternative	**$ 551**	Price-based	Price	**$ 6**	**$ 1,339**	**$ 52**

As of December 31, 2020	Fair value[1] *(in millions)*	Methodology	Input	Low[2]	High	Weighted average[3]
Loans HFS	$ 2,182	Price-based	Price	$ 78	$ 100	$ 97
Other real estate owned	$ 7	Price-based	Appraised value[4]	$3,110,711	$ 4,241,357	$ 3,586,975
	4	Recovery analysis	Price	51	51	51
Loans[5]	$ 96	Price-based	Price	$ 2	$ 49	$ 23
	429	Recovery analysis	Appraised value[4]	$ 95	$ 43,646,426	$ 1,698,938
Non-marketable equity securities measured using the measurement alternative	$ 36	Comparable analysis	Revenue multiple	1.70x	15.10x	10.88x
	18	Net asset approach	Illiquidity discount	20.00 %	20.00 %	20.00 %
			Price	**$ —**	**$ 17**	**$ 6**

(1) The table above includes the fair values for the items listed and may not foot to the total population for each category.
(2) Some inputs are shown as zero due to rounding.
(3) Weighted averages are calculated based on the fair values of the instruments.
(4) Appraised values are disclosed in whole dollars.
(5) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Nonrecurring Fair Value Changes

The following tables present total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that were still held:

In millions of dollars	**Year ended December 31, 2021**
Loans HFS	**$ (31)**
Other real estate owned	**—**
Loans[1]	**9**
Non-marketable equity securities measured using the measurement alternative	**468**
Total nonrecurring fair value gains (losses)	**$ 446**

In millions of dollars	Year ended December 31, 2020
Loans HFS	$ (93)
Other real estate owned	(1)
Loans[1]	109
Non-marketable equity securities measured using the measurement alternative	221
Total nonrecurring fair value gains (losses)	$ 236

(1) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

The following tables present the carrying value and fair value of Citigroup's financial instruments that are not carried at fair value. The tables below therefore exclude items measured at fair value on a recurring basis presented in the tables above.

The disclosure also excludes leases, affiliate investments, pension and benefit obligations, certain insurance contracts and tax-related items. Also, as required, the disclosure excludes the effect of taxes, any premium or discount that could result from offering for sale at one time the entire holdings of a particular instrument, excess fair value associated with deposits with no fixed maturity and other expenses that would be incurred in a market transaction. In addition, the tables exclude the values of non-financial assets and liabilities, as well as a wide range of franchise, relationship and intangible values, which are integral to a full assessment of Citigroup's financial position and the value of its net assets.

Fair values vary from period to period based on changes in a wide range of factors, including interest rates, credit quality and market perceptions of value, and as existing assets and liabilities run off and new transactions are entered into.

	December 31, 2021		**Estimated fair value**		
In billions of dollars	**Carrying value**	**Estimated fair value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Investments, net of allowance	**$ 221.9**	**$ 221.0**	**$ 111.8**	**$ 106.4**	**$ 2.8**
Securities borrowed and purchased under agreements to resell	**110.8**	**110.8**	**—**	**106.4**	**4.4**
Loans(1)(2)	**644.8**	**659.6**	**—**	**—**	**659.6**
Other financial assets(2)(3)	**351.9**	**351.9**	**242.1**	**19.9**	**89.9**
Liabilities					
Deposits	**$ 1,315.6**	**$ 1,316.2**	**$ —**	**$ 1,153.9**	**$ 162.3**
Securities loaned and sold under agreements to repurchase	**134.6**	**134.6**	**—**	**134.5**	**0.1**
Long-term debt(4)	**171.8**	**184.6**	**—**	**171.9**	**12.7**
Other financial liabilities(5)	**111.1**	**111.1**	**—**	**17.0**	**94.1**

	December 31, 2020		Estimated fair value		
In billions of dollars	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments, net of allowance	$ 110.3	$ 113.2	$ 23.3	$ 87.0	$ 2.9
Securities borrowed and purchased under agreements to resell	109.5	109.5	—	109.5	—
Loans(1)(2)	643.3	663.9	—	0.6	663.3
Other financial assets(2)(3)	383.2	383.2	291.5	18.1	73.6
Liabilities					
Deposits	$ 1,278.7	$ 1,278.8	$ —	$ 1,093.3	$ 185.5
Securities loaned and sold under agreements to repurchase	139.3	139.3	—	139.3	—
Long-term debt(4)	204.6	221.2	—	197.8	23.4
Other financial liabilities(5)	102.4	102.4	—	19.2	83.2

(1) The carrying value of loans is net of the *Allowance for credit losses on loans* of $16.5 billion for December 31, 2021 and $25.0 billion for December 31, 2020. In addition, the carrying values exclude $0.5 billion and $0.7 billion of lease finance receivables at December 31, 2021 and 2020, respectively.

(2) Includes items measured at fair value on a nonrecurring basis.

(3) Includes cash and due from banks, deposits with banks, brokerage receivables, reinsurance recoverables and other financial instruments included in *Other assets* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

(4) The carrying value includes long-term debt balances under qualifying fair value hedges.
(5) Includes brokerage payables, separate and variable accounts, short-term borrowings (carried at cost) and other financial instruments included in *Other liabilities* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

The estimated fair values of the Company's corporate unfunded lending commitments at December 31, 2021 and 2020 were off-balance liabilities of $8.1 billion and $7.3 billion, respectively, substantially all of which are classified as Level 3. The Company does not estimate the fair values of consumer unfunded lending commitments, which are generally cancellable by providing notice to the borrower.

25. FAIR VALUE ELECTIONS

The Company may elect to report most financial instruments and certain other items at fair value on an instrument-by-instrument basis with changes in fair value reported in earnings, other than DVA (see below). The election is made upon the initial recognition of an eligible financial asset, financial liability or firm commitment or when certain specified reconsideration events occur. The fair value election may not otherwise be revoked once an election is made. The changes in fair value are recorded in current earnings. Movements in DVA are reported as a component of *AOCI*. Additional discussion regarding the applicable areas in which fair value elections were made is presented in Note 24 to the Consolidated Financial Statements.

The Company has elected fair value accounting for its mortgage servicing rights (MSRs). See Note 21 to the Consolidated Financial Statements for additional details on Citi's MSRs.

The following table presents the changes in fair value of those items for which the fair value option has been elected:

	Changes in fair value—gains (losses) for the years ended December 31,	
In millions of dollars	**2021**	2020
Assets		
Securities borrowed and purchased under agreements to resell	**$ (87)**	$ —
Trading account assets	**59**	(136)
Investments	**—**	—
Loans		
Certain corporate loans	**(171)**	2,486
Certain consumer loans	**—**	1
Total loans	**$ (171)**	$ 2,487
Other assets		
MSRs	**$ 43**	$ (204)
Certain mortgage loans HFS[1]	**70**	299
Total other assets	**$ 113**	$ 95
Total assets	**$ (86)**	$ 2,446
Liabilities		
Interest-bearing deposits	**$ (118)**	$ (154)
Securities loaned and sold under agreements to repurchase	**66**	(559)
Trading account liabilities	**17**	(1)
Short-term borrowings[2]	**675**	802
Long-term debt[2]	**386**	(2,700)
Total liabilities	**$ 1,026**	$ (2,612)

(1) Includes gains (losses) associated with interest rate lock commitments for those loans that have been originated and elected under the fair value option.
(2) Includes DVA that is included in *AOCI*. See Notes 19 and 24 to the Consolidated Financial Statements.

Own Debt Valuation Adjustments (DVA)
Own debt valuation adjustments are recognized on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Changes in fair value of fair value option liabilities related to changes in Citigroup's own credit spreads (DVA) are reflected as a component of *AOCI*. See Note 1 to the Consolidated Financial Statements for additional information.

Among other variables, the fair value of liabilities for which the fair value option has been elected (other than non-recourse debt and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

The estimated changes in the fair value of these non-derivative liabilities due to such changes in the Company's own credit spread (or instrument-specific credit risk) were a gain of $296 million and a loss of $616 million for the years ended December 31, 2021 and 2020, respectively. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current credit spreads observable in the bond market into the relevant valuation technique used to value each liability as described above.

The Fair Value Option for Financial Assets and Financial Liabilities

Selected Portfolios of Securities Purchased Under Agreements to Resell, Securities Borrowed, Securities Sold Under Agreements to Repurchase, Securities Loaned and Certain Uncollateralized Short-Term Borrowings
The Company elected the fair value option for certain portfolios of fixed income securities purchased under agreements to resell and fixed income securities sold under agreements to repurchase, securities borrowed, securities loaned and certain uncollateralized short-term borrowings held primarily by broker-dealer entities in the United States, the United Kingdom and Japan. In each case, the election was made because the related interest rate risk is managed on a portfolio basis, primarily with offsetting derivative instruments that are accounted for at fair value through earnings.

Changes in fair value for transactions in these portfolios are recorded in *Principal transactions*. The related interest revenue and interest expense are measured based on the contractual rates specified in the transactions and are reported as *Interest revenue* and *Interest expense* in the Consolidated Statement of Income.

Certain Loans and Other Credit Products
Citigroup has also elected the fair value option for certain other originated and purchased loans, including certain unfunded loan products, such as guarantees and letters of credit, executed by Citigroup's lending and trading businesses. None of these credit products are highly leveraged financing commitments. Significant groups of transactions include loans and unfunded loan products that are expected to be either sold or securitized in the near term, or transactions where the economic risks are hedged with derivative instruments, such as purchased credit default swaps or total return swaps where the Company pays the total return on the underlying loans to a third party. Citigroup has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications. Fair value was not elected for most lending transactions across the Company.

The following table provides information about certain credit products carried at fair value:

	December 31, 2021		December 31, 2020	
In millions of dollars	**Trading assets**	**Loans**	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	**$ 9,530**	**$ 6,082**	$ 8,063	$ 6,854
Aggregate unpaid principal balance in excess of (less than) fair value	**(100)**	**226**	(915)	(14)
Balance of non-accrual loans or loans more than 90 days past due	**—**	**1**	—	4
Aggregate unpaid principal balance in excess of (less than) fair value for non-accrual loans or loans more than 90 days past due	**—**	**—**	—	—

In addition to the amounts reported above, $719 million and $1,068 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of December 31, 2021 and 2020, respectively.

Changes in the fair value of funded and unfunded credit products are classified in *Principal transactions* in Citi's Consolidated Statement of Income. Related interest revenue is measured based on the contractual interest rates and reported as *Interest revenue* on *Trading account assets* or loan interest depending on the balance sheet classifications of the credit products. The changes in fair value for the years ended December 31, 2021 and 2020 due to instrument-specific credit risk totaled to a loss of $21 million and a loss of $16 million, respectively.

Certain Investments in Unallocated Precious Metals

Citigroup invests in unallocated precious metals accounts (gold, silver, platinum and palladium) as part of its commodity and foreign currency trading activities or to economically hedge certain exposures from issuing structured liabilities. Under ASC 815, the investment is bifurcated into a debt host contract and a commodity forward derivative instrument. Citigroup elects the fair value option for the debt host contract, and reports the debt host contract within *Trading account assets* on the Company's Consolidated Balance Sheet. The total carrying amount of debt host contracts across unallocated precious metals accounts was approximately $0.3 billion and $0.5 billion at December 31, 2021 and 2020, respectively. The amounts are expected to fluctuate based on trading activity in future periods.

As part of its commodity and foreign currency trading activities, Citi trades unallocated precious metals investments and executes forward purchase and forward sale derivative contracts with trading counterparties. When Citi sells an unallocated precious metals investment, Citi's receivable from its depository bank is repaid and Citi derecognizes its investment in the unallocated precious metal. The forward purchase or sale contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings. As of December 31, 2021, there were approximately $15.2 billion and $10.5 billion of notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively.

Certain Investments in Private Equity and Real Estate Ventures

Citigroup invests in private equity and real estate ventures for the purpose of earning investment returns and for capital appreciation. The Company has elected the fair value option for certain of these ventures, because such investments are considered similar to many private equity or hedge fund activities in Citi's investment companies, which are reported at fair value. The fair value option brings consistency in the accounting and evaluation of these investments. All investments (debt and equity) in such private equity and real estate entities are accounted for at fair value. These investments are classified as *Investments* on Citigroup's Consolidated Balance Sheet.

Changes in the fair values of these investments are classified in *Other revenue* in the Company's Consolidated Statement of Income.

Certain Mortgage Loans Held-for-Sale (HFS)

Citigroup has elected the fair value option for certain purchased and originated prime fixed-rate and conforming adjustable-rate first mortgage loans HFS. These loans are intended for sale or securitization and are hedged with derivative instruments. The Company has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications.

The following table provides information about certain mortgage loans HFS carried at fair value:

In millions of dollars	**December 31, 2021**	December 31, 2020
Carrying amount reported on the Consolidated Balance Sheet	**$ 3,035**	$ 1,742
Aggregate fair value in excess of (less than) unpaid principal balance	**70**	91
Balance of non-accrual loans or loans more than 90 days past due	**1**	—
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	**—**	—

The changes in the fair values of these mortgage loans are reported in *Other revenue* in the Company's Consolidated Statement of Income. There was no net change in fair value during the years ended December 31, 2021 and 2020 due to instrument-specific credit risk. Related interest income continues to be measured based on the contractual interest rates and reported as *Interest revenue* in the Consolidated Statement of Income.

Certain Debt Liabilities

The Company has elected the fair value option for certain debt liabilities. The Company elected the fair value option because these exposures are considered to be trading-related positions and, therefore, they are managed on a fair value basis. These positions will continue to be classified as debt, deposits or derivatives classified as *Trading account liabilities* on the Company's Consolidated Balance Sheet according to their legal form.

The following table provides information about the carrying value of notes carried at fair value, disaggregated by type of risk:

In billions of dollars	**December 31, 2021**	December 31, 2020
Interest rate linked	**$ 38.9**	$ 34.5
Foreign exchange linked	**—**	1.2
Equity linked	**36.1**	27.3
Commodity linked	**3.9**	1.4
Credit linked	**3.7**	2.6
Total	**$ 82.6**	$ 67.0

The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (i.e., DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*. Changes in the fair value of these liabilities include accrued interest, which is also included in the change in fair value reported in *Principal transactions*.

Certain Non-Structured Liabilities

The Company has elected the fair value option for certain non-structured liabilities with fixed and floating interest rates. The Company has elected the fair value option where the interest rate risk of such liabilities may be economically hedged with derivative contracts or the proceeds are used to purchase financial assets that will also be accounted for at fair value through earnings. The elections have been made to mitigate accounting mismatches and to achieve operational simplifications. These positions are reported in *Short-term borrowings* and *Long-term debt* on the Company's Consolidated Balance Sheet. The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (i.e., DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*.

Interest expense on non-structured liabilities is measured based on the contractual interest rates and reported as *Interest expense* in the Consolidated Statement of Income.

The following table provides information about long-term debt carried at fair value:

In millions of dollars	**December 31, 2021**	December 31, 2020
Carrying amount reported on the Consolidated Balance Sheet	**$ 82,609**	$ 67,063
Aggregate unpaid principal balance in excess of (less than) fair value	**(2,459)**	(5,130)

The following table provides information about short-term borrowings carried at fair value:

In millions of dollars	**December 31, 2021**	December 31, 2020
Carrying amount reported on the Consolidated Balance Sheet	**$ 7,358**	$ 4,683
Aggregate unpaid principal balance in excess of (less than) fair value	**(644)**	68

26. PLEDGED ASSETS, COLLATERAL, GUARANTEES AND COMMITMENTS

Pledged Assets

In connection with Citi's financing and trading activities, Citi has pledged assets to collateralize its obligations under repurchase agreements, secured financing agreements, secured liabilities of consolidated VIEs and other borrowings. The approximate carrying values of the significant components of pledged assets recognized on Citi's Consolidated Balance Sheet included the following:

In millions of dollars	**December 31, 2021**	December 31, 2020
Investment securities	**$ 252,192**	$ 231,696
Loans	**232,319**	239,699
Trading account assets	**140,980**	174,717
Total	**$ 625,491**	$ 646,112

Restricted Cash

Citigroup defines restricted cash (as cash subject to withdrawal restrictions) to include cash deposited with central banks that must be maintained to meet minimum regulatory requirements, and cash set aside for the benefit of customers or for other purposes such as compensating balance arrangements or debt retirement. Restricted cash includes minimum reserve requirements with the Federal Reserve Bank and certain other central banks and cash segregated to satisfy rules regarding the protection of customer assets as required by Citigroup broker-dealers' primary regulators, including the United States Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission and the United Kingdom's Prudential Regulation Authority.

Restricted cash is included on the Consolidated Balance Sheet within the following balance sheet lines:

In millions of dollars	**December 31, 2021**	December 31, 2020
Cash and due from banks	**$ 2,786**	$ 3,774
Deposits with banks, net of allowance	**10,636**	14,203
Total	**$ 13,422**	$ 17,977

In addition, included in *Cash and due from banks* and *Deposits with banks* at December 31, 2021 and 2020 were $13.7 billion and $9.4 billion, respectively, of cash segregated under federal and other brokerage regulations or deposited with clearing organizations.

Collateral

At December 31, 2021 and 2020, the approximate fair value of collateral received by Citi that may be resold or repledged, excluding the impact of allowable netting, was $650.8 billion and $671.6 billion, respectively. This collateral was received in connection with resale agreements, securities borrowings and loans, securities for securities lending transactions, derivative transactions and margined broker loans.

At December 31, 2021 and 2020, a substantial portion of the collateral received by Citi had been sold or repledged in connection with repurchase agreements, securities sold, not yet purchased, securities lendings, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

In addition, at December 31, 2021 and 2020, Citi had pledged $481.0 billion and $470.7 billion, respectively, of collateral that may not be sold or repledged by the secured parties.

Leases

The Company's operating leases, where Citi is a lessee, include real estate such as office space and branches and various types of equipment. These leases may contain renewal and extension options and early termination features. However, these options do not impact the lease term unless the Company is reasonably certain that it will exercise the options. These leases have a weighted-average remaining lease term of approximately six years as of December 31, 2021 and 2020. The operating lease ROU asset was $2.9 billion and $2.8 billion, as of December 31, 2021 and 2020, respectively. The operating lease ROU liability was $3.1 billion and $3.1 billion, as of December 31, 2021 and 2020, respectively. The Company recognizes fixed lease costs on a straight-line basis throughout the lease term in the Consolidated Statement of Income. In addition, variable lease costs are recognized in the period in which the obligation for those payments is incurred. The total operating lease expense (principally for offices, branches and equipment), net of $12 million and $27 million of sublease income, was $1,061 million and $1,054 million for the years ended December 31, 2021 and 2020, respectively.

The table below provides the Cash Flow Statement Supplemental Information:

In millions of dollars	**December 31, 2021**	December 31, 2020
Cash paid for amounts included in the measurement of lease liabilities	**$ 806**	$ 814
Right-of-use assets obtained in exchange for new operating lease liabilities(1)(2)	**845**	447

(1) Represents non-cash activity and, accordingly, is not reflected in the Consolidated Statement of Cash Flows.

(2) Excludes the decrease in the right-of-use assets related to the purchase of a previously leased property.

Citi's future lease payments are as follows:

In millions of dollars		
2022	$	763
2023		648
2024		542
2025		445
2026		346
Thereafter		753
Total future lease payments	$	3,497
Less imputed interest (based on weighted-average discount rate of 3.0%)	$	(381)
Lease liability	$	3,116

Operating lease expense was $1.1 billion for the year ended December 31, 2019.

Guarantees

Citi provides a variety of guarantees and indemnifications to its customers to enhance their credit standing and enable them to complete a wide variety of business transactions. For certain contracts meeting the definition of a guarantee, the guarantor must recognize, at inception, a liability for the fair value of the obligation undertaken in issuing the guarantee.

In addition, the guarantor must disclose the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, if there were a total default by the guaranteed parties. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

The following tables present information about Citi's guarantees:

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	**Expire within 1 year**	**Expire after 1 year**	**Total amount outstanding**	**Carrying value** *(in millions of dollars)*
Financial standby letters of credit	**$ 34.3**	**$ 58.4**	**$ 92.7**	**$ 791**
Performance guarantees	**6.6**	**6.4**	**13.0**	**47**
Derivative instruments considered to be guarantees	**14.6**	**48.9**	**63.5**	**514**
Loans sold with recourse	**—**	**1.7**	**1.7**	**15**
Securities lending indemnifications(1)	**121.9**	**—**	**121.9**	**—**
Credit card merchant processing(2)	**119.4**	**—**	**119.4**	**1**
Credit card arrangements with partners	**—**	**0.8**	**0.8**	**7**
Other	**2.0**	**12.0**	**14.0**	**34**
Total	**$ 298.8**	**$ 128.2**	**$ 427.0**	**$ 1,409**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2020	Expire within 1 year	Expire after 1 year	Total amount outstanding	Carrying value *(in millions of dollars)*
Financial standby letters of credit	$ 25.3	$ 68.4	$ 93.7	$ 1,407
Performance guarantees	7.3	6.0	13.3	72
Derivative instruments considered to be guarantees	20.0	60.9	80.9	671
Loans sold with recourse	—	1.2	1.2	9
Securities lending indemnifications(1)	112.2	—	112.2	—
Credit card merchant processing(2)	101.9	—	101.9	3
Credit card arrangements with partners	0.2	0.8	1.0	7
Other	—	12.0	12.0	35
Total	$ 266.9	$ 149.3	$ 416.2	$ 2,204

(1) The carrying values of securities lending indemnifications were not material for either period presented, as the probability of potential liabilities arising from these guarantees is minimal.

(2) At December 31, 2021 and 2020, this maximum potential exposure was estimated to be $119 billion and $102 billion, respectively. However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants.

Financial Standby Letters of Credit

Citi issues standby letters of credit, which substitute its own credit for that of the borrower. If a letter of credit is drawn down, the borrower is obligated to repay Citi. Standby letters of credit protect a third party from defaults on contractual obligations. Financial standby letters of credit include (i) guarantees of payment of insurance premiums and reinsurance risks that support industrial revenue bond underwriting, (ii) settlement of payment obligations to clearing houses, including futures and over-the-counter derivatives clearing (see further discussion below), (iii) support options and purchases of securities in lieu of escrow deposit accounts and (iv) letters of credit that backstop loans, credit facilities, promissory notes and trade acceptances.

Performance Guarantees

Performance guarantees and letters of credit are issued to guarantee a customer's tender bid on a construction or systems-installation project or to guarantee completion of such projects in accordance with contract terms. They are also issued to support a customer's obligation to supply specified products, commodities or maintenance or warranty services to a third party.

Derivative Instruments Considered to Be Guarantees

Derivatives are financial instruments whose cash flows are based on a notional amount and an underlying instrument, reference credit or index, where there is little or no initial investment, and whose terms require or permit net settlement. For a discussion of Citi's derivatives activities, see Note 22 to the Consolidated Financial Statements.

Derivative instruments considered to be guarantees include only those instruments that require Citi to make payments to the counterparty based on changes in an underlying instrument that is related to an asset, a liability or an equity security held by the guaranteed party. More specifically, derivative instruments considered to be guarantees include certain over-the-counter written put options where the counterparty is not a bank, hedge fund or broker-dealer (such counterparties are considered to be dealers in these markets and may, therefore, not hold the underlying instruments). Credit derivatives sold by Citi are excluded from the tables above as they are disclosed separately in Note 22 to the Consolidated Financial Statements. In instances where Citi's maximum potential future payment is unlimited, the notional amount of the contract is disclosed.

Loans Sold with Recourse

Loans sold with recourse represent Citi's obligations to reimburse the buyers for loan losses under certain circumstances. Recourse refers to the clause in a sales agreement under which a seller/lender will fully reimburse the buyer/investor for any losses resulting from the purchased loans. This may be accomplished by the sellers taking back any loans that become delinquent.

In addition to the amounts shown in the tables above, Citi has recorded a repurchase reserve for its potential repurchases or make-whole liability regarding residential mortgage representation and warranty claims related to its whole loan sales to U.S. government-sponsored agencies and, to a lesser extent, private investors. The repurchase reserve was approximately $19 million and $31 million at December 31, 2021 and 2020, respectively, and these amounts are included in *Other liabilities* on the Consolidated Balance Sheet.

Securities Lending Indemnifications

Owners of securities frequently lend those securities for a fee to other parties who may sell them short or deliver them to another party to satisfy some other obligation. Banks may administer such securities lending programs for their clients. Securities lending indemnifications are issued by the bank to guarantee that a securities lending customer will be made whole in the event that the security borrower does not return the security subject to the lending agreement and collateral held is insufficient to cover the market value of the security.

Credit Card Merchant Processing

Credit card merchant processing guarantees represent the Company's indirect obligations in connection with (i) providing transaction processing services to various merchants with respect to its private label cards and (ii) potential liability for bank card transaction processing services. The nature of the liability in either case arises as a result of a billing dispute between a merchant and a cardholder that is ultimately resolved in the cardholder's favor. The merchant is liable to refund the amount to the cardholder. In general, if the credit card processing company is unable to collect this amount from the merchant, the credit card processing company bears the loss for the amount of the credit or refund paid to the cardholder.

With regard to (i) above, Citi has the primary contingent liability with respect to its portfolio of private label merchants. The risk of loss is mitigated as the cash flows between Citi and the merchant are settled on a net basis, and Citi has the right to offset any payments with cash flows otherwise due to the merchant. To further mitigate this risk, Citi may delay settlement, require a merchant to make an escrow deposit, include event triggers to provide Citi with more financial and operational control in the event of the financial deterioration of the merchant or require various credit enhancements (including letters of credit and bank guarantees). In the unlikely event that a private label merchant is unable to deliver products, services or a refund to its private label cardholders, Citi is contingently liable to credit or refund cardholders.

With regard to (ii) above, Citi has a potential liability for bank card transactions where Citi provides the transaction processing services as well as those where a third party provides the services and Citi acts as a secondary guarantor, should that processor fail to perform.

Citi's maximum potential contingent liability related to both bank card and private label merchant processing services is estimated to be the total volume of credit card transactions that meet the requirements to be valid charge-back transactions at any given time. At December 31, 2021 and 2020, this maximum potential exposure was estimated to be $119.4 billion and $101.9 billion, respectively.

However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants. Citi assesses the probability and amount of its contingent liability related to merchant processing based on the financial strength of the primary guarantor, the extent and nature of unresolved charge-backs and its historical loss experience. At December 31, 2021 and 2020, the losses incurred and the carrying amounts of Citi's contingent obligations related to merchant processing activities were immaterial.

Credit Card Arrangements with Partners
Citi, in one of its credit card partner arrangements, provides guarantees to the partner regarding the volume of certain customer originations during the term of the agreement. To the extent that such origination targets are not met, the guarantees serve to compensate the partner for certain payments that otherwise would have been generated in connection with such originations.

Other Guarantees and Indemnifications

Credit Card Protection Programs
Citi, through its credit card businesses, provides various cardholder protection programs on several of its card products, including programs that provide coverage for certain losses associated with purchased products, and protection for certain travel-related purchases. These guarantees are not included in the table, since the total outstanding amount of the guarantees and Citi's maximum exposure to loss cannot be quantified. The protection is limited to certain types of purchases and losses, and it is not possible to quantify the purchases that would qualify for these benefits at any given time. Citi assesses the probability and amount of its potential liability related to these programs based on the extent and nature of its historical loss experience. At December 31, 2021 and 2020, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were immaterial.

Other Representation and Warranty Indemnifications
In the normal course of business, Citi provides standard representations and warranties to counterparties in contracts in connection with numerous transactions and also provides indemnifications, including indemnifications that protect the counterparties to the contracts in the event that additional taxes are owed, due either to a change in the tax law or an adverse interpretation of the tax law. Counterparties to these transactions provide Citi with comparable indemnifications. While such representations, warranties and indemnifications are essential components of many contractual relationships, they do not represent the underlying business purpose for the transactions. The indemnification clauses are often standard contractual terms related to Citi's own performance under the terms of a contract and are entered into in the normal course of business based on an assessment that the risk of loss is remote. Often these clauses are intended to ensure that terms of a contract are met at inception. No compensation is received for these standard representations and warranties, and it is not possible to determine their fair value because they rarely, if ever, result in a payment. In many cases, there are no stated or notional amounts included in the indemnification clauses, and the contingencies potentially triggering the obligation to indemnify have not occurred and are not expected to occur. As a result, these indemnifications are not included in the tables above.

Value-Transfer Networks (Including Exchanges and Clearing Houses) (VTNs)
Citi is a member of, or shareholder in, hundreds of value-transfer networks (VTNs) (payment, clearing and settlement systems as well as exchanges) around the world. As a condition of membership, many of these VTNs require that members stand ready to pay a pro rata share of the losses incurred by the organization due to another member's default on its obligations. Citi's potential obligations may be limited to its membership interests in the VTNs, contributions to the VTN's funds, or, in certain narrow cases, to the full pro rata share. The maximum exposure is difficult to estimate as this would require an assessment of claims that have not yet occurred; however, Citi believes the risk of loss is remote given historical experience with the VTNs. Accordingly, Citi's participation in VTNs is not reported in the guarantees tables above, and there are no amounts reflected on the Consolidated Balance Sheet as of December 31, 2021 or 2020 for potential obligations that could arise from Citi's involvement with VTN associations.

Long-Term Care Insurance Indemnification
In 2000, Travelers Life & Annuity (Travelers), then a subsidiary of Citi, entered into a reinsurance agreement to transfer the risks and rewards of its long-term care (LTC) business to GE Life (now Genworth Financial Inc., or Genworth), then a subsidiary of the General Electric Company (GE). As part of this transaction, the reinsurance obligations were provided by two regulated insurance subsidiaries of GE Life, which funded two collateral trusts with securities. Presently, as discussed below, the trusts are referred to as the Genworth Trusts.

As part of GE's spin-off of Genworth in 2004, GE retained the risks and rewards associated with the 2000 Travelers reinsurance agreement by providing a reinsurance contract to Genworth through GE's Union Fidelity Life Insurance Company (UFLIC) subsidiary that covers the Travelers LTC policies. In addition, GE provided a capital maintenance agreement in favor of UFLIC that is designed to assure that UFLIC will have the funds to pay its reinsurance obligations. As a result of these reinsurance agreements and the spin-off of Genworth, Genworth has reinsurance protection from UFLIC (supported by GE) and has reinsurance obligations in connection with the Travelers LTC policies. As noted below, the Genworth reinsurance obligations now benefit Brighthouse Financial, Inc. (Brighthouse). While neither Brighthouse nor Citi are direct beneficiaries of the capital maintenance agreement between GE and UFLIC, Brighthouse and Citi benefit indirectly from the existence of the capital maintenance agreement, which helps assure that UFLIC will continue to have funds necessary to pay its reinsurance obligations to Genworth.

In connection with Citi's 2005 sale of Travelers to MetLife Inc. (MetLife), Citi provided an indemnification to MetLife for losses (including policyholder claims) relating to the LTC business for the entire term of the Travelers LTC policies, which, as noted above, are reinsured by subsidiaries of Genworth. In 2017, MetLife spun off its retail insurance business to Brighthouse. As a result, the Travelers LTC policies now reside with Brighthouse. The original reinsurance agreement between Travelers (now Brighthouse) and Genworth remains in place and Brighthouse is the sole beneficiary of the Genworth Trusts. The Genworth Trusts are designed to provide collateral to Brighthouse in an amount equal to the statutory liabilities of Brighthouse in respect of the Travelers LTC policies. The assets in the Genworth Trusts are evaluated and adjusted periodically to ensure that the fair value of the assets continues to provide collateral in an amount equal to these estimated statutory liabilities, as the liabilities change over time.

If both (i) Genworth fails to perform under the original Travelers/GE Life reinsurance agreement for any reason, including its insolvency or the failure of UFLIC to perform under its reinsurance contract or GE to perform under the capital maintenance agreement, and (ii) the assets of the two Genworth Trusts are insufficient or unavailable, then Citi, through its LTC reinsurance indemnification, must reimburse Brighthouse for any losses incurred in connection with the LTC policies. Since both events would have to occur before Citi would become responsible for any payment to Brighthouse pursuant to its indemnification obligation, and the likelihood of such events occurring is currently not probable, there is no liability reflected on the Consolidated Balance Sheet as of December 31, 2021 and 2020 related to this indemnification. However, if both events become reasonably possible (meaning more than remote but less than probable), Citi will be required to estimate and disclose a reasonably possible loss or range of loss to the extent that such an estimate could be made. In addition, if both events become probable, Citi will be required to accrue for such liability in accordance with applicable accounting principles.

Futures and Over-the-Counter Derivatives Clearing

Citi provides clearing services on central clearing parties (CCP) for clients that need to clear exchange-traded and over-the-counter (OTC) derivatives contracts with CCPs. Based on all relevant facts and circumstances, Citi has concluded that it acts as an agent for accounting purposes in its role as clearing member for these client transactions. As such, Citi does not reflect the underlying exchange-traded or OTC derivatives contracts in its Consolidated Financial Statements. See Note 22 for a discussion of Citi's derivatives activities that are reflected in its Consolidated Financial Statements.

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers.

There are two types of margin: initial and variation. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP or depository institutions is reflected within *Brokerage payables* (payables to customers) and *Brokerage receivables* (receivables from brokers, dealers and clearing organizations) or *Cash and due from banks*, respectively.

However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin, (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets, (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately $18.7 billion and $16.6 billion as of December 31, 2021 and 2020, respectively.

Variation margin due from clients to the respective CCP, or from the CCP to clients, reflects changes in the value of the client's derivative contracts for each trading day. As a clearing member, Citi is exposed to the risk of non-performance by clients (e.g., failure of a client to post variation margin to the CCP for negative changes in the value of the client's derivative contracts). In the event of non-performance by a client, Citi would move to close out the client's positions. The CCP would typically utilize initial margin posted by the client and held by the CCP, with any remaining shortfalls required to be paid by Citi as clearing member. Citi generally holds incremental cash or securities margin posted by the client, which would typically be expected to be sufficient to mitigate Citi's credit risk in the event that the client fails to perform.

As required by ASC 860-30-25-5, securities collateral posted by clients is not recognized on Citi's Consolidated Balance Sheet.

Carrying Value—Guarantees and Indemnifications
At December 31, 2021 and 2020, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately $1.4 billion and $2.2 billion, respectively. The carrying value of financial and performance guarantees is included in *Other liabilities.* For loans sold with recourse, the carrying value of the liability is included in *Other liabilities*.

Collateral
Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to $56.5 billion and $51.6 billion at December 31, 2021 and 2020, respectively. Securities and other marketable assets held as collateral amounted to $84.2 billion and $80.1 billion at December 31, 2021 and 2020, respectively. The majority of collateral is held to reimburse losses realized under securities lending indemnifications. In addition, letters of credit in favor of Citi held as collateral amounted to $4.1 billion and $6.6 billion at December 31, 2021 and 2020, respectively. Other property may also be available to Citi to cover losses under certain guarantees and indemnifications; however, the value of such property has not been determined.

Performance Risk
Citi evaluates the performance risk of its guarantees based on the assigned referenced counterparty internal or external ratings. Where external ratings are used, investment-grade ratings are considered to be Baa/BBB and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system. On certain underlying referenced assets or entities, ratings are not available. Such referenced assets are included in the "not rated" category. The maximum potential amount of the future payments related to the outstanding guarantees is determined to be the notional amount of these contracts, which is the par amount of the assets guaranteed.

Presented in the tables below are the maximum potential amounts of future payments that are classified based on internal and external credit ratings. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	**Investment grade**	**Non-investment grade**	**Not rated**	**Total**
Financial standby letters of credit	**$ 81.4**	**$ 11.3**	**$ —**	**$ 92.7**
Performance guarantees	**10.5**	**2.5**	**—**	**13.0**
Derivative instruments deemed to be guarantees	**—**	**—**	**63.5**	**63.5**
Loans sold with recourse	**—**	**—**	**1.7**	**1.7**
Securities lending indemnifications	**—**	**—**	**121.9**	**121.9**
Credit card merchant processing	**—**	**—**	**119.4**	**119.4**
Credit card arrangements with partners	**—**	**—**	**0.8**	**0.8**
Other	**—**	**12.0**	**2.0**	**14.0**
Total	**$ 91.9**	**$ 25.8**	**$ 309.3**	**$ 427.0**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2020	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	$ 78.5	$ 14.6	$ 0.6	$ 93.7
Performance guarantees	9.8	3.0	0.5	13.3
Derivative instruments deemed to be guarantees	—	—	80.9	80.9
Loans sold with recourse	—	—	1.2	1.2
Securities lending indemnifications	—	—	112.2	112.2
Credit card merchant processing	—	—	101.9	101.9
Credit card arrangements with partners	—	—	1.0	1.0
Other	—	12.0	—	12.0
Total	$ 88.3	$ 29.6	$ 298.3	$ 416.2

Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

In millions of dollars	U.S.	Outside of U.S.	December 31, 2021	December 31, 2020
Commercial and similar letters of credit	$ 654	$ 5,256	$ 5,910	$ 5,221
One- to four-family residential mortgages	1,752	2,599	4,351	5,002
Revolving open-end loans secured by one- to four-family residential properties	6,790	1,123	7,913	9,626
Commercial real estate, construction and land development	15,877	1,966	17,843	12,867
Credit card lines	601,018	99,541	700,559	710,399
Commercial and other consumer loan commitments	207,234	113,322	320,556	322,458
Other commitments and contingencies	5,276	373	5,649	5,715
Total	$ 838,601	$ 224,180	$ 1,062,781	$ 1,071,288

The majority of unused commitments are contingent upon customers maintaining specific credit standards. Commercial commitments generally have floating interest rates and fixed expiration dates and may require payment of fees. Such fees (net of certain direct costs) are deferred and, upon exercise of the commitment, amortized over the life of the loan or, if exercise is deemed remote, amortized over the commitment period.

Commercial and Similar Letters of Credit

A commercial letter of credit is an instrument by which Citigroup substitutes its credit for that of a customer to enable the customer to finance the purchase of goods or to incur other commitments. Citigroup issues a letter on behalf of its client to a supplier and agrees to pay the supplier upon presentation of documentary evidence that the supplier has performed in accordance with the terms of the letter of credit. When a letter of credit is drawn, the customer is then required to reimburse Citigroup.

One- to Four-Family Residential Mortgages

A one- to four-family residential mortgage commitment is a written confirmation from Citigroup to a seller of a property that the bank will advance the specified sums enabling the buyer to complete the purchase.

Revolving Open-End Loans Secured by One- to Four-Family Residential Properties

Revolving open-end loans secured by one- to four-family residential properties are essentially home equity lines of credit. A home equity line of credit is a loan secured by a primary residence or second home to the extent of the excess of fair market value over the debt outstanding for the first mortgage.

Commercial Real Estate, Construction and Land Development

Commercial real estate, construction and land development include unused portions of commitments to extend credit for the purpose of financing commercial and multifamily residential properties as well as land development projects.

Both secured-by-real-estate and unsecured commitments are included in this line, as well as undistributed loan proceeds, where there is an obligation to advance for construction progress payments. However, this line only includes those extensions of credit that, once funded, will be classified as *Total loans, net* on the Consolidated Balance Sheet.

Credit Card Lines

Citigroup provides credit to customers by issuing credit cards. The credit card lines are cancelable by providing notice to the cardholder or without such notice as permitted by local law.

Commercial and Other Consumer Loan Commitments

Commercial and other consumer loan commitments include overdraft and liquidity facilities as well as commercial commitments to make or purchase loans, purchase third-party receivables, provide note issuance or revolving underwriting facilities and invest in the form of equity.

Other Commitments and Contingencies

Other commitments and contingencies include all other transactions related to commitments and contingencies not reported on the lines above.

Unsettled Reverse Repurchase and Securities Borrowing Agreements and Unsettled Repurchase and Securities Lending Agreements

In addition, in the normal course of business, Citigroup enters into reverse repurchase and securities borrowing agreements, as well as repurchase and securities lending agreements, which settle at a future date. At December 31, 2021 and 2020, Citigroup had approximately $126.6 billion and $71.8 billion of unsettled reverse repurchase and securities borrowing agreements, and approximately $41.1 billion and $62.5 billion of unsettled repurchase and securities lending agreements, respectively. For a further discussion of securities purchased under agreements to resell and securities borrowed, and securities sold under agreements to repurchase and securities loaned, including the Company's policy for offsetting repurchase and reverse repurchase agreements, see Note 11 to the Consolidated Financial Statements.

27. CONTINGENCIES

Accounting and Disclosure Framework

ASC 450 governs the disclosure and recognition of loss contingencies, including potential losses from litigation, regulatory, tax and other matters. ASC 450 defines a "loss contingency" as "an existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an entity that will ultimately be resolved when one or more future events occur or fail to occur." It imposes different requirements for the recognition and disclosure of loss contingencies based on the likelihood of occurrence of the contingent future event or events. It distinguishes among degrees of likelihood using the following three terms: "probable," meaning that "the future event or events are likely to occur"; "remote," meaning that "the chance of the future event or events occurring is slight"; and "reasonably possible," meaning that "the chance of the future event or events occurring is more than remote but less than likely." These three terms are used below as defined in ASC 450.

Accruals. ASC 450 requires accrual for a loss contingency when it is "probable that one or more future events will occur confirming the fact of loss" *and* "the amount of the loss can be reasonably estimated." In accordance with ASC 450, Citigroup establishes accruals for contingencies, including any litigation, regulatory or tax matters disclosed herein, when Citigroup believes it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. When the reasonable estimate of the loss is within a range of amounts, the minimum amount of the range is accrued, unless some higher amount within the range is a better estimate than any other amount within the range. Once established, accruals are adjusted from time to time, as appropriate, in light of additional information. The amount of loss ultimately incurred in relation to those matters may be substantially higher or lower than the amounts accrued for those matters.

Disclosure. ASC 450 requires disclosure of a loss contingency if "there is at least a reasonable possibility that a loss or an additional loss may have been incurred" *and* there is no accrual for the loss because the conditions described above are not met or an exposure to loss exists in excess of the amount accrued. In accordance with ASC 450, if Citigroup has not accrued for a matter because Citigroup believes that a loss is reasonably possible but not probable, or that a loss is probable but not reasonably estimable, and the reasonably possible loss is material, it discloses the loss contingency. In addition, Citigroup discloses matters for which it has accrued if it believes a reasonably possible exposure to material loss exists in excess of the amount accrued. In accordance with ASC 450, Citigroup's disclosure includes an estimate of the reasonably possible loss or range of loss for those matters as to which an estimate can be made. ASC 450 does not require disclosure of an estimate of the reasonably possible loss or range of loss where an estimate cannot be made. Neither accrual nor disclosure is required for losses that are deemed remote.

Litigation, Regulatory and Other Contingencies

Overview. In addition to the matters described below, in the ordinary course of business, Citigroup, its affiliates and subsidiaries, and current and former officers, directors and employees (for purposes of this section, sometimes collectively referred to as Citigroup and Related Parties) routinely are named as defendants in, or as parties to, various legal actions and proceedings. Certain of these actions and proceedings assert claims or seek relief in connection with alleged violations of consumer protection, fair lending, securities, banking, antifraud, antitrust, anti-money laundering, employment and other statutory and common laws. Certain of these actual or threatened legal actions and proceedings include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief, and in some instances seek recovery on a class-wide basis.

In the ordinary course of business, Citigroup and Related Parties also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, restitution, disgorgement, injunctions or other relief. In addition, certain affiliates and subsidiaries of Citigroup are banks, registered broker-dealers, futures commission merchants, investment advisors or other regulated entities and, in those capacities, are subject to regulation by various U.S., state and foreign securities, banking, commodity futures, consumer protection and other regulators. In connection with formal and informal inquiries by these regulators, Citigroup and such affiliates and subsidiaries receive numerous requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of their regulated activities. From time to time Citigroup and Related Parties also receive grand jury subpoenas and other requests for information or assistance, formal or informal, from federal or state law enforcement agencies including, among others, various United States Attorneys' Offices, the Asset Forfeiture and Money Laundering Section and other divisions of the Department of Justice, the Financial Crimes Enforcement Network of the United States Department of the Treasury, and the Federal Bureau of Investigation relating to Citigroup and its customers.

Because of the global scope of Citigroup's operations and its presence in countries around the world, Citigroup and Related Parties are subject to litigation and governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal) in multiple jurisdictions with legal, regulatory and tax regimes that may differ substantially, and present substantially different risks, from those Citigroup and Related Parties are subject to in the United States. In some instances, Citigroup and Related Parties may be involved in proceedings involving the same subject matter in multiple jurisdictions, which may result in overlapping, cumulative or inconsistent outcomes.

Citigroup seeks to resolve all litigation, regulatory, tax and other matters in the manner management believes is in the best interests of Citigroup and its shareholders, and contests liability, allegations of wrongdoing and, where applicable, the amount of damages or scope of any penalties or other relief sought as appropriate in each pending matter.

Inherent Uncertainty of the Matters Disclosed. Certain of the matters disclosed below involve claims for substantial or indeterminate damages. The claims asserted in these matters typically are broad, often spanning a multiyear period and sometimes a wide range of business activities, and the plaintiffs' or claimants' alleged damages frequently are not quantified or factually supported in the complaint or statement of claim. Other matters relate to regulatory investigations or proceedings, as to which there may be no objective basis for quantifying the range of potential fine, penalty or other remedy. As a result, Citigroup is often unable to estimate the loss in such matters, even if it believes that a loss is probable or reasonably possible, until developments in the case, proceeding or investigation have yielded additional information sufficient to support a quantitative assessment of the range of reasonably possible loss. Such developments may include, among other things, discovery from adverse parties or third parties, rulings by the court on key issues, analysis by retained experts and engagement in settlement negotiations. Depending on a range of factors, such as the complexity of the facts, the novelty of the legal theories, the pace of discovery, the court's scheduling order, the timing of court decisions and the adverse party's, regulator's or other authority's willingness to negotiate in good faith toward a resolution, it may be months or years after the filing of a case or commencement of a proceeding or an investigation before an estimate of the range of reasonably possible loss can be made.

Matters as to Which an Estimate Can Be Made. For some of the matters disclosed below, Citigroup is currently able to estimate a reasonably possible loss or range of loss in excess of amounts accrued (if any). For some of the matters included within this estimation, an accrual has been made because a loss is believed to be both probable and reasonably estimable, but an exposure to loss exists in excess of the amount accrued. In these cases, the estimate reflects the reasonably possible range of loss in excess of the accrued amount. For other matters included within this estimation, no accrual has been made because a loss, although estimable, is believed to be reasonably possible, but not probable; in these cases, the estimate reflects the reasonably possible loss or range of loss. As of December 31, 2021, Citigroup estimates that the reasonably possible unaccrued loss for these matters ranges up to approximately $1.5 billion in the aggregate.

These estimates are based on currently available information. As available information changes, the matters for which Citigroup is able to estimate will change, and the estimates themselves will change. In addition, while many estimates presented in financial statements and other financial disclosures involve significant judgment and may be subject to significant uncertainty, estimates of the range of reasonably possible loss arising from litigation, regulatory and tax proceedings are subject to particular uncertainties. For example, at the time of making an estimate, (i) Citigroup may have only preliminary, incomplete or inaccurate information about the facts underlying the claim, (ii) its assumptions about the future rulings of the court, other tribunal or authority on significant issues, or the behavior and incentives of adverse parties, regulators or other authorities, may prove to be wrong and (iii) the outcomes it is attempting to predict are often not amenable to the use of statistical or other quantitative analytical tools. In addition, from time to time an outcome may occur that Citigroup had not accounted for in its estimate because it had deemed such an outcome to be remote. For all of these reasons, the amount of loss in excess of amounts accrued in relation to matters for which an estimate has been made could be substantially higher or lower than the range of loss included in the estimate.

Matters as to Which an Estimate Cannot Be Made. For other matters disclosed below, Citigroup is not currently able to estimate the reasonably possible loss or range of loss. Many of these matters remain in very preliminary stages (even in some cases where a substantial period of time has passed since the commencement of the matter), with few or no substantive legal decisions by the court, tribunal or other authority defining the scope of the claims, the class (if any) or the potentially available damages or other exposure, and fact discovery is still in progress or has not yet begun. In many of these matters, Citigroup has not yet answered the complaint or statement of claim or asserted its defenses, nor has it engaged in any negotiations with the adverse party (whether a regulator, taxing authority or a private party). For all these reasons, Citigroup cannot at this time estimate the reasonably possible loss or range of loss, if any, for these matters.

Opinion of Management as to Eventual Outcome. Subject to the foregoing, it is the opinion of Citigroup's management, based on current knowledge and after taking into account its current accruals, that the eventual outcome of all matters described in this Note would not likely have a material adverse effect on the consolidated financial condition of Citigroup. Nonetheless, given the substantial or indeterminate amounts sought in certain of these matters, and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could, from time to time, have a material adverse effect on Citigroup's consolidated results of operations or cash flows in particular quarterly or annual periods.

ANZ Underwriting Matter

On February 11, 2022, the Australian Commonwealth Director of Public Prosecutions discontinued the prosecution of charges that were brought against Citigroup Global Markets Australia Pty Limited (CGMA) and two Citi employees for alleged criminal cartel offenses in relation to CGMA's role as a joint underwriter and lead manager with other banks in the 2015 institutional share placement by Australia and New Zealand Banking Group Limited (ANZ). The case, captioned R v. CITIGROUP GLOBAL MARKETS AUSTRALIA PTY LIMITED is before the Federal Court in New South Wales, Australia. Additional information concerning this action is publicly available in court filings under the docket number NSD 1316–NSD 1324/2020.

Facilitation Trading Matters
On January 28, 2022, the Securities and Futures Commission of Hong Kong (SFC) entered into a resolution with Citigroup Global Markets Asia Limited (CGMAL) of the SFC's investigation into CGMAL's equity sales trading desks in connection with facilitation trades. As part of the resolution, CGMAL agreed to pay a civil penalty of $44.6 million. Citigroup is cooperating with related investigations and inquiries by other government and regulatory agencies in Asia Pacific countries and elsewhere.

Foreign Exchange Matters
Regulatory Actions: Government and regulatory agencies in the U.S. and other jurisdictions are conducting investigations or making inquiries regarding Citigroup's foreign exchange business. Citigroup is cooperating with these and related investigations and inquiries.

Antitrust and Other Litigation: In 2018, a number of institutional investors who opted out of the previously disclosed August 2018 final settlement filed an action against Citigroup, Citibank, Citigroup Global Markets Inc. (CGMI) and other defendants, captioned ALLIANZ GLOBAL INVESTORS, ET AL. v. BANK OF AMERICA CORP., ET AL., in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants manipulated, and colluded to manipulate, the foreign exchange markets. Plaintiffs assert claims under the Sherman Act and unjust enrichment claims, and seek consequential and punitive damages and other forms of relief. On July 28, 2020, plaintiffs filed a third amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 18-CV-10364 (S.D.N.Y.) (Schofield, J.).

In 2018, a group of institutional investors issued a claim against Citigroup, Citibank and other defendants, captioned ALLIANZ GLOBAL INVESTORS GMBH AND OTHERS v. BARCLAYS BANK PLC AND OTHERS, in the High Court of Justice in London. Claimants allege that defendants manipulated, and colluded to manipulate, the foreign exchange market in violation of EU and U.K. competition laws. In December 2021, the High Court ordered that the case be transferred to the U.K.'s Competition Appeal Tribunal. Additional information concerning this action is publicly available in court filings under the case number CL-2018-000840 in the High Court and under the case number 1430/5/7/22 (T) in the Competition Appeal Tribunal.

In 2015, a putative class of consumers and businesses in the U.S. who directly purchased supracompetitive foreign currency at benchmark exchange rates filed an action against Citigroup and other defendants, captioned NYPL v. JPMORGAN CHASE & CO., ET AL., in the United States District Court for the Northern District of California (later transferred to the United States District Court for the Southern District of New York). Subsequently, plaintiffs filed an amended class action complaint against Citigroup, Citibank and Citicorp as defendants. Plaintiffs allege that they suffered losses as a result of defendants' alleged manipulation of, and collusion with respect to, the foreign exchange market. Plaintiffs assert claims under federal and California antitrust and consumer protection laws, and seek compensatory damages, treble damages and declaratory and injunctive relief. Additional information concerning this action is publicly available in court filings under the docket numbers 15-CV-2290 (N.D. Cal.) (Chhabria, J.) and 15-CV-9300 (S.D.N.Y.) (Schofield, J.).

In 2019, two applications, captioned MICHAEL O'HIGGINS FX CLASS REPRESENTATIVE LIMITED v. BARCLAYS BANK PLC AND OTHERS and PHILLIP EVANS v. BARCLAYS BANK PLC AND OTHERS, were made to the U.K.'s Competition Appeal Tribunal requesting permission to commence collective proceedings against Citigroup, Citibank and other defendants. The applications seek compensatory damages for losses alleged to have arisen from the actions at issue in the European Commission's foreign exchange spot trading infringement decision (European Commission Decision of May 16, 2019 in Case AT.40135-FOREX (Three Way Banana Split) C(2019) 3631 final). Additional information concerning these actions is publicly available in court filings under the case numbers 1329/7/7/19 and 1336/7/7/19.

In 2019, a putative class action was filed against Citibank and other defendants, captioned J WISBEY & ASSOCIATES PTY LTD v. UBS AG & ORS, in the Federal Court of Australia. Plaintiffs allege that defendants manipulated the foreign exchange markets. Plaintiffs assert claims under antitrust laws, and seek compensatory damages and declaratory and injunctive relief. Additional information concerning this action is publicly available in court filings under the docket number VID567/2019.

In 2019, two motions for certification of class actions filed against Citigroup, Citibank and Citicorp and other defendants were consolidated, under the caption GERTLER, ET AL. v. DEUTSCHE BANK AG, in the Tel Aviv Central District Court in Israel. Plaintiffs allege that defendants manipulated the foreign exchange markets. Citibank's motion to dismiss plaintiffs' petition for certification was denied on April 12, 2021. A motion for leave to appeal this decision is currently pending before the Supreme Court of Israel. Additional information concerning this action is publicly available in court filings under the docket number CA 29013-09-18.

Hong Kong Private Bank Litigation
In 2007, a claim was filed in the High Court of Hong Kong claiming damages of over $51 million against Citibank. The case, captioned PT ASURANSI TUGU PRATAMA INDONESIA TBK v. CITIBANK N.A., was dismissed in 2018 by the Hong Kong Court of First Instance on grounds that the claim was time-barred. Plaintiff has appealed the court's dismissal. Additional information concerning this action is publicly available in court filings under the docket number CACV 548/2018.

Interbank Offered Rates-Related Litigation
In May 2019, three putative class actions filed against Citigroup, Citibank, CGMI and other defendants were consolidated, under the caption IN RE ICE LIBOR ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants suppressed ICE LIBOR. Plaintiffs assert

claims under the Sherman Act, the Clayton Act, and unjust enrichment, and seek compensatory damages, disgorgement, and treble damages. In March 2020, the court granted defendants' motion to dismiss the action for failure to state a claim, which plaintiffs appealed to the United States Court of Appeals for the Second Circuit. Additional information concerning this action is publicly available in court filings under the docket numbers 19-CV-439 (S.D.N.Y.) (Daniels, J.) and 20-1492 (2d Cir.).

In August 2020, individual borrowers and consumers of loans and credit cards filed an action against Citigroup, Citibank, CGMI and other defendants, captioned MCCARTHY, ET AL. v. INTERCONTINENTAL EXCHANGE, INC., ET AL., in the United States District Court for the Northern District of California. Plaintiffs allege that defendants conspired to fix ICE LIBOR, assert claims under the Sherman Act and the Clayton Act, and seek declaratory relief, injunctive relief, and treble damages. Additional information concerning this action is publicly available in court filings under the docket number 20-CV-5832 (N.D. Cal.) (Donato, J.).

Interchange Fee Litigation

Beginning in 2005, several putative class actions were filed against Citigroup, Citibank and Citicorp, together with Visa, MasterCard and other banks and their affiliates, in various federal district courts and consolidated with other related individual cases in a multi-district litigation proceeding in the United States District Court for the Eastern District of New York. This proceeding is captioned IN RE PAYMENT CARD INTERCHANGE FEE AND MERCHANT DISCOUNT ANTITRUST LITIGATION.

The plaintiffs, merchants that accept Visa and MasterCard branded payment cards, and various membership associations that claim to represent certain groups of merchants, allege, among other things, that defendants have engaged in conspiracies to set the price of interchange and merchant discount fees on credit and debit card transactions and to restrain trade unreasonably through various Visa and MasterCard rules governing merchant conduct, all in violation of Section 1 of the Sherman Act and certain California statutes. Plaintiffs further alleged violations of Section 2 of the Sherman Act. Supplemental complaints also were filed against defendants in the putative class actions alleging that Visa's and MasterCard's respective initial public offerings were anticompetitive and violated Section 7 of the Clayton Act, and that MasterCard's initial public offering constituted a fraudulent conveyance.

In 2016, the Court of Appeals reversed the district court's approval of a class settlement and remanded for further proceedings. The district court thereafter appointed separate interim counsel for a putative class seeking damages and a putative class seeking injunctive relief. Amended or new complaints on behalf of the putative classes and various individual merchants were subsequently filed, including a further amended complaint on behalf of a putative damages class and a new complaint on behalf of a putative injunctive class, both of which named Citigroup and Related Parties. In addition, numerous merchants have filed amended or new complaints against Visa, MasterCard, and in some instances one or more issuing banks, including Citigroup and affiliates.

In 2019, the district court granted the damages class plaintiffs' motion for final approval of a new settlement with the defendants. The settlement involves the damages class only and does not settle the claims of the injunctive relief class or any actions brought on a non-class basis by individual merchants. The settlement provides for a cash payment to the damages class of $6.24 billion, later reduced by $700 million based on the transaction volume of class members that opted out from the settlement. Several merchants and merchant groups have appealed the final approval order. On September 27, 2021, the court granted the injunctive relief class plaintiffs' motion to certify a non-opt-out class. Additional information concerning these consolidated actions is publicly available in court filings under the docket number MDL 05-1720 (E.D.N.Y.) (Brodie, J.).

Interest Rate and Credit Default Swap Matters

Regulatory Actions: The Commodity Futures Trading Commission (CFTC) is conducting an investigation into alleged anticompetitive conduct in the trading and clearing of interest rate swaps (IRS) by investment banks. Citigroup is cooperating with the investigation.

Antitrust and Other Litigation: Beginning in 2015, Citigroup, Citibank, CGMI, CGML and numerous other parties were named as defendants in a number of industry-wide putative class actions related to IRS trading. These actions have been consolidated in the United States District Court for the Southern District of New York under the caption IN RE INTEREST RATE SWAPS ANTITRUST LITIGATION. The actions allege that defendants colluded to prevent the development of exchange-like trading for IRS and assert federal and state antitrust claims and claims for unjust enrichment. Also consolidated under the same caption are individual actions filed by swap execution facilities, asserting federal and state antitrust claims, as well as claims for unjust enrichment and tortious interference with business relations. Plaintiffs in these actions seek treble damages, fees, costs and injunctive relief. Lead plaintiffs in the class action moved for class certification in 2019, and subsequently filed an amended complaint. Additional information concerning these actions is publicly available in court filings under the docket numbers 18-CV-5361 (S.D.N.Y.) (Oetken, J.) and 16-MD-2704 (S.D.N.Y.) (Oetken, J.).

In 2017, Citigroup, Citibank, CGMI, CGML and numerous other parties were named as defendants in an action filed in the United States District Court for the Southern District of New York under the caption TERA GROUP, INC., ET AL. v. CITIGROUP, INC., ET AL. The complaint alleges that defendants colluded to prevent the development of exchange-like trading for credit default swaps and asserts federal and state antitrust claims and state law tort claims. In January 2020, plaintiffs filed an amended complaint, which defendants later moved to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 17-CV-4302 (S.D.N.Y.) (Sullivan, J.).

Madoff-Related Litigation

In December 2008, a Securities Investor Protection Act (SIPA) trustee was appointed for the SIPA liquidation of Bernard L. Madoff Investment Securities LLC (BLMIS), in the United States Bankruptcy Court for the Southern District of New York. Beginning in 2010, he commenced actions against multiple Citi entities, including Citibank, Citicorp North America, Inc., CGML and Citibank (Switzerland) AG, seeking recovery of monies that originated at BLMIS and were allegedly received by the Citi entities as subsequent transferees. On August 30, 2021, the United States Court of Appeals for the Second Circuit reversed the bankruptcy court's denial of the SIPA trustee's motion for leave to amend his complaint and remanded the case to the bankruptcy court for further proceedings. On January 27, 2022, Citibank and Citicorp North America, Inc. filed a petition for a writ of certiorari in the United States Supreme Court seeking review of the Second Circuit's holding that good faith is an affirmative defense. The SIPA trustee filed an amended complaint against Citibank, Citicorp North America, Inc. and CGML on February 11, 2022. The action against Citibank (Switzerland) AG was dismissed on February 23, 2022. Additional information concerning these actions is publicly available in court filings under the docket numbers 10-5345, 12-1700 (Bankr. S.D.N.Y.) (Morris, J.); 12-MC-115 (S.D.N.Y.) (Rakoff, J.); and 17-2992, 17-3076, 17-3139, 19-4282, 20-1333 (2d Cir.).

Also beginning in 2010, the British Virgin Islands liquidators of Fairfield Sentry Limited, whose assets were invested with BLMIS, commenced multiple actions in the United States Bankruptcy Court for the Southern District of New York against over 400 defendants, including CGML Citibank (Switzerland) AG; Citibank, N.A., London; Citivic Nominees Limited; and Cititrust (Bahamas) Limited. The actions seek recovery of monies that were allegedly received directly or indirectly by Citi entities from Fairfield Sentry. Appeals concerning various dismissed claims and a petition for interlocutory review on the one claim remaining are pending before the United States District Court for the Southern District of New York, and the remaining claim is proceeding in the Bankruptcy Court. Citi (Switzerland) AG and Citivic Nominees Limited filed a motion to dismiss for lack of personal jurisdiction on October 29, 2021. These actions are captioned FAIRFIELD SENTRY LTD., ET AL. v. CGML, ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. CITIBANK NA LONDON, ET AL.; and FAIRFIELD SENTRY LTD., ET AL. v. ZURICH CAPITAL MARKETS COMPANY, ET AL. Additional information is publicly available in court filings under the docket numbers 10-13164, 10-3496, 10-3622, 10-3634, 11-2770 (Bankr. S.D.N.Y.) (Morris, J.); and 19-3911, 19-4267, 19-4396, 19-4484, 19-5106, 19-5135, 21-2997, 21-3243, 21-3526, 21-3529, 21-3530, 21-4307, 21-4498, 21-4496 (S.D.N.Y.) (Broderick, J.).

Parmalat Litigation

In 2004, an Italian commissioner appointed to oversee the administration of various Parmalat companies filed a complaint against Citigroup, Citibank and related parties, alleging that the defendants facilitated a number of frauds by Parmalat insiders. In 2008, a jury rendered a verdict in Citigroup's favor and awarded Citi $431 million. In 2019, the Italian Supreme Court affirmed the decision in the full amount awarded. Citigroup has taken steps to enforce the judgment in Italian and Belgian courts. Additional information concerning these actions is publicly available in court filings under (in Italy) the docket numbers 4133/2019 and 224/2022 (Court of Milan Enforcement Section) and (in Belgium) 20/3617/A (Brussels Court of First Instance) and 21/AR/1658 (Brussels Court of Appeal).

In 2015, Parmalat filed a claim in an Italian civil court in Milan claiming damages of €1.8 billion against Citigroup, Citibank and related parties, which the court later dismissed on grounds it was duplicative of Parmalat's previously unsuccessful claims. In 2019, the Milan Court of Appeal rejected Parmalat's appeal of the Milan court's dismissal, which Parmalat appealed to the Italian Supreme Court. Additional information concerning this action is publicly available in court filings under the docket number 20598/2019.

In January 2020, Parmalat, its three directors, and its sole shareholder, Sofil S.a.s., as co-plaintiffs, filed a claim before the Italian civil court in Milan seeking a declaratory judgment that they do not owe compensatory damages of €990 million to Citibank, which Citibank is seeking to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 8611/2020.

Payment Protection Insurance

Regulators and courts in the U.K. have scrutinized the selling of payment protection insurance (PPI) by financial institutions for several years. Citibank continues to review customer claims relating to the sale of PPI in the U.K., to grant redress in accordance with the requirements of the U.K. Financial Conduct Authority, and to defend claims filed in U.K. courts.

Record-Keeping Matters

The U.S. Securities and Exchange Commission is conducting an investigation of CGMI and other firms regarding compliance with record-keeping obligations for broker-dealers and investment advisers in connection with business-related communications sent over unapproved electronic messaging channels. CGMI is cooperating with the investigation.

Revlon-Related Wire Transfer Litigation

In August 2020, Citibank filed actions in the United States District Court for the Southern District of New York, which have been consolidated under the caption IN RE CITIBANK AUGUST 11, 2020 WIRE TRANSFERS. The actions relate to a payment erroneously made by Citibank in its capacity as administrative agent for a Revlon credit facility. The action seeks the return of the erroneously transferred funds from certain fund managers. Citibank has asserted claims for unjust enrichment, conversion, money had and received, and payment by mistake. The court issued temporary restraining orders related to the subject funds. On February 16, 2021, the court issued a judgment in favor of the defendants, which Citibank later appealed in the United States Court of Appeals for the Second Circuit. In response to the district court's denial of Citibank's motion to extend the temporary restraining orders, Citibank filed a motion for an injunction with the United States Court of Appeals. Additional information concerning this action is publicly available in court filings under docket numbers 20-CV-6539 (S.D.N.Y.) (Furman, J.) and 21-487 (2d Cir.).

Shareholder Derivative and Securities Litigation

Beginning in October 2020, four derivative actions were filed in the United States District Court for the Southern District of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors. The actions were later consolidated under the case name IN RE CITIGROUP INC. SHAREHOLDER DERIVATIVE LITIGATION. The consolidated complaint asserts claims for breach of fiduciary duty, unjust enrichment, and contribution and indemnification in connection with defendants' alleged failures to implement adequate internal controls. In addition, the consolidated complaint asserts derivative claims for violations of Sections 10(b) and 14(a) of the Securities Exchange Act of 1934 in connection with statements in Citigroup's 2019 and 2020 annual meeting proxy statements. On February 8, 2021, the court stayed the action pending resolution of defendants' motion to dismiss in IN RE CITIGROUP SECURITIES LITIGATION. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-09438 (S.D.N.Y.) (Nathan, J.).

Beginning in December 2020, two derivative actions were filed in the Supreme Court of the State of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors, and certain current and former officers. The actions were later consolidated under the case name IN RE CITIGROUP INC. DERIVATIVE LITIGATION, and the court stayed the action pending resolution of defendants' motion to dismiss in IN RE CITIGROUP SECURITIES LITIGATION. Additional information concerning this action is publicly available in court filings under the docket number 656759/2020 (N.Y. Sup. Ct.) (Schecter, J.).

Beginning in October 2020, three putative class action complaints were filed in the United States District Court for the Southern District of New York against Citigroup and certain of its current and former officers, asserting violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 in connection with defendants' alleged misstatements concerning Citigroup's internal controls. The actions were later consolidated under the case name IN RE CITIGROUP SECURITIES LITIGATION. The consolidated complaint later added certain of Citigroup's current and former directors as defendants. Defendants have moved to dismiss the consolidated amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-9132 (S.D.N.Y.) (Nathan, J.).

Sovereign Securities Litigation

In 2015, putative class actions filed against CGMI and other defendants were consolidated under the caption IN RE TREASURY SECURITIES AUCTION ANTITRUST LITIGATION in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants colluded to fix U.S. treasury auction bids by sharing competitively sensitive information ahead of the auctions, and that defendants colluded to boycott and prevent the emergence of an anonymous, all-to-all electronic trading platform in the U.S. Treasuries secondary market. Plaintiffs assert claims under antitrust laws, and seek damages, including treble damages where authorized by statute, and injunctive relief. On March 31, 2021, the court granted defendants' motion to dismiss, without prejudice. On May 14, 2021, plaintiffs filed an amended consolidated complaint. On June 14, 2021, certain defendants, including CGMI, moved to dismiss the amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 15-MD-2673 (S.D.N.Y.) (Gardephe, J.).

In 2017, purchasers of supranational, sub-sovereign and agency (SSA) bonds filed a proposed class action on behalf of direct and indirect purchasers of SSA 296 bonds against Citigroup, Citibank, CGMI, CGML, Citibank Canada, Citigroup Global Markets Canada, Inc. and other defendants, captioned JOSEPH MANCINELLI, ET AL. v. BANK OF AMERICA CORPORATION, ET AL., in the Federal Court in Canada. Plaintiffs have filed an amended claim that alleges defendants manipulated, and colluded to manipulate, the SSA bonds market, asserts claims for breach of the Competition Act, breach of foreign law, civil conspiracy, unjust enrichment, waiver of tort and breach of contract, and seeks compensatory and punitive damages, among other relief. Additional information concerning this action is publicly available in court filings under the docket number T-1871-17 (Fed. Ct.).

In 2018, a putative class action was filed against Citigroup, CGMI, Citigroup Financial Products Inc., Citigroup Global Markets Holdings Inc., Citibanamex, Grupo Banamex and other banks, captioned IN RE MEXICAN GOVERNMENT BONDS ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. The complaint alleges that defendants colluded in the Mexican sovereign bond market. In September 2019, the court granted defendants' motion to dismiss. In December 2019, plaintiffs filed an amended complaint against Citibanamex and other market makers in the Mexican sovereign bond market. Plaintiffs no longer assert any claims against Citigroup and any other U.S. Citi affiliates. The amended complaint alleges a conspiracy to fix prices in the Mexican sovereign bond market from January 1, 2006 to April 19, 2017, and asserts antitrust and unjust enrichment claims, and seeks treble damages, restitution and injunctive relief. In February 2020, certain defendants, including Citibanamex, moved to dismiss the amended complaint, which the court later granted. On June 10, 2021, plaintiffs moved for reconsideration of the decision dismissing certain defendants, including Citibanamex, which those defendants have jointly opposed. Additional information concerning this action is publicly available in court filings under the docket number 18 Civ. 2830 (S.D.N.Y.) (Oetken, J.).

On February 9, 2021, purchasers of Euro-denominated sovereign debt issued by European central governments added CGMI, CGML and others as defendants to a putative class action, captioned IN RE EUROPEAN GOVERNMENT BONDS ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants engaged in a conspiracy to inflate prices of European government bonds in primary market auctions and to fix the prices of European government bonds in secondary markets. Plaintiffs assert a claim under the Sherman Act and seek treble damages and attorneys' fees. On June 4, 2021, certain defendants, including CGMI and CGML, filed a pre-motion letter with the court requesting leave to move to dismiss the action. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-2601 (S.D.N.Y.) (Marrero, J.).

Transaction Tax Matters
Citigroup and Citibank are engaged in litigation or examinations with non-U.S. tax authorities, including in the U.K., India and Germany, concerning the payment of transaction taxes and other non-income tax matters.

Tribune Company Bankruptcy
Certain Citigroup affiliates (along with numerous other parties) have been named as defendants in adversary proceedings related to the Chapter 11 cases of Tribune Company (Tribune) filed in the United States Bankruptcy Court for the District of Delaware, asserting claims arising out of the approximate $11 billion leveraged buyout of Tribune in 2007. The actions were consolidated as IN RE TRIBUNE COMPANY FRAUDULENT CONVEYANCE LITIGATION and transferred to the United States District Court for the Southern District of New York.

In the adversary proceeding captioned KIRSCHNER v. FITZSIMONS, ET AL., the litigation trustee, as successor plaintiff to the unsecured creditors committee, seeks to avoid and recover as actual fraudulent transfers the transfers of Tribune stock that occurred as a part of the leveraged buyout. Several Citigroup affiliates, along with numerous other parties, were named as shareholder defendants and were alleged to have tendered Tribune stock to Tribune as a part of the buyout. In 2017, the United States District Court for the Southern District of New York dismissed the actual fraudulent transfer claim against the shareholder defendants, including the Citigroup affiliates. In 2019, the litigation trustee filed an appeal to the United States Court of Appeals for the Second Circuit.

CGMI was named as a defendant in a separate action, KIRSCHNER v. CGMI, in connection with its role as advisor to Tribune. In 2019, the court dismissed the action, which the litigation trustee appealed to the United States Court of Appeals for the Second Circuit.

On August 20, 2021, the United States Court of Appeals for the Second Circuit issued its decision in the consolidated appeals in KIRSCHNER v. FITZSIMONS and KIRSCHNER v. CGMI. In the FITZSIMONS action, the Second Circuit affirmed the dismissal of the actual fraudulent transfer claim against the shareholder defendants, including the Citigroup affiliates. In the CGMI action, the Second Circuit affirmed the dismissal of all claims against CGMI except for the claim of constructive fraudulent conveyance. As to that claim, the Second Circuit vacated the dismissal and remanded to the district court for further proceedings on that claim and other claims that remain against certain other defendants that are not Citigroup affiliates. On November 29, 2021, on remand from the Second Circuit, the litigation trustee notified the United States District Court for the Southern District of New York that it was voluntarily dismissing all claims against CGMI pursuant to a settlement agreement. The district court approved the voluntary dismissal on December 10, 2021. Additional information concerning these actions is publicly available in court filings under the docket numbers 12 MC 2296 (S.D.N.Y.) (Cote, J.), 11 MD 2296 (S.D.N.Y.) (Cote, J.), 19-0449 (2d Cir.), and 19-3049 (2d Cir.).

Variable Rate Demand Obligation Litigation
In 2019, the plaintiffs in the consolidated actions CITY OF PHILADELPHIA v. BANK OF AMERICA CORP, ET AL. and MAYOR AND CITY COUNCIL OF BALTIMORE v. BANK OF AMERICA CORP., ET AL. filed a consolidated complaint naming as defendants Citigroup, Citibank, CGMI, CGML and numerous other industry participants. The consolidated complaint asserts violations of the Sherman Act, as well as claims for breach of contract, breach of fiduciary duty, and unjust enrichment, and seeks damages and injunctive relief based on allegations that defendants served as remarketing agents for municipal bonds called variable rate demand obligations (VRDOs) and colluded to set artificially high VRDO interest rates. In November 2020, the court granted in part and denied in part defendants' motion to dismiss the consolidated complaint.

On June 2, 2021, the Board of Directors of the San Diego Association of Governments, acting as the San Diego County Regional Transportation Commission, filed a parallel putative class action against the same defendants named in the already pending nationwide consolidated class action. The two actions were consolidated and on August 6, 2021, the plaintiffs in the nationwide putative class action filed a consolidated amended complaint, captioned THE CITY OF PHILADELPHIA, MAYOR AND CITY COUNCIL OF BALTIMORE, THE BOARD OF DIRECTORS OF THE SAN DIEGO ASSOCIATION OF GOVERNMENTS, ACTING AS THE SAN DIEGO COUNTY REGIONAL TRANSPORTATION COMMISSION v. BANK OF AMERICA CORP., ET AL. On September 14, 2021, defendants moved to dismiss the consolidated amended complaint in part. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-1608 (S.D.N.Y.) (Furman, J.).

Wind Farm Litigations
Beginning in March 2021, six wind farms in Texas commenced actions in New York and Texas state courts for declaratory judgments and breach of contract, asserting that the February 2021 winter storm in Texas excused their performance to deliver energy to Citi Energy Inc. (CEI) under the force majeure provisions of their contracts with CEI. In addition, the wind farms sought temporary restraining orders and/or preliminary injunctions, preventing CEI from exercising remedies under the contracts.

Preliminary injunctions were denied with respect to five of the six wind farms: the New York court denied preliminary injunctions with respect to the Stephens Ranch I and Stephens Ranch II wind farms; the Texas court denied preliminary injunctions with respect to the Flat Top, Shannon and Midway wind farms. Later in 2021, Stephens Ranch I, Stephens Ranch II and Flat Top each voluntarily dismissed its action with prejudice. The Mariah del Norte wind farm voluntarily dismissed its action with prejudice on February 18, 2022. A motion to dismiss the remaining Shannon and Midway actions remains pending. Additional information concerning these actions is publicly available in court filings under docket numbers 652078/2021 (Sup. Ct. N.Y. Cnty.) (Reed, J.), 2021-01387 (1st Dep't), 652312/2021 (Sup. Ct. N.Y. Cnty.) (Reed, J.), 2021-23588 (District Court Harris County TX) (Schaffer, J.), and 2021-26150 (District Court Harris County TX) (Engelhart, J.).

Settlement Payments

Payments required in settlement agreements described above have been made or are covered by existing litigation or other accruals.

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28. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

Citigroup's Registration Statement on Form S-3 on file with the SEC includes its wholly owned subsidiary, Citigroup Global Markets Holdings Inc. (CGMHI), as a co-registrant. Any securities issued by CGMHI under the Form S-3 will be fully and unconditionally guaranteed by Citigroup.

The following are the Condensed Consolidating Statements of Income and Comprehensive Income for the years ended December 31, 2021, 2020 and 2019, Condensed Consolidating Balance Sheet as of December 31, 2021 and 2020 and Condensed Consolidating Statement of Cash Flows for the years ended December 31, 2021, 2020 and 2019 for Citigroup Inc., the parent holding company (Citigroup parent company), CGMHI, other Citigroup subsidiaries and eliminations and total consolidating adjustments. "Other Citigroup subsidiaries and eliminations" includes all other subsidiaries of Citigroup, intercompany eliminations and income (loss) from discontinued operations. "Consolidating adjustments" includes Citigroup parent company elimination of distributed and undistributed income of subsidiaries and investment in subsidiaries.

These Condensed Consolidating Financial Statements have been prepared and presented in accordance with SEC Regulation S-X Rule 3-10, "Financial Statements of Guarantors and Issuers of Guaranteed Securities Registered or Being Registered."

These Condensed Consolidating Financial Statements are presented for purposes of additional analysis, but should be considered in relation to the Consolidated Financial Statements of Citigroup taken as a whole.

Condensed Consolidating Statements of Income and Comprehensive Income

	Year ended December 31, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 6,482	$ —	$ —	$ (6,482)	$ —
Interest revenue	—	3,566	46,909	—	50,475
Interest revenue—intercompany	3,757	531	(4,288)	—	—
Interest expense	4,791	778	2,412	—	7,981
Interest expense—intercompany	294	1,320	(1,614)	—	—
Net interest income	$ (1,328)	$ 1,999	$ 41,823	$ —	$ 42,494
Commissions and fees	$ —	$ 7,770	$ 5,902	$ —	$ 13,672
Commissions and fees—intercompany	(36)	407	(371)	—	—
Principal transactions	976	10,140	(962)	—	10,154
Principal transactions—intercompany	(1,375)	(6,721)	8,096	—	—
Other revenue	(64)	576	5,052	—	5,564
Other revenue—intercompany	(133)	(60)	193	—	—
Total non-interest revenues	$ (632)	$ 12,112	$ 17,910	$ —	$ 29,390
Total revenues, net of interest expense	$ 4,522	$ 14,111	$ 59,733	$ (6,482)	$ 71,884
Provisions for credit losses and for benefits and claims	$ —	$ 6	$ (3,784)	$ —	$ (3,778)
Operating expenses					
Compensation and benefits	$ 10	$ 5,251	$ 19,873	$ —	$ 25,134
Compensation and benefits—intercompany	69	—	(69)	—	—
Other operating	83	2,868	20,108	—	23,059
Other operating—intercompany	11	2,826	(2,837)	—	—
Total operating expenses	$ 173	$ 10,945	$ 37,075	$ —	$ 48,193
Equity in undistributed income of subsidiaries	$ 16,596	$ —	$ —	$ (16,596)	$ —
Income from continuing operations before income taxes	$ 20,945	$ 3,160	$ 26,442	$ (23,078)	$ 27,469
Provision (benefit) for income taxes	(1,007)	625	5,833	—	5,451
Income from continuing operations	$ 21,952	$ 2,535	$ 20,609	$ (23,078)	$ 22,018
Income (loss) from discontinued operations, net of taxes	—	—	7	—	7
Net income before attribution of noncontrolling interests	$ 21,952	$ 2,535	$ 20,616	$ (23,078)	$ 22,025
Noncontrolling interests	—	—	73	—	73
Net income	$ 21,952	$ 2,535	$ 20,543	$ (23,078)	$ 21,952
Comprehensive income					
Add: Other comprehensive income (loss)	$ (6,707)	$ (76)	$ (450)	$ 526	$ (6,707)
Total Citigroup comprehensive income	$ 15,245	$ 2,459	$ 20,093	$ (22,552)	$ 15,245
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (99)	$ —	$ (99)
Add: Net income attributable to noncontrolling interests	—	—	73	—	73
Total comprehensive income	$ 15,245	$ 2,459	$ 20,067	$ (22,552)	$ 15,219

Condensed Consolidating Statements of Income and Comprehensive Income

In millions of dollars	Year ended December 31, 2020 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 2,355	$ —	$ —	$ (2,355)	$ —
Interest revenue	—	5,364	52,725	—	58,089
Interest revenue—intercompany	4,162	920	(5,082)	—	—
Interest expense	4,992	1,989	6,357	—	13,338
Interest expense—intercompany	502	2,170	(2,672)	—	—
Net interest income	$ (1,332)	$ 2,125	$ 43,958	$ —	$ 44,751
Commissions and fees	$ —	$ 6,216	$ 5,169	$ —	$ 11,385
Commissions and fees—intercompany	(36)	290	(254)	—	—
Principal transactions	(1,254)	(4,252)	19,391	—	13,885
Principal transactions—intercompany	693	9,064	(9,757)	—	—
Other revenue	(127)	706	4,901	—	5,480
Other revenue—intercompany	111	23	(134)	—	—
Total non-interest revenues	$ (613)	$ 12,047	$ 19,316	$ —	$ 30,750
Total revenues, net of interest expense	$ 410	$ 14,172	$ 63,274	$ (2,355)	$ 75,501
Provisions for credit losses and for benefits and claims	$ —	$ (1)	$ 17,496	$ —	$ 17,495
Operating expenses					
Compensation and benefits	$ (5)	$ 4,941	$ 17,278	$ —	$ 22,214
Compensation and benefits—intercompany	191	—	(191)	—	—
Other operating	37	2,393	19,730	—	22,160
Other operating—intercompany	15	2,317	(2,332)	—	—
Total operating expenses	$ 238	$ 9,651	$ 34,485	$ —	$ 44,374
Equity in undistributed income of subsidiaries	$ 9,894	$ —	$ —	$ (9,894)	$ —
Income from continuing operations before income taxes	$ 10,066	$ 4,522	$ 11,293	$ (12,249)	$ 13,632
Provision (benefit) for income taxes	(981)	1,249	2,257	—	2,525
Income from continuing operations	$ 11,047	$ 3,273	$ 9,036	$ (12,249)	$ 11,107
Income (loss) from discontinued operations, net of taxes	—	—	(20)	—	(20)
Net income (loss) before attribution of noncontrolling interests	$ 11,047	$ 3,273	$ 9,016	$ (12,249)	$ 11,087
Noncontrolling interests	—	—	40	—	40
Net income	$ 11,047	$ 3,273	$ 8,976	$ (12,249)	$ 11,047
Comprehensive income					
Add: Other comprehensive income (loss)	$ 4,260	$ (223)	$ 4,244	$ (4,021)	$ 4,260
Total Citigroup comprehensive income	$ 15,307	$ 3,050	$ 13,220	$ (16,270)	$ 15,307
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ 26	$ —	$ 26
Add: Net income attributable to noncontrolling interests	—	—	40	—	40
Total comprehensive income	$ 15,307	$ 3,050	$ 13,286	$ (16,270)	$ 15,373

Condensed Consolidating Statements of Income and Comprehensive Income

	Year ended December 31, 2019				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 23,347	$ —	$ —	$ (23,347)	$ —
Interest revenue	—	10,661	65,849	—	76,510
Interest revenue—intercompany	5,091	1,942	(7,033)	—	—
Interest expense	4,949	7,010	16,423	—	28,382
Interest expense—intercompany	1,038	4,243	(5,281)	—	—
Net interest income	$ (896)	$ 1,350	$ 47,674	$ —	$ 48,128
Commissions and fees	$ —	$ 5,265	$ 6,481	$ —	$ 11,746
Commissions and fees—intercompany	(21)	354	(333)	—	—
Principal transactions	(2,537)	277	11,152	—	8,892
Principal transactions—intercompany	1,252	2,464	(3,716)	—	—
Other revenue	767	832	4,702	—	6,301
Other revenue—intercompany	(55)	102	(47)	—	—
Total non-interest revenues	$ (594)	$ 9,294	$ 18,239	$ —	$ 26,939
Total revenues, net of interest expense	$ 21,857	$ 10,644	$ 65,913	$ (23,347)	$ 75,067
Provisions for credit losses and for benefits and claims	$ —	$ —	$ 8,383	$ —	$ 8,383
Operating expenses					
Compensation and benefits	$ 32	$ 4,680	$ 16,721	$ —	$ 21,433
Compensation and benefits—intercompany	134	—	(134)	—	—
Other operating	(16)	2,326	19,040	—	21,350
Other operating—intercompany	20	2,410	(2,430)	—	—
Total operating expenses	$ 170	$ 9,416	$ 33,197	$ —	$ 42,783
Equity in undistributed income of subsidiaries	$ (3,620)	$ —	$ —	$ 3,620	$ —
Income from continuing operations before income taxes	$ 18,067	$ 1,228	$ 24,333	$ (19,727)	$ 23,901
Provision (benefit) for income taxes	(1,334)	176	5,588	—	4,430
Income from continuing operations	$ 19,401	$ 1,052	$ 18,745	$ (19,727)	$ 19,471
Income (loss) from discontinued operations, net of taxes	—	—	(4)	—	(4)
Net income before attribution of noncontrolling interests	$ 19,401	$ 1,052	$ 18,741	$ (19,727)	$ 19,467
Noncontrolling interests	—	—	66	—	66
Net income	$ 19,401	$ 1,052	$ 18,675	$ (19,727)	$ 19,401
Comprehensive income					
Add: Other comprehensive income (loss)	$ 852	$ (651)	$ 1,600	$ (949)	$ 852
Total Citigroup comprehensive income	$ 20,253	$ 401	$ 20,275	$ (20,676)	$ 20,253
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ —	$ —	$ —
Add: Net income attributable to noncontrolling interests	—	—	66	—	66
Total comprehensive income	$ 20,253	$ 401	$ 20,341	$ (20,676)	$ 20,319

Condensed Consolidating Balance Sheet

	December 31, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 834	$ 26,681	$ —	$ 27,515
Cash and due from banks—intercompany	17	6,890	(6,907)	—	—
Deposits with banks, net of allowance	—	7,936	226,582	—	234,518
Deposits with banks—intercompany	3,500	11,005	(14,505)	—	—
Securities borrowed and purchased under resale agreements	—	269,608	57,680	—	327,288
Securities borrowed and purchased under resale agreements—intercompany	—	23,362	(23,362)	—	—
Trading account assets	248	189,841	141,856	—	331,945
Trading account assets—intercompany	1,215	1,438	(2,653)	—	—
Investments, net of allowance	1	224	512,597	—	512,822
Loans, net of unearned income	—	2,293	665,474	—	667,767
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(16,455)	—	(16,455)
Total loans, net	$ —	$ 2,293	$ 649,019	$ —	$ 651,312
Advances to subsidiaries	$ 142,144	$ —	$ (142,144)	$ —	$ —
Investments in subsidiaries	223,303	—	—	(223,303)	—
Other assets, net of allowance[1]	10,589	69,312	126,112	—	206,013
Other assets—intercompany	2,737	60,567	(63,304)	—	—
Total assets	$ 383,754	$ 643,310	$ 1,487,652	$ (223,303)	$ 2,291,413
Liabilities and equity					
Deposits	$ —	$ —	$ 1,317,230	$ —	$ 1,317,230
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	171,818	19,467	—	191,285
Securities loaned and sold under repurchase agreements—intercompany	—	62,197	(62,197)	—	—
Trading account liabilities	17	122,383	39,129	—	161,529
Trading account liabilities—intercompany	777	500	(1,277)	—	—
Short-term borrowings	—	13,425	14,548	—	27,973
Short-term borrowings—intercompany	—	17,230	(17,230)	—	—
Long-term debt	164,945	61,416	28,013	—	254,374
Long-term debt—intercompany	—	76,335	(76,335)	—	—
Advances from subsidiaries	13,469	—	(13,469)	—	—
Other liabilities, including allowance	2,574	68,206	65,570	—	136,350
Other liabilities—intercompany	—	11,774	(11,774)	—	—
Stockholders' equity	201,972	38,026	185,977	(223,303)	202,672
Total liabilities and equity	$ 383,754	$ 643,310	$ 1,487,652	$ (223,303)	$ 2,291,413

(1) *Other assets* for Citigroup parent company at December 31, 2021 included $30.5 billion of placements to Citibank and its branches, of which $19.5 billion had a remaining term of less than 30 days.

Condensed Consolidating Balance Sheet

In millions of dollars	December 31, 2020 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 628	$ 25,721	$ —	$ 26,349
Cash and due from banks—intercompany	16	6,081	(6,097)	—	—
Deposits with banks, net of allowance	—	5,224	278,042	—	283,266
Deposits with banks—intercompany	4,500	8,179	(12,679)	—	—
Securities borrowed and purchased under resale agreements	—	238,718	55,994	—	294,712
Securities borrowed and purchased under resale agreements—intercompany	—	24,309	(24,309)	—	—
Trading account assets	307	222,278	152,494	—	375,079
Trading account assets—intercompany[1]	723	2,340	(3,063)	—	—
Investments, net of allowance	1	374	446,984	—	447,359
Loans, net of unearned income	—	2,524	673,359	—	675,883
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(24,956)	—	(24,956)
Total loans, net	$ —	$ 2,524	$ 648,403	$ —	$ 650,927
Advances to subsidiaries	$ 152,383	$ —	$ (152,383)	$ —	$ —
Investments in subsidiaries	213,267	—	—	(213,267)	—
Other assets, net of allowance[2]	12,156	60,273	109,969	—	182,398
Other assets—intercompany	2,781	51,489	(54,270)	—	—
Total assets	$ 386,134	$ 622,417	$ 1,464,806	$ (213,267)	$ 2,260,090
Liabilities and equity					
Deposits	$ —	$ —	$ 1,280,671	$ —	$ 1,280,671
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	184,786	14,739	—	199,525
Securities loaned and sold under repurchase agreements—intercompany	—	76,590	(76,590)	—	—
Trading account liabilities	—	113,100	54,927	—	168,027
Trading account liabilities—intercompany[1]	397	1,531	(1,928)	—	—
Short-term borrowings	—	12,323	17,191	—	29,514
Short-term borrowings—intercompany	—	12,757	(12,757)	—	—
Long-term debt	170,563	47,732	53,391	—	271,686
Long-term debt—intercompany	—	67,322	(67,322)	—	—
Advances from subsidiaries	12,975	—	(12,975)	—	—
Other liabilities, including allowance	2,692	55,217	52,558	—	110,467
Other liabilities—intercompany	65	15,378	(15,443)	—	—
Stockholders' equity	199,442	35,681	178,344	(213,267)	200,200
Total liabilities and equity	$ 386,134	$ 622,417	$ 1,464,806	$ (213,267)	$ 2,260,090

(1) The balances of *Trading account assets*—intercompany and *Trading account liabilities*—intercompany within CGMHI and within Other Citigroup subsidiaries and eliminations have been revised to reflect the netting of $7 billion of intercompany derivative and related collateral assets and liabilities subject to enforceable netting agreements. Because the adjustment was limited to transactions between affiliated entities, it had no impact to Citigroup consolidated.

(2) *Other assets* for Citigroup parent company at December 31, 2020 included $29.5 billion of placements to Citibank and its branches, of which $24.3 billion had a remaining term of less than 30 days.

Condensed Consolidating Statement of Cash Flows

In millions of dollars	Year ended December 31, 2021 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by operating activities of continuing operations	$ 3,947	$ 43,227	$ 14,075	$ —	$ 61,249
Cash flows from investing activities of continuing operations					
Purchases of investments	$ —	$ —	$ (359,158)	$ —	$ (359,158)
Proceeds from sales of investments	—	—	126,728	—	126,728
Proceeds from maturities of investments	—	—	142,100	—	142,100
Change in loans	—	—	(1,173)	—	(1,173)
Proceeds from sales and securitizations of loans	—	—	2,918	—	2,918
Change in securities borrowed and purchased under agreements to resell	—	(29,944)	(2,632)	—	(32,576)
Changes in investments and advances—intercompany	8,260	(9,040)	780	—	—
Other investing activities	—	(2)	(3,742)	—	(3,744)
Net cash provided by (used in) investing activities of continuing operations	$ 8,260	$ (38,986)	$ (94,179)	$ —	$ (124,905)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (5,198)	$ (196)	$ 196	$ —	$ (5,198)
Issuance of preferred stock	3,300	—	—	—	3,300
Redemption of preferred stock	(3,785)	—	—	—	(3,785)
Treasury stock acquired	(7,601)	—	—	—	(7,601)
Proceeds (repayments) from issuance of long-term debt, net	(86)	15,071	(19,277)	—	(4,292)
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	14,410	(14,410)	—	—
Change in deposits	—	—	44,966	—	44,966
Change in securities loaned and sold under agreements to repurchase	—	(27,241)	19,001	—	(8,240)
Change in short-term borrowings	—	1,102	(2,643)	—	(1,541)
Net change in short-term borrowings and other advances—intercompany	501	(917)	416	—	—
Capital contributions from (to) parent	—	71	(71)	—	—
Other financing activities	(337)	12	(12)	—	(337)
Net cash provided by (used in) financing activities of continuing operations	$ (13,206)	$ 2,312	$ 28,166	$ —	$ 17,272
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (1,198)	$ —	$ (1,198)
Change in cash and due from banks and deposits with banks	$ (999)	$ 6,553	$ (53,136)	$ —	$ (47,582)
Cash and due from banks and deposits with banks at beginning of year	4,516	20,112	284,987	—	309,615
Cash and due from banks and deposits with banks at end of year	$ 3,517	$ 26,665	$ 231,851	$ —	$ 262,033
Cash and due from banks (including segregated cash and other deposits)	$ 17	$ 7,724	$ 19,774	$ —	$ 27,515
Deposits with banks, net of allowance	3,500	18,941	212,077	—	234,518
Cash and due from banks and deposits with banks at end of year	$ 3,517	$ 26,665	$ 231,851	$ —	$ 262,033
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$ (2,406)	$ 919	$ 5,515	$ —	$ 4,028
Cash paid during the year for interest	3,101	2,210	1,832	—	7,143
Non-cash investing activities					
Decrease in net loans associated with significant disposals reclassified to HFS	$ —	$ —	$ 9,945	$ —	$ 9,945
Transfers to loans HFS (*Other assets*) from loans	—	—	7,414	—	7,414
Non-cash financing activities					
Decrease in long-term debt associated with significant disposals reclassified to HFS	$ —	$ —	$ 479	$ —	$ 479
Decrease in deposits associated with significant disposals reclassified to HFS	—	—	8,407	—	8,407

Condensed Consolidating Statement of Cash Flows

In millions of dollars	Year ended December 31, 2020 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ 5,002	$ (26,195)	$ 572	$ —	$ (20,621)
Cash flows from investing activities of continuing operations					
Purchases of investments	$ —	$ —	$ (334,900)	$ —	$ (334,900)
Proceeds from sales of investments	—	—	146,285	—	146,285
Proceeds from maturities of investments	—	—	124,229	—	124,229
Change in loans	—	—	14,249	—	14,249
Proceeds from sales and securitizations of loans	—	—	1,495	—	1,495
Change in securities borrowed and purchased under agreements to resell	—	(46,044)	2,654	—	(43,390)
Changes in investments and advances—intercompany	(5,584)	(6,917)	12,501	—	—
Other investing activities	—	(54)	(3,226)	—	(3,280)
Net cash used in investing activities of continuing operations	$ (5,584)	$ (53,015)	$ (36,713)	$ —	$ (95,312)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (5,352)	$ (172)	$ 172	$ —	$ (5,352)
Issuance of preferred stock	2,995	—	—	—	2,995
Redemption of preferred stock	(1,500)	—	—	—	(1,500)
Treasury stock acquired	(2,925)	—	—	—	(2,925)
Proceeds from issuance of long-term debt, net	16,798	6,349	(10,091)	—	13,056
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	3,960	(3,960)	—	—
Change in deposits	—	—	210,081	—	210,081
Change in securities loaned and sold under agreements to repurchase	—	79,322	(46,136)	—	33,186
Change in short-term borrowings	—	1,228	(16,763)	—	(15,535)
Net change in short-term borrowings and other advances—intercompany	(7,528)	(7,806)	15,334	—	—
Other financing activities	(411)	—	—	—	(411)
Net cash provided by financing activities of continuing operations	$ 2,077	$ 82,881	$ 148,637	$ —	$ 233,595
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (1,966)	$ —	$ (1,966)
Change in cash and due from banks and deposits with banks	$ 1,495	$ 3,671	$ 110,530	$ —	$ 115,696
Cash and due from banks and deposits with banks at beginning of year	3,021	16,441	174,457	—	193,919
Cash and due from banks and deposits with banks at end of year	$ 4,516	$ 20,112	$ 284,987	$ —	$ 309,615
Cash and due from banks (including segregated cash and other deposits)	$ 16	$ 6,709	$ 19,624	$ —	$ 26,349
Deposits with banks, net of allowance	4,500	13,403	265,363	—	283,266
Cash and due from banks and deposits with banks at end of year	$ 4,516	$ 20,112	$ 284,987	$ —	$ 309,615
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$ (1,883)	$ 1,138	$ 5,542	$ —	$ 4,797
Cash paid during the year for interest	2,681	4,516	4,897	—	12,094
Non-cash investing activities					
Transfers to loans HFS (*Other assets*) from loans	$ —	$ —	$ 2,614	$ —	$ 2,614

Condensed Consolidating Statements of Cash Flows

	Year ended December 31, 2019				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ 25,011	$ (35,396)	$ (2,452)	$ —	$ (12,837)
Cash flows from investing activities of continuing operations					
Purchases of investments	$ —	$ —	$ (274,491)	$ —	$ (274,491)
Proceeds from sales of investments	5	—	137,168	—	137,173
Proceeds from maturities of investments	—	—	119,051	—	119,051
Change in loans	—	—	(22,466)	—	(22,466)
Proceeds from sales and securitizations of loans	—	—	2,878	—	2,878
Change in securities borrowed and purchased under agreements to resell	—	15,811	3,551	—	19,362
Changes in investments and advances—intercompany	(1,847)	(870)	2,717	—	—
Other investing activities	—	(64)	(4,817)	—	(4,881)
Net cash provided by (used in) investing activities of continuing operations	$ (1,842)	$ 14,877	$ (36,409)	$ —	$ (23,374)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (5,447)	$ —	$ —	$ —	$ (5,447)
Issuance of preferred stock	1,496	—	—	—	1,496
Redemption of preferred stock	(1,980)	—	—	—	(1,980)
Treasury stock acquired	(17,571)	—	—	—	(17,571)
Proceeds (repayments) from issuance of long-term debt, net	1,666	10,389	(3,950)	—	8,105
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	(7,177)	7,177	—	—
Change in deposits	—	—	57,420	—	57,420
Change in securities loaned and sold under agreements to repurchase	—	5,115	(16,544)	—	(11,429)
Change in short-term borrowings	—	7,440	5,263	—	12,703
Net change in short-term borrowings and other advances—intercompany	(968)	5,843	(4,875)	—	—
Capital contributions from (to) parent	—	(74)	74	—	—
Other financing activities	(364)	(253)	253	—	(364)
Net cash provided by (used in) financing activities of continuing operations	$ (23,168)	$ 21,283	$ 44,818	$ —	$ 42,933
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (908)	$ —	$ (908)
Change in cash and due from banks and deposits with banks	$ 1	$ 764	$ 5,049	$ —	$ 5,814
Cash and due from banks and deposits with banks at beginning of year	3,020	15,677	169,408	—	188,105
Cash and due from banks and deposits with banks at end of year	$ 3,021	$ 16,441	$ 174,457	$ —	$ 193,919
Cash and due from banks (including segregated cash and other deposits)	$ 21	$ 5,681	$ 18,265	$ —	$ 23,967
Deposits with banks, net of allowance	3,000	10,760	156,192	—	169,952
Cash and due from banks and deposits with banks at end of year	$ 3,021	$ 16,441	$ 174,457	$ —	$ 193,919
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$ (393)	$ 418	$ 4,863	$ —	$ 4,888
Cash paid during the year for interest	3,820	12,664	11,417	—	27,901
Non-cash investing activities					
Transfers to loans HFS (*Other assets*) from loans	$ —	$ —	$ 5,500	$ —	$ 5,500

29. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

	2021				2020			
In millions of dollars, except per share amounts	**Fourth**	**Third**	**Second**	**First**	Fourth	Third	Second	First
Revenues, net of interest expense[1][2]	**$ 17,017**	**$ 17,447**	**$ 17,753**	**$ 19,667**	$ 16,832	$ 17,677	$ 20,036	$ 20,956
Operating expenses[1][3]	**13,532**	**11,777**	**11,471**	**11,413**	11,437	11,339	10,730	10,868
Provisions (release) for credit losses and for benefits and claims	**(465)**	**(192)**	**(1,066)**	**(2,055)**	(46)	2,384	8,197	6,960
Income from continuing operations before income taxes	**$ 3,950**	**$ 5,862**	**$ 7,348**	**$ 10,309**	$ 5,441	$ 3,954	$ 1,109	$ 3,128
Income taxes[4]	**771**	**1,193**	**1,155**	**2,332**	1,116	777	52	580
Income from continuing operations	**$ 3,179**	**$ 4,669**	**$ 6,193**	**$ 7,977**	$ 4,325	$ 3,177	$ 1,057	$ 2,548
Income (loss) from discontinued operations, net of taxes	**—**	**(1)**	**10**	**(2)**	6	(7)	(1)	(18)
Net income before attribution of noncontrolling interests	**$ 3,179**	**$ 4,668**	**$ 6,203**	**$ 7,975**	$ 4,331	$ 3,170	$ 1,056	$ 2,530
Noncontrolling interests	**6**	**24**	**10**	**33**	22	24	—	(6)
Citigroup's net income	**$ 3,173**	**$ 4,644**	**$ 6,193**	**$ 7,942**	$ 4,309	$ 3,146	$ 1,056	$ 2,536
Earnings per share[5]								
Basic								
Income from continuing operations	**$ 1.47**	**$ 2.17**	**$ 2.86**	**$ 3.64**	$ 1.93	$ 1.37	$ 0.38	$ 1.07
Net income	**1.47**	**2.17**	**2.87**	**3.64**	1.93	1.37	0.38	1.06
Diluted								
Income from continuing operations	**1.46**	**2.15**	**2.84**	**3.62**	1.92	1.36	0.38	1.06
Net income	**1.46**	**2.15**	**2.85**	**3.62**	1.92	1.36	0.38	1.06

This Note to the Consolidated Financial Statements is unaudited due to the Company's individual quarterly results not being subject to an audit.

(1) During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each quarter were $295 million for 4Q21, $293 million for 3Q21, $279 million for 2Q21, $340 million for 1Q21, $333 million for 4Q20, $375 million for 3Q20, $270 million for 2Q20 and $225 million for 1Q20. For additional information, see Note 1 to the Consolidated Financial Statements.

(2) The third quarter of 2021 includes an approximate $700 million loss on sale (approximately $600 million after-tax) related to Citi's agreement to sell its consumer banking business in Australia.

(3) The fourth quarter of 2021 includes an approximate $1.052 billion charge (approximately $792 million after-tax) in connection with the voluntary early retirement plan (VERP) related to the announced wind-down of Citi's consumer banking business in Korea.

(4) The second quarter of 2021 includes an approximate $450 million benefit in tax rate from a reduction in Citi's valuation allowance related to its deferred tax assets (DTAs).

(5) Certain securities were excluded from the second quarter of 2020 diluted EPS calculation because they were anti-dilutive. Year-to-date EPS will not equal the sum of the individual quarters because the year-to-date EPS calculation is a separate calculation, which uses an averaging of shares across each quarter. In addition, due to averaging of shares, quarterly earnings per share may not sum to the totals reported for the full year.

End of Consolidated Financial Statements and Notes to Consolidated Financial Statements

FINANCIAL DATA SUPPLEMENT

RATIOS

	2021	2020	2019
Return on average assets	**0.94%**	0.50 %	0.98%
Return on average common stockholders' equity[1]	**11.5**	5.7	10.3
Return on average total stockholders' equity[2]	**10.9**	5.7	9.9
Total average equity to average assets[3]	**8.6**	8.7	9.9
Dividend payout ratio[4]	**20**	43	24

(1) Based on Citigroup's net income less preferred stock dividends as a percentage of average common stockholders' equity.
(2) Based on Citigroup's net income as a percentage of average total Citigroup stockholders' equity.
(3) Based on average Citigroup stockholders' equity as a percentage of average assets.
(4) Dividends declared per common share as a percentage of net income per diluted share.

AVERAGE DEPOSIT LIABILITIES IN OFFICES OUTSIDE THE U.S.[1]

In millions of dollars at year end, except ratios	**2021**		2020		2019	
	Average interest rate	**Average balance**	Average interest rate	Average balance	Average interest rate	Average balance
Banks	**0.16%**	**$ 42,222**	0.10%	$ 130,970	0.59%	$ 52,699
Other demand deposits	**0.15**	**412,815**	0.33	311,342	1.08	293,209
Other time and savings deposits[2]	**0.55**	**200,194**	0.94	210,896	1.28	223,450
Total	**0.10%**	**$ 655,231**	0.48%	$ 653,208	1.11%	$ 569,358

(1) Interest rates and amounts include the effects of risk management activities and also reflect the impact of the local interest rates prevailing in certain countries.
(2) Primarily consists of certificates of deposit and other time deposits in denominations of $100,000 or more.

UNINSURED DEPOSITS

The table below shows the estimated amount of uninsured time deposits by maturity profile:

In millions of dollars at December 31, 2021	**Under 3 months or less**	**Over 3 months but within 6 months**	**Over 6 months but within 12 months**	**Over 12 months**	**Total**
In U.S. offices[1]					
Time deposits in excess of FDIC insurance limits[2]	**$ 5,779**	**$ 2,653**	**$ 1,861**	**$ 2,950**	**$ 13,243**
In offices outside the U.S.[1]					
Time deposits in excess of foreign jurisdiction insurance limits[3]	**57,248**	**6,471**	**4,080**	**1,095**	**68,894**
Total uninsured time deposits[4]	**$ 63,027**	**$ 9,124**	**$ 5,941**	**$ 4,045**	**$ 82,137**

(1) The classification between offices in the U.S. and outside the U.S. is based on the domicile of the booking unit, rather than the domicile of the depositor.
(2) The standard insurance amount is $250,000 and $500,000 per depositor, per insured bank, for single and joint account ownership categories, respectively.
(3) The standard insurance amount for time deposits outside the U.S. is based on the insurance limits approved by the regulator in the respective foreign jurisdiction. For certain depositors outside the U.S., Citi has not considered the account ownership category and other time deposit accounts that the depositors may own when allocating the insurance limits used to determine the uninsured time deposit balances. As a result, the uninsured time deposit balances disclosed above may differ from actual uninsured balances.
(4) The maturity term is based on the remaining term of the time deposit rather than the original maturity date.

Total uninsured deposits as of December 31, 2021 were $1.082 trillion (see notes 1, 2 and 3 to the table above).

SUPERVISION, REGULATION AND OTHER

SUPERVISION AND REGULATION

Citi is subject to regulation under U.S. federal and state laws, as well as applicable laws in the other jurisdictions in which it does business.

General

Citigroup is a registered bank holding company and financial holding company and is regulated and supervised by the Federal Reserve Board (FRB). Citigroup's nationally chartered subsidiary banks, including Citibank, are regulated and supervised by the Office of the Comptroller of the Currency (OCC). The Federal Deposit Insurance Corporation (FDIC) also has examination authority for banking subsidiaries whose deposits it insures. Overseas branches of Citibank are regulated and supervised by the FRB and OCC and overseas subsidiary banks by the FRB. These overseas branches and subsidiary banks are also regulated and supervised by regulatory authorities in the host countries. In addition, the Consumer Financial Protection Bureau regulates consumer financial products and services. Citi is also subject to laws and regulations concerning the collection, use, sharing and disposition of certain customer, employee and other personal and confidential information, including those imposed by the Gramm-Leach-Bliley Act, the Fair Credit Reporting Act and the EU General Data Protection Regulation. For more information on U.S. and foreign regulation affecting or potentially affecting Citi, see "Managing Global Risk—Capital Resources" and "—Liquidity Risk" and "Risk Factors" above.

Other Bank and Bank Holding Company Regulation

Citi, including its banking subsidiaries, is subject to regulatory limitations, including requirements as to liquidity, risk-based capital and leverage (see "Capital Resources" above and Note 18 to the Consolidated Financial Statements), restrictions on the types and amounts of loans that may be made and the interest that may be charged, and limitations on investments that can be made and services that can be offered. The FRB may also expect Citi to commit resources to its subsidiary banks in certain circumstances. Citi is also subject to anti-money laundering and financial transparency laws, including standards for verifying client identification at account opening and obligations to monitor client transactions and report suspicious activities.

Securities and Commodities Regulation

Citi conducts securities underwriting, brokerage and dealing activities in the U.S. through Citigroup Global Markets Inc. (CGMI), its primary broker-dealer, and other broker-dealer subsidiaries, which are subject to regulations of the U.S. Securities and Exchange Commission (SEC), the Financial Industry Regulatory Authority and certain exchanges. Citi conducts similar securities activities outside the U.S., subject to local requirements, through various subsidiaries and affiliates, principally Citigroup Global Markets Limited in London (CGML), which is regulated principally by the U.K. Financial Conduct Authority and Prudential Regulation Authority (PRA), and Citigroup Global Markets Japan Inc. in Tokyo, which is regulated principally by the Financial Services Agency of Japan.

Citi also has subsidiaries that are members of futures exchanges and derivatives clearinghouses. In the U.S., CGMI is a member of the principal U.S. futures exchanges and clearinghouses, and Citi has subsidiaries that are registered as futures commission merchants and commodity pool operators with the Commodity Futures Trading Commission (CFTC). Citibank, CGMI, Citigroup Energy Inc., Citigroup Global Markets Europe AG (CGME) and CGML are also registered as swap dealers with the CFTC (for additional information, see below). CGMI is also subject to SEC and CFTC rules that specify uniform minimum net capital requirements. Compliance with these rules could limit those operations of CGMI that require the intensive use of capital and also limits the ability of broker-dealers to transfer large amounts of capital to parent companies and other affiliates. See "Capital Resources" and Note 18 to the Consolidated Financial Statements for a further discussion of capital considerations of Citi's non-banking subsidiaries.

Recent Rules Regarding Swap Dealers/Security-Based Swap Dealers

On July 22, 2020, the CFTC adopted final rules establishing capital and financial reporting requirements for swap dealers that took effect in October 2021.

In addition, the SEC has adopted rules governing the registration and regulation of security-based swap dealers. The regulations include requirements related to (i) capital, margin and segregation, (ii) record-keeping, reporting and notification and (iii) risk management practices for uncleared security based swaps and the cross-border application of certain security-based swap requirements. These requirements also took effect in November 2021. Citibank, CGML and CGME registered with the SEC as securities-based swap dealers.

Transactions with Affiliates

Transactions between Citi's U.S. subsidiary depository institutions and their non-bank affiliates are regulated by the FRB, and are generally required to be on arm's-length terms. See "Managing Global Risk—Liquidity Risk" above.

COMPETITION

The financial services industry is highly competitive. Citi's competitors include a variety of financial services and advisory companies, as well as certain non-financial services firms. Citi competes for clients and capital (including deposits and funding in the short- and long-term debt markets) with some of these competitors globally and with others on a regional or product basis. Citi's competitive position depends on many factors, including, among others, the value of Citi's brand name, reputation, the types of clients and geographies served; the quality, range, performance, innovation and pricing of products and services; the effectiveness of and access to distribution channels, maintenance of partner relationships, emerging technologies and technology advances, customer service and convenience; the effectiveness of transaction execution, interest rates, lending limits and risk appetite; regulatory constraints and compliance; and changes in the macroeconomic business environment or societal norms. Citi's ability to compete effectively also depends upon its ability to attract new colleagues and retain and motivate existing colleagues, while managing compensation and other costs. For additional information on competitive factors and uncertainties impacting Citi's businesses, see "Risk Factors—Strategic Risks" above.

DISCLOSURE PURSUANT TO SECTION 219 OF THE IRAN THREAT REDUCTION AND SYRIA HUMAN RIGHTS ACT

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Section 219), which added Section 13(r) to the Securities Exchange Act of 1934, as amended, Citi is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with certain individuals or entities that are the subject of sanctions under U.S. law. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Citi, in its related quarterly reports on Form 10-Q, did not identify any reportable activities for the first and third quarters of 2021. Citi identified and reported certain activities pursuant to Section 219 for the second quarter of 2021.

During the fourth quarter of 2021, Citigroup reported one transaction pursuant to Section 219. In October 2021, Citigroup's Russian subsidiary (Citi Russia), acting as the beneficiary bank, released a payment that had been initiated by a Russian entity from its account with MB Bank, an entity designated pursuant to Executive Order 13224, for the benefit of Citi Russia's customer. The total value of the payment was RUB 16,533.12 (approximately USD 224.70), and the transaction was authorized pursuant to a specific license issued by the Office of Foreign Assets Control on October 1, 2021, which expired on December 31, 2021. Citi did not realize any fees for the processing of the payment.

UNREGISTERED SALES OF EQUITY SECURITIES, REPURCHASES OF EQUITY SECURITIES AND DIVIDENDS

Unregistered Sales of Equity Securities

None.

Equity Security Repurchases

As previously announced, Citigroup voluntarily suspended common share repurchases during the fourth quarter of 2021, in anticipation of the adverse regulatory capital impact resulting from adoption of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. For additional information on the adoption of SA-CCR, see "Capital Resources—Adoption of the Standardized Approach for Counterparty Credit Risk" above. Accordingly, Citi did not have any share repurchases in the fourth quarter of 2021, other than repurchases relating to issuances of common stock related to employee stock ownership plans. During the quarter, pursuant to Citigroup's Board of Directors' authorization, Citi repurchased 1,855 shares (at an average price of $66.37) of common stock, added to treasury stock, related to activity on employee stock programs where shares were withheld to satisfy the employee tax requirements. Citi resumed common share repurchases in January 2022.

All large banks, including Citi, are subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see "Capital Resources—Regulatory Capital Buffers" and "Risk Factors—Strategic Risks" above.

Dividends

Citi paid common dividends of $0.51 per share for the fourth quarter of 2021 and the first quarter of 2022. As previously announced, Citi intends to maintain its planned capital actions, which include a quarterly common dividend of at least $0.51 per share, subject to financial and macroeconomic conditions as well as Board of Directors' approval.

As discussed above, Citi's ability to pay common stock dividends is subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see "Capital Resources—Regulatory Capital Buffers" and "Risk Factors—Strategic Risks" above.

Any dividend on Citi's outstanding common stock would also need to be made in compliance with Citi's obligations on its outstanding preferred stock.

During 2021, Citi distributed $1,040 million in dividends on its outstanding preferred stock. On January 12, 2022, Citi declared preferred dividends of approximately $277 million for the first quarter of 2022.

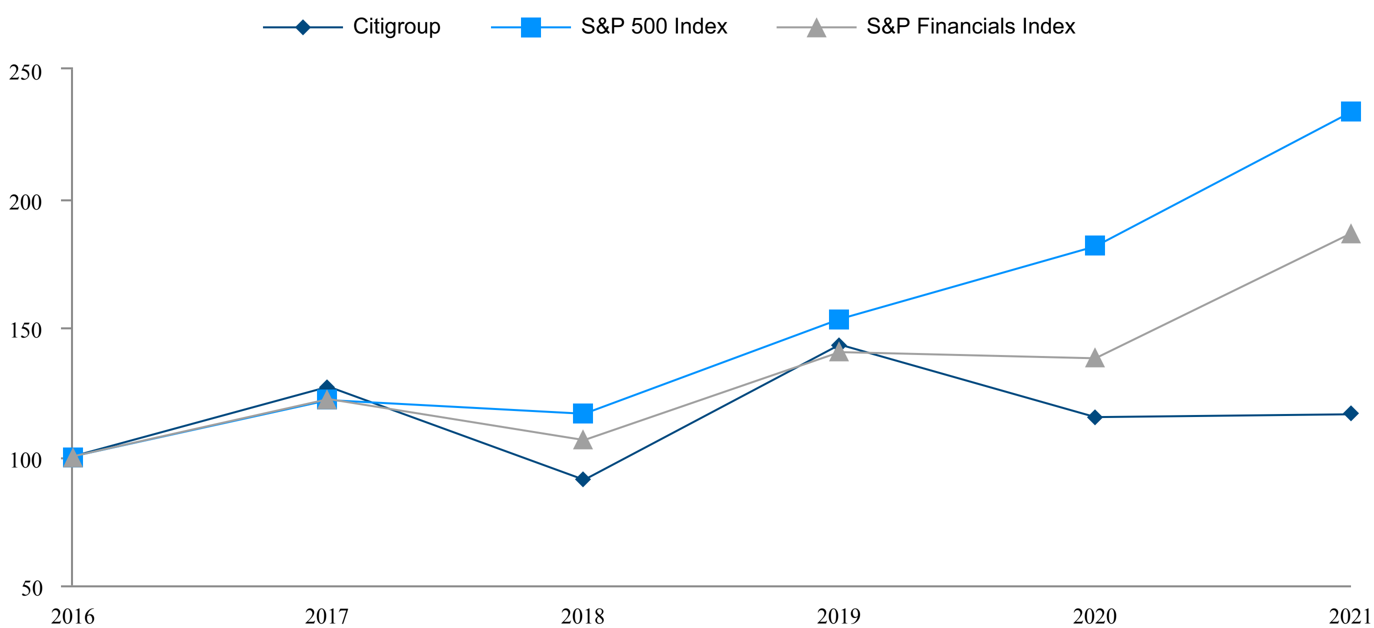
As of February 25, 2022, Citi estimates it will distribute preferred dividends of approximately $238 million, $277 million and $238 million in the second, third and fourth quarters of 2022, respectively, subject to such dividends being declared by the Citi Board of Directors.

For information on the ability of Citigroup's subsidiary depository institutions to pay dividends, see Note 18 to the Consolidated Financial Statements.

PERFORMANCE GRAPH

Comparison of Five-Year Cumulative Total Return
The following graph and table compare the cumulative total return on Citi's common stock with the cumulative total return of the S&P 500 Index and the S&P Financials Index over the five-year period through December 31, 2021. The graph and table assume that $100 was invested on December 31, 2016 in Citi's common stock, the S&P 500 Index and the S&P Financials Index, and that all dividends were reinvested.

Comparison of Five-Year Cumulative Total Return
For the years ended



DATE	Citigroup	S&P 500 Index	S&P Financials Index
31-Dec-2016	100.0	100.0	100.0
31-Dec-2017	127.0	121.8	122.2
31-Dec-2018	90.9	116.5	106.3
31-Dec-2019	143.3	153.2	140.4
31-Dec-2020	115.2	181.4	138.0
31-Dec-2021	116.3	233.4	186.4

Note: Citi's common stock is listed on the NYSE under the ticker symbol "C" and held by 61,355 common stockholders of record as of January 31, 2022.

CORPORATE INFORMATION

EXECUTIVE OFFICERS

Citigroup's executive officers as of February 25, 2022 are:

Name	Age	Position and office held
Peter Babej	58	CEO, Asia Pacific
Jane Fraser	54	Chief Executive Officer, Citigroup Inc.
Sunil Garg	56	Chief Executive Officer, Citibank, N.A.
David Livingstone	58	CEO, Europe, Middle East and Africa
Mark A. L. Mason	52	Chief Financial Officer
Brent McIntosh	48	General Counsel and Corporate Secretary
Mary McNiff	51	Chief Compliance Officer
Johnbull Okpara	50	Controller and Chief Accounting Officer
Karen Peetz	66	Chief Administrative Officer
Anand Selvakesari	54	CEO, Personal Banking and Wealth Management
Edward Skyler	48	Head of Global Public Affairs
Ernesto Torres Cantú	57	CEO, Latin America
Zdenek Turek	57	Chief Risk Officer
Sara Wechter	41	Head of Human Resources
Mike Whitaker	58	Head of Enterprise Operations and Technology
Paco Ybarra	60	CEO, Institutional Clients Group

The following executive officers have not held their current executive officer positions with Citigroup for at least five years:

- Mr. Babej joined Citi in 2010 and assumed his current position in October 2019. Previously, he served as *ICG*'s Global Head of the Financial Institutions Group (FIG) from January 2017 to October 2019 and Global Co-Head of FIG from 2010 to January 2017. Prior to joining Citi, Mr. Babej served as Co-Head, Financial Institutions—Americas at Deutsche Bank, among other roles;
- Ms. Fraser joined Citi in 2004 and assumed her current position on February 26, 2021. Previously, she served as CEO of *GCB* from October 2019 to December 2020. Before that, she served as CEO of Citi *Latin America* from June 2015 to October 2019. She held a number of other roles across the organization, including CEO of U.S. Consumer and Commercial Banking and CitiMortgage, CEO of Citi's Global Private Bank and Global Head of Strategy and M&A;
- Mr. Garg joined Citi in May 1988 and assumed his current position in February 2021. Previously, he was global CEO of the Commercial Bank beginning in 2011. Prior to that, Mr. Garg led the U.S. Commercial Banking business from 2008 until 2011. In addition, he held various other roles at Citi in Operations and Technology, Treasury and Trade Solutions, Corporate and Investment Banking and Commercial Banking.
- Mr. Livingstone joined Citi in 2016 and assumed his current position in March 2019. Previously, he served as Citi Country Officer for Australia and New Zealand since June 2016. Prior to joining Citi, he had a nine-year career at Credit Suisse, where he was Vice Chairman of the Investment Banking and Capital Markets Division for the *EMEA* region, Head of M&A and CEO of Credit Suisse Australia;
- Mr. Mason joined Citi in 2001 and assumed his current position in February 2019. Previously, he served as CFO of *ICG* since September 2014. He held a number of other senior operational, strategic and financial executive roles across the organization, including CEO of Citi Private Bank, CEO of Citi Holdings and CFO and Head of Strategy and M&A for Citi's Global Wealth Management Division;
- Mr. McIntosh joined Citi in his current position in October 2021. Previously, he served as Under Secretary for International Affairs at the U.S. Treasury from 2019 to 2021. From 2017 to 2019, Mr. McIntosh served as U.S. Treasury's General Counsel. Prior to that, he was a partner in the law firm of Sullivan & Cromwell and served in the U.S. White House from 2006 until 2009;
- Ms. McNiff joined Citi in 2012 and assumed her current position in June 2020. Previously, she served as CEO of Citibank, N.A. from April 2019 to June 2020 and Chief Auditor of Citi from February 2017 to April 2019. Prior to taking on that role, Ms. McNiff served as Chief Administrative Officer of Latin America & Mexico and interim Chief Auditor. She also led the Global Transformation initiative within Internal Audit;
- Mr. Okpara joined Citi in his current position in November 2020. Previously he served as Managing Director, Global Head of Financial Planning and Analysis and CFO, Infrastructure Groups at Morgan Stanley since 2016. Prior to that, Mr. Okpara was Managing Vice President, Finance and Deputy Controller at Capital One Financial Corporation;
- Ms. Peetz joined Citi in her current position in June 2020. Previously, she served on the Board of Directors of Wells Fargo from 2017 to 2019. Ms. Peetz spent nearly 20 years at BNY Mellon, where she managed several business units and ultimately served as President for five years until her departure in 2016. Prior to that, she worked at JPMorgan Chase, where she held a variety of management positions during her tenure;
- Mr. Selvakesari joined Citi in 1991 and assumed his current position in January 2021. Previously, he served as Head of the U.S. Consumer Bank since October 2018 and held various other roles at Citi prior to that, including Head of Consumer Banking for Asia Pacific from 2015 to 2018, as well as a number of regional and country roles, including Head of Consumer Banking for ASEAN and India, leading the consumer banking businesses in Singapore, Malaysia, Indonesia, the Philippines, Thailand and Vietnam, as well as India;
- Mr. Torres Cantú joined Citi in 1989 and assumed his current position in October 2019. Previously, he served as CEO of Citibanamex since October 2014. He served as CEO of *GCB* in Mexico from 2006 to 2011 and CEO of Crédito Familiar from 2003 to 2006. In addition, he

previously held roles in Citibanamex, including Regional Director and Divisional Director;

- Mr. Turek joined Citi in 1991 and assumed his current position in December 2020. Previously, he served as CRO for *EMEA* since February 2020 and held various other roles at Citi, including CEO of Citibank Europe as well as leading significant franchises across Citi, including in Russia, South Africa and Hungary;
- Ms. Wechter joined Citi in 2004 and assumed her current position in July 2018. Previously, she served as Citi's Head of Talent and Diversity as well as Chief of Staff to Citi CEO Michael Corbat. She served as Chief of Staff to both Michael O'Neill and Richard Parsons during their terms as Chairman of Citigroup's Board of Directors. In addition, she held roles in Citi's *ICG*, including Corporate M&A and Strategy and Investment Banking;
- Mr. Whitaker joined Citi in 2009 and assumed his current position in November 2018. Previously, he served as Head of Operations & Technology for *ICG* since September 2014 and held various other roles at Citi, including Head of Securities & Banking Operations & Technology, Head of *ICG* Technology and Regional Chief Information Officer; and
- Mr. Ybarra joined Citi in 1987 and assumed his current position in May 2019. Previously, he served as *ICG*'s Global Head of Markets and Securities Services since November 2013. In addition, he has held a number of other roles across *ICG*, including Deputy Head of *ICG*, Global Head of Markets and Co-Head of Global Fixed Income.

Code of Conduct, Code of Ethics

Citi has a Code of Conduct that maintains its commitment to the highest standards of conduct. The Code of Conduct is supplemented by a Code of Ethics for Financial Professionals (including accounting, controllers, financial reporting operations, financial planning and analysis, treasury, capital planning, tax, productivity and strategy, M&A, investor relations and regional/product finance professionals and administrative staff) that applies worldwide. The Code of Ethics for Financial Professionals applies to Citi's principal executive officer, principal financial officer and principal accounting officer. Amendments and waivers, if any, to the Code of Ethics for Financial Professionals will be disclosed on Citi's website, www.citigroup.com.

Both the Code of Conduct and the Code of Ethics for Financial Professionals can be found on the Citi website by clicking on "About Us," and then "Corporate Governance." Citi's Corporate Governance Guidelines can also be found there, as well as the charters for the Audit Committee, the Ethics, Conduct and Culture Committee, the Nomination, Governance and Public Affairs Committee, the Personnel and Compensation Committee and the Risk Management Committee of Citigroup's Board of Directors. These materials are also available by writing to Citigroup Inc., Corporate Governance, 388 Greenwich Street, 17th Floor, New York, New York 10013.

CITIGROUP BOARD OF DIRECTORS

Ellen M. Costello
Former President and CEO
BMO Financial Corporation and
Former U.S. Country Head
BMO Financial Group

Grace E. Dailey
Former Senior Deputy Comptroller
for Bank Supervision Policy and
Chief National Bank Examiner
Office of the Comptroller of the
Currency (OCC)

Barbara Desoer
Chair
Citibank, N.A.

John C. Dugan
Chair
Citigroup Inc.

Jane Fraser
Chief Executive Officer
Citigroup Inc.

Duncan P. Hennes
Co-Founder and Partner
Atrevida Partners, LLC

Peter Blair Henry
Dean Emeritus and W. R.
Berkley Professor of Economics
and Finance
New York University
Stern School of Business

S. Leslie Ireland
Former Assistant Secretary for
Intelligence and Analysis
U.S. Department of the Treasury

Lew W. (Jay) Jacobs, IV
Former President and Managing
Director
Pacific Investment Management
Company LLC (PIMCO)

Renée J. James
Founder, Chairman and CEO
Ampere Computing

Gary M. Reiner
Operating Partner
General Atlantic LLC

Diana L. Taylor
Former Superintendent of Banks
State of New York

James S. Turley
Former Chairman and CEO
Ernst & Young

Deborah C. Wright
Former Chairman
Carver Bancorp, Inc.

Ernesto Zedillo Ponce de Leon
Director, Center for the
Study of Globalization and
Professor in the Field
of International
Economics and Politics
Yale University

Signatures
Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 25th day of February, 2022.

Citigroup Inc.
(Registrant)

/s/ Mark A. L. Mason

Mark A. L. Mason
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on the 25th day of February, 2022.

Citigroup's Principal Executive Officer and a Director:

/s/ Jane Fraser

Jane Fraser

Citigroup's Principal Financial Officer:

/s/ Mark A. L. Mason

Mark A. L. Mason

Citigroup's Principal Accounting Officer:

/s/ Johnbull E. Okpara

Johnbull E. Okpara

The Directors of Citigroup listed below executed a power of attorney appointing Mark A. L. Mason their attorney-in-fact, empowering him to sign this report on their behalf.

Ellen M. Costello	Lew W. (Jay) Jacobs, IV
Grace E. Dailey	Renée J. James
Barbara Desoer	Gary M. Reiner
John C. Dugan	Diana L. Taylor
Duncan P. Hennes	James S. Turley
Peter Blair Henry	Deborah C. Wright
S. Leslie Ireland	Ernesto Zedillo Ponce de Leon

/s/ Mark A. L. Mason

Mark A. L. Mason

GLOSSARY OF TERMS AND ACRONYMS

The following is a list of terms and acronyms that are used in this Annual Report on Form 10-K and other Citigroup presentations.

* Denotes a Citi metric

2021 Annual Report on Form 10-K: Annual report on Form 10-K for year ended December 31, 2021, filed with the SEC.

90+ days past due delinquency rate*: Represents consumer loans that are past due by 90 or more days, divided by that period's total EOP loans.

ABS: Asset-backed securities

ACL: Allowance for credit losses

ACLL: Allowance for credit losses on loans

ACLUC: Allowance for credit losses on unfunded lending commitments

AFS: Available-for-sale

ALCO: Asset Liability Committee

Amortized cost: Amount at which a financing receivable or investment is originated or acquired, adjusted for accretion or amortization of premium, discount, and net deferred fees or costs, collection of cash, charge-offs, foreign exchange, and fair value hedge accounting adjustments. For AFS securities, amortized cost is also reduced by any impairment losses recognized in earnings. Amortized cost is not reduced by the allowance for credit losses, except where explicitly presented net.

AOCI: Accumulated other comprehensive income (loss)

ARM: Adjustable rate mortgage(s)

ASC: Accounting Standards Codification under GAAP issued by the FASB.

ASU: Accounting Standards Update under GAAP issued by the FASB.

AUC: Assets under custody

AUM: Assets under management. Represent assets managed on behalf of Citi's clients.

Available liquidity resources*: Resources available at the balance sheet date to support Citi's client and business needs, including HQLA assets; additional unencumbered securities, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi's HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Basel III: Liquidity and capital rules adopted by the FRB based on an internationally agreed set of measures developed by the Basel Committee on Banking Supervision.

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities or other obligations, issued by VIEs that Citi consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

BHC: Bank holding company

Book value per share*: EOP common equity divided by EOP common shares outstanding.

Bps: Basis points. One basis point equals 1/100th of one percent.

Branded cards: Citi's branded-cards business with a portfolio of proprietary cards (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco).

Build: A net increase in ACL through the provision for credit losses.

Cards: Citi's credit cards' businesses or activities.

CCAR: Comprehensive Capital Analysis and Review

CCO: Chief Compliance Officer

CDS: Credit default swaps

CECL: Current Expected Credit Losses

CEO: Chief Executive Officer

CET1 Capital: Common Equity Tier 1 Capital. See "Capital Resources—Components of Citigroup Capital" above for the components of CET1.

CET1 Capital Ratio*: Common Equity Tier 1 Capital ratio. A primary regulatory capital ratio representing end-of-period CET1 Capital divided by total risk-weighted assets.

CFO: Chief Financial Officer

CFTC: Commodity Futures Trading Commission

CGMHI: Citigroup Global Markets Holdings Inc.

Citi: Citigroup Inc.

Citibank or CBNA: Citibank, N.A. (National Association)

Client assets: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

CLO: Collateralized loan obligations

Collateral-dependent: A loan is considered collateral dependent when repayment of the loan is expected to be provided substantially through the operation or sale of the collateral when the borrower is experiencing financial difficulty, including when foreclosure is deemed probable based on borrower delinquency.

Commercial Cards: Provides a wide range of payment services to corporate and public sector clients worldwide through commercial card products. Services include procurement, corporate travel and entertainment, expense management services, and business-to-business payment solutions.

Consent orders: In October 2020, Citigroup and Citibank entered into consent orders with the Federal Reserve and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls.

CRE: Commercial real estate

Credit card spend volume*: Dollar amount of card customers' purchases, net of returns. Also known as purchase sales.

Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again (or vice versa). The duration of a credit cycle can vary from a couple of years to several years.

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity), which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Upon the occurrence of a credit event by the reference entity, which may include, among other events, the bankruptcy or failure to pay its obligations, or certain restructurings of the debt of the reference entity, neither party has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value at the time of settling the credit derivative contract. The determination as to whether a credit event has occurred is generally made by the relevant International Swaps and Derivatives Association (ISDA) Determinations Committee.

Critical Audit Matters: Audit matters communicated by KPMG to Citi's Audit Committee of the Board of Directors, relating to accounts or disclosures that are material to the consolidated financial statements and involved especially challenging, subjective or complex judgments. See "Report of Independent Registered Public Accounting Firm" above.

Criticized: Criticized loans, lending-related commitments and derivative receivables that are classified as special mention, substandard and doubtful categories for regulatory purposes.

CRO: Chief Risk Officer

CVA: Credit valuation adjustment

Dividend payout ratio*: Represents dividends declared per common share as a percentage of net income per diluted share.

Dodd-Frank Act: Wall Street Reform and Consumer Protection Act

DPD: Days past due

DVA: Debit valuation adjustment

EC: European Commission

Efficiency ratio*: A ratio signifying how much of a dollar in expenses (as a percentage) it takes to generate one dollar in revenue. Represents total operating expenses divided by total revenues, net.

EMEA: Europe, Middle East and Africa

EOP: End-of-period

EPS*: Earnings per share

ERISA: Employee Retirement Income Security Act of 1974

ETR: Effective tax rate

EU: European Union

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

FFIEC: Federal Financial Institutions Examination Council

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICO: Fair Issac Corporation

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

FINRA: Financial Industry Regulatory Authority

Firm: Citigroup Inc.

FRBNY: Federal Reserve Bank of New York

Freddie Mac: Federal Home Loan Mortgage Corporation

Free standing derivatives: A derivative contract entered into either separate and apart from any of the Company's other financial instruments or equity transactions, or in conjunction with some other transaction and legally detachable and separately exercisable.

FTCs: Foreign tax credit carry-forwards

FTE: Full time employee

FVA: Funding valuation adjustment

FX: Foreign exchange

FX translation: The impact of converting non-U.S.-dollar currencies into U.S. dollars.

G7: Group of Seven nations. Countries in the G7 are Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

GAAP or U.S. GAAP: Generally accepted accounting principles in the United States of America.

GCB: Global Consumer Banking

Ginnie Mae: Government National Mortgage Association

GSIB: Global systemically important banks

HELOC: Home equity line of credit

HFI loans: Loans that are held-for-investment (i.e., excludes loans held-for-sale).

HFS: Held-for-sale

HQLA: High-quality liquid assets. Consist of cash and certain high-quality liquid securities as defined in the LCR rule.

HTM: Held-to-maturity

IBOR: Interbank Offered Rate

ICG: Institutional Clients Group

ICRM: Independent Compliance Risk Management

IPO: Initial public offering

ISDA: International Swaps and Derivatives Association

KM: Key financial and non-financial metric used by management when evaluating consolidated and/or individual business results.

KPMG LLP: Citi's Independent Registered Public Accounting Firm.

LATAM: Latin America, which for Citi, includes Mexico.

LCR: Liquidity coverage ratio. Represents HQLA divided by net outflows in the period.

LDA: Loss Distribution Approach

LGD: Loss given default

LIBOR: London Interbank Offered Rate

LLC: Limited Liability Company

LTD: Long-term debt

LTV: Loan-to-value. For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Master netting agreement: A single agreement with a counterparty that permits multiple transactions governed by that agreement to be terminated or accelerated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due).

MBS: Mortgage-backed securities

MCA: Manager's control assessment

MD&A: Management's discussion and analysis

Measurement alternative: Measures equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer.

Moody's: Moody's Investor Services

MSRs: Mortgage servicing rights

N/A: Data is not applicable or available for the period presented.

NAA: Non-accrual assets. Consists of non-accrual loans and OREO.

NAL: Non-accrual loans. Loans for which interest income is not recognized on an accrual basis. Loans (other than credit card loans and certain consumer loans insured by U.S. government sponsored agencies) are placed on non-accrual status when full payment of principal and interest is not expected, regardless of delinquency status, or when principal and interest have been in default for a period of 90 days or more unless the loan is both well-secured and in the process of collection. Collateral-dependent loans are typically maintained on non-accrual status.

NAV: Net asset value

NCL(s): Net credit losses. Represents gross credit losses, less gross credit recoveries.

NCL ratio*: Represents net credit losses (recoveries) (annualized), divided by average loans for the reporting period.

Net Capital Rule: Rule 15c3-1 under the Securities Exchange Act of 1934.

Net interchange income: Includes the following components:

- Interchange revenue: Fees earned from merchants based on Citi's credit and debit card customers' sales transactions.
- Reward costs: The cost to Citi for points earned by cardholders enrolled in credit card rewards programs generally tied to sales transactions.
- Partner payments: Payments to co-brand credit card partners based on the cost of loyalty program rewards earned by cardholders on credit card transactions.

NII: Net interest income. Represents total interest revenue, less total interest expenses.

NIM*: Net interest margin expressed as a yield percentage, calculated as annualized net interest income divided by average interest-earning assets for the period.

NIR: Non-interest revenues

NM: Not meaningful

Noncontrolling interests: The portion of an investment that has been consolidated by Citi that is not 100% owned by Citi.

Non-GAAP financial measure: Management uses these financial measures because it believes they provide information to enable investors to understand the underlying operational performance and trends of Citi and its businesses.

NSFR: Net Stable Funding Ratio

O/S: Outstanding

OCC: Office of the Comptroller of the Currency

OCI: Other comprehensive income (loss)

OREO: Other real estate owned

OTTI: Other-than-temporary impairment

Over-the-counter cleared (OTC-cleared) derivatives: Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

Over-the-counter (OTC) derivatives: Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

Parent Company: Citigroup Inc.

Participating securities: Represents unvested share-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings per share calculation using the two-class method. Citi grants RSUs to certain employees under its share-based compensation programs, which entitle the recipients to receive non-forfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

PCD: Purchased credit-deteriorated assets are financial assets that as of the date of acquisition have experienced a more-than-insignificant deterioration in credit quality since origination, as determined by the Company.

PCI: Purchased credit-impaired loans represented certain loans that were acquired and deemed to be credit impaired on the acquisition date. The now superseded FASB guidance that allowed purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools, provided that the loans had common risk characteristics (e.g., product type, LTV ratios).

PD: Probability of default

Principal transactions revenue: Primarily trading-related revenues predominantly generated by the *ICG* businesses. See Note 6 to the Consolidated Financial Statements.

Provisions: Provisions for credit losses and for benefits and claims.

PSUs: Performance share units

Real GDP: Real gross domestic product is the inflation-adjusted value of the goods and services produced by labor and property located in a country.

Regulatory VAR: Daily aggregated VAR calculated in accordance with regulatory rules.

REITs: Real estate investment trusts

Release: A net decrease in ACL through the provision for credit losses.

Reported basis: Financial statements prepared under U.S. GAAP.

Results of operations that exclude certain impacts from gains or losses on sale, or one-time charges*: Represents GAAP items, excluding the impact of gains or losses on sales, or one-time charges (e.g., the loss on sale related to the sale of Citi's consumer banking business in Australia).

Results of operations that exclude the impact of FX translation*: Represents GAAP items, excluding the impact of FX translation, whereby the prior periods' foreign currency balances are translated into U.S. dollars at the current periods' conversion rates (also known as Constant dollar).

Retail services: Citi's U.S. retail services cards business with a portfolio of co-brand and private label relationships (including, among others, The Home Depot, Sears, Best Buy and Macy's).

ROA*: Return on assets. Represents net income (annualized), divided by average assets for the period.

ROCE*: Return on Common Equity. Represents net income less preferred dividends (both annualized), divided by average common equity for the period.

ROE: Return on equity. Represents net income less preferred dividends (both annualized), divided by average Citigroup equity for the period.

RoTCE*: Return on tangible common equity. Represents net income less preferred dividends (both annualized), divided by average tangible common equity for the period.

RSU(s): Restricted stock units

RWA: Risk-weighted assets. Basel III establishes two comprehensive approaches for calculating RWA (a Standardized approach and an Advanced approach), which include capital requirements for credit risk, market risk, and in the case of Basel III Advanced, also operational risk. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings, which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized and Basel III Advanced Approaches.

S&P: Standard and Poor's Global Ratings

SCB: Stress Capital Buffer

SEC: The U.S. Securities and Exchange Commission

Securities financing agreements: Include resale, repurchase, securities borrowed and securities loaned agreements.

SLR: Supplementary leverage ratio. Represents Tier 1 Capital, divided by total leverage exposure.

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

Structured notes: Financial instruments whose cash flows are linked to the movement in one or more indexes, interest rates, foreign exchange rates, commodities prices, prepayment rates, or other market variables. The notes typically contain embedded (but not separable or detachable) derivatives. Contractual cash flows for principal, interest or both can vary in amount and timing throughout the life of the note based on non-traditional indexes or non-traditional uses of traditional interest rates or indexes.

Tangible book value per share (TBVPS)*: Represents tangible common equity divided by EOP common shares outstanding.

Tangible common equity (TCE): Represents common stockholders' equity less goodwill and identifiable intangible assets, other than MSRs.

Taxable-equivalent basis: Represents the total revenue, net of interest expense for the business, adjusted for revenue from investments that receive tax credits and the impact of tax-exempt securities. This metric presents results on a level comparable to taxable investments and securities.

Tax Reform: Tax Cuts and Jobs Act of 2017

TDR: Troubled debt restructuring. TDR is deemed to occur when the Company modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty. Loans with short-term and other insignificant modifications that are not considered concessions are not TDRs.

TLAC: Total loss-absorbing capacity

Total payout ratio*: Represents total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders.

Transformation: Citi has embarked on a multiyear transformation, with the target outcome to change Citi's business and operating models such that they simultaneously strengthen risk and controls and improve Citi's value to customers, clients and shareholders.

U.K.: United Kingdom

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

USD: U.S. dollar

U.S.: United States of America

U.S. government agencies: U.S. government agencies include, but are not limited to, agencies such as Ginnie Mae and FHA, and do not include Fannie Mae and Freddie Mac, which are U.S. government-sponsored enterprises (U.S. GSEs). In general, obligations of U.S. government agencies are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government in the event of a default.

U.S. Treasury: U.S. Department of the Treasury

VAR: Value at risk. A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

VIEs: Variable interest entities

Wallet: Proportion of fee revenue based on estimates of investment banking fees generated across the industry (i.e., the revenue wallet) from investment banking transactions in M&A, equity and debt underwriting, and loan syndications.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 1-9924

Citigroup Inc.

(Exact name of registrant as specified in its charter)

Delaware	**52-1568099**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
388 Greenwich Street, New York NY	**10013**
(Address of principal executive offices)	(Zip code)

(212) 559-1000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 formatted in Inline XBRL: See Exhibit 99.01

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	**Accelerated filer** ☐	**Non-accelerated filer** ☐	**Smaller reporting company** ☐
			Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Number of shares of Citigroup Inc. common stock outstanding on June 30, 2022: 1,936,709,623

Available on the web at www.citigroup.com

CITIGROUP'S SECOND QUARTER 2022—FORM 10-Q

OVERVIEW

This Quarterly Report on Form 10-Q should be read in conjunction with Citigroup's Annual Report on Form 10-K for the year ended December 31, 2021, Citigroup's Current Report on Form 8-K dated May 10, 2022 (as amended by a Current Report on Form 8-K/A dated May 10, 2022) with Historical Consolidated Financial Statements and Notes, and Management's Discussion and Analysis of Financial Condition and Results of Operations and other Form 10-K sections conformed to reflect changes in Citigroup's operating segments and reporting units from those contained in Citi's 2021 Annual Report on Form 10-K, included as an exhibit thereto (such Current Report on Form 8-K together with Citigroup's 2021 Annual Report on Form 10-K, collectively referred to as the 2021 Form 10-K), and Citigroup's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (First Quarter of 2022 Form 10-Q).

Additional information about Citigroup is available on Citi's website at www.citigroup.com. Citigroup's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statements, as well as other filings with the U.S. Securities and Exchange Commission (SEC), are available and accessible free of charge on Citi's website by clicking on the "Investors" tab and selecting "SEC Filings," then "Citigroup Inc." The SEC's website also contains these filings and other information regarding Citi at www.sec.gov.

Certain reclassifications and updates have been made to the prior periods' financial statements and disclosures to conform to the current period's presentation. For additional information, see footnote 1 to "Summary of Selected Financial Data" and "Operating Segment and Reporting Unit—Income (Loss) and Revenues" below and Notes 1 and 3.

Throughout this report, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries. All "Note" references correspond to the Notes to the Consolidated Financial Statements herein, unless otherwise indicated.

For a list of terms and acronyms used in this Quarterly Report on Form 10-Q and other Citigroup presentations, see "Glossary of Terms and Acronyms" at the end of this report.

Please see "Risk Factors" in Citi's 2021 Form 10-K for a discussion of material risks and uncertainties that could impact Citigroup's businesses, results of operations and financial condition.

As of the first quarter of 2022, Citigroup implemented changes in its operating segments and reporting units to reflect its recent strategic refresh (for additional information, see “Strategic Refresh—Market Exit and Planned Revision to Reporting Structure” in Citi’s 2021 Form 10-K). As a result, Citigroup is managed pursuant to three operating segments: *Institutional Clients Group*, *Personal Banking and Wealth Management* and *Legacy Franchises*, with the remaining operations in *Corporate/Other.*

Citigroup Operating Segments

Institutional Clients Group (ICG)

- **Services**
  - Treasury and trade solutions (TTS)
  - Securities services
- **Markets**
  - Equity markets
  - Fixed income markets
- **Banking**
  - Investment banking
  - Corporate lending

Personal Banking and Wealth Management (PBWM)

- **U.S. Personal Banking**
  - Cards
    - Branded cards
    - Retail services
  - Retail banking
- **Global Wealth Management (Global Wealth)**
  - Private bank
  - Wealth at Work
  - Citigold

Legacy Franchises

- **Asia Consumer Banking (Asia Consumer)**
  - Retail banking and cards for the remaining 12 exit markets (Bahrain, China, India, Indonesia, Korea, Malaysia, the Philippines, Poland, Russia, Taiwan, Thailand, Vietnam)
- **Mexico Consumer Banking (Mexico Consumer)** and Mexico Small Business and Middle-Market Banking **(Mexico SBMM)**
  - Retail banking and cards
- **Legacy Holdings Assets**
  - Certain North America consumer mortgage loans
  - Other legacy assets

Corporate/Other

- **Corporate Treasury managed portfolios**
- **Operations and technology**
- **Global staff functions and other corporate expenses**
- **Discontinued operations**

The following are the four regions in which Citigroup operates. The regional results are fully reflected in the operating segments and *Corporate/Other* above.

Citigroup Regions(1)

- **North America**
- **Europe, Middle East and Africa (EMEA)**
- **Latin America**
- **Asia**

(1) North America includes the U.S., Canada and Puerto Rico, Latin America includes Mexico and Asia includes Japan.

EXECUTIVE SUMMARY

Second Quarter of 2022—Strong Results and Continued Progress Toward Achieving Priorities

As described further throughout this Executive Summary, during the second quarter of 2022:

- Citi's revenues increased 11% versus the prior-year period, reflecting growth in net interest income—primarily driven by benefits from higher interest rates and strong volumes in *Institutional Clients Group (ICG)* and *Personal Banking and Wealth Management (PBWM)*, and growth in non-interest revenue—driven by Fixed income markets and Services in *ICG*, partially offset by lower non-interest revenue in *ICG*'s Investment banking business and *PBWM*.
- Citi's expenses increased 8%, driven by continued investments in its transformation, including enhancing its risk and control environment and modernizing its data and technology infrastructure; and business-led investments, including hiring front office employees and enhancing product capabilities and platforms that improve the digital client experience and add scalability.
- Citi returned a total of $1.3 billion to common shareholders in the form of dividends and repurchases.
- Citi's Common Equity Tier 1 (CET1) Capital ratio increased to 11.9% as of June 30, 2022, compared to 11.8% as of June 30, 2021. As previously disclosed, on October 1, 2022, Citi's effective minimum CET1 Capital ratio will increase to 11.5% from 10.5% under the Standardized Approach due to the increase in the Stress Capital Buffer (SCB) requirement to 4.0% from 3.0%. In addition, on January 1, 2023, Citi's effective minimum CET1 Capital requirement will increase to 12% from 11.5% under the Standardized Approach, as the GSIB surcharge increases to 3.5% from 3.0% (for additional information, see "Capital Resources" below). Due to the increases, Citi announced it is pausing common share repurchases as it continues to build capital.
- Citi continued to make progress on its divestitures in the current quarter, including completing the sale of its Australia consumer business, which resulted in a regulatory capital benefit of approximately $1.4 billion, and making progress on closing the other eight previously signed consumer business transactions and the wind-down of the Korea consumer business. As previously announced, Citi also completed the sale of its Philippines consumer business on August 1, 2022, resulting in a regulatory capital benefit of approximately $700 million.

Various geopolitical and macroeconomic challenges and uncertainties continue to adversely impact economic conditions in the U.S. and globally. The U.S. and other countries have experienced significantly elevated levels of inflation, resulting in central banks implementing a series of interest rates increases, with additional increases expected in the near term. In addition to the humanitarian crisis, the war in Ukraine has caused supply shocks in energy and food markets. Disruptions in global supply chains have continued and the COVID-19 pandemic continues to evolve. An economic rebound in China faces constraints given the potential for future pandemic-related lockdowns, the amount of leverage in its economy and stress in the property sector. All of these factors have caused a decline in financial markets, negatively impacted economic growth rates, contributed to sharply lower consumer confidence and increased the overall risk of recession in Europe, the U.S. and other countries. These and other factors could adversely affect Citi's customers, clients, businesses, funding costs and results during the remainder of 2022.

For a further discussion of trends, uncertainties and risks that will or could impact Citi's businesses, results of operations, capital and other financial condition during the remainder of 2022, see each respective business's results of operations, "Managing Global Risk—Other Risks—Country Risk—Russia" and "Forward-Looking Statements" below and "Risk Factors" and "Managing Global Risk" in Citi's 2021 Form 10-K.

Second Quarter of 2022 Results Summary

Citigroup

Citigroup reported net income of $4.5 billion, or $2.19 per share, compared to net income of $6.2 billion, or $2.85 per share in the prior-year period. The decrease in net income was largely driven by higher cost of credit, as well as higher expenses, partially offset by the increase in revenues. Citigroup's reported effective tax rate was 19.8%, compared to the second quarter of 2021 effective tax rate of 15.7%. The lower effective tax rate in the prior-year period reflected a $450 million valuation allowance release related to foreign tax credit carry-forwards, compared to a significantly lower release in the current quarter. These releases were due to revised projections of future income (for additional information, see "Income Taxes" below). Earnings per share decreased 23%, reflecting the decrease in net income, partially offset by a 6% decline in average diluted shares outstanding.

Citigroup revenues of $19.6 billion increased 11%, reflecting increased interest rates and volumes in *ICG* and *PBWM*, primarily from higher client activity in Markets in *ICG* and continued momentum in Services non-interest revenue, partially offset by a slowdown in Investment banking activity as well as investment fee headwinds in Global Wealth Management (Global Wealth) in *PBWM.*

Citigroup's end-of-period loans were $657 billion, down 3% from the prior-year period, as growth in *ICG* and *PBWM* (up 2% and 4%, respectively) was more than offset by lower loans in *Legacy Franchises.* The decline in *Legacy Franchises* primarily reflected the reclassification of loans to *Other assets* to reflect held-for-sale (HFS) accounting as a result of the signing of sale agreements for consumer franchises in Asia and EMEA. Citigroup's end-of-period deposits increased 1%

to $1.3 trillion, largely driven by growth in Treasury and trade solutions (TTS) in *ICG* and Global Wealth.

Expenses

Citigroup's operating expenses of $12.4 billion increased 8%, driven by continued investments in its transformation, higher business-led investments and volume-related expenses, partially offset by productivity savings. As previously announced, Citi expects to continue to incur higher expenses during the remainder of 2022, compared to the prior-year period, reflecting ongoing transformation-related and business-led investments.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims was a cost of $1.3 billion, compared to a benefit of $1.1 billion in the prior-year period. The higher cost of credit was driven by an allowance for credit losses (ACL) build of approximately $400 million (compared to a net release of $2.4 billion in the prior-year period), partially offset by lower net credit losses.

The net ACL build primarily related to increased macroeconomic uncertainty, partially offset by a release related to a reduction in Russia-related risk in *ICG* in the quarter. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates—Citi's Allowance for Credit Losses (ACL)" below.

Net credit losses of $0.9 billion decreased 36%. Consumer net credit losses decreased 33% to $827 million, largely reflecting improved delinquencies in *Legacy Franchises* and certain *PBWM* businesses. Specifically, the decline reflected lower net credit losses in *Legacy Franchises* (down 66%), primarily reflecting improved delinquencies and the reclassification of loans to reflect HFS accounting as a result of the signing of sales agreements for consumer franchises in Asia and EMEA. The decline was also driven by lower net credit losses in both Branded cards (down 30% to $329 million) and Retail services (down 11% to $290 million) in *PBWM*, driven by continued strong credit performance across portfolios. Corporate net credit losses decreased 70% to $23 million, driven by improvements in portfolio credit quality.

For additional information on Citi's consumer and corporate credit costs, see each respective business's results of operations and "Credit Risk" below.

Capital

Citigroup's CET1 Capital ratio was 11.9% as of June 30, 2022, compared to 11.8% as of June 30, 2021, based on the Basel III Standardized Approach for determining risk-weighted assets. The increase was driven primarily by net income, a decrease in risk-weighted assets and the impact related to the closing of the Australia consumer banking sale, partially offset by interest rate-related adverse net movements in the *Accumulated other comprehensive income (AOCI)* component of equity, and the return of capital to common shareholders. The increase in Citi's CET1 Capital ratio was also partially offset by the impact of adopting the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. For additional information on SA-CCR, see "Capital Resources" in Citi's First Quarter of 2022 Form 10-Q.

Citigroup's Supplementary Leverage ratio as of June 30, 2022 was 5.6%, compared to 5.8% as of June 30, 2021. The decrease was driven by the increase in Total Leverage Exposure and the decrease in Tier 1 Capital. For additional information on Citi's capital ratios and related components, see "Capital Resources" below.

Institutional Clients Group

ICG net income of $4.0 billion increased 16%, driven by higher revenues, partially offset by higher expenses and higher cost of credit. *ICG* operating expenses of $6.4 billion increased 10%, driven by continued investments in Citi's transformation, higher business-led investments and volume-related expenses, partially offset by productivity savings.

ICG revenues of $11.4 billion increased 20% (including gains (losses) on loan hedges), driven by growth in Services and Markets revenues, partially offset by a decrease in Investment banking revenues. Results included a gain on loan hedges of $0.5 billion, compared with a loss on loan hedges of $37 million in the prior-year period.

Services revenues of $4.0 billion increased 28%. TTS revenues of $3.0 billion increased 33%, driven by 42% growth in net interest income, as well as 17% growth in non-interest revenue, reflecting strength with both mid-size and large corporate clients. Securities services revenues of $994 million increased 16%, as net interest income grew 41%, driven by higher interest rates across currencies, and non-interest revenue grew 8%, reflecting elevated levels of corporate settlement activity in Issuer services.

Markets revenues of $5.3 billion were up 25%, driven by elevated volatility leading to higher client activity. Fixed income markets revenues of $4.1 billion increased 31%, primarily reflecting strong client engagement in the rates, currencies and commodities businesses. Equity markets revenues of $1.2 billion were up 8%, driven by strong equity derivatives performance, partially offset by less client activity in cash, and a net decrease in prime balances, as lower asset valuations more than offset new client balances.

Banking revenues of $2.1 billion decreased 4%. Excluding the gains (losses) on loan hedges, Banking revenues of $1.6 billion decreased 28%. Investment banking revenues of $805 million declined 46%, as heightened geopolitical uncertainty and the overall macroeconomic backdrop reduced capital markets activity and M&A. The decline in Investment banking revenues was partially offset by higher revenues in Corporate lending. For additional information on the results of operations of *ICG* for the second quarter of 2022, see "*Institutional Clients Group*" below.

Personal Banking and Wealth Management

PBWM net income of $553 million decreased 69%, largely driven by higher cost of credit and higher expenses, partially offset by higher revenues. *PBWM* operating expenses of $4.0 billion increased 12%, driven by continued investments in Citi's transformation, higher business-led investments and volume-related expenses, partially offset by productivity savings.

PBWM revenues of $6.0 billion increased 6%, as net interest income growth was partially offset by a decline in non-interest revenue, largely driven by higher partner payments in Retail services.

U.S. Personal Banking revenues of $4.1 billion increased 9%. Branded cards revenues of $2.2 billion increased 10%, driven by higher interest income on higher loan balances. New accounts and card spend volume each increased 18%, while average loans increased 11%. Retail services revenues of $1.3 billion increased 7%, driven by higher interest income on higher loan balances, partially offset by the higher partner payments. Retail banking revenues of $656 million increased 6%, largely driven by higher deposit spreads and volumes.

Global Wealth revenues of $1.9 billion were largely unchanged, as investment fee headwinds, particularly in Asia, were offset by an increase in revenues driven by growth in average deposits and average loans. For additional information on the results of operations of *PBWM* for the second quarter of 2022, see "*Personal Banking and Wealth Management*" below.

Legacy Franchises

Legacy Franchises net loss was $17 million, compared to net income of $494 million in the prior-year period, reflecting lower revenues, higher expenses and higher cost of credit. *Legacy Franchises* expenses increased 1%, driven by impairment of long-lived assets related to the Russia consumer banking business (see "Managing Global Risk—Other Risks—Country Risk—Russia" below) and higher marketing expenses in Mexico Consumer/SBMM, partially offset by lower expenses related to the Asia Consumer exit markets.

Legacy Franchises revenues of $1.9 billion decreased 15%, largely driven by the impacts of the Korea wind-down and the closing of the Australia consumer banking sale, as well as lower investment activity in Asia Consumer. The decline in revenues was also driven by a portion of the release of a currency translation adjustment (CTA) loss (net of hedges) from *AOCI* related to the substantial liquidation of a legacy U.K. consumer operation (for additional information, see Note 2). In addition, another portion of the CTA loss release was reported in discontinued operations in *Corporate/Other*. For additional information on the results of operations of *Legacy Franchises* for the second quarter of 2022, see "*Legacy Franchises*" below.

Corporate/Other

Corporate/Other net income was $50 million, compared to net income of $473 million in the prior-year period, largely reflecting lower tax benefits related to certain non-U.S. operations and a portion of the release of a CTA loss (net of hedges) from *AOCI* related to the substantial liquidation of a legacy U.K. consumer operation, recorded in discontinued operations. As discussed above, the other portion of the CTA loss was recorded in revenues in *Legacy Franchises*. The decline in net income was partially offset by lower expenses and modestly higher revenues. *Corporate/Other* expenses of $160 million decreased 48%, driven by certain settlements and the benefit of foreign currency translation into U.S. dollars for reporting purposes (FX translation).

Corporate/Other revenues of $255 million increased 12%, largely driven by higher net revenues from the investment portfolio, reflecting higher interest rates. For additional information on the results of operations of *Corporate/Other* for the second quarter of 2022, see "*Corporate/Other*" below.

RESULTS OF OPERATIONS

SUMMARY OF SELECTED FINANCIAL DATA

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts	Second Quarter 2022	Second Quarter 2021[1]	% Change	Six Months 2022	Six Months 2021[1]	% Change
Net interest income	**$ 11,964**	$ 10,478	**14 %**	**$ 22,835**	$ 20,984	**9 %**
Non-interest revenue	**7,674**	7,275	**5**	**15,989**	16,436	**(3)**
Revenues, net of interest expense	**$ 19,638**	$ 17,753	**11 %**	**$ 38,824**	$ 37,420	**4 %**
Operating expenses	**12,393**	11,471	**8**	**25,558**	22,884	**12**
Provisions for credit losses and for benefits and claims	**1,274**	(1,066)	**NM**	**2,029**	(3,121)	**NM**
Income from continuing operations before income taxes	**$ 5,971**	$ 7,348	**(19)%**	**$ 11,237**	$ 17,657	**(36)%**
Income taxes	**1,182**	1,155	**2**	**2,123**	3,487	**(39)**
Income from continuing operations	**$ 4,789**	$ 6,193	**(23)%**	**$ 9,114**	$ 14,170	**(36)%**
Income (loss) from discontinued operations, net of taxes	**(221)**	10	**NM**	**(223)**	8	**NM**
Net income before attribution to noncontrolling interests	**$ 4,568**	$ 6,203	**(26)%**	**$ 8,891**	$ 14,178	**(37)%**
Net income attributable to noncontrolling interests	**21**	10	**NM**	**38**	43	**(12)**
Citigroup's net income	**$ 4,547**	$ 6,193	**(27)%**	**$ 8,853**	$ 14,135	**(37)%**
Earnings per share						
Basic						
Income from continuing operations	**$ 2.32**	$ 2.86	**(19)%**	**$ 4.34**	$ 6.51	**(33)%**
Net income	**2.20**	2.87	**(23)**	**4.23**	6.52	**(35)**
Diluted						
Income from continuing operations	**$ 2.30**	$ 2.84	**(19)%**	**$ 4.32**	$ 6.47	**(33)%**
Net income	**2.19**	2.85	**(23)**	**4.20**	6.47	**(35)**
Dividends declared per common share	**0.51**	0.51	**—**	**1.02**	1.02	**—**
Common dividends	**$ 1,010**	$ 1,062	**(5)%**	**$ 2,024**	$ 2,136	**(5)%**
Preferred dividends[2]	**238**	253	**(6)**	**517**	545	**(5)**
Common share repurchases	**250**	3,000	**NM**	**3,250**	4,600	**(29)**

Table continues on the next page, including footnotes.

SUMMARY OF SELECTED FINANCIAL DATA (Continued)

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts, ratios and direct staff	Second Quarter			Six Months		
	2022	2021[1]	**% Change**	**2022**	2021[1]	**% Change**
At June 30:						
Total assets	**$2,380,904**	$2,327,868	**2 %**			
Total deposits	**1,321,848**	1,310,281	**1**			
Long-term debt	**257,425**	264,575	**(3)**			
Citigroup common stockholders' equity	**180,019**	184,164	**(2)**			
Total Citigroup stockholders' equity	**199,014**	202,159	**(2)**			
Average assets	**2,380,053**	2,341,810	**2**	**$2,377,047**	$2,329,302	**2 %**
Direct staff *(in thousands)*	**231**	214	**8 %**			
Performance metrics						
Return on average assets	**0.77 %**	1.06 %		**0.75 %**	1.22 %	
Return on average common stockholders' equity[3]	**9.7**	13.0		**9.3**	15.1	
Return on average total stockholders' equity[3]	**9.2**	12.3		**9.0**	14.2	
Return on tangible common equity (RoTCE)[4]	**11.2**	15.2		**10.8**	17.6	
Efficiency ratio (total operating expenses/total revenues, net)	**63.1**	64.6		**65.8**	61.2	
Basel III ratios						
Common Equity Tier 1 Capital[5]	**11.90 %**	11.77 %				
Tier 1 Capital[5]	**13.57**	13.28				
Total Capital[5]	**15.16**	15.58				
Supplementary Leverage ratio	**5.63**	5.84				
Citigroup common stockholders' equity to assets	**7.56 %**	7.91 %				
Total Citigroup stockholders' equity to assets	**8.36**	8.68				
Dividend payout ratio[6]	**23**	18		**24 %**	16 %	
Total payout ratio[7]	**29**	68		**63**	50	
Book value per common share	**$ 92.95**	$ 90.86	**2 %**			
Tangible book value (TBV) per share[4]	**80.25**	77.87	**3**			

(1) During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. The amounts reclassified for the second quarter and six months of 2021 were $279 million and $619 million, respectively.
(2) Certain series of preferred stock have semiannual payment dates. See Note 20 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.
(3) The return on average common stockholders' equity is calculated using net income less preferred stock dividends divided by average common stockholders' equity. The return on average total Citigroup stockholders' equity is calculated using net income divided by average Citigroup stockholders' equity.
(4) RoTCE and TBV are non-GAAP financial measures. For information on RoTCE and TBV, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity" below.
(5) Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach framework, whereas Citi's reportable Total Capital ratio was derived under the Basel III Advanced Approaches framework for both periods presented.
(6) Dividends declared per common share as a percentage of net income per diluted share.
(7) Total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders (*Net income* less preferred dividends). See "Consolidated Statement of Changes in Stockholders' Equity," Note 9 and "Unregistered Sales of Equity Securities, Repurchases of Equity Securities and Dividends" below for the component details.

NM Not meaningful

SEGMENT REVENUES AND INCOME (LOSS)

REVENUES

In millions of dollars	Second Quarter 2022	Second Quarter 2021	% Change	Six Months 2022	Six Months 2021	% Change
Institutional Clients Group	**$ 11,419**	$ 9,549	**20 %**	**$ 22,579**	$ 20,937	**8 %**
Personal Banking and Wealth Management	**6,029**	5,698	**6**	**11,934**	11,690	**2**
Legacy Franchises	**1,935**	2,279	**(15)**	**3,866**	4,522	**(15)**
Corporate/Other	**255**	227	**12**	**445**	271	**64**
Total Citigroup net revenues	**$ 19,638**	$ 17,753	**11 %**	**$ 38,824**	$ 37,420	**4 %**

NM Not meaningful

INCOME

In millions of dollars	Second Quarter 2022	Second Quarter 2021	% Change	Six Months 2022	Six Months 2021	% Change
Income (loss) from continuing operations						
Institutional Clients Group	**$ 3,978**	$ 3,433	**16 %**	**$ 6,636**	$ 8,863	**(25)%**
Personal Banking and Wealth Management	**553**	1,805	**(69)**	**2,413**	4,225	**(43)**
Legacy Franchises	**(15)**	492	**NM**	**(400)**	812	**NM**
Corporate/Other	**273**	463	**(41)**	**465**	270	**72**
Income from continuing operations	**$ 4,789**	$ 6,193	**(23)%**	**$ 9,114**	$ 14,170	**(36)%**
Discontinued operations	**$ (221)**	$ 10	**NM**	**$ (223)**	$ 8	**NM**
Less: Net income attributable to noncontrolling interests	**21**	10	**NM**	**38**	43	**(12)%**
Citigroup's net income	**$ 4,547**	$ 6,193	**(27)%**	**$ 8,853**	$ 14,135	**(37)%**

NM Not meaningful

SEGMENT BALANCE SHEET[1]—JUNE 30, 2022

In millions of dollars	Institutional Clients Group	Personal Banking and Wealth Management	Legacy Franchises	Corporate/Other and consolidating eliminations[2]	Citigroup parent company-issued long-term debt and stockholders' equity[3]	Total Citigroup consolidated
Assets						
Cash and deposits with banks, net of allowance	$ 99,355	$ 5,222	$ 3,351	$ 176,102	$ —	$ 284,030
Securities borrowed and purchased under agreements to resell, net of allowance	360,940	—	394	—	—	361,334
Trading account assets	327,672	3,080	963	9,160	—	340,875
Investments, net of allowance	128,824	72	1,793	383,189	—	513,878
Loans, net of unearned income and allowance for credit losses on loans	291,809	310,009	39,563	—	—	641,381
Other assets, net of allowance	134,804	26,634	35,873	42,095	—	239,406
Net inter-segment liquid assets[4]	356,212	133,780	25,710	(515,702)	—	—
Total assets	$ 1,699,616	$ 478,797	$ 107,647	$ 94,844	$ —	$ 2,380,904
Liabilities and equity						
Total deposits	$ 828,705	$ 427,605	$ 52,699	$ 12,839	$ —	$ 1,321,848
Securities loaned and sold under agreements to repurchase	196,362	35	2,075	—	—	198,472
Trading account liabilities	177,811	2,133	305	204	—	180,453
Short-term borrowings	32,057	7	—	7,990	—	40,054
Long-term debt[3]	77,676	245	499	11,131	167,874	257,425
Other liabilities	123,045	11,253	33,471	15,257	—	183,026
Net inter-segment funding (lending)[3]	263,960	37,519	18,598	46,811	(366,888)	—
Total liabilities	$ 1,699,616	$ 478,797	$ 107,647	$ 94,232	$ (199,014)	$ 2,181,278
Total stockholders' equity[5]	—	—	—	612	199,014	199,626
Total liabilities and equity	$ 1,699,616	$ 478,797	$ 107,647	$ 94,844	$ —	$ 2,380,904

(1) The supplemental information presented in the table above reflects Citigroup's consolidated GAAP balance sheet by reportable segment. The respective segment information depicts the assets and liabilities managed by each segment.
(2) Consolidating eliminations for total Citigroup and Citigroup parent company assets and liabilities are recorded within *Corporate/Other*.
(3) The total stockholders' equity and the majority of long-term debt of Citigroup are reflected on the Citigroup parent company balance sheet. Citigroup allocates stockholders' equity and long-term debt to its businesses through inter-segment allocations as shown above.
(4) Represents the attribution of Citigroup's liquid assets (primarily consisting of cash, marketable equity securities and available-for-sale debt securities) to the various businesses based on Liquidity Coverage ratio (LCR) assumptions.
(5) *Corporate/Other* equity represents noncontrolling interests.

INSTITUTIONAL CLIENTS GROUP

Institutional Clients Group (ICG) includes Services, Markets and Banking (for additional information on these businesses, see "Citigroup Operating Segments" above). *ICG* provides corporate, institutional and public sector clients around the world with a full range of wholesale banking products and services, including fixed income and equity sales and trading, foreign exchange, prime brokerage, derivative services, equity and fixed income research, corporate lending, investment banking and advisory services, cash management, trade finance and securities services. *ICG* transacts with clients in both cash instruments and derivatives, including fixed income, foreign currency, equity and commodity products. For more information on *ICG*'s business activities, see "*Institutional Clients Group*" in Citi's 2021 Form 10-K.

ICG's international presence is supported by trading floors in approximately 80 countries and a proprietary network in 95 countries and jurisdictions. At June 30, 2022, *ICG* had $1.7 trillion in assets and $829 billion in deposits. Securities services managed $21.1 trillion in assets under custody and administration at June 30, 2022, of which Citi provided both custody and administrative services to certain clients related to $1.7 trillion of such assets. Managed assets under trust were $4.0 trillion at June 30, 2022. For additional information on these operations, see "Administration and Other Fiduciary Fees" in Note 5.

	Second Quarter			Six Months		
In millions of dollars, except as otherwise noted	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Commissions and fees	**$ 1,125**	$ 1,071	**5 %**	**$ 2,255**	$ 2,181	**3 %**
Administration and other fiduciary fees	**732**	698	**5**	**1,404**	1,355	**4**
Investment banking fees[1]	**990**	1,568	**(37)**	**2,029**	3,355	**(40)**
Principal transactions	**4,358**	2,135	**NM**	**8,800**	5,880	**50**
Other	**(306)**	317	**NM**	**(213)**	673	**NM**
Total non-interest revenue	**$ 6,899**	$ 5,789	**19 %**	**$ 14,275**	$ 13,444	**6 %**
Net interest income (including dividends)	**4,520**	3,760	**20**	**8,304**	7,493	**11**
Total revenues, net of interest expense	**$ 11,419**	$ 9,549	**20 %**	**$ 22,579**	$ 20,937	**8 %**
Total operating expenses	**$ 6,434**	$ 5,829	**10 %**	**$ 13,157**	$ 11,761	**12 %**
Net credit losses on loans	**$ 18**	$ 68	**(74)%**	**$ 48**	$ 243	**(80)%**
Credit reserve build (release) for loans	**(76)**	(812)	**91**	**520**	(1,915)	**NM**
Provision (release) for credit losses on unfunded lending commitments	**(169)**	47	**NM**	**183**	(559)	**NM**
Provisions (releases) for credit losses on HTM debt securities and other assets	**25**	3	**NM**	**18**	(2)	**NM**
Provisions (releases) for credit losses	**$ (202)**	$ (694)	**71 %**	**$ 769**	$ (2,233)	**NM**
Income from continuing operations before taxes	**$ 5,187**	$ 4,414	**18 %**	**$ 8,653**	$ 11,409	**(24)%**
Income taxes	**1,209**	981	**23**	**2,017**	2,546	**(21)**
Income from continuing operations	**$ 3,978**	$ 3,433	**16 %**	**$ 6,636**	$ 8,863	**(25)%**
Noncontrolling interests	**17**	12	**42**	**35**	49	**(29)**
Net income	**$ 3,961**	$ 3,421	**16 %**	**$ 6,601**	$ 8,814	**(25)%**
Balance Sheet data *(in billions of dollars)*						
EOP assets	**$ 1,700**	$ 1,654	**3 %**			
Average assets	**1,698**	1,667	**2**	**$ 1,692**	$ 1,658	**2 %**
Efficiency ratio	**56 %**	61 %		**58 %**	56 %	
Average loans by reporting unit *(in billions of dollars)*						
Services	**$ 85**	$ 74	**15 %**	**$ 82**	$ 72	**14 %**
Banking	**199**	197	**1**	**197**	197	**—**
Markets	**13**	16	**(19)**	**14**	15	**(7)**
Total	**$ 297**	$ 287	**3 %**	**$ 293**	$ 284	**3 %**
Average deposits by reporting unit *(in billions of dollars)*						
TTS	**$ 665**	$ 652	**2 %**	**$ 664**	$ 652	**2 %**
Securities services	**137**	137	**—**	**136**	133	**2**
Services	**$ 802**	$ 789	**2 %**	**$ 800**	$ 785	**2 %**
Markets	**28**	29	**(3)**	**28**	29	**(3)**
Total	**$ 830**	$ 818	**1 %**	**$ 828**	$ 814	**2 %**

(1) Investment banking fees are substantially composed of underwriting and advisory revenues.
NM Not meaningful

ICG Revenue Details

In millions of dollars	Second Quarter 2022	Second Quarter 2021	% Change	Six Months 2022	Six Months 2021	% Change
Services						
Net interest income	**$ 2,327**	$ 1,640	**42 %**	**$ 4,234**	$ 3,257	**30 %**
Non-interest revenue	**1,696**	1,500	**13**	**3,237**	2,883	**12**
Total Services revenues	**$ 4,023**	$ 3,140	**28 %**	**$ 7,471**	$ 6,140	**22 %**
Net interest income	**$ 2,026**	$ 1,427	**42 %**	**$ 3,685**	$ 2,832	**30 %**
Non-interest revenue	**1,003**	858	**17**	**1,934**	1,641	**18**
TTS revenues	**$ 3,029**	$ 2,285	**33 %**	**$ 5,619**	$ 4,473	**26 %**
Net interest income	**$ 301**	$ 213	**41 %**	**$ 549**	$ 425	**29 %**
Non-interest revenue	**693**	642	**8**	**1,303**	1,242	**5**
Securities services revenues	**$ 994**	$ 855	**16 %**	**$ 1,852**	$ 1,667	**11 %**
Markets						
Net interest income	**$ 1,383**	$ 1,379	**— %**	**$ 2,492**	$ 2,688	**(7)%**
Non-interest revenue	**3,937**	2,876	**37**	**8,654**	7,500	**15**
Total Markets revenues[(1)]	**$ 5,320**	$ 4,255	**25 %**	**$ 11,146**	$ 10,188	**9 %**
Fixed income markets	**$ 4,084**	$ 3,111	**31 %**	**$ 8,383**	$ 7,457	**12 %**
Equity markets	**1,236**	1,144	**8**	**2,763**	2,731	**1**
Total Markets revenues	**$ 5,320**	$ 4,255	**25 %**	**$ 11,146**	$ 10,188	**9 %**
Rates and currencies	**$ 3,277**	$ 1,978	**66 %**	**$ 6,508**	$ 5,002	**30 %**
Spread products / other fixed income	**807**	1,133	**(29)**	**1,875**	2,455	**(24)**
Total Fixed income markets revenues	**$ 4,084**	$ 3,111	**31 %**	**$ 8,383**	$ 7,457	**12 %**
Banking						
Net interest income	**$ 810**	$ 741	**9 %**	**$ 1,578**	$ 1,548	**2 %**
Non-interest revenue	**1,266**	1,413	**(10)**	**2,384**	3,061	**(22)**
Total Banking revenues	**$ 2,076**	$ 2,154	**(4)%**	**$ 3,962**	$ 4,609	**(14)%**
Investment banking						
Advisory	**$ 357**	$ 405	**(12)%**	**$ 704**	$ 686	**3 %**
Equity underwriting	**177**	484	**(63)**	**362**	1,319	**(73)**
Debt underwriting	**271**	614	**(56)**	**767**	1,296	**(41)**
Total Investment banking revenues	**$ 805**	$ 1,503	**(46)%**	**$ 1,833**	$ 3,301	**(44)%**
Corporate lending (excluding gains (losses) on loan hedges)[(2)]	**$ 777**	$ 688	**13 %**	**$ 1,466**	$ 1,423	**3 %**
Total Banking revenues (excluding gains (losses) on loan hedges)[(2)]	**$ 1,582**	$ 2,191	**(28)%**	**$ 3,299**	$ 4,724	**(30)%**
Gains (losses) on loan hedges[(2)]	**494**	(37)	**NM**	**663**	(115)	**NM**
Total Banking revenues (including gains (losses) on loan hedges)[(2)]	**$ 2,076**	$ 2,154	**(4)%**	**$ 3,962**	$ 4,609	**(14)%**
Total *ICG* revenues, net of interest expense	**$ 11,419**	$ 9,549	**20 %**	**$ 22,579**	$ 20,937	**8 %**

(1) Citi assesses its Markets business performance on a total revenue basis, as offsets may occur across revenue line items. For example, securities that generate *Net interest income* may be risk managed with derivatives that are recorded in *Principal transactions* revenue within *Non-interest revenue*. For a description of the composition of these revenue line items, see Notes 4, 5 and 6.

(2) Credit derivatives are used to economically hedge a portion of the corporate loan portfolio that includes both accrual loans and loans at fair value. Gains (losses) on loan hedges include the mark-to-market on the credit derivatives and the mark-to-market on the loans in the portfolio that are at fair value. The fixed premium costs of these hedges are netted against the corporate lending revenues to reflect the cost of credit protection. Citigroup's results of operations excluding the impact of gains (losses) on loan hedges are non-GAAP financial measures.

NM Not meaningful

The discussion of the results of operations for ICG below excludes (where noted) the impact of gains (losses) on hedges of accrual loans and loans at fair value, which are non-GAAP financial measures. For a reconciliation of these metrics to the reported results, see the table above.

2Q22 vs. 2Q21

Net income of $4.0 billion increased 16%, primarily driven by higher revenues, partially offset by higher expenses and higher cost of credit.

Revenues increased 20% (including gain (loss) on loan hedges), primarily reflecting higher Services and Markets revenues, partially offset by lower Banking revenues. Services revenues were up 28%, driven by higher revenues in both TTS and Securities services. Markets revenues were up 25%, reflecting higher revenues in both Fixed income markets and Equity markets, both driven by elevated volatility leading to higher client engagement. Banking revenues were down 4% (including the impact of gains (losses) on loan hedges). Excluding the impact of gains (losses) on loan hedges, revenues declined 28%, largely reflecting lower revenues in Investment banking, partially offset by higher Corporate lending revenues.

Citi expects that Investment banking revenues will likely continue to reflect lower levels of capital markets and M&A activity during the remainder of 2022.

Within Services:

- TTS revenues increased 33%, driven by 42% growth in net interest income and 17% growth in non-interest revenue, reflecting strong growth with both mid-size and large corporate clients. The increase in net interest income was driven by both the cash and trade businesses, reflecting benefits from rates, higher average deposits (2% increase) and higher average loans (17% increase). The increase in average loans was driven by the trade business, reflecting strength in trade flows, primarily in Asia, Latin America and EMEA, partially offset by asset sales in North America. The increase in non-interest revenue was primarily due to strong fee growth across both the cash and trade businesses, reflecting solid client engagement, including higher transaction volumes, as cross-border flows increased 17%, commercial cards volumes increased 61% and U.S. dollar clearing volumes increased 2%.
- Securities services revenues increased 16%, as net interest income grew 41%, driven by higher interest rates across currencies. Non-interest revenues grew 8%, largely reflecting elevated levels of corporate activity in Issuer services. The increase in non-interest revenues was partially offset by a decline in fees in the custody business, due to lower assets under custody (7% decrease), driven by declines in global financial markets.

Within Markets:

- Fixed income markets revenues increased 31%, with growth across all regions, due to strong client engagement, particularly with corporate clients.

  Rates and currencies increased 66%, driven by increased market volatility largely resulting from increased interest rates by central banks in response to elevated levels of inflation. Spread products and other fixed income revenues decreased 29%, reflecting lower client activity in spread products and a challenging environment due to widening spreads. The decline in spread products and other fixed income revenues was partially offset by strength in commodities, particularly with corporate clients, as the business assisted the clients in managing risk associated with the increased volatility.
- Equity markets revenues increased 8%, primarily driven by equity derivatives, reflecting strong client engagement with both corporate and institutional clients, partially offset by lower client activity in cash and a net decrease in prime balances, as lower asset valuations more than offset new client balances.

Within Banking:

- Investment banking revenues declined 46%, reflecting a decline in the overall market wallet, as continued heightened geopolitical uncertainty and the overall macroeconomic backdrop reduced activity. Advisory revenues decreased 12%, reflecting a decline in EMEA and Asia, driven by the decline in the market wallet and a decline in wallet share. Equity underwriting revenues decreased 63%, reflecting a decline in North America, EMEA and Asia, driven by a decline in the market wallet across all products, partially offset by wallet share gains. Debt underwriting revenues decreased 56%, reflecting weakness in North America and EMEA, driven by the decline in the market wallet as well as a decline in wallet share in non-investment grade, partially offset by an increase in wallet share in investment grade. The decline in debt underwriting revenues also reflected markdowns on the leveraged finance portfolio.
- Corporate lending revenues were $1.3 billion versus $651 million in the prior-year period, including the impact of gains (losses) on loan hedges. Excluding the impact of gains (losses) on loan hedges, revenues increased 13%, primarily driven by the impacts of foreign currency and improved spreads.

Expenses were up 10%, primarily driven by continued investments in Citi's transformation, business-led investments and higher volume-related expenses, partially offset by productivity savings.

Provisions were a benefit of $202 million, compared to a benefit of $694 million in the prior-year period.

Net credit losses declined to $18 million from $68 million in the prior-year period, driven by improvements in portfolio credit quality.

The ACL release was $220 million, compared to a release of $762 million in the prior-year period. The ACL release was largely driven by a reduction in Russia-related risk, partially offset by a build due to increased macroeconomic uncertainty. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *ICG*'s corporate credit portfolio, see "Managing Global Risk—Credit Risk—Corporate Credit" below.

For additional information on trends in *ICG*'s deposits and loans, see "Managing Global Risk—Liquidity Risk—Loans" and "—Deposits" below.

For additional information about trends, uncertainties and risks related to *ICG*'s future results, see "Executive Summary" above, "Managing Global Risk—Other Risks—Country Risk—Argentina" and "—Russia" and "Forward-Looking Statements" below and "Risk Factors" in Citi's 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Year-to-date, *ICG* experienced similar trends to those described above. *Net income* of $6.6 billion decreased 25% versus the prior-year period, primarily driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 8% (including gains (losses) on loan hedges), primarily reflecting higher revenues in Services and Markets, partially offset by lower Banking revenues. Services revenues were up 22%, driven by higher revenues in both TTS and Securities services. Markets revenues were up 9%, primarily driven by higher revenues in Fixed income markets. Banking revenues declined 14% (including the impact of gains (losses) on loan hedges). Excluding the impact of gains (losses) on loan hedges, Banking revenues declined 30% (excluding the impact of gains (losses) on loan hedges), primarily driven by lower revenues in Investment banking.

Within Services:

- TTS revenues increased 26%, reflecting higher net interest income and non-interest revenue, driven by the same factors described above.
- Securities services revenues increased 11%, reflecting higher net interest income and non-interest revenue, driven by the same factors described above.

Within Markets:

- Fixed income markets revenues increased 12%, reflecting growth across EMEA, Latin America and Asia, driven by growth in rates and currencies, partially offset by a decline in spread products, driven by the same factors described above.
- Equity markets revenues increased 1%, reflecting higher revenues in equity derivatives, mostly offset by declines in equity cash and prime finance, driven by the same factors described above.

Within Banking:

- Investment banking revenues decreased 44%. Advisory revenues increased 3%, primarily driven by the strength in the first quarter of 2022. Equity underwriting revenues decreased 73%, primarily driven by a decline in the market wallet as well as a decline in wallet share. Debt underwriting revenues decreased 41%, driven by the same factors described above.
- Corporate lending revenues increased 63%, including the impact of gains (losses) on loan hedges. Excluding the impact of gains (losses) on loan hedges, revenues increased 3%, driven by the same factors described above, partially offset by lower average loans and higher hedging costs.

Expenses increased 12%, primarily driven by continued investments in Citi's transformation and business-led investments, partially offset by productivity savings.

Provisions were $769 million, compared to a net benefit of $2.2 billion in the prior-year period, driven by an ACL build, partially offset by lower net credit losses. Net credit losses declined to $48 million from $243 million in the prior-year period, driven by improvements in portfolio credit quality. The ACL build was $721 million, compared to a release of $2.5 billion in the prior-year period. The ACL build primarily related to Citi's exposures in Russia and the broader impact of the war in Ukraine on the macroeconomic environment in the first quarter of 2022, as well as a build due to increased macroeconomic uncertainty in the current quarter, partially offset by a reduction in Russia-related exposure in the current quarter.

PERSONAL BANKING AND WEALTH MANAGEMENT

Personal Banking and Wealth Management (PBWM) consists of U.S. Personal Banking and Global Wealth Management (Global Wealth). U.S. Personal Banking includes Retail banking, which provides traditional banking services to retail and small business customers. U.S. Personal Banking's cards product portfolio includes its proprietary portfolio (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco) within Branded cards, as well as its co-brand and private label relationships (including, among others, The Home Depot, Sears, Best Buy and Macy's) within Retail services. Global Wealth includes Private bank, Wealth at Work and Citigold and provides financial services to the entire continuum of wealth clients—from affluent to ultra-high-net-worth—through banking, lending, mortgages, investment, custody and trust product offerings in 20 countries, including the U.S., Mexico and the four wealth management centers: Singapore, Hong Kong, the UAE and London.

At June 30, 2022, U.S. Personal Banking had 658 retail bank branches concentrated in the six key metropolitan areas of New York, Chicago, Miami, Washington, D.C., Los Angeles and San Francisco. Also, as of June 30, 2022, U.S. Personal Banking had $137 billion in outstanding credit card balances, $35 billion in retail banking loans and $116 billion in deposits.

At June 30, 2022, Global Wealth had $78 billion in mortgage loans, $67 billion in personal and small business loans, $4 billion in outstanding credit card balances and $312 billion in deposits.

	Second Quarter			Six Months		
In millions of dollars, except as otherwise noted	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Net interest income	**$ 5,569**	$ 4,985	**12 %**	**$ 10,954**	$ 10,150	**8 %**
Non-interest revenue	**460**	713	**(35)**	**980**	1,540	**(36)**
Total revenues, net of interest expense	**$ 6,029**	$ 5,698	**6 %**	**$ 11,934**	$ 11,690	**2 %**
Total operating expenses	**$ 3,985**	$ 3,547	**12 %**	**$ 7,874**	$ 6,969	**13 %**
Net credit losses on loans	**$ 699**	$ 862	**(19)%**	**$ 1,390**	$ 1,852	**(25)%**
Credit reserve build (release) for loans	**638**	(1,040)	**NM**	**(424)**	(2,582)	**84**
Provision (release) for credit losses on unfunded lending commitments	**13**	5	**NM**	**11**	(6)	**NM**
Provisions (release) for benefits and claims, and other assets	**5**	3	**67**	**2**	9	**(78)**
Provisions (releases) for credit losses and for benefits and claims (PBC)	**$ 1,355**	$ (170)	**NM**	**$ 979**	$ (727)	**NM**
Income (loss) from continuing operations before taxes	**$ 689**	$ 2,321	**(70)%**	**$ 3,081**	$ 5,448	**(43)%**
Income taxes (benefits)	**136**	516	**(74)**	**668**	1,223	**(45)**
Income (loss) from continuing operations	**$ 553**	$ 1,805	**(69)%**	**$ 2,413**	$ 4,225	**(43)%**
Noncontrolling interests	**—**	—	**—**	**—**	—	**—**
Net income (loss)	**$ 553**	$ 1,805	**(69)%**	**$ 2,413**	$ 4,225	**(43)%**
Balance Sheet data *(in billions of dollars)*						
EOP assets	**$ 479**	$ 452	**6 %**			
Average assets	**474**	458	**3**	**$ 474**	$ 458	**3 %**
Average loans	**317**	304	**4**	**315**	304	**4**
Average deposits	**435**	410	**6**	**441**	404	**9**
Efficiency ratio	**66 %**	62 %		**66 %**	60 %	
Net credit losses as a percentage of average loans	**0.88**	1.14		**0.89**	1.23	
Revenue by reporting unit and component						
Branded cards	**$ 2,168**	$ 1,968	**10 %**	**$ 4,258**	$ 4,072	**5 %**
Retail services	**1,300**	1,210	**7**	**2,599**	2,515	**3**
Retail banking	**656**	618	**6**	**1,251**	1,253	**—**
U.S. Personal Banking	**$ 4,124**	$ 3,796	**9 %**	**$ 8,108**	$ 7,840	**3 %**
Private bank	**$ 745**	$ 747	**— %**	**$ 1,524**	$ 1,533	**(1)%**
Wealth at Work	**170**	171	**(1)**	**353**	342	**3**
Citigold	**990**	984	**1**	**1,949**	1,975	**(1)**
Global Wealth	**$ 1,905**	$ 1,902	**— %**	**$ 3,826**	$ 3,850	**(1)%**
Total	**$ 6,029**	$ 5,698	**6 %**	**$ 11,934**	$ 11,690	**2 %**

NM Not meaningful

2Q22 vs. 2Q21

Net income was $553 million, compared to $1.8 billion in the prior-year period, largely driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 6%, as higher net interest income was partially offset by lower non-interest revenue, reflecting higher partner payments in Retail services.

U.S. Personal Banking revenues increased 9%, reflecting higher revenues in Cards and Retail banking.

Cards revenues increased 9%. Branded cards revenues increased 10%, driven by higher interest on higher loan balances. Branded cards new accounts and spend volume both increased 18%, while average loans increased 11%, reflecting higher card spend volume, investments to drive growth and the realization of benefits from a market re-entry beginning in the second half of 2021.

Retail services revenues increased 7%, driven by higher interest on higher loan balances, partially offset by the higher partner payments, reflecting higher income sharing as a result of higher revenues and lower net credit losses (for additional information on partner payments, see Note 5). Retail services card spend volume increased 11%, while average loans increased 6%, reflecting increased customer spending.

Retail banking revenues increased 6%, largely driven by higher deposit spreads and volumes. Average deposits increased 3%, reflecting higher levels of consumer liquidity.

Global Wealth revenues were largely unchanged, reflecting investment fee headwinds, particularly in Asia, driven by overall market volatility, offset by an increase in revenues driven by growth in average deposits (up 7%) and average loans (up 2%). Client assets decreased 8%, driven principally by declines in market valuation. Global Wealth also continued to add client advisors, which increased 8%. Citigold revenues increased 1%, while Private bank revenues were largely unchanged and Wealth at Work revenues decreased 1%.

Expenses increased 12%, primarily driven by continued investments in Citi's transformation and higher business-led investments and volume-driven expenses, partially offset by productivity savings.

Provisions were $1.4 billion, compared to a benefit of $170 million in the prior-year period, largely driven by a net ACL build, partially offset by lower net credit losses. Net credit losses decreased 19%, reflecting lower net credit losses in both Branded cards (down 30% to $329 million) and Retail services (down 11% to $290 million), driven by continued strong credit performance across portfolios.

The net ACL build was $651 million, compared to a net release of $1.0 billion in the prior-year period. The net ACL build primarily reflected increased macroeconomic uncertainty. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on U.S. Personal Banking's Retail banking, Branded cards and Retail services portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *PBWM*'s future results, see "Executive Summary" above and "Forward-Looking Statements" below, and "Risk Factors—Strategic Risks" in Citi's 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Year-to-date, *PBWM* experienced similar trends to those described above. Net income was $2.4 billion, compared to net income of $4.2 billion in the prior-year period, largely driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 2%, reflecting higher revenues in U.S. Personal Banking. U.S. Personal Banking revenues increased 3%, reflecting higher revenues in Cards, largely driven by the same factors described above. Global Wealth revenues decreased 1%, largely driven by investment fee headwinds, particularly in Asia.

Expenses increased 13%, driven by the same factors described above.

Provisions were $979 million, compared to a benefit of $727 million in the prior-year period, driven by a lower ACL release, partially offset by lower net credit losses. Net credit losses decreased 25%, driven by the same factors described above. The net ACL release was $413 million, compared to a release of $2.6 billion in the prior-year period. The net ACL release primarily reflected improvement in portfolio credit quality and the continued improvement in the macroeconomic outlook in the first quarter of 2022, partially offset by the net ACL build in the current quarter due to the increased macroeconomic uncertainty.

LEGACY FRANCHISES

As of June 30, 2022, *Legacy Franchises* included Asia Consumer Banking (Asia Consumer), representing the consumer banking operations of the remaining 12 Asia and EMEA exit countries (and Australia until its sale closing on June 1, 2022); Mexico Consumer Banking (Mexico Consumer) and Mexico Small Business and Middle-Market Banking (Mexico SBMM), collectively Mexico Consumer/SBMM, which Citi also plans to exit; and Legacy Holdings Assets (certain North America consumer mortgage loans and other legacy assets).

Asia Consumer provides traditional retail banking and branded card products to retail and small business customers. Mexico Consumer/SBMM provides traditional retail banking and branded card products to consumers and small business customers and provides traditional middle-market banking products and services to commercial customers through Citibanamex.

As previously disclosed, Citi entered into an agreement to sell its consumer banking business in Australia (which was completed on June 1, 2022) and made a decision to wind down and close its Korea consumer banking business (see Note 2 for additional information). In addition, on August 1, 2022, Citi completed the sale of its Philippines consumer business. Citi has also entered into agreements to sell its consumer banking businesses in Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam.

At June 30, 2022, on a combined basis, the *Legacy Franchises* business had 1,457 retail branches, $26 billion in retail banking loans and $53 billion in deposits. In addition, the businesses had $8 billion in outstanding card loan balances, and Mexico SBMM had $7 billion in outstanding corporate loan balances. These amounts exclude approximately $19 billion of loans ($13 billion of retail banking loans and $6 billion of credit card loan balances) and $22 billion of deposits, all of which were reclassified to *Other assets* and *Other liabilities* held-for-sale (HFS) as a result of Citi's agreements to sell its consumer banking businesses in the above listed countries. See Note 2 for additional information.

	Second Quarter			Six Months		
In millions of dollars, except as otherwise noted[1]	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Net interest income	**$ 1,474**	$ 1,621	**(9)%**	**$ 2,982**	$ 3,184	**(6)%**
Non-interest revenue	**461**	658	**(30)**	**884**	1,338	**(34)**
Total revenues, net of interest expense	**$ 1,935**	$ 2,279	**(15)%**	**$ 3,866**	$ 4,522	**(15)%**
Total operating expenses	**$ 1,814**	$ 1,788	**1 %**	**$ 4,107**	$ 3,540	**16 %**
Net credit losses on loans	**$ 133**	$ 390	**(66)%**	**$ 284**	$ 973	**(71)%**
Credit reserve build (release) for loans	**(28)**	(594)	**95**	**(174)**	(1,176)	**85**
Provision (release) for credit losses on unfunded lending commitments	**(3)**	(8)	**63**	**121**	(17)	**NM**
Provisions for benefits and claims, HTM debt securities and other assets	**19**	8	**NM**	**50**	60	**(17)**
Provisions (releases) for credit losses	**$ 121**	$ (204)	**NM**	**$ 281**	$ (160)	**NM**
Income (loss) from continuing operations before taxes	**$ —**	$ 695	**(100)%**	**$ (522)**	$ 1,142	**NM**
Income taxes (benefits)	**15**	203	**(93)**	**(122)**	330	**NM**
Income (loss) from continuing operations	**$ (15)**	$ 492	**NM**	**$ (400)**	$ 812	**NM**
Noncontrolling interests	**2**	(2)	**NM**	**—**	(5)	**100 %**
Net income (loss)	**$ (17)**	$ 494	**NM**	**$ (400)**	$ 817	**NM**
Balance Sheet data *(in billions of dollars)*						
EOP assets	**$ 108**	$ 131	**(18)%**			
Average assets	**115**	128	**(10)**	**$ 120**	$ 129	**(7)%**
EOP loans	**41**	79	**(48)**			
EOP deposits	**53**	87	**(39)**			
Efficiency ratio	**94 %**	78 %		**106 %**	78 %	
Revenue by reporting unit and component						
Asia Consumer	**$ 880**	$ 1,052	**(16)%**	**$ 1,667**	$ 2,127	**(22)%**
Mexico Consumer/SBMM	**1,184**	1,184	**—**	**2,323**	2,321	**—**
Legacy Holdings Assets	**(129)**	43	**NM**	**(124)**	74	**NM**
Total	**$ 1,935**	$ 2,279	**(15)%**	**$ 3,866**	$ 4,522	**(15)%**

NM Not meaningful

2Q22 vs. 2Q21

Net loss was $17 million, compared to net income of $494 million in the prior-year period, reflecting lower revenues, higher expenses and higher cost of credit.

Revenues decreased 15%, reflecting lower revenues across Asia Consumer and Legacy Holdings Assets, while Mexico Consumer/SBMM was largely unchanged.

Asia Consumer revenues decreased 16%, largely resulting from impacts related to the Korea wind-down, completion of the Australia consumer banking sale and lower investments revenues due to muted investment activity in Asia, reflecting overall market volatility.

Mexico Consumer/SBMM revenues were largely unchanged, as cards revenues increased 1%, due to higher rates and lending volumes, resulting from higher card spend volumes, while retail banking and SBMM revenues were largely unchanged.

Legacy Holdings Assets revenues of $(129) million decreased from $43 million in the prior-year period, largely driven by a portion of the release of a CTA loss (net of hedges) recorded in *AOCI* related to the substantial liquidation of a legacy U.K. consumer operation (for additional information, see Note 2). The other portion of the CTA loss release was recorded in discontinued operations in *Corporate/Other* in the current quarter.

Expenses increased 1%, driven by impairment of long-lived assets related to the Russia consumer banking business (see "Managing Global Risk—Other Risks—Country Risk—Russia" below) and higher marketing expenses in Mexico Consumer/SBMM, partially offset by lower expenses related to the Asia Consumer exit markets.

Provisions were $121 million, compared to a benefit of $204 million in the prior-year period, driven by a lower net ACL release, partially offset by lower net credit losses. Net credit losses decreased 66%, primarily reflecting improved delinquencies in both Mexico Consumer and Asia Consumer and the reclassification of loans to reflect HFS accounting as a result of the signing of sales agreements for consumer franchises in Asia and EMEA.

The net ACL release was $31 million, compared to a release of $602 million in the prior-year period. The net ACL release in the current quarter primarily reflected an improvement in portfolio credit quality. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates."

For additional information about trends, uncertainties and risks related to *Legacy Franchises*' future results, see "Executive Summary" above and "Forward-Looking Statements" below, and "Risk Factors—Strategic Risks" in Citi's 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Year-to-date, *Legacy Franchises* experienced similar trends to those described above. The *net loss* was $400 million, compared to net income of $817 million in the prior-year period, primarily driven by lower revenues, higher expenses and higher cost of credit.

Results for the first half of 2022 included aggregate Asia Consumer divestiture-related impacts of approximately $629 million (pretax), including a goodwill write-down of $535 million, recorded in expenses, due to the re-segmentation and timing of divestitures; and incremental losses on sale recorded in revenues of approximately $(98) million from the sale of the Australia consumer banking business.

Revenues decreased 15%, reflecting lower revenues in Asia Consumer and Legacy Holdings Assets, while Mexico Consumer/SBMM was largely unchanged.

Asia Consumer revenues decreased 22%, driven by the same factors described above, as well as the revenue impact in the first half of 2022 related to the sale of the Australia consumer banking business. Legacy Holdings Assets revenues of $(124) million decreased from $74 million, largely driven by the CTA loss (net of hedges).

Expenses increased 16%, primarily driven by the first quarter goodwill write-down and the long-lived assets impairment, partially offset by lower expenses related to the Asia Consumer exit markets.

Provisions were $281 million, compared to a benefit of $160 million in the prior-year period, driven by a lower net ACL release, partially offset by lower net credit losses. The net ACL release was $53 million, compared to a release of $1.2 billion in the prior-year period. The net ACL release in the current period was driven by the same factors described above.

CORPORATE/OTHER

Activities not assigned to the operating segments (*ICG*, *PBWM* and *Legacy Franchises*) are included in *Corporate/Other*. *Corporate/Other* included certain unallocated costs of global staff functions (including finance, risk, human resources, legal and compliance-related costs), other corporate expenses and unallocated global operations and technology expenses and income taxes, as well as results of Corporate Treasury investment activities and discontinued operations. At June 30, 2022, *Corporate/Other* had $94 billion in assets, primarily related to investment securities.

	Second Quarter			Six Months		
In millions of dollars	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Net interest income	**$ 401**	$ 112	**NM**	**$ 595**	$ 157	**NM**
Non-interest revenue	**(146)**	115	**NM**	**(150)**	114	**NM**
Total revenues, net of interest expense	**$ 255**	$ 227	**12 %**	**$ 445**	$ 271	**64 %**
Total operating expenses	**$ 160**	$ 307	**(48)%**	**$ 420**	$ 614	**(32)%**
Provisions (releases) for HTM debt securities and other assets	**$ —**	$ 2	**(100)%**	**$ —**	$ (1)	**100 %**
Income (loss) from continuing operations before taxes	**$ 95**	$ (82)	**NM**	**$ 25**	$ (342)	**NM**
Income taxes (benefits)	**(178)**	(545)	**67 %**	**(440)**	(612)	**28 %**
Income (loss) from continuing operations	**$ 273**	$ 463	**(41)%**	**$ 465**	$ 270	**72 %**
Income (loss) from discontinued operations, net of taxes	**(221)**	10	**NM**	**(223)**	8	**NM**
Net income (loss) before attribution to noncontrolling interests	**$ 52**	$ 473	**(89)%**	**$ 242**	$ 278	**(13)%**
Noncontrolling interests	**2**	—	**NM**	**3**	(1)	**NM**
Net income (loss)	**$ 50**	$ 473	**(89)%**	**$ 239**	$ 279	**(14)%**

NM Not meaningful

2Q22 vs. 2Q21

Net income was $50 million, compared to *net income* of $473 million in the prior-year period. The decline in net income was primarily driven by certain income tax benefit items related to non-U.S. operations in the prior-year period, as well as the release of a portion of a CTA loss (net of hedges) from *AOCI*, recorded in discontinued operations, related to the substantial liquidation of a U.K. consumer legacy operation (for additional information, see Note 2). As discussed above, the other portion of the CTA loss was recorded in revenues in *Legacy Franchises*. The decline in net income was partially offset by lower expenses and modestly higher revenues.

Revenues increased 12%, primarily driven by higher net revenue from the investment portfolio, largely due to higher interest rates.

Expenses decreased 48%, driven by certain settlements and the benefit of FX translation in the current period.

For additional information about trends, uncertainties and risks related to *Corporate/Other*'s future results, see "Executive Summary" above, "Forward-Looking Statements" below and "Risk Factors—Strategic Risks" in Citi's 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Year-to-date, *Corporate/Other* experienced similar trends to those described above. *Net income* was $239 million, compared to net income of $279 million in the prior-year period, driven by the same factors described above.

Revenues increased 64%, driven by the same factors described above.

Expenses decreased 32%, driven by the same factors described above.

CAPITAL RESOURCES

For additional information about capital resources, including Citi's capital management, regulatory capital buffers, the stress testing component of capital planning and current regulatory capital standards and developments, see "Capital Resources" and "Risk Factors" in Citi's 2021 Form 10-K.

During the second quarter of 2022, Citi returned a total of $1.3 billion of capital to common shareholders in the form of $1.0 billion in dividends and $0.3 billion in share repurchases totaling approximately 5 million common shares. For additional information, see "Unregistered Sales of Equity Securities, Repurchases of Equity Securities and Dividends" below.

Common Equity Tier 1 Capital Ratio

Citi's Common Equity Tier 1 (CET1) Capital ratio under the Basel III Standardized Approach was 11.9% as of June 30, 2022, compared to 11.4% as of March 31, 2022 and 12.2% as of December 31, 2021, relative to a required regulatory minimum CET1 Capital ratio of 10.5% under the Standardized Approach. Citi's CET1 Capital ratio under the Basel III Advanced Approaches was 11.7% as of June 30, 2022, compared to 11.4% as of March 31, 2022 and 12.3% as of December 31, 2021, relative to an effective regulatory minimum CET1 Capital ratio requirement of 10.0% under the Advanced Approaches.

Citi's CET1 Capital ratio increased under both the Standardized Approach and Advanced Approaches from March 31, 2022, driven primarily by net income, a decrease in risk-weighted assets and the impact related to the closing of the Australia consumer banking sale, partially offset by interest rate-related adverse net movements in *AOCI* and the return of capital to common shareholders.

Citi's CET1 Capital ratio decreased under both the Standardized Approach and Advanced Approaches from year-end 2021, as the interest rate-related adverse net movements in *AOCI* and the return of capital to common shareholders were partially offset by year-to-date net income of $8.9 billion and the impact related to the closing of the Australia consumer banking sale. The decline in the CET1 Capital ratio also reflected higher risk-weighted assets due to adoption of the Standardized Approach for Counterparty Credit Risk (SA-CCR) under both the Standardized Approach and Advanced Approaches. The increase in risk-weighted assets from SA-CCR under the Standardized Approach was more than offset by lower risk-weighted assets due to business-driven declines in derivatives and repo-style transactions. For additional information on SA-CCR, see "Capital Resources" in Citi's First Quarter of 2022 Form 10-Q.

Stress Capital Buffer

In June 2022, the Federal Reserve Board communicated that Citi's Stress Capital Buffer (SCB) requirement (which will be finalized by the end of August 2022) is expected to increase from the current requirement of 3.0% to 4.0% for the four-quarter window of October 1, 2022 to September 30, 2023. Accordingly, effective October 1, 2022, Citi will be required to maintain an 11.5% effective minimum CET1 Capital ratio under the Standardized Approach, incorporating this SCB and its current GSIB surcharge of 3.0%. Citi's effective minimum CET1 Capital ratio requirement under the Advanced Approaches (using the fixed 2.5% Capital Conservation Buffer) will remain unchanged at 10.0%.

As previously disclosed, commencing January 1, 2023, Citi's GSIB surcharge will increase from 3.0% to 3.5%, which will be applicable to both the Standardized and the Advanced Approaches, resulting in a required minimum CET1 Capital ratio of 12.0% under the Standardized Approach and 10.5% under the Advanced Approaches, both as of such date.

The SCB applies to Citigroup only. The regulatory capital framework applicable to Citibank, including the Capital Conservation Buffer, is unaffected by Citigroup's SCB. For additional information regarding regulatory capital buffers, including the SCB and GSIB surcharge, see "Capital Resources—Regulatory Capital Buffers" in Citi's 2021 Form 10-K. For additional information regarding CCAR and DFAST, see "Capital Resources—Stress Testing Component of Capital Planning" in Citi's 2021 Form 10-K.

Citigroup's Capital Resources

The following table presents Citi's effective minimum risk-based capital requirements as of June 30, 2022, March 31, 2022 and December 31, 2021:

	Advanced Approaches			Standardized Approach		
	June 30, 2022	March 31, 2022	December 31, 2021	**June 30, 2022**	March 31, 2022	December 31, 2021
Common Equity Tier 1 Capital ratio(1)	**10.0 %**	10.0 %	10.0 %	**10.5 %**	10.5 %	10.5 %
Tier 1 Capital ratio(1)	**11.5**	11.5	11.5	**12.0**	12.0	12.0
Total Capital ratio(1)	**13.5**	13.5	13.5	**14.0**	14.0	14.0

(1) Citi's effective minimum risk-based capital requirements include the 3.0% Stress Capital Buffer and 3.0% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.0% GSIB surcharge under the Advanced Approaches (all of which must be composed of Common Equity Tier 1 Capital). These effective minimum requirements are applicable through September 30, 2022. See "Stress Capital Buffer" above for more information.

The following tables present Citi's capital components and ratios:

	Advanced Approaches			Standardized Approach		
In millions of dollars, except ratios	**June 30, 2022**	March 31, 2022	December 31, 2021	**June 30, 2022**	March 31, 2022	December 31, 2021
Common Equity Tier 1 Capital(1)	**$ 144,893**	$ 143,749	$ 149,305	**$ 144,893**	$ 143,749	$ 149,305
Tier 1 Capital	**165,159**	164,015	169,568	**165,159**	164,015	169,568
Total Capital (Tier 1 Capital + Tier 2 Capital)(1)	**187,350**	186,980	194,006	**196,408**	197,133	203,838
Total Risk-Weighted Assets	**1,235,956**	1,259,935	1,209,374	**1,217,459**	1,263,298	1,219,175
Credit Risk(1)	**$ 861,298**	$ 885,880	$ 840,483	**$ 1,135,558**	$ 1,178,657	$ 1,135,906
Market Risk	**79,912**	81,797	78,634	**81,901**	84,641	83,269
Operational Risk	**294,746**	292,258	290,257	**—**	—	—
Common Equity Tier 1 Capital ratio(2)	**11.72 %**	11.41 %	12.35 %	**11.90 %**	11.38 %	12.25 %
Tier 1 Capital ratio(2)	**13.36**	13.02	14.02	**13.57**	12.98	13.91
Total Capital ratio(2)	**15.16**	14.84	16.04	**16.13**	15.60	16.72

In millions of dollars, except ratios	**Effective Minimum Requirement**	**June 30, 2022**	March 31, 2022	December 31, 2021
Quarterly Adjusted Average Total Assets(1)(3)		**$ 2,344,675**	$ 2,337,375	$ 2,351,434
Total Leverage Exposure(1)(4)		**2,935,289**	2,939,533	2,957,764
Tier 1 Leverage ratio	**4.0 %**	**7.04 %**	7.02 %	7.21 %
Supplementary Leverage ratio	**5.0**	**5.63**	5.58	5.73

(1) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the current expected credit losses (CECL) standard. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2021 Form 10-K.

(2) Citi's binding Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach, whereas Citi's binding Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.

(3) Tier 1 Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.

(4) Supplementary Leverage ratio denominator.

As indicated in the table above, Citigroup's risk-based capital ratios at June 30, 2022 were in excess of the stated and effective minimum requirements under the U.S. Basel III rules. In addition, Citi was "well capitalized" under current federal bank regulatory agency definitions as of June 30, 2022.

Components of Citigroup Capital

In millions of dollars		**June 30, 2022**		December 31, 2021
Common Equity Tier 1 Capital				
Citigroup common stockholders' equity[1]	**$**	**180,150**	$	183,108
Add: Qualifying noncontrolling interests		**129**		143
Regulatory capital adjustments and deductions:				
Add: CECL transition provision[2]		**2,271**		3,028
Less: Accumulated net unrealized gains (losses) on cash flow hedges, net of tax		**(2,106)**		101
Less: Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax		**2,145**		(896)
Less: Intangible assets:				
Goodwill, net of related DTLs[3]		**19,504**		20,619
Identifiable intangible assets other than MSRs, net of related DTLs		**3,599**		3,800
Less: Defined benefit pension plan net assets; other		**2,038**		2,080
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[4]		**11,679**		11,270
Less: Excess over 10%/15% limitations for other DTAs, certain common stock investments, and MSRs[4][5]		**798**		—
Total Common Equity Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**144,893**	$	149,305
Additional Tier 1 Capital				
Qualifying noncumulative perpetual preferred stock[1]	**$**	**18,864**	$	18,864
Qualifying trust preferred securities[6]		**1,403**		1,399
Qualifying noncontrolling interests		**30**		34
Regulatory capital deductions:				
Less: Other		**31**		34
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**20,266**	$	20,263
Total Tier 1 Capital (Common Equity Tier 1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	**$**	**165,159**	$	169,568
Tier 2 Capital				
Qualifying subordinated debt	**$**	**17,338**	$	20,064
Qualifying trust preferred securities[7]		**—**		248
Qualifying noncontrolling interests		**37**		42
Eligible allowance for credit losses[2][8]		**14,226**		14,209
Regulatory capital deduction:				
Less: Other		**352**		293
Total Tier 2 Capital (Standardized Approach)	**$**	**31,249**	$	34,270
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	**$**	**196,408**	$	203,838
Adjustment for excess of eligible credit reserves over expected credit losses[2][8]	**$**	**(9,058)**	$	(9,832)
Total Tier 2 Capital (Advanced Approaches)	**$**	**22,191**	$	24,438
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	**$**	**187,350**	$	194,006

(1) Issuance costs of $131 million related to outstanding noncumulative perpetual preferred stock at June 30, 2022 and December 31, 2021 are excluded from common stockholders' equity and are netted against such preferred stock in accordance with Federal Reserve Board regulatory reporting requirements, which differ from those under U.S. GAAP.

(2) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the current expected credit losses (CECL) standard. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2021 Form 10-K.

(3) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.

Footnotes continue on the following page.

(4) Of Citi's $26.5 billion of net DTAs at June 30, 2022, $15.8 billion was included in Common Equity Tier 1 Capital pursuant to the U.S. Basel III rules, while $10.7 billion was excluded. Excluded from Citi's Common Equity Tier 1 Capital as of June 30, 2022 was $12.5 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards as well as DTAs from temporary differences that exceed 10%/15% limitations. The amount excluded was reduced by $1.8 billion of net DTLs primarily associated with goodwill and certain other intangible assets that are separately deducted from capital. DTAs arising from tax carry-forwards are required to be entirely deducted from Common Equity Tier 1 Capital under the U.S. Basel III rules. DTAs arising from temporary differences are required to be deducted from capital only if these DTAs exceed 10%/15% limitations under the U.S. Basel III rules.

(5) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. At June 30, 2022, this deduction related only to DTAs arising from temporary differences that exceeded the 10% limitation. At December 31, 2021, none of these assets were in excess of the 10%/15% limitations.

(6) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.

(7) Represents the amount of non-grandfathered trust preferred securities that were previously eligible for inclusion in Tier 2 Capital under the U.S. Basel III rules. Commencing January 1, 2022, non-grandfathered trust preferred securities have been fully phased out of Tier 2 Capital.

(8) Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets. The total amount of eligible credit reserves in excess of expected credit losses that were eligible for inclusion in Tier 2 Capital, subject to limitation, under the Advanced Approaches framework were $5.2 billion and $4.4 billion at June 30, 2022 and December 31, 2021, respectively.

Citigroup Capital Rollforward

In millions of dollars	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Common Equity Tier 1 Capital, beginning of period	**$ 143,749**	**$ 149,305**
Net income	**4,547**	**8,853**
Common and preferred dividends declared	**(1,248)**	**(2,541)**
Net increase in treasury stock	**(244)**	**(2,748)**
Net increase in common stock and additional paid-in capital	**160**	**207**
Net change in foreign currency translation adjustment net of hedges, net of tax	**(1,630)**	**(1,644)**
Net change in unrealized gains (losses) on debt securities AFS, net of tax	**(1,501)**	**(5,778)**
Net change in defined benefit plans liability adjustment, net of tax	**(89)**	**82**
Net change in adjustment related to change in fair value of financial liabilities attributable to own creditworthiness, net of tax	**(151)**	**(281)**
Net decrease in excluded component of fair value hedges	**9**	**57**
Net decrease in goodwill, net of related DTLs	**616**	**1,115**
Net decrease in identifiable intangible assets other than MSRs, net of related DTLs	**99**	**201**
Net decrease in defined benefit pension plan net assets	**204**	**18**
Net change in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	**22**	**(409)**
Net change in excess over 10%/15% limitations for other DTAs, certain common stock investments and MSRs	**359**	**(798)**
Net change in CECL transition provision	**—**	**(757)**
Other	**(9)**	**11**
Net change in Common Equity Tier 1 Capital	**$ 1,144**	**$ (4,412)**
Common Equity Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$ 144,893**	**$ 144,893**
Additional Tier 1 Capital, beginning of period	**$ 20,266**	**$ 20,263**
Net increase in qualifying trust preferred securities	**2**	**4**
Other	**(2)**	**(1)**
Net change in Additional Tier 1 Capital	**$ —**	**$ 3**
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$ 165,159**	**$ 165,159**
Tier 2 Capital, beginning of period (Standardized Approach)	**$ 33,118**	**$ 34,270**
Net decrease in qualifying subordinated debt	**(1,322)**	**(2,726)**
Net change in eligible allowance for credit losses	**(532)**	**17**
Other	**(15)**	**(312)**
Net decrease in Tier 2 Capital (Standardized Approach)	**$ (1,869)**	**$ (3,021)**
Tier 2 Capital, end of period (Standardized Approach)	**$ 31,249**	**$ 31,249**
Total Capital, end of period (Standardized Approach)	**$ 196,408**	**$ 196,408**
Tier 2 Capital, beginning of period (Advanced Approaches)	**$ 22,965**	**$ 24,438**
Net decrease in qualifying subordinated debt	**(1,322)**	**(2,726)**
Net increase in excess of eligible credit reserves over expected credit losses	**563**	**791**
Other	**(15)**	**(312)**
Net decrease in Tier 2 Capital (Advanced Approaches)	**$ (774)**	**$ (2,247)**
Tier 2 Capital, end of period (Advanced Approaches)	**$ 22,191**	**$ 22,191**
Total Capital, end of period (Advanced Approaches)	**$ 187,350**	**$ 187,350**

Citigroup Risk-Weighted Assets Rollforward (Basel III Standardized Approach)

In millions of dollars	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Total Risk-Weighted Assets, beginning of period	**$ 1,263,298**	**$ 1,219,175**
Changes in Credit Risk-Weighted Assets		
General credit risk exposures[1]	**(6,611)**	**(3,346)**
Repo-style transactions[2]	**(9,087)**	**(11,915)**
Securitization exposures	**(356)**	**(836)**
Equity exposures[3]	**(3,212)**	**(1,896)**
Over-the-counter (OTC) derivatives[4]	**(18,542)**	**27,178**
Other exposures	**(2,600)**	**(2,106)**
Off-balance sheet exposures[5]	**(2,691)**	**(7,427)**
Net decrease in Credit Risk-Weighted Assets	**$ (43,099)**	**$ (348)**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (4,122)**	**$ (3,859)**
Model and methodology updates	**1,382**	**2,491**
Net decrease in Market Risk-Weighted Assets[6]	**$ (2,740)**	**$ (1,368)**
Total Risk-Weighted Assets, end of period	**$ 1,217,459**	**$ 1,217,459**

(1) General credit risk exposures include cash and balances due from depository institutions, securities, and loans and leases. General credit risk exposures decreased during the three and six months ended June 30, 2022 primarily due to decreases in wholesale and consumer loans, partially offset by increases in cash deposits and held-to-maturity securities.

(2) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing and securities lending transactions. Repo-style transactions decreased during the three and six months ended June 30, 2022 primarily due to exposure-driven decreases of repurchase agreements.

(3) Equity exposures decreased during the three months ended June 30, 2022 primarily due to decreases in market share prices of various investments.

(4) OTC derivatives decreased during the three months ended June 30, 2022 primarily due to decreases in equities, commodities and rates. OTC derivatives increased during the six months ended June 30, 2022 primarily due to the adoption of SA-CCR, partially offset by decreases in equities, commodities and rates. For additional information on SA-CCR, see "Capital Resources" in Citi's First Quarter of 2022 Form 10-Q.

(5) Off-balance sheet exposures decreased during the six months ended June 30, 2022 primarily due to a decrease in wholesale loan commitments.

(6) Market risk-weighted assets decreased during the three and six months ended June 30, 2022 primarily due to exposure changes, partially offset by changes in model inputs regarding volatility and the correlation between market risk factors.

Citigroup Risk-Weighted Assets Rollforward (Basel III Advanced Approaches)

In millions of dollars	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Total Risk-Weighted Assets, beginning of period	**$ 1,259,935**	**$ 1,209,374**
Changes in Credit Risk-Weighted Assets		
Retail exposures[1]	**6,092**	**4,191**
Wholesale exposures[2]	**(12,806)**	**(3,870)**
Repo-style transactions[3]	**(3,922)**	**(9,673)**
Securitization exposures	**278**	**476**
Equity exposures[4]	**(3,228)**	**(1,523)**
Over-the-counter (OTC) derivatives[5]	**(7,155)**	**10,005**
Derivatives CVA[6]	**(9,292)**	**16,241**
Other exposures[7]	**6,316**	**4,709**
Supervisory 6% multiplier	**(865)**	**259**
Net change in Credit Risk-Weighted Assets	**$ (24,582)**	**$ 20,815**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (3,267)**	**$ (1,213)**
Model and methodology updates	**1,382**	**2,491**
Net change in Market Risk-Weighted Assets[8]	**$ (1,885)**	**$ 1,278**
Net increase in Operational Risk-Weighted Assets	**$ 2,488**	**$ 4,489**
Total Risk-Weighted Assets, end of period	**$ 1,235,956**	**$ 1,235,956**

(1) Retail exposures increased during the three and six months ended June 30, 2022 primarily due to increases in qualifying revolving (cards) exposures and model recalibrations.

(2) Wholesale exposures decreased during the three and six months ended June 30, 2022 primarily due to decreases in wholesale loans and available-for-sale securities.

(3) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing and securities lending transactions. Repo-style transactions decreased during the three and six months ended June 30, 2022 primarily due to exposure-driven decreases of repurchase agreements.

(4) Equity exposures decreased during the three months ended June 30, 2022 primarily due to decreases in market share prices of various investments.

(5) OTC derivatives decreased during the three months ended June 30, 2022 primarily due to decreases in equities and commodities. OTC derivatives increased during the six months ended June 30, 2022 primarily due to the adoption of SA-CCR, partially offset by decreases in equities and commodities. For additional information on SA-CCR, see “Capital Resources” in Citi’s First Quarter of 2022 Form 10-Q.

(6) Derivatives CVA decreased during the three months ended June 30, 2022 primarily due to decreases in equities and rates. Derivatives CVA increased during the six months ended June 30, 2022 primarily due to the adoption of SA-CCR, partially offset by decreases in equities and rates. For additional information on SA-CCR, see “Capital Resources” in Citi’s First Quarter of 2022 Form 10-Q.

(7) Other exposures include cleared transactions, unsettled transactions, assets other than those reportable in specific exposure categories and non-material portfolios. Other exposures increased during the three and six months ended June 30, 2022 primarily due to increases in various other assets.

(8) Market risk-weighted assets decreased during the three months ended June 30, 2022 primarily due to exposure changes, partially offset by changes in model inputs regarding volatility and the correlation between market risk factors. Market risk-weighted assets increased during the six months ended June 30, 2022 primarily due to changes in model inputs regarding volatility and the correlation between market risk factors, partially offset by exposure changes.

Supplementary Leverage Ratio

The following table presents Citi's Supplementary Leverage ratio and related components:

In millions of dollars, except ratios	**June 30, 2022**	March 31, 2022	December 31, 2021
Tier 1 Capital	**$ 165,159**	$ 164,015	$ 169,568
Total Leverage Exposure			
On-balance sheet assets(1)(2)	**$ 2,382,324**	$ 2,376,310	$ 2,389,237
Certain off-balance sheet exposures:(3)			
Potential future exposure on derivative contracts	**178,183**	200,710	222,241
Effective notional of sold credit derivatives, net(4)	**33,187**	30,493	23,788
Counterparty credit risk for repo-style transactions(5)	**20,022**	23,902	25,775
Other off-balance sheet exposures	**359,222**	347,053	334,526
Total of certain off-balance sheet exposures	**$ 590,614**	$ 602,158	$ 606,330
Less: Tier 1 Capital deductions	**37,649**	38,935	37,803
Total Leverage Exposure	**$ 2,935,289**	$ 2,939,533	$ 2,957,764
Supplementary Leverage ratio	**5.63 %**	5.58 %	5.73 %

(1) Represents the daily average of on-balance sheet assets for the quarter.

(2) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the current expected credit losses (CECL) standard. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2021 Form 10-K.

(3) Represents the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter.

(4) Under the U.S. Basel III rules, banking organizations are required to include in Total Leverage Exposure the effective notional amount of sold credit derivatives, with netting of exposures permitted if certain conditions are met.

(5) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing and securities lending transactions.

As presented in the table above, Citigroup's Supplementary Leverage ratio was 5.6% at June 30, 2022 and March 31, 2022, compared to 5.7% at December 31, 2021. The ratio remained largely unchanged from the first quarter of 2022. The ratio decreased from the fourth quarter of 2021, primarily driven by a reduction in Tier 1 Capital resulting from interest rate-related adverse net movements in *AOCI* and the return of capital to common shareholders, partially offset by year-to-date net income of $8.9 billion.

Capital Resources of Citigroup's Subsidiary U.S. Depository Institutions

Citigroup's subsidiary U.S. depository institutions are also subject to regulatory capital standards issued by their respective primary bank regulatory agencies, which are similar to the standards of the Federal Reserve Board.

The following tables present the capital components and ratios for Citibank, Citi's primary subsidiary U.S. depository institution:

In millions of dollars, except ratios	**Effective Minimum Requirement**(1)	**Advanced Approaches** **June 30, 2022**	March 31, 2022	December 31, 2021	**Standardized Approach** **June 30, 2022**	March 31, 2022	December 31, 2021
Common Equity Tier 1 Capital(2)		**$ 148,742**	$ 147,400	$ 148,548	**$ 148,742**	$ 147,400	$ 148,548
Tier 1 Capital		**150,870**	149,527	150,679	**150,870**	149,527	150,679
Total Capital (Tier 1 Capital + Tier 2 Capital)(2)(3)		**166,094**	165,783	166,921	**174,213**	174,315	175,427
Total Risk-Weighted Assets		**1,057,336**	1,063,411	1,017,774	**1,068,525**	1,094,456	1,066,015
Credit Risk(2)		**$ 780,785**	$ 787,496	$ 737,802	**$1,023,309**	$1,043,646	$1,016,293
Market Risk		**44,755**	48,434	48,089	**45,216**	50,810	49,722
Operational Risk		**231,796**	227,481	231,883	**—**	—	—
Common Equity Tier 1 Capital ratio(4)(5)	**7.0 %**	**14.07 %**	13.86 %	14.60 %	**13.92 %**	13.47 %	13.93 %
Tier 1 Capital ratio(4)(5)	**8.5**	**14.27**	14.06	14.80	**14.12**	13.66	14.13
Total Capital ratio(4)(5)	**10.5**	**15.71**	15.59	16.40	**16.30**	15.93	16.46

In millions of dollars, except ratios	**Effective Minimum Requirement**	**June 30, 2022**	March 31, 2022	December 31, 2021
Quarterly Adjusted Average Total Assets(2)(6)		**$ 1,680,846**	$ 1,697,393	$ 1,716,596
Total Leverage Exposure(2)(7)		**2,178,239**	2,210,947	2,236,839
Tier 1 Leverage ratio(5)	**5.0 %**	**8.98 %**	8.81 %	8.78 %
Supplementary Leverage ratio(5)	**6.0**	**6.93**	6.76	6.74

(1) Citibank's effective minimum risk-based capital requirements are inclusive of the 2.5% Capital Conservation Buffer (all of which must be composed of Common Equity Tier 1 Capital).

(2) Citibank's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the current expected credit losses (CECL) standard. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2021 Form 10-K.

(3) Under the Advanced Approaches framework, eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets, which differs from the Standardized Approach in which the ACL is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess ACL being deducted in arriving at credit risk-weighted assets.

(4) Citibank's binding Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach, whereas Citibank's binding Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.

(5) Citibank must maintain minimum Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital and Tier 1 Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized" under the revised Prompt Corrective Action (PCA) regulations applicable to insured depository institutions as established by the U.S. Basel III rules. Citibank must also maintain a minimum Supplementary Leverage ratio of 6.0% to be considered "well capitalized."

(6) Tier 1 Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.

(7) Supplementary Leverage ratio denominator.

As indicated in the table above, Citibank's capital ratios at June 30, 2022 were in excess of the stated and effective minimum requirements under the U.S. Basel III rules. In addition, Citibank was "well capitalized" as of June 30, 2022.

Impact of Changes on Citigroup and Citibank Capital Ratios

The following tables present the estimated sensitivity of Citigroup's and Citibank's capital ratios to changes of $100 million in Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital (numerator), and changes of $1 billion in Advanced Approaches and Standardized Approach risk-weighted assets and quarterly adjusted average total assets, as well as Total Leverage Exposure (denominator), as of June 30, 2022. This information is provided for the purpose of analyzing the impact that a change in Citigroup's or Citibank's financial position or results of operations could have on these ratios. These sensitivities only consider a single change to either a component of capital, risk-weighted assets, quarterly adjusted average total assets or Total Leverage Exposure. Accordingly, an event that affects more than one factor may have a larger basis point impact than is reflected in these tables.

	Common Equity Tier 1 Capital ratio		Tier 1 Capital ratio		Total Capital ratio	
In basis points	Impact of $100 million change in Common Equity Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Total Capital	Impact of $1 billion change in risk-weighted assets
Citigroup						
Advanced Approaches	0.8	0.9	0.8	1.1	0.8	1.2
Standardized Approach	0.8	1.0	0.8	1.1	0.8	1.3
Citibank						
Advanced Approaches	0.9	1.3	0.9	1.4	0.9	1.5
Standardized Approach	0.9	1.3	0.9	1.3	0.9	1.5

	Tier 1 Leverage ratio		Supplementary Leverage ratio	
In basis points	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in quarterly adjusted average total assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in Total Leverage Exposure
Citigroup	0.4	0.3	0.3	0.2
Citibank	0.6	0.5	0.5	0.3

Citigroup Broker-Dealer Subsidiaries

At June 30, 2022, Citigroup Global Markets Inc., a U.S. broker-dealer registered with the SEC that is an indirect wholly owned subsidiary of Citigroup, had net capital, computed in accordance with the SEC's net capital rule, of $11 billion, which exceeded the minimum requirement by $6 billion.

Moreover, Citigroup Global Markets Limited, a broker-dealer registered with the United Kingdom's Prudential Regulation Authority (PRA) that is also an indirect wholly owned subsidiary of Citigroup, had total regulatory capital of $28 billion at June 30, 2022, which exceeded the PRA's minimum regulatory capital requirements.

In addition, certain of Citi's other broker-dealer subsidiaries are subject to regulation in the countries in which they do business, including requirements to maintain specified levels of net capital or its equivalent. Citigroup's other principal broker-dealer subsidiaries were in compliance with their regulatory capital requirements at June 30, 2022.

Total Loss-Absorbing Capacity (TLAC)

The table below details Citi's eligible external TLAC and long-term debt (LTD) amounts and ratios, and each effective minimum TLAC and LTD ratio requirement, as well as the surplus amount in dollars in excess of each requirement.

	June 30, 2022	
In billions of dollars, except ratios	External TLAC	LTD
Total eligible amount	$ 329	$ 157
% of Advanced Approaches risk-weighted assets	26.6 %	12.7 %
Effective minimum requirement[(1)(2)]	22.5	9.0
Surplus amount	$ 51	$ 46
% of Total Leverage Exposure	11.2 %	5.4 %
Effective minimum requirement	9.5	4.5
Surplus amount	$ 50	$ 25

(1) External TLAC includes Method 1 GSIB surcharge of 2.0%.
(2) LTD includes Method 2 GSIB surcharge of 3.0%.

As of June 30, 2022, Citi exceeded each of the minimum TLAC and LTD requirements, resulting in a $25 billion surplus above its binding TLAC requirement of LTD as a percentage of Total Leverage Exposure.

For additional information on Citi's TLAC-related requirements, see "Capital Resources—Total Loss-Absorbing Capacity (TLAC)" and "Risk Factors—Compliance Risks" in Citi's 2021 Form 10-K.

Capital Resources (Full Adoption of CECL)[1]

The following tables present Citigroup's and Citibank's capital components and ratios under a hypothetical scenario where the full impact of CECL is reflected as of June 30, 2022:

	Citigroup				Citibank		
	Effective Minimum Requirement, Advanced Approaches	Effective Minimum Requirement, Standardized Approach	Advanced Approaches	Standardized Approach	Effective Minimum Requirement[2]	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital ratio	**10.0 %**	**10.5 %**	**11.50 %**	**11.68 %**	**7.0 %**	**13.87 %**	**13.73 %**
Tier 1 Capital ratio	**11.5**	**12.0**	**13.15**	**13.35**	**8.5**	**14.08**	**13.93**
Total Capital ratio	**13.5**	**14.0**	**14.95**	**15.92**	**10.5**	**15.52**	**16.12**

	Effective Minimum Requirement	Citigroup	Effective Minimum Requirement	Citibank
Tier 1 Leverage ratio	**4.0 %**	**6.92 %**	**5.0 %**	**8.86 %**
Supplementary Leverage ratio	**5.0**	**5.52**	**6.0**	**6.83**

(1) See footnote 2 on the "Components of Citigroup Capital" table above.
(2) Citibank's effective minimum requirements were the same under the Standardized Approach and the Advanced Approaches framework.

Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity

Tangible common equity (TCE), as defined by Citi, represents common stockholders' equity less goodwill and identifiable intangible assets (other than mortgage servicing rights (MSRs)). RoTCE represents annualized net income available to common shareholders as a percentage of average TCE. Tangible book value per share represents average TCE divided by average common shares outstanding. Other companies may calculate these measures differently. TCE, RoTCE and tangible book value per share are non-GAAP financial measures.

In millions of dollars or shares, except per share amounts	**June 30, 2022**	December 31, 2021
Total Citigroup stockholders' equity	**$ 199,014**	$ 201,972
Less: Preferred stock	**18,995**	18,995
Common stockholders' equity	**$ 180,019**	$ 182,977
Less:		
Goodwill	**19,597**	21,299
Identifiable intangible assets (other than MSRs)	**3,926**	4,091
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale (HFS)	**1,081**	510
Tangible common equity (TCE)	**$ 155,415**	$ 157,077
Common shares outstanding (CSO)	**1,936.7**	1,984.4
Book value per share (common stockholders' equity/CSO)	**$ 92.95**	$ 92.21
Tangible book value per share (TCE/CSO)	**80.25**	79.16

	Three Months Ended June 30,		**Six Months Ended June 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Net income available to common shareholders	**$ 4,309**	$ 5,940	**$ 8,336**	$ 13,590
Average common stockholders' equity	**178,981**	183,231	**180,075**	181,826
Average TCE	**154,439**	156,946	**155,318**	155,760
Return on average common stockholders' equity	**9.7 %**	13.0 %	**9.3 %**	15.1 %
RoTCE	**11.2**	15.2	**10.8**	17.6

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(1) For additional information regarding certain credit risk, market risk and other quantitative and qualitative information, refer to Citi's Pillar 3 Basel III Advanced Approaches Disclosures, as required by the rules of the Federal Reserve Board, on Citi's Investor Relations website.

MANAGING GLOBAL RISK

For Citi, effective risk management is of primary importance to its overall operations. Accordingly, Citi's risk management process has been designed to monitor, evaluate and manage the principal risks it assumes in conducting its activities. Specifically, the activities that Citi engages in, and the risks those activities generate, must be consistent with Citi's mission, strategy, value proposition, key guiding principles and risk appetite.

CREDIT RISK

For more information on credit risk, including Citi's credit risk management, measurement and stress testing, and Citi's consumer and corporate credit portfolios, see "Credit Risk" and "Risk Factors" in Citi's 2021 Form 10-K.

CORPORATE CREDIT

The following table details Citi's corporate credit portfolio within *ICG* and the Mexico SBMM component of *Legacy Franchises* (excluding certain loans managed on a delinquency basis, loans carried at fair value and loans held-for-sale), and before consideration of collateral or hedges, by remaining tenor for the periods indicated:

	June 30, 2022				March 31, 2022				December 31, 2021			
In billions of dollars	**Due within 1 year**	**Greater than 1 year but within 5 years**	**Greater than 5 years**	**Total exposure**	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure
Direct outstandings (on-balance sheet)[1]	**$ 158**	**$ 117**	**$ 21**	**$ 296**	$ 164	$ 117	$ 21	$ 302	$ 145	$ 119	$ 20	$ 284
Unfunded lending commitments (off-balance sheet)[2]	**141**	**264**	**9**	**414**	148	268	10	426	147	269	13	429
Total exposure	**$ 299**	**$ 381**	**$ 30**	**$ 710**	$ 312	$ 385	$ 31	$ 728	$ 292	$ 388	$ 33	$ 713

(1) Includes drawn loans, overdrafts, bankers' acceptances and leases.
(2) Includes unused commitments to lend, letters of credit and financial guarantees.

Portfolio Mix—Geography and Counterparty
Citi's corporate credit portfolio is diverse across geography and counterparty. The following table shows the percentage of this portfolio by region based on Citi's internal management geography:

	June 30, 2022	March 31, 2022	December 31, 2021
North America	**56 %**	56 %	56 %
EMEA	**25**	25	25
Asia	**12**	13	13
Latin America	**7**	6	6
Total	**100 %**	100 %	100 %

The maintenance of accurate and consistent risk ratings across the corporate credit portfolio facilitates the comparison of credit exposure across all lines of business, geographic regions and products. Counterparty risk ratings reflect an estimated probability of default for a counterparty and are derived by leveraging validated statistical models, scorecard models and external agency ratings (under defined circumstances), in combination with consideration of factors specific to the obligor or market, such as management experience, competitive position, regulatory environment and commodity prices. Facility risk ratings are assigned that reflect the probability of default of the obligor and factors that affect the loss given default of the facility, such as support or collateral. Internal obligor ratings that generally correspond to BBB and above are considered investment grade, while those below are considered non-investment grade.

The following table presents the corporate credit portfolio by facility risk rating as a percentage of the total corporate credit portfolio:

	Total exposure		
	June 30, 2022	March 31, 2022	December 31, 2021
AAA/AA/A	**50 %**	49 %	48 %
BBB	**33**	33	34
BB/B	**15**	16	16
CCC or below	**2**	2	2
Total	**100 %**	100 %	100 %

Note: Total exposure includes direct outstandings and unfunded lending commitments.

In addition to the obligor and facility risk ratings assigned to all exposures, Citi may classify exposures in the corporate credit portfolio. These classifications are consistent with Citi's interpretation of the U.S. banking regulators' definition of criticized exposures, which may categorize exposures as special mention, substandard, doubtful or loss.

Risk ratings and classifications are reviewed regularly, and adjusted as appropriate. The credit review process incorporates quantitative and qualitative factors, including financial and non-financial disclosures or metrics, idiosyncratic events or changes to the competitive, regulatory or macroeconomic environment.

Citigroup believes the corporate credit portfolio to be appropriately rated and classified as of June 30, 2022. Citigroup has taken action to adjust internal ratings and classifications of exposures as both the macroeconomic environment and obligor-specific factors have changed, particularly where additional stress has been seen.

As obligor risk ratings are downgraded, the probability of default increases. Downgrades of obligor risk ratings tend to result in a higher provision for credit losses. In addition, downgrades may result in the purchase of additional credit derivatives or other risk mitigants to hedge the incremental credit risk, or may result in Citi's seeking to reduce exposure to an obligor or an industry sector. Citi will continue to review exposures to ensure that the appropriate probability of default is incorporated into all risk assessments.

See Note 13 for additional information on Citi's corporate credit portfolio.

Portfolio Mix—Industry

Citi's corporate credit portfolio is diversified by industry. The following table details the allocation of Citi's total corporate credit portfolio by industry:

	Total exposure		
	June 30, 2022	March 31, 2022	December 31, 2021
Transportation and industrials	**20 %**	20 %	20 %
Technology, media and telecom	**12**	12	12
Consumer retail	**11**	11	11
Real estate	**10**	9	10
Power, chemicals, metals and mining	**9**	9	9
Banks and finance companies	**9**	9	8
Asset managers and funds	**7**	8	8
Energy and commodities	**7**	7	7
Health	**5**	5	5
Insurance	**4**	4	4
Public sector	**3**	3	3
Financial markets infrastructure	**2**	2	2
Securities firms	**—**	—	—
Other industries	**1**	1	1
Total	**100 %**	100 %	100 %

The following table details Citi's corporate credit portfolio by industry as of June 30, 2022:

In millions of dollars	Total credit exposure	Funded[1]	Unfunded[1]	Investment grade	Non-investment grade: Non-criticized	Non-investment grade: Criticized performing	Non-investment grade: Criticized non-performing[2]	Selected metrics: 30 days or more past due and accruing	Selected metrics: Net credit losses (recoveries)	Selected metrics: Credit derivative hedges[3]
Transportation and industrials	**$ 138,776**	**$ 53,641**	**$ 85,135**	**$ 107,569**	**$ 19,402**	**$ 11,304**	**$ 501**	**$ 254**	**$ (17)**	**$ (8,281)**
Autos[4]	46,698	18,516	28,182	39,064	5,195	2,319	120	63	—	(2,976)
Transportation	25,413	11,394	14,019	18,245	2,701	4,293	174	21	(23)	(1,293)
Industrials	66,665	23,731	42,934	50,260	11,506	4,692	207	170	6	(4,012)
Technology, media and telecom	**85,235**	**31,428**	**53,807**	**66,879**	**14,677**	**3,380**	**299**	**174**	**2**	**(5,942)**
Consumer retail	**78,690**	**34,924**	**43,766**	**61,970**	**12,749**	**3,335**	**636**	**253**	**10**	**(4,833)**
Real estate	**70,343**	**47,001**	**23,342**	**60,352**	**6,520**	**3,469**	**2**	**68**	**3**	**(670)**
Power, chemicals, metals and mining	**63,355**	**19,886**	**43,469**	**49,982**	**11,889**	**1,226**	**258**	**243**	**9**	**(4,842)**
Power	24,427	4,975	19,452	19,951	4,024	342	110	9	—	(2,227)
Chemicals	24,992	8,624	16,368	20,717	3,697	469	109	71	9	(2,006)
Metals and mining	13,936	6,287	7,649	9,314	4,168	415	39	163	—	(609)
Banks and finance companies	**64,180**	**39,794**	**24,386**	**53,433**	**6,704**	**3,999**	**44**	**118**	**14**	**(937)**
Asset managers and funds	**47,022**	**21,154**	**25,868**	**45,669**	**1,242**	**107**	**4**	**392**	**—**	**(866)**
Energy and commodities[5]	**52,574**	**16,822**	**35,752**	**43,821**	**6,577**	**1,962**	**214**	**132**	**1**	**(3,532)**
Health	**33,619**	**9,161**	**24,458**	**28,287**	**4,585**	**736**	**11**	**121**	**(1)**	**(2,485)**
Insurance	**29,489**	**3,519**	**25,970**	**28,558**	**928**	**3**	**—**	**28**	**—**	**(2,658)**
Public sector	**25,428**	**14,668**	**10,760**	**22,040**	**1,462**	**1,716**	**210**	**46**	**—**	**(1,444)**
Financial markets infrastructure	**13,472**	**124**	**13,348**	**13,450**	**22**	**—**	**—**	**1**	**—**	**(19)**
Securities firms	**1,408**	**701**	**707**	**330**	**906**	**170**	**2**	**9**	**—**	**(3)**
Other industries	**6,237**	**3,148**	**3,089**	**3,834**	**1,998**	**340**	**65**	**50**	**2**	**(335)**
Total	**$ 709,828**	**$ 295,971**	**$ 413,857**	**$ 586,174**	**$ 89,661**	**$ 31,747**	**$ 2,246**	**$ 1,889**	**$ 23**	**$ (36,847)**

(1) Excludes $1.2 billion and $0.1 billion of funded and unfunded exposure at June 30, 2022, respectively, primarily related to the delinquency-managed loans and unearned income. Funded balance also excludes loans carried at fair value of $4.5 billion at June 30, 2022.

(2) Includes non-accrual loan exposures and criticized unfunded exposures.

(3) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the $36.9 billion of purchased credit protection, $33.6 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $3.3 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $28.3 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.

(4) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately $17.0 billion ($6.4 billion in funded, with 100% rated investment grade) as of June 30, 2022.

(5) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of June 30, 2022, Citi's total exposure to these energy-related entities was approximately $5.3 billion, of which approximately $2.7 billion consisted of direct outstanding funded loans.

The following table details Citi's corporate credit portfolio by industry as of December 31, 2021:

					Non-investment grade			Selected metrics		
In millions of dollars	Total credit exposure	Funded[1]	Unfunded[1]	Investment grade	Non-criticized	Criticized performing	Criticized non-performing[2]	30 days or more past due and accruing	Net credit losses (recoveries)	Credit derivative hedges[3]
Transportation and industrials	$ 143,445	$ 51,502	$ 91,943	$ 110,047	$ 19,051	$ 13,196	$ 1,151	$ 384	$ 127	$ (8,791)
Autos[4]	48,210	18,662	29,548	39,824	5,365	2,906	115	49	2	(3,228)
Transportation	26,897	12,085	14,812	19,233	2,344	4,447	873	105	104	(1,334)
Industrials	68,338	20,755	47,583	50,990	11,342	5,843	163	230	21	(4,229)
Technology, media and telecom	84,333	28,542	55,791	64,676	15,873	3,587	197	156	11	(6,875)
Consumer retail	78,994	32,894	46,100	60,686	13,590	4,311	407	224	100	(5,115)
Real estate	69,808	46,220	23,588	58,089	6,761	4,923	35	116	50	(798)
Power, chemicals, metals and mining	65,641	20,224	45,417	53,575	10,708	1,241	117	292	22	(5,808)
Power	26,199	5,610	20,589	22,860	2,832	420	87	100	17	(3,032)
Chemicals	25,550	8,525	17,025	20,788	4,224	528	10	88	6	(2,141)
Metals and mining	13,892	6,089	7,803	9,927	3,652	293	20	104	(1)	(635)
Banks and finance companies	58,252	36,804	21,448	49,465	4,892	3,890	5	150	(5)	(680)
Asset managers and funds	55,517	26,879	28,638	54,119	1,019	377	2	211	—	(869)
Energy and commodities[5]	48,973	13,485	35,488	38,972	7,517	2,220	264	224	78	(3,679)
Health	33,393	8,826	24,567	27,600	4,702	942	149	95	—	(2,465)
Insurance	28,495	3,162	25,333	27,447	987	61	—	2	1	(2,711)
Public sector	23,842	12,464	11,378	21,035	1,527	1,275	5	37	(3)	(1,282)
Financial markets infrastructure	14,341	109	14,232	14,323	18	—	—	—	—	(22)
Securities firms	1,472	613	859	605	816	51	—	4	—	(5)
Other industries	6,591	2,803	3,788	4,151	1,890	489	61	—	5	(169)
Total	$ 713,097	$ 284,527	$ 428,570	$ 584,790	$ 89,351	$ 36,563	$ 2,393	$ 1,895	$ 386	$ (39,269)

(1) Excludes $0.6 billion and $0.1 billion of funded and unfunded exposure at December 31, 2021, respectively, primarily related to the delinquency-managed loans and unearned income. Funded balance also excludes loans carried at fair value of $6.1 billion at December 31, 2021.

(2) Includes non-accrual loan exposures and criticized unfunded exposures.

(3) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the $39.3 billion of purchased credit protection, $36.0 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $3.3 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $28.4 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.

(4) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately $17.9 billion ($6.5 billion in funded, with more than 99% rated investment grade) as of December 31, 2021.

(5) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2021, Citi's total exposure to these energy-related entities was approximately $5.1 billion, of which approximately $2.6 billion consisted of direct outstanding funded loans.

Credit Risk Mitigation
As part of its overall risk management activities, Citigroup uses credit derivatives and other risk mitigants to hedge portions of the credit risk in its corporate credit portfolio, in addition to outright asset sales. Citi may enter into partial-term hedges as well as full-term hedges. In advance of the expiration of partial-term hedges, Citi will determine, among other factors, the economic feasibility of hedging the remaining life of the instrument. The results of the mark-to-market and any realized gains or losses on credit derivatives are reflected primarily in *Principal transactions* in the Consolidated Statement of Income.

At June 30, 2022, March 31, 2022 and December 31, 2021, *ICG* had economic hedges on the corporate credit portfolio of $36.8 billion, $37.9 billion and $39.3 billion, respectively. Citigroup's expected credit loss model used in the calculation of its ACL does not include the favorable impact of credit derivatives and other mitigants that are marked to market. In addition, the reported amounts of direct outstandings and unfunded lending commitments in the tables above do not reflect the impact of these hedging transactions. The credit protection was economically hedging underlying *ICG* corporate credit portfolio exposures with the following risk rating distribution:

Rating of Hedged Exposure

	June 30, 2022	March 31, 2022	December 31, 2021
AAA/AA/A	**37 %**	38 %	35 %
BBB	**44**	46	49
BB/B	**14**	13	13
CCC or below	**5**	3	3
Total	**100 %**	100 %	100 %

CONSUMER CREDIT

Consumer Credit Portfolio

The following table shows Citi's quarterly end-of-period consumer loans[1]:

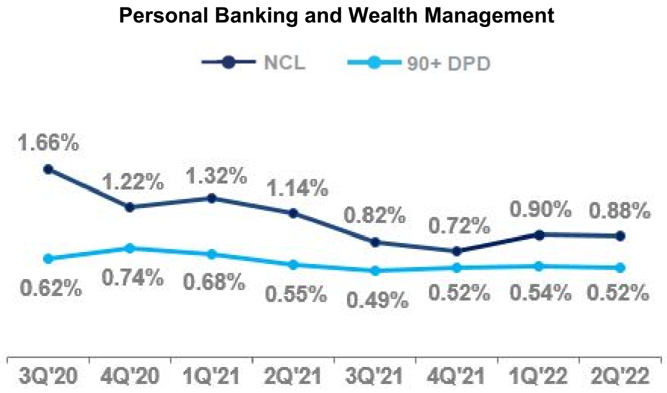
In billions of dollars	2Q21	3Q21[2]	4Q21[2]	1Q22[2]	**2Q22[2]**
Personal Banking and Wealth Management					
U.S. Personal Banking					
Cards					
Branded cards	$ 82.1	$ 82.8	$ 87.9	$ 85.9	**$ 91.6**
Retail services	42.7	42.7	46.0	44.1	**45.8**
Retail banking					
Mortgages[5]	31.0	30.5	30.2	30.5	**32.3**
Personal, small business and other	3.3	2.9	2.8	2.8	**3.1**
Global Wealth[3][4]					
Cards	3.7	3.7	4.0	3.8	**4.0**
Mortgages[5]	72.8	73.9	74.6	75.4	**77.8**
Personal, small business and other[6]	73.2	72.7	72.7	71.0	**67.0**
Total	**$ 308.8**	**$ 309.2**	**$ 318.2**	**$ 313.5**	**$ 321.6**
Legacy Franchises					
Asia Consumer[7]	$ 53.5	$ 42.9	$ 41.1	$ 19.5	**$ 17.3**
Mexico Consumer (excludes Mexico SBMM)	13.5	13.0	13.3	13.6	**13.5**
Legacy Holdings Assets[8]	5.0	4.2	3.9	3.7	**3.2**
Total	**$ 72.0**	**$ 60.1**	**$ 58.3**	**$ 36.8**	**$ 34.0**
Total consumer loans	**$ 380.8**	**$ 369.3**	**$ 376.5**	**$ 350.3**	**$ 355.6**

(1) End-of-period loans include interest and fees on credit cards.
(2) *Legacy Franchises*—2Q22 Asia Consumer loan balances exclude approximately $19 billion of loans ($13 billion of retail banking loans and $6 billion of credit card loan balances) reclassified to held-for-sale (HFS) (*Other assets* on the Consolidated Balance Sheet) as a result of Citi's signed agreements to sell its consumer banking businesses in eight countries (see *Legacy Franchises* above and Note 2 for additional information). The Philippines consumer banking business was reclassified to HFS starting 4Q21. The Indonesia, Malaysia, Thailand, Vietnam, Taiwan, India and Bahrain consumer banking businesses were reclassified to HFS starting 1Q22. In addition, the Australia consumer banking business was also reclassified to HFS starting from 3Q21 until the closing of its sale June 1, 2022. Accordingly, loans from these businesses are excluded from the Asia Consumer loan balances as of such periods.
(3) Consists of $94.6 billion, $94.1 billion, $92.7 billion, $92.0 billion and $91.7 billion of loans in North America as of June 30, 2022, March 31, 2022, December 31, 2021, September 30, 2021 and June 30, 2021, respectively. For additional information on the credit quality of the Global Wealth portfolio, see Note 13.
(4) Consists of $54.2 billion, $56.1 billion, $58.6 billion, $58.3 billion and $58.0 billion of loans outside of North America as of June 30, 2022, March 31, 2022, December 31, 2021, September 30, 2021 and June 30, 2021, respectively.
(5) See Note 13 for details on loan-to-value ratios for the portfolios, and FICO scores for the U.S. portfolio.
(6) At June 30, 2022, includes approximately $55 billion of classifiably managed loans. Over 90% of these loans are fully collateralized (consisting primarily of marketable investment securities, commercial real estate and limited partner capital commitments in private equity) and have experienced very low NCLs. As discussed below, approximately 94% of the classifiably managed portion of these loans are investment grade. See "Consumer Loan Delinquencies Amounts and Ratios" below for details on the delinquency-managed portfolio.
(7) Asia Consumer also includes loans and leases in certain EMEA countries for all periods presented.
(8) Primarily consists of certain North America consumer mortgages.

For information on changes to Citi's consumer loans, see "Liquidity Risk—Loans" below.

Consumer Credit Trends

Personal Banking and Wealth Management (PBWM)

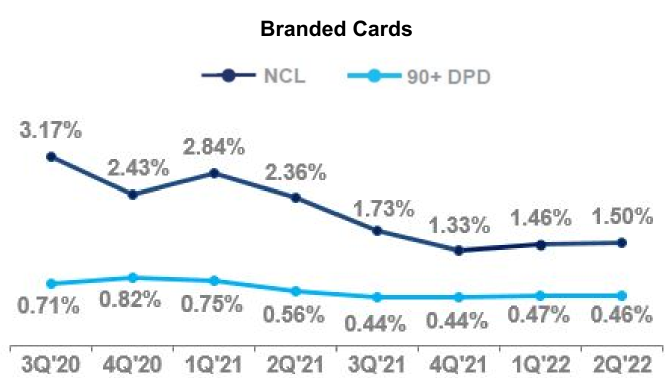


As indicated above, *PBWM* consists of U.S. Personal Banking and Global Wealth Management (Global Wealth). U.S. Personal Banking provides cards products through Branded cards and Retail services, and mortgages and home equity, small business and personal consumer loans through Citi's Retail banking network. The Retail bank is concentrated in six major metropolitan cities in the U.S. Global Wealth provides cards, mortgages and personal, small business and other consumer loans through the Private bank, as well as Citigold loans in Asia and the U.S.

As of June 30, 2022, approximately 43% of *PBWM* consumer loans consisted of Branded cards and Retail services card loans, which generally drives the overall credit performance of *PBWM*.

As shown in the chart above, the second quarter of 2022 net credit loss rate in *PBWM* was broadly stable quarter-over-quarter and decreased year-over-year, primarily reflecting high payment rates in Branded cards and Retail services, driven by the continued impact of government stimulus, unemployment benefits and consumer relief programs.

PBWM's 90+ days past due delinquency rate remained broadly stable quarter-over-quarter. The 90+ days past due delinquency rate decreased year-over-year, primarily due to the continued impacts of government stimulus, unemployment benefits and consumer relief programs.



U.S. Personal Banking's Branded cards portfolio includes proprietary and co-branded cards.

As shown in the chart above, the second quarter of 2022 net credit loss rate in Branded cards increased quarter-over-quarter, driven by a modest increase in net flow rates, and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus, unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate remained broadly stable quarter-over-quarter, as the increase in net flow rates was offset by higher volumes, and decreased year-over year, primarily reflecting the continued impact of high payment rates, driven by government stimulus, unemployment benefits and consumer relief programs.

U.S. Personal Banking's Retail services partners directly with more than 20 retailers and dealers to offer private label and co-branded cards. Retail services' target market focuses on select industry segments such as home improvement, specialty retail, consumer electronics and fuel.

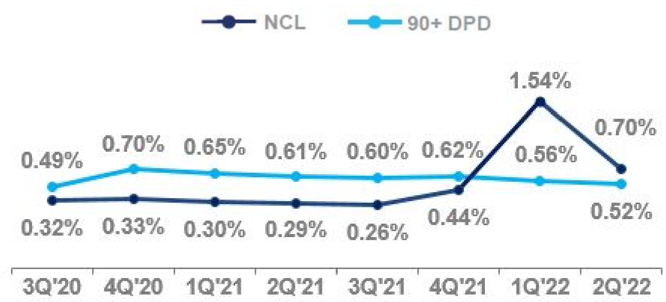
Retail services continually evaluates opportunities to add partners within target industries that have strong loyalty, lending or payment programs and growth potential.

As shown in the chart above, the second quarter of 2022 net credit loss rate in Retail services increased quarter-over-quarter, driven by a modest increase in net flow rates, and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus, unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate remained broadly stable quarter-over-quarter and increased year-over-year, driven by a modest increase in net flow rates.

For additional information on cost of credit, delinquency and other information for Citi's cards portfolios, see each respective business's results of operations above and Note 13.

Retail Banking

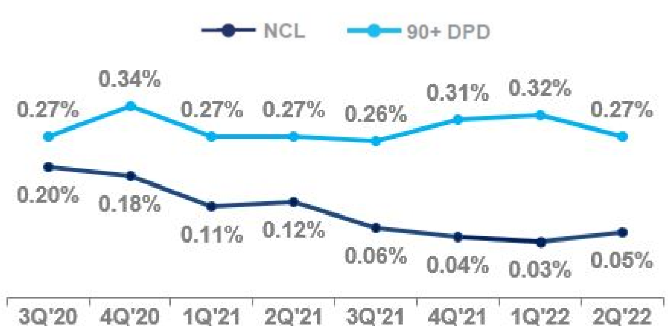


The Retail banking portfolio (within U.S. Personal Banking) consists primarily of consumer mortgages and other secured lending products such as small business loans, and personal loans. The portfolio is generally delinquency managed, where Citi evaluates credit risk based on FICO scores, delinquencies and the value of underlying collateral. The mortgages in this portfolio have historically been extended to high credit quality customers, generally with loan-to-value ratios that are less than 80% on first and second mortgages. For additional information, see "Loan-to-Value (LTV) Ratios" in Note 13.

As shown in the chart above, the net credit loss rate in Retail banking for the second quarter of 2022 decreased quarter-over-quarter, due to industry-wide episodic overdraft losses in the prior quarter and early in the second quarter, and increased year-over-year, primarily driven by the episodic losses.

The 90+ days past due delinquency rate declined quarter-over-quarter and year-over-year, primarily reflecting the continued impacts of government stimulus, unemployment benefits and consumer relief programs.

Global Wealth



The Global Wealth credit portfolio primarily consists of consumer mortgages, cards and other lending products extended to customer segments that range from the affluent to ultra-high-net-worth through both the Private bank and Citigold. These customer segments represent a target market that is characterized by historically low default rates and delinquencies.

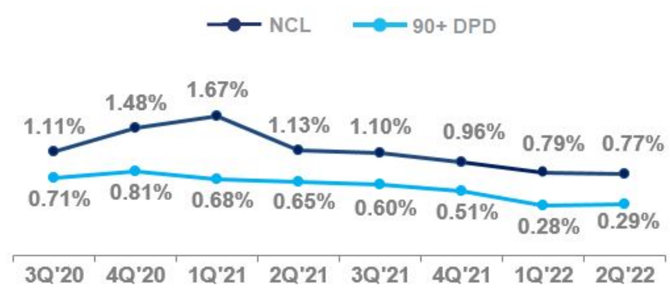
As of June 30, 2022, $54.8 billion, or 37%, of the portfolio was classifiably managed and primarily consisted of margin lending, commercial real estate, subscription credit finance and other lending programs. These classifiably managed loans are primarily evaluated for credit risk based on their internal risk rating, of which 94% is rated investment grade. In the chart above, while the delinquency rate is calculated only for the delinquency-managed portfolio, the net credit loss rate is calculated using net credit losses for both the delinquency and classifiably managed portfolios.

As shown in the chart above, the net credit loss rate for the second quarter of 2022 was largely stable quarter-over-quarter and declined year-over-year, primarily driven by the impact of the charge-off of peak delinquent loans in Asia in early 2021, resulting in lower delinquencies that led to lower net credit losses. The 90+ days past due delinquency rate declined quarter-over-quarter, and was unchanged year-over-year.

Legacy Franchises

Legacy Franchises provides traditional retail banking and branded card products to retail and small business customers in Asia Consumer and Mexico Consumer.

Asia[1] Consumer



(1) Asia Consumer includes *Legacy Franchises* activities in certain EMEA countries for all periods presented.

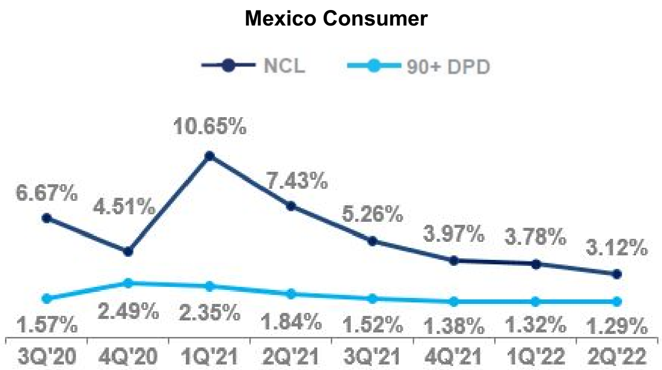
As of June 30, 2022, Asia Consumer operated in the remaining 12 countries in Asia and EMEA (Australia was included until its sale on June 1, 2022) and provides credit cards, consumer mortgages and small business and personal loans.

As shown in the chart above, the net credit loss rate in Asia Consumer for the second quarter of 2022 decreased quarter-over-quarter and year-over-year, driven by the impact of the charge-off of peak delinquent loans in early 2021, resulting in lower delinquencies that led to lower net credit losses in the current quarter. The decrease was also driven by the reclassification of approximately $19 billion of loans ($13 billion of retail banking loans and $6 billion of credit card loan balances) to held-for-sale as a result of Citi's agreements to sell its consumer banking businesses in the Philippines, Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam (Asia HFS reclass).

The 90+ days past due delinquency rate remained broadly stable quarter-over-quarter and decreased year-over-year, mainly driven by the impact of the Asia HFS reclass and the charge-off of peak delinquencies.

The performance of Asia Consumer's portfolios continues to reflect the strong credit profiles in the region's target customer segments. Regulatory changes in many markets in

Asia over the past few years have also resulted in improved credit quality.



Mexico Consumer operates in Mexico through Citibanamex and provides credit cards, consumer mortgages and small business and personal loans. Mexico Consumer serves a more mass-market segment in Mexico and focuses on developing multiproduct relationships with customers.

As shown in the chart above, the second quarter of 2022 net credit loss rate in Mexico Consumer decreased quarter-over-quarter and year-over-year, driven by the impact of the charge-off of peak delinquencies in early 2021, resulting in lower delinquencies that led to lower net credit losses in the current quarter. The decline was also driven by growth in card balances.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, driven by the impact of the charge-off of peak delinquencies and high payment rates.

For additional information on cost of credit, loan delinquency and other information for Citi's consumer loan portfolios, see *PBWM* and *Legacy Franchises* results of operations above and Note 13.

U.S. Cards FICO Distribution

The following tables show the current FICO score distributions for Citi's Branded cards and Retail services portfolios based on end-of-period receivables. FICO scores are updated monthly for substantially all of the portfolio and on a quarterly basis for the remaining portfolio.

Branded Cards

FICO distribution[(1)]	June 30, 2022	March 31, 2022	June 30, 2021
> 760	**49 %**	48 %	49 %
680–760	**38**	39	39
< 680	**13**	13	12
Total	**100 %**	100 %	100 %

Retail Services

FICO distribution[(1)]	June 30, 2022	March 31, 2022	June 30, 2021
> 760	**28 %**	27 %	28 %
680–760	**43**	44	45
< 680	**29**	29	27
Total	**100 %**	100 %	100 %

(1) The FICO bands in the tables are consistent with general industry peer presentations.

The FICO distribution of both cards portfolios remained largely stable compared to the prior quarter and declined modestly compared to the prior year. The FICO distribution continues to reflect strong underlying credit quality and a benefit from the continued impacts of government stimulus, unemployment benefits and customer relief programs, as well as lower credit utilization primarily by customers with lower FICO scores. See Note 13 for additional information on FICO scores.

Additional Consumer Credit Details

Consumer Loan Delinquencies Amounts and Ratios

In millions of dollars, except EOP loan amounts in billions	EOP loans[1] June 30, 2022	90+ days past due[2] June 30, 2022	90+ days past due[2] March 31, 2022	90+ days past due[2] June 30, 2021	30–89 days past due[2] June 30, 2022	30–89 days past due[2] March 31, 2022	30–89 days past due[2] June 30, 2021
Personal Banking and Wealth Management[3][4][5]							
Total	**$ 321.6**	**$ 1,383**	$ 1,383	$ 1,366	**$ 1,435**	$ 1,397	$ 1,263
Ratio		**0.52 %**	0.54 %	0.55 %	**0.54 %**	0.55 %	0.51 %
U.S. Personal Banking							
Total	**$ 172.8**	**$ 1,128**	$ 1,090	$ 1,124	**$ 1,201**	$ 1,159	$ 1,002
Ratio		**0.66 %**	0.68 %	0.71 %	**0.70 %**	0.71 %	0.63 %
Cards[4]							
Total	**137.4**	**949**	910	920	**1,009**	987	770
Ratio		**0.69 %**	0.70 %	0.74 %	**0.73 %**	0.76 %	0.62 %
Branded cards	**91.6**	**420**	404	457	**428**	425	355
Ratio		**0.46 %**	0.47 %	0.56 %	**0.47 %**	0.49 %	0.43 %
Retail services	**45.8**	**529**	506	463	**581**	562	415
Ratio		**1.16 %**	1.15 %	1.08 %	**1.27 %**	1.27 %	0.97 %
Retail banking[3]	**35.4**	**179**	180	204	**192**	172	232
Ratio		**0.52 %**	0.56 %	0.61 %	**0.55 %**	0.53 %	0.69 %
Global Wealth delinquency-managed loans[5]	**$ 94.0**	**$ 255**	$ 293	$ 242	**$ 234**	$ 238	$ 261
Ratio		**0.27 %**	0.32 %	0.27 %	**0.25 %**	0.26 %	0.29 %
Global Wealth classifiably managed loans[6]	**$ 54.8**	**N/A**	N/A	N/A	**N/A**	N/A	N/A
Legacy Franchises							
Total	**$ 34.0**	**$ 393**	$ 432	$ 857	**$ 293**	$ 316	$ 793
Ratio		**1.16 %**	1.19 %	1.20 %	**0.87 %**	0.87 %	1.11 %
Asia Consumer[7][8]	**17.3**	**51**	54	349	**70**	62	466
Ratio		**0.29 %**	0.28 %	0.65 %	**0.40 %**	0.32 %	0.87 %
Mexico Consumer	**13.5**	**174**	180	249	**159**	177	216
Ratio		**1.29 %**	1.32 %	1.84 %	**1.18 %**	1.30 %	1.60 %
Legacy Holdings Assets (consumer)[9]	**3.2**	**168**	198	259	**64**	77	111
Ratio		**5.60 %**	6.00 %	5.51 %	**2.13 %**	2.33 %	2.36 %
Total Citigroup consumer	**$ 355.6**	**$ 1,776**	$ 1,815	$ 2,223	**$ 1,728**	$ 1,713	$ 2,056
Ratio		**0.59 %**	0.63 %	0.70 %	**0.58 %**	0.59 %	0.64 %

(1) End-of-period (EOP) loans include interest and fees on credit cards.
(2) The ratios of 90+ days past due and 30–89 days past due are calculated based on EOP loans, net of unearned income.
(3) The 90+ days past due and 30–89 days past due and related ratios for Retail banking exclude loans guaranteed by U.S. government-sponsored agencies since the potential risk of loss predominantly resides with the U.S. government-sponsored agencies. The amounts excluded for loans 90+ days past due and (EOP loans) were $119 million ($0.7 billion), $161 million ($0.9 billion) and $150 million ($0.7 billion) at June 30, 2022, March 31, 2022 and June 30, 2021, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $72 million, $62 million and $80 million at June 30, 2022, March 31, 2022 and June 30, 2021, respectively. The EOP loans in the table include the guaranteed loans.
(4) The 90+ days past due balances for Branded cards and Retail services are generally still accruing interest. Citigroup’s policy is generally to accrue interest on credit card loans until 180 days past due, unless a notification of bankruptcy filing has been received earlier.
(5) Excludes EOP classifiably managed Private bank loans. These loans are not included in the delinquency numerator, denominator and ratios.
(6) These loans are evaluated for non-accrual status and write-off primarily based on their internal risk classification and not solely on their delinquency status, and therefore delinquency metrics are excluded from this table. As of June 30, 2022, March 31, 2022 and June 30, 2021, 94%, 92% and 95% of the Global Wealth classifiably managed loans were rated investment grade. For additional information on the credit quality of the Global Wealth portfolio, including classifiably managed portfolios, see “Consumer Credit Trends” above.
(7) Asia Consumer includes delinquencies and loans in certain EMEA countries for all periods presented.

(8) Citi recently entered into agreements to sell certain Asia consumer banking businesses. Accordingly, the loans of these businesses have been reclassified as HFS in *Other assets* on the Consolidated Balance Sheet, and hence the loans and related delinquencies and ratios are not included in this table. The reclassifications commenced as follows: Australia (3Q21, and closed on June 1, 2022), the Philippines (4Q21) and Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam (1Q22). See Note 2 for additional information.
(9) The 90+ days past due and 30–89 days past due and related ratios exclude U.S. mortgage loans that are primarily related to U.S. mortgages guaranteed by U.S. government-sponsored agencies since the potential risk of loss predominantly resides with the U.S. agencies. The amounts excluded for 90+ days past due and (EOP loans) were $84 million ($0.2 billion), $124 million ($0.4 billion) and $125 million ($0.4 billion) at June 30, 2022, March 31, 2022 and June 30, 2021, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $27 million, $34 million and $48 million at June 30, 2022, March 31, 2022 and June 30, 2021, respectively. The EOP loans in the table include the guaranteed loans.

Consumer Loan Net Credit Losses and Ratios

	Average loans[1]	Net credit losses[2]		
In millions of dollars, except average loan amounts in billions	**2Q22**	**2Q22**	1Q22	2Q21
Personal Banking and Wealth Management[2]				
Total	**$ 317.2**	**$ 699**	$ 691	$ 862
Ratio		**0.88 %**	0.90 %	1.14 %
U.S. Personal Banking				
Total	**$ 167.2**	**$ 679**	$ 681	$ 818
Ratio		**1.63 %**	1.71 %	2.10 %
Cards				
Total	**132.7**	**619**	555	793
Ratio		**1.87 %**	1.76 %	2.61 %
Branded cards	**87.9**	**329**	303	467
Ratio		**1.50 %**	1.46 %	2.36 %
Retail services	**44.8**	**290**	252	326
Ratio		**2.60 %**	2.31 %	3.09 %
Retail banking	**34.5**	**60**	126	25
Ratio		**0.70 %**	1.54 %	0.29 %
Global Wealth	**$ 150.0**	**$ 20**	$ 10	$ 44
Ratio		**0.05 %**	0.03 %	0.12 %
Legacy Franchises				
Total	**$ 35.3**	**$ 128**	$ 150	$ 381
Ratio		**1.45 %**	1.51 %	2.08 %
Asia Consumer[3][4]	**18.2**	**35**	45	153
Ratio		**0.77 %**	0.79 %	1.13 %
Mexico Consumer	**13.5**	**105**	122	250
Ratio		**3.12 %**	3.78 %	7.43 %
Legacy Holdings Assets (consumer)	**3.6**	**(12)**	(17)	(22)
Ratio		**(1.34)%**	(1.72)%	(1.52)%
Total Citigroup	**$ 352.5**	**$ 827**	$ 841	$ 1,243
Ratio		**0.94 %**	0.97 %	1.32 %

(1) Average loans include interest and fees on credit cards.
(2) The ratios of net credit losses are calculated based on average loans, net of unearned income.
(3) Asia Consumer includes NCLs and average loans in certain EMEA countries (Russia, Poland and Bahrain) for all periods presented.
(4) Citi recently entered into agreements to sell certain Asia consumer banking businesses, which have been reclassified as HFS in *Other assets* and *Other liabilities* on the Consolidated Balance Sheet. As a result, approximately $50 million and $53 million in related net credit losses (NCLs) were recorded as a reduction in revenue (*Other revenue*) in the second and first quarters of 2022, respectively. Accordingly, these NCLs are not included in this table. The reclassifications commenced as follows: Australia (3Q21, and closed on June 1, 2022), the Philippines (4Q21) and Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam (1Q22). See Note 2 for additional information.

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

In millions of dollars	**2nd Qtr. 2022**	1st Qtr. 2022	4th Qtr. 2021	3rd Qtr. 2021	2nd Qtr. 2021
Consumer loans					
In North America offices[1]					
Residential first mortgages[2]	**$ 88,662**	$ 84,569	$ 83,361	$ 83,593	$ 83,227
Home equity loans[2]	**5,074**	5,328	5,745	6,194	6,892
Credit cards	**137,412**	129,989	133,868	125,526	124,823
Personal, small business and other	**39,436**	41,297	40,713	39,909	40,835
Total	**$ 270,584**	$ 261,183	$ 263,687	$ 255,222	$ 255,777
In offices outside North America[1]					
Residential mortgages[2]	**$ 28,129**	$ 29,017	$ 37,889	$ 46,920	$ 43,260
Credit cards	**11,858**	11,546	17,808	17,763	20,776
Personal, small business and other	**45,034**	48,582	57,150	49,387	60,991
Total	**$ 85,021**	$ 89,145	$ 112,847	$ 114,070	$ 125,027
Consumer loans, net of unearned income[3]	**$ 355,605**	$ 350,328	$ 376,534	$ 369,292	$ 380,804
Corporate loans					
In North America offices[1]					
Commercial and industrial	**$ 55,823**	$ 54,063	$ 48,364	$ 52,988	$ 49,759
Financial institutions	**46,088**	47,930	49,804	44,172	46,369
Mortgage and real estate[2]	**17,359**	17,536	15,965	16,422	15,801
Installment and other	**20,466**	18,812	20,143	16,944	16,985
Lease financing	**379**	379	415	425	547
Total	**$ 140,115**	$ 138,720	$ 134,691	$ 130,951	$ 129,461
In offices outside North America[1]					
Commercial and industrial	**$ 108,274**	$ 112,732	$ 102,735	$ 105,124	$ 104,857
Financial institutions	**24,654**	27,657	22,158	25,013	27,285
Mortgage and real estate[2]	**4,455**	4,705	4,374	4,749	4,886
Installment and other	**19,862**	21,275	22,812	25,277	25,092
Lease financing	**53**	47	40	47	54
Governments and official institutions	**4,315**	4,205	4,423	4,311	4,395
Total	**$ 161,613**	$ 170,621	$ 156,542	$ 164,521	$ 166,569
Corporate loans, net of unearned income[4]	**$ 301,728**	$ 309,341	$ 291,233	$ 295,472	$ 296,030
Total loans—net of unearned income	**$ 657,333**	$ 659,669	$ 667,767	$ 664,764	$ 676,834
Allowance for credit losses on loans (ACLL)	**(15,952)**	(15,393)	(16,455)	(17,715)	(19,238)
Total loans—net of unearned income and ACLL	**$ 641,381**	$ 644,276	$ 651,312	$ 647,049	$ 657,596
ACLL as a percentage of total loans—net of unearned income[5]	**2.44 %**	2.35 %	2.49 %	2.69 %	2.88 %
ACLL for consumer loan losses as a percentage of total consumer loans—net of unearned income[5]	**3.65 %**	3.53 %	3.73 %	4.09 %	4.35 %
ACLL for corporate loan losses as a percentage of total corporate loans—net of unearned income[5]	**1.00 %**	1.00 %	0.85 %	0.91 %	0.93 %

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification of corporate loans between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.

(2) Loans secured primarily by real estate.

(3) Consumer loans are net of unearned income of $631 million, $591 million, $629 million, $616 million and $633 million at June 30, 2022, March 31, 2022, December 31, 2021, September 30, 2021 and June 30, 2021, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

(4) Corporate loans include Mexico SBMM loans and are net of unearned income of $(759) million, $(766) million, $(770) million, $(798) million and $(798) million at June 30, 2022, March 31, 2022, December 31, 2021, September 30, 2021 and June 30, 2021, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

(5) Because loans carried at fair value do not have an ACLL, they are excluded from the ACLL ratio calculation.

Details of Credit Loss Experience

In millions of dollars	**2nd Qtr. 2022**	1st Qtr. 2022	4th Qtr. 2021	3rd Qtr. 2021	2nd Qtr. 2021
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 15,393**	$ 16,455	$ 17,715	$ 19,238	$ 21,638
Provision for credit losses on loans (PCLL)					
Consumer	**$ 1,440**	$ (372)	$ (202)	$ (180)	$ (340)
Corporate	**(56)**	632	(108)	(8)	(786)
Total	**$ 1,384**	$ 260	$ (310)	$ (188)	$ (1,126)
Gross credit losses on loans					
Consumer					
In U.S. offices	**$ 934**	$ 947	$ 802	$ 893	$ 1,131
In offices outside the U.S.	**221**	245	360	449	576
Corporate					
In U.S. offices	**21**	29	27	17	42
In offices outside the U.S.	**36**	19	90	30	95
Total	**$ 1,212**	$ 1,240	$ 1,279	$ 1,389	$ 1,844
Gross recoveries on loans					
Consumer					
In U.S. offices	**$ 265**	$ 293	$ 273	$ 299	$ 324
In offices outside the U.S.	**63**	58	108	121	140
Corporate					
In U.S. offices	**2**	13	8	5	38
In offices outside the U.S.	**32**	4	24	3	22
Total	**$ 362**	$ 368	$ 413	$ 428	$ 524
Net credit losses on loans (NCLs)					
In U.S. offices	**$ 688**	$ 670	$ 548	$ 606	$ 811
In offices outside the U.S.	**162**	202	318	355	509
Total	**$ 850**	$ 872	$ 866	$ 961	$ 1,320
Other—net(1)(2)(3)(4)(5)(6)	**$ 25**	$ (450)	$ (84)	$ (374)	$ 46
Allowance for credit losses on loans (ACLL) at end of period	**$ 15,952**	$ 15,393	$ 16,455	$ 17,715	$ 19,238
ACLL as a percentage of EOP loans(7)	**2.44 %**	2.35 %	2.49 %	2.69 %	2.88 %
Allowance for credit losses on unfunded lending commitments (ACLUC)(8)	**$ 2,193**	$ 2,343	$ 1,871	$ 2,063	$ 2,073
Total ACLL and ACLUC	**$ 18,145**	$ 17,736	$ 18,326	$ 19,778	$ 21,311
Net consumer credit losses on loans	**$ 827**	$ 841	$ 781	$ 922	$ 1,243
As a percentage of average consumer loans	**0.94 %**	0.97 %	0.83 %	0.98 %	1.32 %
Net corporate credit losses on loans	**$ 23**	$ 31	$ 85	$ 39	$ 77
As a percentage of average corporate loans	**0.03 %**	0.04 %	0.11 %	0.05 %	0.11 %
ACLL by type at end of period(9)					
Consumer	**$ 12,983**	$ 12,368	$ 14,040	$ 15,105	$ 16,566
Corporate	**2,969**	3,025	2,415	2,610	2,672
Total	**$ 15,952**	$ 15,393	$ 16,455	$ 17,715	$ 19,238

(1) Includes all adjustments to the allowance for credit losses, such as changes in the allowance from acquisitions, dispositions, securitizations, FX translation, purchase accounting adjustments, etc.
(2) The second quarter of 2022 includes an increase of approximately $25 million related to FX translation.
(3) The first quarter of 2022 includes an approximate $350 million reclass related to the announced sales of Citi's consumer banking businesses in Thailand, India, Malaysia, Taiwan, Indonesia, Bahrain and Vietnam. The ACLL was reclassified to *Other assets* during 1Q22. 1Q22 consumer also includes a decrease of approximately $100 million related to FX translation.
(4) The fourth quarter of 2021 includes an approximate $90 million reclass related to the announced sale of Citi's consumer banking operations in the Philippines. The ACLL was reclassified to *Other assets* during 4Q21. 4Q21 consumer also includes a decrease of approximately $6 million related to FX translation.
(5) The third quarter of 2021 includes an approximate $280 million reclass related to the announced sale of Citi's consumer banking business in Australia. The ACLL was reclassified to *Other assets* during 3Q21. 3Q21 consumer also includes a decrease of approximately $80 million related to FX translation.
(6) The second quarter of 2021 includes an increase of approximately $62 million related to FX translation.

(7) June 30, 2022, March 31, 2022, December 31, 2021, September 30, 2021 and June 30, 2021 exclude $4.5 billion, $5.7 billion, $6.1 billion, $7.2 billion and $7.7 billion, respectively, of loans that are carried at fair value.
(8) Represents additional credit reserves recorded as *Other liabilities* on the Consolidated Balance Sheet.
(9) See "Significant Accounting Policies and Significant Estimates" below. Attribution of the allowance is made for analytical purposes only and is available to absorb probable credit losses inherent in the overall portfolio.

Allowance for Credit Losses on Loans (ACLL)

The following tables detail information on Citi's ACLL, loans and coverage ratios:

	June 30, 2022		
In billions of dollars	**ACLL**	**EOP loans, net of unearned income**	**ACLL as a percentage of EOP loans(1)**
Consumer			
North America cards(2)	**$ 10.3**	**$ 137.4**	**7.5 %**
North America mortgages(3)	**0.2**	**93.7**	**0.2**
North America other(3)	**0.7**	**39.4**	**1.8**
International cards	**0.9**	**11.9**	**7.6**
International other(3)	**0.9**	**73.2**	**1.2**
Total	**$ 13.0**	**$ 355.6**	**3.7 %**
Corporate			
Commercial and industrial	**$ 2.0**	**$ 161.3**	**1.2 %**
Financial institutions	**0.2**	**70.4**	**0.3**
Mortgage and real estate	**0.3**	**21.8**	**1.4**
Installment and other	**0.5**	**43.7**	**1.1**
Total	**$ 3.0**	**$ 297.2**	**1.0 %**
Loans at fair value(1)	**N/A**	**$ 4.5**	**N/A**
Total Citigroup	**$ 16.0**	**$ 657.3**	**2.4 %**

	December 31, 2021		
In billions of dollars	ACLL	EOP loans, net of unearned income	ACLL as a percentage of EOP loans(1)
Consumer			
North America cards(2)	$ 10.8	$ 133.9	8.1 %
North America mortgages(3)	0.5	89.1	0.6
North America other(3)	0.4	40.7	1.0
International cards	1.2	17.8	6.7
International other(3)	1.2	95.0	1.3
Total	$ 14.1	$ 376.5	3.7 %
Corporate			
Commercial and industrial	$ 1.6	$ 147.0	1.1 %
Financial institutions	0.3	71.8	0.4
Mortgage and real estate	0.3	20.3	1.5
Installment and other	0.2	46.1	0.4
Total	$ 2.4	$ 285.2	0.8 %
Loans at fair value(1)	N/A	$ 6.1	N/A
Total Citigroup	$ 16.5	$ 667.8	2.5 %

(1) Loans carried at fair value do not have an ACLL and are excluded from the ACLL ratio calculation.
(2) Includes both Branded cards and Retail services. As of June 30, 2022, the $10.3 billion of ACLL represented approximately 50 months of coincident net credit loss coverage. As of June 30, 2022, Branded cards ACLL as a percentage of EOP loans was 6.3% and Retail services ACLL as a percentage of EOP loans was 9.8%. As of December 31, 2021, the $10.8 billion of loan loss reserves represented approximately 63 months of coincident net credit loss coverage. As of December 31, 2021, Branded cards ACLL as a percentage of EOP loans was 7.1% and Retail services ACLL as a percentage of EOP loans was 10.0%.
(3) Includes residential mortgages, retail loans and personal, small business and other loans, including those extended through the Private bank network.
N/A Not applicable

The following table details Citi's corporate credit ACLL by industry exposure:

In millions of dollars, except percentages	June 30, 2022		
	Funded exposure[1]	**ACLL**	**ACLL as a % of funded exposure**
Transportation and industrials	**$ 53,641**	**$ 736**	**1.4 %**
Technology, media and telecom	**31,428**	**245**	**0.8**
Consumer retail	**34,924**	**518**	**1.5**
Real estate	**47,001**	**425**	**0.9**
Power, chemicals, metals and mining	**19,886**	**411**	**2.1**
Banks and finance companies	**39,794**	**142**	**0.4**
Asset managers and funds	**21,154**	**26**	**0.1**
Energy and commodities	**16,822**	**257**	**1.5**
Health	**9,161**	**78**	**0.9**
Insurance	**3,519**	**9**	**0.3**
Public sector	**14,668**	**59**	**0.4**
Financial markets infrastructure	**124**	**—**	**—**
Securities firms	**701**	**7**	**1.0**
Other industries	**3,148**	**48**	**1.5**
Total classifiably managed loans[2]	**$ 295,971**	**$ 2,961**	**1.0 %**
Loans managed on a delinquency basis[3]	**$ 1,229**	**$ 8**	**0.7 %**
Total	**$ 297,200**	**$ 2,969**	**1.0 %**

(1) Funded exposure excludes loans carried at fair value of $4.5 billion that are not subject to ACLL under the CECL standard.
(2) As of June 30, 2022, the ACLL shown above reflects coverage of 0.4% of funded investment-grade exposure and 2.9% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed loans including commercial credit cards and other loans at June 30, 2022.

The following table details Citi's corporate credit ACLL by industry exposure:

In millions of dollars, except percentages	December 31, 2021		
	Funded exposure[1]	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 51,502	$ 597	1.2 %
Technology, media and telecom	28,542	170	0.6
Consumer retail	32,894	288	0.9
Real estate	46,220	509	1.1
Power, chemicals, metals and mining	20,224	151	0.7
Banks and finance companies	36,804	197	0.5
Asset managers and funds	26,879	34	0.1
Energy and commodities	13,485	268	2.0
Health	8,826	73	0.8
Insurance	3,162	8	0.3
Public sector	12,464	74	0.6
Financial markets infrastructure	109	—	—
Securities firms	613	10	1.6
Other industries	2,803	28	1.0
Total classifiably managed loans[2]	$ 284,527	$ 2,407	0.8 %
Loans managed on a delinquency basis[3]	$ 636	$ 8	1.3 %
Total	$ 285,163	$ 2,415	0.8 %

(1) Funded exposure excludes loans carried at fair value of $6.1 billion that are not subject to ACLL under the CECL standard.
(2) As of December 31, 2021, the ACLL shown above reflects coverage of 0.7% of funded investment-grade exposure and 2.3% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed loans including commercial credit cards and other loans at December 31, 2021.

Non-Accrual Loans and Assets and Renegotiated Loans

For additional information on Citi's non-accrual loans and assets and renegotiated loans, see "Non-Accrual Loans and Assets and Renegotiated Loans" in Citi's 2021 Form 10-K.

Non-Accrual Loans

The table below summarizes Citigroup's non-accrual loans as of the periods indicated. Non-accrual loans may still be current on interest payments. In situations where Citi reasonably expects that only a portion of the principal owed will ultimately be collected, all payments received are reflected as a reduction of principal and not as interest income. For all other non-accrual loans, cash interest receipts are generally recorded as revenue.

In millions of dollars	**Jun. 30, 2022**	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021
Corporate non-accrual loans by region[(1)(2)(3)]					
North America	**$ 304**	$ 462	$ 510	$ 923	$ 895
EMEA	**712**	688	367	407	447
Latin America	**563**	631	568	679	767
Asia	**76**	85	108	110	141
Total	**$ 1,655**	$ 1,866	$ 1,553	$ 2,119	$ 2,250
Corporate non-accrual loans[(1)(2)(3)]					
Banking	**$ 1,015**	$ 1,323	$ 1,239	$ 1,739	$ 1,852
Services	**353**	297	70	74	81
Markets	**11**	13	12	13	12
Mexico SBMM	**276**	233	232	293	305
Total	**$ 1,655**	$ 1,866	$ 1,553	$ 2,119	$ 2,250
Consumer non-accrual loans[(1)]					
Personal Banking and Global Wealth	**$ 536**	$ 586	$ 680	$ 637	$ 711
Asia Consumer[(4)]	**34**	38	209	259	303
Mexico Consumer	**493**	512	524	549	612
Legacy Holdings Assets—Consumer	**317**	381	413	425	506
Total	**$ 1,380**	$ 1,517	$ 1,826	$ 1,870	$ 2,132
Total non-accrual loans	**$ 3,035**	$ 3,383	$ 3,379	$ 3,989	$ 4,382

(1) Corporate loans are placed on non-accrual status based upon a review by Citigroup's risk officers. Corporate non-accrual loans may still be current on interest payments. With limited exceptions, the following practices are applied for consumer loans: consumer loans, excluding credit cards and mortgages, are placed on non-accrual status at 90 days past due and are charged off at 120 days past due; residential mortgage loans are placed on non-accrual status at 90 days past due and written down to net realizable value at 180 days past due. Consistent with industry conventions, Citigroup generally accrues interest on credit card loans until such loans are charged off, which typically occurs at 180 days contractual delinquency. As such, the non-accrual loan disclosures do not include credit card loans. The balances above represent non-accrual loans within *Corporate loans* and *Consumer loans* on the Consolidated Balance Sheet. While corporate non-accrual loans are down year-over-year and quarter-over-quarter, the increase from December 31, 2021 relates to Russia-related exposures, which are adequately reserved for.

(2) Approximately 52%, 66%, 56%, 58% and 55% of Citi's corporate non-accrual loans were performing at June 30, 2022, March 31, 2022, December 31, 2021, September 30, 2021 and June 30, 2021, respectively.

(3) The June 30, 2022 total corporate non-accrual loans represented 0.55% of total corporate loans.

(4) Asia Consumer includes balances in certain EMEA countries for all periods presented.

The changes in Citigroup's non-accrual loans were as follows:

In millions of dollars	**Three Months Ended June 30, 2022** Corporate	Consumer	Total	Three Months Ended June 30, 2021 Corporate	Consumer	Total
Non-accrual loans at beginning of quarter	**$ 1,866**	**$ 1,517**	**$ 3,383**	$ 2,716	$ 2,374	$ 5,090
Additions	**721**	**344**	**1,065**	429	599	1,028
Sales and transfers to HFS	**(5)**	**(36)**	**(41)**	(439)	(135)	(574)
Returned to performing	**(120)**	**(77)**	**(197)**	(112)	(174)	(286)
Paydowns/settlements	**(746)**	**(199)**	**(945)**	(229)	(202)	(431)
Charge-offs	**(56)**	**(140)**	**(196)**	(128)	(348)	(476)
Other	**(5)**	**(29)**	**(34)**	13	18	31
Ending balance	**$ 1,655**	**$ 1,380**	**$ 3,035**	$ 2,250	$ 2,132	$ 4,382

In millions of dollars	**Six Months Ended June 30, 2022** Corporate	Consumer	Total	Six Months Ended June 30, 2021 Corporate	Consumer	Total
Non-accrual loans at beginning of year	**$ 1,553**	**$ 1,826**	**$ 3,379**	$ 3,046	$ 2,622	$ 5,668
Additions	**1,541**	**643**	**2,184**	904	1,297	2,201
Sales and transfers to HFS	**(6)**	**(224)**	**(230)**	(495)	(193)	(688)
Returned to performing	**(253)**	**(256)**	**(509)**	(112)	(409)	(521)
Paydowns/settlements	**(1,069)**	**(295)**	**(1,364)**	(778)	(376)	(1,154)
Charge-offs	**(105)**	**(295)**	**(400)**	(317)	(797)	(1,114)
Other	**(6)**	**(19)**	**(25)**	2	(12)	(10)
Ending balance	**$ 1,655**	**$ 1,380**	**$ 3,035**	$ 2,250	$ 2,132	$ 4,382

The table below summarizes Citigroup's other real estate owned (OREO) assets. OREO is recorded on the Consolidated Balance Sheet within *Other assets*. This represents the carrying value of all real estate property acquired by foreclosure or other legal proceedings when Citi has taken possession of the collateral:

In millions of dollars	**Jun. 30, 2022**	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021	Jun. 30, 2021
OREO					
North America	**$ 7**	$ 14	$ 15	$ 10	$ 12
EMEA	**—**	—	—	—	—
Latin America	**5**	7	8	10	11
Asia	**1**	5	4	1	10
Total OREO	**$ 13**	$ 26	$ 27	$ 21	$ 33
Non-accrual assets					
Corporate non-accrual loans	**$ 1,655**	$ 1,866	$ 1,553	$ 2,119	$ 2,250
Consumer non-accrual loans	**1,380**	1,517	1,826	1,870	2,132
Non-accrual loans (NAL)	**$ 3,035**	$ 3,383	$ 3,379	$ 3,989	$ 4,382
OREO	**$ 13**	$ 26	$ 27	$ 21	$ 33
Non-accrual assets (NAA)	**$ 3,048**	$ 3,409	$ 3,406	$ 4,010	$ 4,415
NAL as a percentage of total loans	**0.46 %**	0.51 %	0.51 %	0.60 %	0.65 %
NAA as a percentage of total assets	**0.13**	0.14	0.15	0.17	0.19
ACLL as a percentage of NAL[1]	**526 %**	455 %	487 %	444 %	439 %

(1) The ACLL includes the allowance for Citi's credit card portfolios and purchased credit-deteriorated loans, while the non-accrual loans exclude credit card balances (with the exception of certain international portfolios).

Renegotiated Loans

The following table presents Citi's loans modified in TDRs:

In millions of dollars	**Jun. 30, 2022**	Dec. 31, 2021
Corporate renegotiated loans[1]		
In U.S. offices		
Commercial and industrial[2]	**$ 89**	$ 103
Mortgage and real estate	**2**	2
Financial institutions	**—**	—
Other	**16**	20
Total	**$ 107**	$ 125
In offices outside the U.S.		
Commercial and industrial[2]	**$ 59**	$ 133
Mortgage and real estate	**14**	18
Financial institutions	**—**	—
Other	**23**	8
Total	**$ 96**	$ 159
Total corporate renegotiated loans	**$ 203**	$ 284
Consumer renegotiated loans[3]		
In U.S. offices		
Mortgage and real estate	**$ 1,309**	$ 1,485
Cards	**1,153**	1,269
Installment and other	**21**	26
Total	**$ 2,483**	$ 2,780
In offices outside the U.S.		
Mortgage and real estate	**$ 144**	$ 227
Cards	**74**	313
Installment and other	**106**	428
Total	**$ 324**	$ 968
Total consumer renegotiated loans	**$ 2,807**	$ 3,748

(1) Includes $194 million and $284 million of non-accrual loans included in the non-accrual loans table above at June 30, 2022 and December 31, 2021, respectively. The remaining loans are accruing interest.

(2) In addition to modifications reflected as TDRs at June 30, 2022 and December 31, 2021, Citi may have modifications that were not considered TDRs because the modifications did not involve a concession or because they qualified for exemptions from TDR accounting provided by the CARES Act or the interagency guidance.

(3) Includes $531 million and $664 million of non-accrual loans included in the non-accrual loans table above at June 30, 2022 and December 31, 2021, respectively. The remaining loans were accruing interest.

LIQUIDITY RISK

For additional information on funding and liquidity at Citi, including its objectives, management and measurement, see “Liquidity Risk” and “Risk Factors—Liquidity Risks” in Citi’s 2021 Form 10-K.

High-Quality Liquid Assets (HQLA)

	Citibank			Citi non-bank and other entities			Total		
In billions of dollars	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021
Available cash	**$ 188.1**	$ 214.9	$ 259.3	**$ 1.7**	$ 2.2	$ 2.8	**$ 189.8**	$ 217.1	$ 262.2
U.S. sovereign	**149.4**	139.7	91.1	**55.4**	57.5	61.5	**204.8**	197.2	152.6
U.S. agency/agency MBS	**54.4**	49.8	41.5	**4.6**	5.2	5.2	**59.0**	55.0	46.7
Foreign government debt(1)	**60.4**	53.8	47.2	**13.9**	13.8	12.0	**74.3**	67.6	59.2
Other investment grade	**2.0**	1.9	1.7	**1.3**	1.4	0.3	**3.3**	3.3	1.9
Total HQLA (AVG)	**$ 454.3**	$ 460.1	$ 440.8	**$ 76.9**	$ 80.1	$ 81.8	**$ 531.2**	$ 540.2	$ 522.6

Note: The amounts shown in the table above are presented on an average basis. For securities, the amounts represent the liquidity value that potentially could be realized and, therefore, exclude any securities that are encumbered and incorporate any haircuts applicable under the U.S. LCR rule. The table above incorporates various restrictions that could limit the transferability of liquidity between legal entities, including Section 23A of the Federal Reserve Act.

(1) Foreign government debt includes securities issued or guaranteed by foreign sovereigns, agencies and multilateral development banks. Foreign government debt securities are held largely to support local liquidity requirements and Citi’s local franchises and principally include government bonds from Japan, Mexico, Singapore, Hong Kong and India.

The table above includes average amounts of HQLA held at Citigroup’s operating entities that are eligible for inclusion in the calculation of Citigroup’s consolidated Liquidity Coverage ratio (LCR), pursuant to the U.S. LCR rules. These amounts include the HQLA needed to meet the minimum requirements at these entities as well as any amounts in excess of these minimums that are available to be transferred to other entities within Citigroup. Citigroup’s average HQLA for the second quarter of 2022 decreased quarter-over-quarter, primarily driven by funding requirements at non-bank entities, partially offset by long-term debt issuances.

As of June 30, 2022, Citigroup had approximately $964 billion of available liquidity resources to support client and business needs, including end-of-period HQLA assets; additional unencumbered securities, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi’s HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Short-Term Liquidity Measurement: Liquidity Coverage Ratio (LCR)

In addition to internal 30-day liquidity stress testing performed for Citi’s major entities, operating subsidiaries and countries, Citi also monitors its liquidity by reference to the LCR. The table below details the components of Citi’s LCR calculation and HQLA in excess of net outflows for the periods indicated:

In billions of dollars	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021
HQLA	**$ 531.2**	$ 540.2	$ 522.6
Net outflows	**460.2**	466.2	461.7
LCR	**115 %**	116 %	113 %
HQLA in excess of net outflows	**$ 71.0**	$ 74.0	$ 60.9

Note: The amounts are presented on an average basis.

As of June 30, 2022, Citigroup’s average LCR decreased from the quarter ended March 31, 2022. The decrease was primarily driven by a reduction in average HQLA, partially offset by a reduction in average net outflows.

Long-Term Liquidity Measurement: Net Stable Funding Ratio (NSFR)

As previously disclosed, the U.S. banking agencies adopted a final rule to assess the availability of a bank's stable funding against a required level.

The final rule became effective beginning July 1, 2021, while public disclosure requirements to report the ratio will occur on a semiannual basis beginning June 30, 2023. Citi was in compliance with the final rule as of June 30, 2022.

Loans

The table below details the average loans, by business and/or segment, and the total Citigroup end-of-period loans for each of the periods indicated:

In billions of dollars	**2Q22**	1Q22	2Q21
Personal Banking and Wealth Management			
U.S. Retail banking	**$ 34**	$ 33	$ 35
U.S. Cards	**133**	128	122
Global Wealth	**150**	151	147
Total	**$ 317**	$ 312	$ 304
Institutional Clients Group			
Services	**$ 85**	$ 81	$ 74
Banking	**199**	194	197
Markets	**13**	14	16
Total	**$ 297**	$ 289	$ 287
Total *Legacy Franchises*(1)	**$ 43**	$ 48	$ 79
Total Citigroup loans (AVG)	**$ 657**	$ 649	$ 670
Total Citigroup loans (EOP)	**$ 657**	$ 660	$ 677

(1) See footnote 2 to the table in "Credit Risk—Consumer Credit—Consumer Credit Portfolio" above.

End-of-period loans decreased 3% year-over-year as growth in *ICG* and *PBWM* (up 2% and 4%, respectively) was more than offset by lower loans in *Legacy Franchises*. End-of-period loans were largely unchanged sequentially.

On an average basis, loans declined 2% year-over-year and increased 1% sequentially. The year-over-year decline was primarily due to *Legacy Franchises*, which more than offset growth in both *PBWM* and *ICG*. The decline in *Legacy Franchises* primarily reflected the reclassification of loans to *Other assets* to reflect held-for-sale accounting as a result of the signing of sales agreements for consumer franchises in Asia and EMEA. *PBWM* average loans increased 4% year-over-year, primarily driven by Branded cards, Retail services and Global Wealth. *ICG* average loans increased 3% year-over-year driven by trade finance.

Deposits

The table below details the average deposits, by business and/or segment, and the total Citigroup end-of-period deposits for each of the periods indicated:

In billions of dollars	**2Q22**	1Q22	2Q21
Personal Banking and Wealth Management			
U.S. Personal Banking	**$ 116**	$ 118	$ 113
Global Wealth	**319**	329	297
Total	**$ 435**	$ 447	$ 410
Institutional Clients Group			
TTS	**$ 665**	$ 664	$ 652
Securities services	**137**	135	137
Markets	**28**	27	29
Total	**$ 830**	$ 826	$ 818
Legacy Franchises(1)	**$ 51**	$ 55	$ 85
Corporate/Other	**$ 7**	$ 6	$ 8
Total Citigroup deposits (AVG)	**$ 1,323**	$ 1,334	$ 1,321
Total Citigroup deposits (EOP)	**$ 1,322**	$ 1,334	$ 1,310

(1) See footnote 2 to the table in "Credit Risk—Consumer Credit—Consumer Credit Portfolio" above.

End-of-period deposits increased 1% year-over-year, largely driven by growth in Treasury and trade solutions (TTS) and Global Wealth. End-of-period deposits decreased 1% sequentially.

On an average basis, deposits were largely unchanged year-over-year and declined 1% sequentially. Year-over-year, average deposits reflected a decline in *Legacy Franchises* due to the impact of held-for-sale accounting as a result of the signing of sale agreements for consumer franchises in Asia and EMEA. The decline was largely offset by a 6% increase in *PBWM*, led by growth in both U.S. Personal Banking and Global Wealth. In addition, *ICG* average deposits grew 1% year-over-year, driven by an increase in TTS.

Long-Term Debt

The weighted-average maturity of unsecured long-term debt issued by Citigroup and its affiliates (including Citibank) with a remaining life greater than one year was approximately 8.0 years as of June 30, 2022, compared to 8.8 years as of the prior year and 8.5 years as of the prior quarter. The weighted-average maturity is calculated based on the contractual maturity of each security. For securities that are redeemable prior to maturity at the option of the holder, the weighted-average maturity is calculated based on the earliest date an option becomes exercisable.

Citi's long-term debt outstanding at the Citigroup parent company includes benchmark senior and subordinated debt and what Citi refers to as customer-related debt, consisting of structured notes, such as equity- and credit-linked notes, as well as non-structured notes. Citi's issuance of customer-related debt is generally driven by customer demand and complements benchmark debt issuance as a source of funding for Citi's non-bank entities. Citi's long-term debt at the bank includes bank notes, FHLB advances and securitizations.

Long-Term Debt Outstanding

The following table presents Citi's end-of-period total long-term debt outstanding for each of the dates indicated:

In billions of dollars	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021
Non-bank[1]			
Benchmark debt:			
Senior debt	**$ 120.3**	$ 122.2	$ 127.8
Subordinated debt	**24.0**	24.7	26.2
Trust preferred	**1.6**	1.6	1.7
Customer-related debt	**84.9**	78.4	73.9
Local country and other[2]	**7.8**	7.8	6.3
Total non-bank	**$ 238.6**	$ 234.7	$ 235.9
Bank			
FHLB borrowings	**$ 2.3**	$ 1.0	$ 9.5
Securitizations[3]	**9.5**	9.5	11.6
Citibank benchmark senior debt	**2.6**	3.5	3.7
Local country and other[2]	**4.4**	5.3	3.9
Total bank	**$ 18.8**	$ 19.3	$ 28.7
Total long-term debt	**$ 257.4**	$ 254.0	$ 264.6

Note: Amounts represent the current value of long-term debt on Citi's Consolidated Balance Sheet that, for certain debt instruments, includes consideration of fair value, hedging impacts and unamortized discounts and premiums.

(1) Non-bank includes long-term debt issued to third parties by the parent holding company (Citigroup) and Citi's non-bank subsidiaries (including broker-dealer subsidiaries) that are consolidated into Citigroup. As of June 30, 2022, non-bank included $70.8 billion of long-term debt issued by Citi's broker-dealer and other subsidiaries that are consolidated into Citigroup. Certain Citigroup consolidated hedging activities are also included in this line.

(2) Local country and other includes debt issued by Citi's affiliates in support of their local operations. Within non-bank, certain secured financing is also included.

(3) Predominantly credit card securitizations, primarily backed by Branded cards receivables.

Citi's total long-term debt outstanding declined 3% year-over-year, as declines in FHLB borrowings at the bank and unsecured benchmark senior debt at the non-bank entities were partially offset by the issuance of customer-related debt at the non-bank entities. Sequentially, long-term debt outstanding increased 1%, largely driven by an increase in customer-related debt at the non-bank entities, partially offset by a decline in long-term debt at the bank.

As part of its liability management, Citi has considered, and may continue to consider, opportunities to redeem or repurchase its long-term debt pursuant to open market purchases, tender offers or other means. Such redemptions and repurchases help reduce Citi's overall funding costs. During the second quarter of 2022, Citi redeemed or repurchased an aggregate of approximately $2.5 billion of its outstanding long-term debt.

Long-Term Debt Issuances and Maturities

The table below details Citi's long-term debt issuances and maturities (including repurchases and redemptions) during the periods presented:

	2Q22		1Q22		2Q21	
In billions of dollars	**Maturities**	**Issuances**	Maturities	Issuances	Maturities	Issuances
Non-bank						
Benchmark debt:						
Senior debt	**$ 3.5**	**$ 6.0**	$ 4.4	$ 13.8	$ 1.8	$ 8.7
Subordinated debt	**—**	**—**	—	—	—	—
Trust preferred	**—**	**—**	0.1	—	—	—
Customer-related debt	**5.0**	**21.8**	7.5	14.5	8.5	15.4
Local country and other	**0.3**	**0.4**	0.4	0.9	1.0	1.5
Total non-bank	**$ 8.8**	**$ 28.2**	$ 12.4	$ 29.2	$ 11.3	$ 25.6
Bank						
FHLB borrowings	**$ 1.0**	**$ 2.3**	$ 4.3	$ —	$ 1.4	$ —
Securitizations	**—**	**—**	—	—	1.2	—
Citibank benchmark senior debt	**0.9**	**—**	—	—	5.5	—
Local country and other	**0.6**	**0.1**	0.4	0.5	0.1	0.4
Total bank	**$ 2.5**	**$ 2.4**	$ 4.7	$ 0.5	$ 8.2	$ 0.4
Total	**$ 11.3**	**$ 30.6**	$ 17.1	$ 29.7	$ 19.5	$ 26.0

The table below shows Citi's aggregate long-term debt maturities (including repurchases and redemptions) year-to-date in 2022, as well as its aggregate expected remaining long-term debt maturities by year as of June 30, 2022:

		Maturities							
In billions of dollars	**2022 YTD**	2022	2023	2024	2025	2026	2027	Thereafter	Total
Non-bank									
Benchmark debt:									
Senior debt	**$ 7.9**	$ 2.2	$ 10.1	$ 10.6	$ 12.0	$ 21.2	$ 7.0	$ 57.2	$ 120.3
Subordinated debt	**—**	0.9	1.2	0.9	4.9	2.5	3.8	9.9	24.0
Trust preferred	**0.1**	—	—	—	—	—	—	1.6	1.6
Customer-related debt	**12.5**	5.0	13.6	14.3	9.3	5.3	5.7	31.7	84.9
Local country and other	**0.7**	1.7	2.8	—	—	0.7	—	2.6	7.8
Total non-bank	**$ 21.2**	$ 9.8	$ 27.7	$ 25.8	$ 26.2	$ 29.7	$ 16.5	$ 103.0	$ 238.6
Bank									
FHLB borrowings	**$ 5.3**	$ —	$ 2.3	$ —	$ —	$ —	$ —	$ —	$ 2.3
Securitizations	**—**	2.1	3.3	1.4	0.4	—	0.8	1.5	9.5
Citibank benchmark senior debt	**0.9**	—	—	2.6	—	—	—	—	2.6
Local country and other	**1.0**	0.9	0.6	1.2	0.1	—	—	1.5	4.4
Total bank	**$ 7.2**	$ 3.0	$ 6.2	$ 5.2	$ 0.5	$ —	$ 0.8	$ 3.0	$ 18.8
Total long-term debt	**$ 28.4**	$ 12.8	$ 33.9	$ 31.0	$ 26.7	$ 29.7	$ 17.3	$ 106.0	$ 257.4

Secured Funding Transactions and Short-Term Borrowings

Citi supplements its primary sources of funding with short-term financings that generally include (i) secured funding transactions consisting of securities loaned or sold under agreements to repurchase, i.e., repos, and (ii) to a lesser extent, short-term borrowings consisting of commercial paper and borrowings from the FHLB and other market participants.

Secured Funding Transactions

Secured funding is primarily accessed through Citi's broker-dealer subsidiaries to fund efficiently both (i) secured lending activity and (ii) a portion of the securities inventory held in the context of market making and customer activities. Citi also executes a smaller portion of its secured funding transactions through its bank entities, which are typically collateralized by government debt securities. Generally, daily changes in the level of Citi's secured funding are primarily due to fluctuations in secured lending activity in the matched book (as described below) and securities inventory.

Secured funding of $198 billion as of June 30, 2022 decreased 11% from the prior-year period and decreased 3% sequentially, driven by normal business activity. The average balance for secured funding was approximately $208 billion for the quarter ended June 30, 2022.

The portion of secured funding in the broker-dealer subsidiaries that funds secured lending is commonly referred to as "matched book" activity. The majority of this activity is secured by high-quality liquid securities such as U.S. Treasury securities, U.S. agency securities and foreign government debt securities. Other secured funding is secured by less liquid securities, including equity securities, corporate bonds and asset-backed securities, the tenor of which is generally equal to or longer than the tenor of the corresponding matched book assets.

The remainder of the secured funding activity in the broker-dealer subsidiaries serves to fund securities inventory held in the context of market making and customer activities. To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and establishing minimum required funding tenors. The weighted average maturity of Citi's secured funding of less liquid securities inventory was greater than 110 days as of June 30, 2022.

Citi manages the risks in its secured funding by conducting daily stress tests to account for changes in capacity, tenor, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress. Citi generally sources secured funding from more than 150 counterparties.

Short-Term Borrowings

Citi's short-term borrowings of $40 billion increased 27% year-over-year and 33% sequentially, reflecting an increase in FHLB advances and commercial paper issuance (see Note 16 for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

Credit Ratings

While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holdings Inc. (CGMHI) were A/A-1 at S&P Global Ratings and A+/F1 at Fitch as of June 30, 2022.

Ratings as of June 30, 2022

	Citigroup Inc.			Citibank, N.A.		
	Senior debt	**Commercial paper**	**Outlook**	**Long-term**	**Short-term**	**Outlook**
Fitch Ratings (Fitch)	**A**	**F1**	**Stable**	**A+**	**F1**	**Stable**
Moody's Investors Service (Moody's)	**A3**	**P-2**	**Stable**	**Aa3**	**P-1**	**Stable**
S&P Global Ratings (S&P)	**BBB+**	**A-2**	**Stable**	**A+**	**A-1**	**Stable**

Potential Impacts of Ratings Downgrades

Ratings downgrades by Moody's, Fitch or S&P could negatively impact Citigroup's and/or Citibank's funding and liquidity due to reduced funding capacity, including derivative triggers, which could take the form of cash obligations and collateral requirements.

For additional information on the impact of credit rating changes on Citi and its applicable subsidiaries, see "Risk Factors—Liquidity Risks" and "Credit Ratings" in Citi's 2021 Form 10-K.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of June 30, 2022, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citigroup Inc. across all three major rating agencies could impact Citigroup's funding and liquidity due to derivative triggers by approximately $0.5 billion, compared to $1.1 billion as of March 31, 2022. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

As of June 30, 2022, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citibank across all three major rating agencies could impact Citibank's funding and liquidity due to derivative triggers by approximately $0.7 billion, compared to $0.6 billion as of March 31, 2022. Other funding sources, such as secured funding transactions and other margin requirements, for which there are no explicit triggers, could also be adversely impacted.

In total, as of June 30, 2022, Citi estimates that a one-notch downgrade of Citigroup and Citibank across all three major rating agencies could result in increased aggregate cash obligations and collateral requirements of approximately $1.2 billion, compared to $1.7 billion as of March 31, 2022 (see also Note 19). As detailed under "High-Quality Liquid Assets (HQLA)" above, Citigroup has various liquidity resources available to its bank and non-bank entities in part as a contingency for the potential events described above.

Citibank—Additional Potential Impacts

In addition to the above derivative triggers, Citi believes that a potential downgrade of Citibank's senior debt/long-term rating across any of the three major rating agencies could also have an adverse impact on the commercial paper/short-term rating of Citibank. As of June 30, 2022, Citibank had liquidity commitments of approximately $9.0 billion to consolidated asset-backed commercial paper conduits, compared to $9.1 billion as of March 31, 2022 (see Note 18 for additional information).

In addition to the above-referenced liquidity resources of certain Citibank entities, Citibank could reduce the funding and liquidity risk, if any, of the potential downgrades described above through mitigating actions, including repricing or reducing certain commitments to commercial paper conduits. In the event of the potential downgrades described above, Citi believes that certain corporate customers could re-evaluate their deposit relationships with Citibank. This re-evaluation could result in clients adjusting their discretionary deposit levels or changing their depository institution, which could potentially reduce certain deposit levels at Citibank. However, Citi could choose to adjust pricing, offer alternative deposit products to its existing customers or seek to attract deposits from new customers, in addition to the mitigating actions referenced above.

MARKET RISK

Market risk arises from both Citi's trading and non-trading portfolios. For additional information on market risk and market risk management at Citi, see "Market Risk" and "Risk Factors" in Citi's 2021 Form 10-K.

Market Risk of Non-Trading Portfolios

The following table presents the estimated impact to Citi's net interest income (referred to as interest rate exposure or IRE), *AOCI* and the Common Equity Tier 1 Capital ratio (on a fully implemented basis), each assuming an unanticipated parallel instantaneous 100 basis point (bps) increase in interest rates:

In millions of dollars, except as otherwise noted	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021
Estimated annualized impact to net interest income			
U.S. dollar[1]	**$ 332**	$ 482	$ 156
All other currencies	**693**	705	624
Total	**$ 1,025**	$ 1,187	$ 780
As a percentage of average interest-earning assets	**0.05 %**	0.05 %	0.04 %
Estimated initial negative impact to *AOCI* (after-tax)[2]	**$ (2,522)**	$ (3,439)	$ (4,953)
Estimated initial impact on Common Equity Tier 1 Capital ratio (bps)	**(10)**	(18)	(30)

(1) Certain trading-oriented businesses within Citi have accrual-accounted positions that are excluded from the estimated impact to net interest income in the table, since these exposures are managed economically in combination with mark-to-market positions. The U.S. dollar interest rate exposure associated with these businesses was $(17) million for a 100 bps instantaneous increase in interest rates as of June 30, 2022.
(2) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

The estimated impact to Citi's net interest income (IRE) declined from the first quarter of 2022, driven by lower expected gains due to U.S. dollar rate moves that have already been realized. At higher rate levels, Citi assumes it will pass on a larger share of rate changes to its depositors, further reducing Citi's IRE sensitivity.

The decline in the estimated impact to *AOCI* primarily reflected a continuation of the positioning strategy of Citi's investment securities and related interest rate derivatives portfolio.

In the event of a parallel instantaneous 100 bps increase in interest rates, as of June 30, 2022, Citi expects that the $2.5 billion initial negative impact to *AOCI* would be offset in stockholders' equity through the expected recovery of the impact on *AOCI* through accretion of Citi's investment portfolio and expected NII benefit over approximately 11 months.

Citi is planning to transition the sensitivity analysis for its net interest income, employing enhanced methodologies and changes to certain assumptions. The changes include, among other things, assumptions around the projected balance sheet (holding it static), coupled with revisions to the treatment of certain business contributions to IRE. These changes will be implemented and disclosed before the end of 2022 and will result in a better reflection of the nature of the portfolios.

The following table presents the estimated impact to Citi's net interest income, *AOCI* and the Common Equity Tier 1 Capital ratio (on a fully implemented basis) under five different changes in interest rate scenarios for the U.S. dollar and Citi's other currencies. The 100 bps downward rate scenarios are impacted by the low level of interest rates in several countries and the assumption that market interest rates, as well as rates paid to depositors and charged to borrowers, do not fall below zero (i.e., the "flooring assumption"). The rate scenarios are also impacted by convexity related to mortgage products.

In millions of dollars, except as otherwise noted	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Overnight rate change (bps)	100	100	—	—	(100)
10-year rate change (bps)	100	—	100	(100)	(100)
Estimated annualized impact to net interest income					
U.S. dollar	$ 332	$ 345	$ 5	$ (1)	$ (538)
All other currencies	693	633	38	(38)	(533)
Total	$ 1,025	$ 978	$ 43	$ (39)	$ (1,071)
Estimated initial impact to *AOCI* (after-tax)[1]	$ (2,522)	$ (1,979)	$ (627)	$ 484	$ 2,416
Estimated initial impact to Common Equity Tier 1 Capital ratio (bps)	(10)	(8)	(3)	2	9

Note: Each scenario assumes that the rate change will occur instantaneously. Changes in interest rates for maturities between the overnight rate and the 10-year rate are interpolated.
(1) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

As shown in the table above, the magnitude of the impact to Citi's net interest income and *AOCI* is greater under Scenario 2 as compared to Scenario 3. This is because the combination of changes to Citi's investment portfolio, partially offset by changes related to Citi's pension liabilities, results in a net position that is more sensitive to rates at shorter- and intermediate-term maturities.

Changes in Foreign Exchange Rates—Impacts on AOCI and Capital

As of June 30, 2022, Citi estimates that an unanticipated parallel instantaneous 5% appreciation of the U.S. dollar against all of the other currencies in which Citi has invested capital could reduce Citi's tangible common equity (TCE) by approximately $1.6 billion, or 1.0%, as a result of changes to Citi's foreign currency translation adjustment in *AOCI*, net of hedges. This impact would be primarily due to changes in the value of the Mexican peso, Euro and Indian rupee.

This impact is also before any mitigating actions Citi may take, including ongoing management of its foreign currency translation exposure. Specifically, as currency movements change the value of Citi's net investments in foreign currency-denominated capital, these movements also change the value of Citi's risk-weighted assets denominated in those currencies. This, coupled with Citi's foreign currency hedging strategies, such as foreign currency borrowings, foreign currency forwards and other currency hedging instruments, lessens the impact of foreign currency movements on Citi's Common Equity Tier 1 Capital ratio. Changes in these hedging strategies, as well as hedging costs, divestitures and tax impacts, can further affect the actual impact of changes in foreign exchange rates on Citi's capital as compared to an unanticipated parallel shock, as described above.

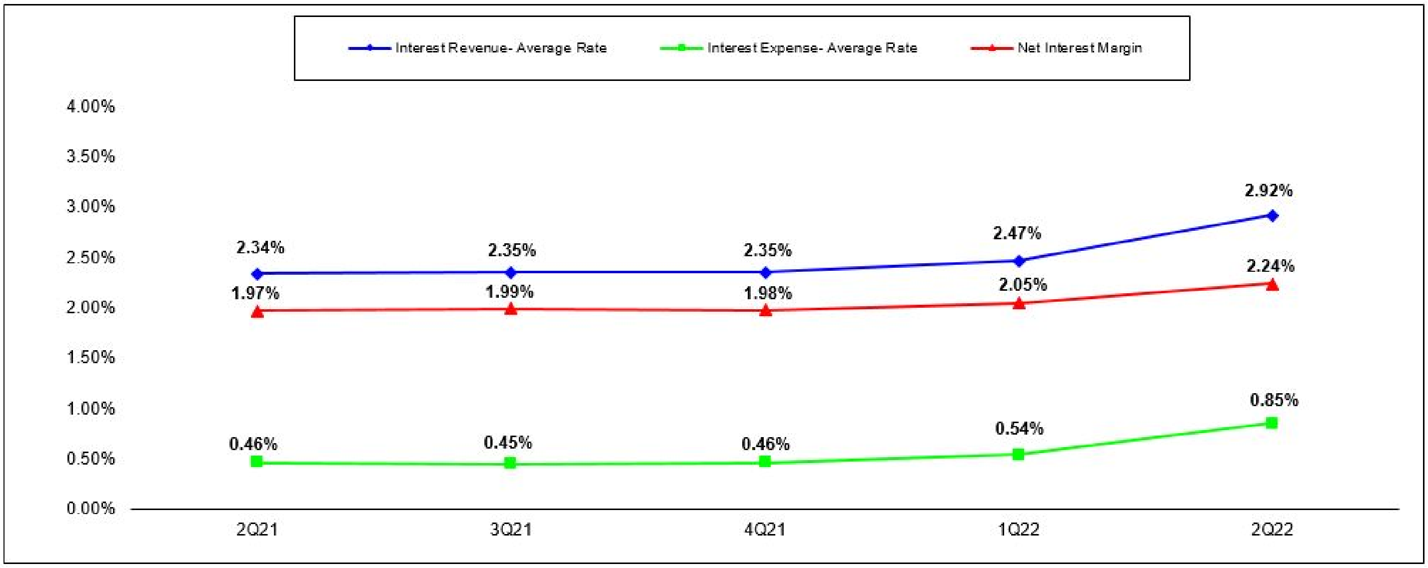
The effect of Citi's ongoing management strategies with respect to changes in foreign exchange rates, and the impact of these changes on Citi's TCE and Common Equity Tier 1 Capital ratio, are shown in the table below. See Note 17 for additional information on the changes in *AOCI*.

	For the quarter ended		
In millions of dollars, except as otherwise noted	**Jun. 30, 2022**	Mar. 31, 2022	Jun. 30, 2021
Change in FX spot rate[1]	**(4.9)%**	0.1 %	1.1 %
Change in TCE due to FX translation, net of hedges	**$ (1,335)**	$ (40)	$ 364
As a percentage of TCE	**(0.9)%**	— %	0.2 %
Estimated impact to Common Equity Tier 1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	**5**	1	—

(1) FX spot rate change is a weighted average based on Citi's quarterly average GAAP capital exposure to foreign countries.

Interest Revenue/Expense and Net Interest Margin (NIM)

Average Rates - Interest Revenue, Interest Expense, and Net Interest Margin



In millions of dollars, except as otherwise noted	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021	**Change 2Q22 vs. 2Q21**
Interest revenue[1]	**$ 15,674**	$ 13,193	$ 12,514	**25 %**
Interest expense[2]	**3,666**	2,280	1,985	**85**
Net interest income, taxable equivalent basis[1]	**$ 12,008**	$ 10,913	$ 10,529	**14 %**
Interest revenue—average rate[3]	**2.92 %**	2.47 %	2.34 %	**58 bps**
Interest expense—average rate	**0.85**	0.54	0.46	**39 bps**
Net interest margin[3][4]	**2.24**	2.05	1.97	**27 bps**
Interest-rate benchmarks				
Two-year U.S. Treasury note—average rate	**2.72 %**	1.46 %	0.17 %	**255 bps**
10-year U.S. Treasury note—average rate	**2.93**	1.95	1.59	**134 bps**
10-year vs. two-year spread	**21 bps**	49 bps	142 bps	

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $44 million, $42 million and $51 million for the three months ended June 30, 2022, March 31, 2022 and June 30, 2021, respectively.

(2) Interest expense associated with certain hybrid financial instruments, which are classified as *Long-term debt* and accounted for at fair value, is reported together with any changes in fair value as part of *Principal transactions* in the Consolidated Statement of Income and is therefore not reflected in *Interest expense* in the table above.

(3) The average rate on interest revenue and net interest margin reflects the taxable equivalent gross-up adjustment. See footnote 1 above.

(4) Citi's net interest margin (NIM) is calculated by dividing net interest income by average interest-earning assets.

Non-*ICG* Markets Net Interest Income

In millions of dollars	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021	**Change 2Q22 vs. 2Q21**
Net interest income (NII)—taxable equivalent basis[1] per above	**$ 12,008**	$ 10,913	$ 10,529	**14 %**
ICG Markets NII—taxable equivalent basis[1]	**1,386**	1,111	1,381	—
Non-*ICG* Markets NII—taxable equivalent basis[1]	**$ 10,622**	$ 9,802	$ 9,148	**16 %**

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

Citi's NII in the second quarter of 2022 increased 14% to $12.0 billion versus the prior-year period. As presented in the table above, Citi's NII on a taxable equivalent basis also increased 14% year-over-year, or $1.5 billion, driven by higher NII in non-*ICG* Markets, while NII in *ICG* Markets (Fixed income markets and Equity markets) was largely unchanged. The increase in non-*ICG* Markets NII primarily reflected higher interest income from cards, higher deposit volumes and deposit spreads in Services, and higher income from Citi's investment portfolio.

Citi's NIM was 2.24% on a taxable equivalent basis in the second quarter of 2022, an increase of 19 basis points from the prior quarter, driven by the impact of higher interest rates, higher deposit spreads in Services, higher interest income from loans and higher NII in *ICG* Markets.

Additional Interest Rate Details

Average Balances and Interest Rates—Assets[1][2][3]

Taxable Equivalent Basis

Quarterly—Assets	Average volume			Interest revenue			% Average rate		
In millions of dollars, except rates	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021
Deposits with banks[4]	**$ 227,377**	$ 260,536	$ 296,445	**$ 658**	$ 296	$ 126	**1.16 %**	0.46 %	0.17 %
Securities borrowed and purchased under agreements to resell[5]									
In U.S. offices	**$ 190,065**	$ 177,996	$ 171,568	**$ 458**	$ 109	$ 85	**0.97 %**	0.25 %	0.20 %
In offices outside the U.S.[4]	**159,455**	165,640	148,253	**347**	285	120	**0.87**	0.70	0.32
Total	**$ 349,520**	$ 343,636	$ 319,821	**$ 805**	$ 394	$ 205	**0.92 %**	0.46 %	0.26 %
Trading account assets[6][7]									
In U.S. offices	**$ 139,087**	$ 136,857	$ 142,471	**$ 632**	$ 592	$ 579	**1.82 %**	1.75 %	1.63 %
In offices outside the U.S.[4]	**136,850**	133,603	159,670	**1,030**	556	893	**3.02**	1.69	2.24
Total	**$ 275,937**	$ 270,460	$ 302,141	**$ 1,662**	$ 1,148	$ 1,472	**2.42 %**	1.72 %	1.95 %
Investments									
In U.S. offices									
Taxable	**$ 357,249**	$ 353,906	$ 320,206	**$ 1,132**	$ 1,021	$ 867	**1.27 %**	1.17 %	1.09 %
Exempt from U.S. income tax	**11,898**	11,612	12,613	**108**	95	114	**3.64**	3.32	3.63
In offices outside the U.S.[4]	**150,435**	153,302	151,419	**1,147**	951	863	**3.06**	2.52	2.29
Total	**$ 519,582**	$ 518,820	$ 484,238	**$ 2,387**	$ 2,067	$ 1,844	**1.84 %**	1.62 %	1.53 %
Consumer loans[8]									
In U.S. offices	**$ 264,240**	$ 257,257	$ 250,526	**$ 5,348**	$ 5,045	$ 4,785	**8.12 %**	7.95 %	7.66 %
In offices outside the U.S.[4]	**88,291**	94,973	126,605	**1,253**	1,217	1,736	**5.69**	5.20	5.50
Total	**$ 352,531**	$ 352,230	$ 377,131	**$ 6,601**	$ 6,262	$ 6,521	**7.51 %**	7.21 %	6.94 %
Corporate loans[8]									
In U.S. offices	**$ 142,180**	$ 136,876	$ 132,182	**$ 1,285**	$ 1,112	$ 1,015	**3.63 %**	3.29 %	3.08 %
In offices outside the U.S.[4]	**162,776**	159,470	160,967	**1,632**	1,365	1,220	**4.02**	3.47	3.04
Total	**$ 304,956**	$ 296,346	$ 293,149	**$ 2,917**	$ 2,477	$ 2,235	**3.84 %**	3.39 %	3.06 %
Total loans[8]									
In U.S. offices	**$ 406,420**	$ 394,133	$ 382,708	**$ 6,633**	$ 6,157	$ 5,800	**6.55 %**	6.34 %	6.08 %
In offices outside the U.S.[4]	**251,067**	254,443	287,572	**2,885**	2,582	2,956	**4.61**	4.12	4.12
Total	**$ 657,487**	$ 648,576	$ 670,280	**$ 9,518**	$ 8,739	$ 8,756	**5.81 %**	5.46 %	5.24 %
Other interest-earning assets[9]	**$ 121,629**	$ 119,815	$ 69,691	**$ 644**	$ 549	$ 111	**2.12 %**	1.86 %	0.64 %
Total interest-earning assets	**$ 2,151,532**	$ 2,161,843	$2,142,616	**$ 15,674**	$ 13,193	$ 12,514	**2.92 %**	2.47 %	2.34 %
Non-interest-earning assets[6]	**$ 228,521**	$ 212,197	$ 199,194						
Total assets	**$ 2,380,053**	$ 2,374,040	$2,341,810						

Six Months—Assets	Average volume		Interest revenue		% Average rate	
In millions of dollars, except rates	**Six Months 2022**	Six Months 2021	**Six Months 2022**	Six Months 2021	**Six Months 2022**	Six Months 2021
Deposits with banks(4)	**$ 243,957**	$ 301,893	**$ 954**	$ 271	**0.79 %**	0.18 %
Securities borrowed and purchased under agreements to resell(5)						
In U.S. offices	**$ 184,030**	$ 167,679	**$ 567**	$ 202	**0.62 %**	0.24 %
In offices outside the U.S.(4)	**162,548**	145,422	**632**	297	**0.78**	0.41
Total	**$ 346,578**	$ 313,101	**$ 1,199**	$ 499	**0.70 %**	0.32 %
Trading account assets(6)(7)						
In U.S. offices	**$ 137,972**	$ 148,634	**$ 1,224**	$ 1,331	**1.79 %**	1.81 %
In offices outside the U.S.(4)	**135,227**	156,345	**1,586**	1,479	**2.37**	1.91
Total	**$ 273,199**	$ 304,979	**$ 2,810**	$ 2,810	**2.07 %**	1.86 %
Investments						
In U.S. offices						
Taxable	**$ 355,577**	$ 307,888	**$ 2,153**	$ 1,673	**1.22 %**	1.10 %
Exempt from U.S. income tax	**11,755**	12,758	**203**	232	**3.48**	3.67
In offices outside the U.S.(4)	**151,869**	150,448	**2,098**	1,719	**2.79**	2.30
Total	**$ 519,201**	$ 471,094	**$ 4,454**	$ 3,624	**1.73 %**	1.55 %
Consumer loans(8)						
In U.S. offices	**$ 260,748**	$ 251,023	**$ 10,393**	$ 9,776	**8.04 %**	7.85 %
In offices outside the U.S.(4)	**91,632**	126,585	**2,470**	3,447	**5.44**	5.49
Total	**$ 352,380**	$ 377,608	**$ 12,863**	$ 13,223	**7.36 %**	7.06 %
Corporate loans(8)						
In U.S. offices	**$ 139,528**	$ 130,309	**$ 2,397**	$ 2,066	**3.46 %**	3.20 %
In offices outside the U.S.(4)	**161,123**	160,208	**2,997**	2,400	**3.75**	3.02
Total	**$ 300,651**	$ 290,517	**$ 5,394**	$ 4,466	**3.62 %**	3.10 %
Total loans(8)						
In U.S. offices	**$ 400,276**	$ 381,332	**$ 12,790**	$ 11,842	**6.44 %**	6.26 %
In offices outside the U.S.(4)	**252,755**	286,793	**5,467**	5,847	**4.36**	4.11
Total	**$ 653,031**	$ 668,125	**$ 18,257**	$ 17,689	**5.64 %**	5.34 %
Other interest-earning assets(9)	**$ 120,722**	$ 72,891	**$ 1,193**	$ 208	**1.99 %**	0.58 %
Total interest-earning assets	**$ 2,156,688**	$2,132,083	**$ 28,867**	$ 25,101	**2.70 %**	2.37 %
Non-interest-earning assets(6)	**$ 220,359**	$ 197,219				
Total assets	**$ 2,377,047**	$2,329,302				

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $86 million and $104 million for the six months ended June 30, 2022 and June 30, 2021, respectively.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(5) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to ASC 210-20-45. However, *Interest revenue* excludes the impact of ASC 210-20-45.
(6) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.
(7) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(8) Net of unearned income. Includes cash-basis loans.
(9) Includes assets from businesses held-for-sale (see Note 2) and *Brokerage receivables*.

Average Balances and Interest Rates—Liabilities and Equity, and Net Interest Income[1][2][3]

Taxable Equivalent Basis

Quarterly—Liabilities	**Average volume**			**Interest expense**			**% Average rate**		
In millions of dollars, except rates	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021	**2nd Qtr. 2022**	1st Qtr. 2022	2nd Qtr. 2021
Deposits									
In U.S. offices[4]	**$ 554,182**	$ 560,018	$ 496,250	**$ 545**	$ 237	$ 267	**0.39 %**	0.17 %	0.22 %
In offices outside the U.S.[5]	**513,820**	520,087	578,880	**875**	634	409	**0.68**	0.49	0.28
Total	**$ 1,068,002**	$ 1,080,105	$1,075,130	**$ 1,420**	$ 871	$ 676	**0.53 %**	0.33 %	0.25 %
Securities loaned and sold under agreements to repurchase[6]									
In U.S. offices	**$ 112,011**	$ 117,793	$ 140,708	**$ 391**	$ 161	$ 170	**1.40 %**	0.55 %	0.48 %
In offices outside the U.S.[5]	**96,388**	92,308	95,931	**264**	121	90	**1.10**	0.53	0.38
Total	**$ 208,399**	$ 210,101	$ 236,639	**$ 655**	$ 282	$ 260	**1.26 %**	0.54 %	0.44 %
Trading account liabilities[7][8]									
In U.S. offices	**$ 52,714**	$ 48,593	$ 48,433	**$ 24**	$ 36	$ 30	**0.18 %**	0.30 %	0.25 %
In offices outside the U.S.[5]	**72,096**	65,720	73,705	**113**	111	120	**0.63**	0.68	0.65
Total	**$ 124,810**	$ 114,313	$ 122,138	**$ 137**	$ 147	$ 150	**0.44 %**	0.52 %	0.49 %
Short-term borrowings and other interest-bearing liabilities[9]									
In U.S. offices	**$ 94,028**	$ 78,662	$ 69,944	**$ 217**	$ 13	$ (17)	**0.93 %**	0.07 %	(0.10)%
In offices outside the U.S.[5]	**60,211**	60,199	23,738	**51**	42	48	**0.34**	0.28	0.81
Total	**$ 154,239**	$ 138,861	$ 93,682	**$ 268**	$ 55	$ 31	**0.70 %**	0.16 %	0.13 %
Long-term debt[10]									
In U.S. offices	**$ 164,832**	$ 166,974	$ 191,009	**$ 1,143**	$ 889	$ 852	**2.78 %**	2.16 %	1.79 %
In offices outside the U.S.[5]	**3,892**	3,953	4,355	**43**	36	16	**4.43**	3.69	1.47
Total	**$ 168,724**	$ 170,927	$ 195,364	**$ 1,186**	$ 925	$ 868	**2.82 %**	2.19 %	1.78 %
Total interest-bearing liabilities	**$ 1,724,174**	$ 1,714,307	$1,722,953	**$ 3,666**	$ 2,280	$ 1,985	**0.85 %**	0.54 %	0.46 %
Demand deposits in U.S. offices	**$ 143,426**	$ 129,349	$ 78,665						
Other non-interest-bearing liabilities[7]	**313,926**	329,572	337,136						
Total liabilities	**$ 2,181,526**	$ 2,173,228	$2,138,754						
Citigroup stockholders' equity	**$ 197,976**	$ 200,164	$ 202,368						
Noncontrolling interests	**551**	648	688						
Total equity	**$ 198,527**	$ 200,812	$ 203,056						
Total liabilities and stockholders' equity	**$ 2,380,053**	$ 2,374,040	$2,341,810						
Net interest income as a percentage of average interest-earning assets[11]									
In U.S. offices	**$ 1,247,713**	$ 1,247,057	$1,235,013	**$ 7,070**	$ 6,858	$ 6,271	**2.27 %**	2.23 %	2.04 %
In offices outside the U.S.[6]	**903,819**	914,786	907,603	**4,938**	4,055	4,258	**2.19**	1.80	1.88
Total	**$ 2,151,532**	$ 2,161,843	$2,142,616	**$ 12,008**	$ 10,913	$ 10,529	**2.24 %**	2.05 %	1.97 %

Six Months—Liabilities	Average volume		Interest expense		% Average rate	
In millions of dollars, except rates	**Six Months 2022**	Six Months 2021	**Six Months 2022**	Six Months 2021	**Six Months 2022**	Six Months 2021
Deposits						
In U.S. offices[4]	**$ 557,100**	$ 500,972	**$ 782**	$ 549	**0.28 %**	0.22 %
In offices outside the U.S.[5]	**516,954**	573,507	**1,509**	839	**0.59**	0.30
Total	**$ 1,074,054**	$1,074,479	**$ 2,291**	$ 1,388	**0.43 %**	0.26 %
Securities loaned and sold under agreements to repurchase[6]						
In U.S. offices	**$ 114,902**	$ 143,825	**$ 552**	$ 341	**0.97 %**	0.48 %
In offices outside the U.S.[5]	**94,348**	92,126	**385**	172	**0.82**	0.38
Total	**$ 209,250**	$ 235,951	**$ 937**	$ 513	**0.90 %**	0.44 %
Trading account liabilities[7][8]						
In U.S. offices	**$ 50,653**	$ 50,115	**$ 60**	$ 52	**0.24 %**	0.21 %
In offices outside the U.S.[5]	**68,908**	69,636	**224**	212	**0.66**	0.61
Total	**$ 119,561**	$ 119,751	**$ 284**	$ 264	**0.48 %**	0.44 %
Short-term borrowings and other interest bearing liabilities[9]						
In U.S. offices	**$ 86,345**	$ 71,179	**$ 230**	$ (17)	**0.54 %**	(0.05)%
In offices outside the U.S.[5]	**60,205**	22,334	**93**	79	**0.31**	0.71
Total	**$ 146,550**	$ 93,513	**$ 323**	$ 62	**0.44 %**	0.13 %
Long-term debt[10]						
In U.S. offices	**$ 165,903**	$ 196,250	**$ 2,032**	$ 1,757	**2.47 %**	1.81 %
In offices outside the U.S.[5]	**3,923**	4,564	**79**	29	**4.06**	1.28
Total	**$ 169,826**	$ 200,814	**$ 2,111**	$ 1,786	**2.51 %**	1.79 %
Total interest-bearing liabilities	**$ 1,719,241**	$1,724,508	**$ 5,946**	$ 4,013	**0.70 %**	0.47 %
Demand deposits in U.S. offices	**$ 136,388**	$ 67,649				
Other non-interest-bearing liabilities[7]	**321,748**	335,125				
Total liabilities	**$ 2,177,377**	$2,127,280				
Citigroup stockholders' equity	**$ 199,070**	$ 201,335				
Noncontrolling interests	**600**	687				
Total equity	**$ 199,670**	$ 202,022				
Total liabilities and stockholders' equity	**$ 2,377,047**	$2,329,302				
Net interest income as a percentage of average interest-earning assets[11]						
In U.S. offices	**$ 1,247,385**	$1,233,404	**$ 13,928**	$ 12,854	**2.25 %**	2.10 %
In offices outside the U.S.[6]	**909,303**	898,678	**8,993**	8,234	**1.99**	1.85
Total	**$ 2,156,688**	$2,132,082	**$ 22,921**	$ 21,088	**2.14 %**	1.99 %

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective liability categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Consists of other time deposits and savings deposits. Savings deposits are made up of insured money market accounts, NOW accounts and other savings deposits.
(5) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(6) Average volumes of securities sold under agreements to repurchase are reported net pursuant to ASC 210-20-45. However, *Interest expense* excludes the impact of ASC 210-20-45.
(7) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.
(8) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(9) Includes *Brokerage payables*.
(10) Excludes hybrid financial instruments and beneficial interests in consolidated VIEs that are classified as *Long-term debt*, as the changes in fair value for these obligations are recorded in *Principal transactions*.
(11) Includes allocations for capital and funding costs based on the location of the asset.

Analysis of Changes in Interest Revenue(1)(2)(3)

In millions of dollars	2Q22 vs. 1Q22 Increase (decrease) due to change in: Average volume	Average rate	Net change	2Q22 vs. 2Q21 Increase (decrease) due to change in: Average volume	Average rate	Net change
Deposits with banks(3)	$ (42)	$ 404	$ 362	$ (36)	$ 568	$ 532
Securities borrowed and purchased under agreements to resell						
In U.S. offices	$ 8	$ 341	$ 349	$ 10	$ 363	$ 373
In offices outside the U.S.(3)	(11)	73	62	10	217	227
Total	$ (3)	$ 414	$ 411	$ 20	$ 580	$ 600
Trading account assets(4)						
In U.S. offices	$ 10	$ 30	$ 40	$ (14)	$ 67	$ 53
In offices outside the U.S.(3)	14	460	474	(141)	278	137
Total	$ 24	$ 490	$ 514	$ (155)	$ 345	$ 190
Investments(1)						
In U.S. offices	$ 11	$ 113	$ 124	$ 114	$ 145	$ 259
In offices outside the U.S.(3)	(18)	214	196	(6)	290	284
Total	$ (7)	$ 327	$ 320	$ 108	$ 435	$ 543
Consumer loans (net of unearned income)(5)						
In U.S. offices	$ 139	$ 164	$ 303	$ 270	$ 293	$ 563
In offices outside the U.S.(3)	(89)	125	36	(542)	59	(483)
Total	$ 50	$ 289	$ 339	$ (272)	$ 352	$ 80
Corporate loans (net of unearned income)(5)						
In U.S. offices	$ 44	$ 129	$ 173	$ 81	$ 189	$ 270
In offices outside the U.S.(3)	29	238	267	14	398	412
Total	$ 73	$ 367	$ 440	$ 95	$ 587	$ 682
Loans (net of unearned income)(5)						
In U.S. offices	$ 183	$ 293	$ 476	$ 351	$ 482	$ 833
In offices outside the U.S.(3)	(60)	363	303	(528)	457	(71)
Total	$ 123	$ 656	$ 779	$ (177)	$ 939	$ 762
Other interest-earning assets(6)	$ 8	$ 87	$ 95	$ 129	$ 404	$ 533
Total interest revenue	$ 103	$ 2,378	$ 2,481	$ (111)	$ 3,271	$ 3,160

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes cash-basis loans.
(6) Includes *Brokerage receivables*.

Analysis of Changes in Interest Expense and Net Interest Income(1)(2)(3)

	2Q22 vs. 1Q22			2Q22 vs. 2Q21		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change	Average volume	Average rate	Net change
Deposits						
In U.S. offices	$ (2)	$ 310	$ 308	$ 35	$ 243	$ 278
In offices outside the U.S.(3)	(8)	249	241	(51)	517	466
Total	$ (10)	$ 559	$ 549	$ (16)	$ 760	$ 744
Securities loaned and sold under agreements to repurchase						
In U.S. offices	$ (9)	$ 239	$ 230	$ (41)	$ 262	$ 221
In offices outside the U.S.(3)	6	137	143	—	174	174
Total	$ (3)	$ 376	$ 373	$ (41)	$ 436	$ 395
Trading account liabilities(4)						
In U.S. offices	$ 3	$ (15)	$ (12)	$ 3	$ (9)	$ (6)
In offices outside the U.S.(3)	10	(8)	2	(3)	(4)	(7)
Total	$ 13	$ (23)	$ (10)	$ —	$ (13)	$ (13)
Short-term borrowings and other interest-bearing liabilities(5)						
In U.S. offices	$ 3	$ 201	$ 204	$ (4)	$ 238	$ 234
In offices outside the U.S.(3)	—	9	9	43	(40)	3
Total	$ 3	$ 210	$ 213	$ 39	$ 198	$ 237
Long-term debt						
In U.S. offices	$ (11)	$ 265	$ 254	$ (129)	$ 420	$ 291
In offices outside the U.S.(3)	(1)	8	7	(2)	29	27
Total	$ (12)	$ 273	$ 261	$ (131)	$ 449	$ 318
Total interest expense	$ (9)	$ 1,395	$ 1,386	$ (149)	$ 1,830	$ 1,681
Net interest income	$ 112	$ 983	$ 1,095	$ 39	$ 1,440	$ 1,479

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes *Brokerage payables*.

Analysis of Changes in Interest Revenue[1][2][3]

	Six Months 2022 vs. Six Months 2021		
	Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change
Deposits with banks[3]	$ (61)	$ 744	$ 683
Securities borrowed and purchased under agreements to resell			
In U.S. offices	$ 21	$ 344	$ 365
In offices outside the U.S.[3]	39	296	335
Total	$ 60	$ 640	$ 700
Trading account assets[4]			
In U.S. offices	$ (95)	$ (12)	$ (107)
In offices outside the U.S.[3]	(217)	324	107
Total	$ (312)	$ 312	$ —
Investments[1]			
In U.S. offices	$ 292	$ 159	$ 451
In offices outside the U.S.[3]	16	363	379
Total	$ 308	$ 522	$ 830
Consumer loans (net of unearned income)[5]			
In U.S. offices	$ 385	$ 232	$ 617
In offices outside the U.S.[3]	(943)	(34)	(977)
Total	$ (558)	$ 198	$ (360)
Corporate loans (net of unearned income)[5]			
In U.S. offices	$ 152	$ 179	$ 331
In offices outside the U.S.[3]	14	583	597
Total	$ 166	$ 762	$ 928
Total loans[5]			
In U.S. offices	$ 537	$ 411	$ 948
In offices outside the U.S.[3]	(929)	549	(380)
Total	$ (392)	$ 960	$ 568
Other interest-earning assets[6]	$ 207	$ 778	$ 985
Total interest revenue	$ (190)	$ 3,956	$ 3,766

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes cash-basis loans.
(6) Includes *Brokerage receivables*.

Analysis of Changes in Interest Expense and Net Interest Income(1)(2)(3)

	Six Months 2022 vs. Six Months 2021		
	Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change
Deposits			
In U.S. offices	$ 66	$ 167	$ 233
In offices outside the U.S.[3]	(90)	760	670
Total	$ (24)	$ 927	$ 903
Securities loaned and sold under agreements to repurchase			
In U.S. offices	$ (80)	$ 291	$ 211
In offices outside the U.S.[3]	4	209	213
Total	$ (76)	$ 500	$ 424
Trading account liabilities[4]			
In U.S. offices	$ —	$ 8	$ 8
In offices outside the U.S.[3]	(2)	14	12
Total	$ (2)	$ 22	$ 20
Short-term borrowings and other interest bearing liabilities[5]			
In U.S. offices	$ (3)	$ 250	$ 247
In offices outside the U.S.[3]	77	(63)	14
Total	$ 74	$ 187	$ 261
Long-term debt			
In U.S. offices	$ (301)	$ 576	$ 275
In offices outside the U.S.[3]	(5)	55	50
Total	$ (306)	$ 631	$ 325
Total interest expense	$ (334)	$ 2,267	$ 1,933
Net interest income	$ 143	$ 1,690	$ 1,833

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes *Brokerage payables*.

Market Risk of Trading Portfolios

Value at Risk (VAR)

Citi believes its VAR model is conservatively calibrated to incorporate fat-tail scaling and the greater of short-term (approximately the most recent month) and long-term (three years) market volatility. As of June 30, 2022, Citi estimates that the conservative features of the VAR calibration contribute an approximate 53% add-on to what would be a VAR estimated under the assumption of stable and perfectly, normally distributed markets. As of March 31, 2022, the add-on was 41%.

As presented in the table below, Citi's average trading VAR for the second quarter of 2022 increased quarter-over-quarter, mainly due to higher volatilities and increased mark-to-market hedging in the *ICG* Markets businesses.

Quarter-end and Average Trading VAR and Trading and Credit Portfolio VAR

In millions of dollars	**June 30, 2022**	**Second Quarter 2022 Average**	March 31, 2022	First Quarter 2022 Average	June 30, 2021	Second Quarter 2021 Average
Interest rate	**$ 122**	**$ 94**	$ 84	$ 57	$ 62	$ 76
Credit spread	**69**	**70**	70	66	77	73
Covariance adjustment[1]	**(45)**	**(45)**	(51)	(32)	(35)	(44)
Fully diversified interest rate and credit spread[2]	**$ 146**	**$ 119**	$ 103	$ 91	$ 104	$ 105
Foreign exchange	**35**	**36**	35	36	35	42
Equity	**25**	**24**	29	30	23	31
Commodity	**38**	**45**	65	42	48	35
Covariance adjustment[1]	**(96)**	**(106)**	(116)	(100)	(107)	(104)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)[2]	**$ 148**	**$ 118**	$ 116	$ 99	$ 103	$ 109
Specific risk-only component[3]	**$ 4**	**$ (2)**	$ —	$ 6	$ (4)	$ (3)
Total trading VAR—general market risk factors only (excluding credit portfolios)	**$ 144**	**$ 120**	$ 116	$ 93	$ 107	$ 112
Incremental impact of the credit portfolio[4]	**$ 7**	**$ 17**	$ 29	$ 38	$ 27	$ 25
Total trading and credit portfolio VAR	**$ 155**	**$ 135**	$ 145	$ 137	$ 130	$ 134

(1) Covariance adjustment (also known as diversification benefit) equals the difference between the total VAR and the sum of the VARs tied to each risk type. The benefit reflects the fact that the risks within individual and across risk types are not perfectly correlated and, consequently, the total VAR on a given day will be lower than the sum of the VARs relating to each risk type. The determination of the primary drivers of changes to the covariance adjustment is made by an examination of the impact of both model parameter and position changes.

(2) The total trading VAR includes mark-to-market and certain fair value option trading positions in *ICG*, with the exception of hedges to the loan portfolio, fair value option loans and all CVA exposures. Available-for-sale and accrual exposures are not included.

(3) The specific risk-only component represents the level of equity and fixed income issuer-specific risk embedded in VAR.

(4) The credit portfolio is composed of mark-to-market positions associated with non-trading business units including Citi Treasury, the CVA relating to derivative counterparties and all associated CVA hedges. FVA and DVA are not included. The credit portfolio also includes hedges to the loan portfolio, fair value option loans and hedges to the leveraged finance pipeline within capital markets origination in *ICG*.

The table below provides the range of market factor VARs associated with Citi's total trading VAR, inclusive of specific risk:

	Second Quarter 2022		First Quarter 2022		Second Quarter 2021	
In millions of dollars	**Low**	**High**	Low	High	Low	High
Interest rate	**$ 79**	**$ 123**	$ 45	$ 102	$ 57	$ 96
Credit spread	**65**	**78**	59	71	65	86
Fully diversified interest rate and credit spread	**$ 105**	**$ 147**	$ 72	$ 125	$ 90	$ 123
Foreign exchange	**32**	**40**	33	61	34	48
Equity	**17**	**40**	12	44	23	43
Commodity	**33**	**65**	29	65	26	50
Total trading	**$ 102**	**$ 148**	$ 78	$ 127	$ 90	$ 130
Total trading and credit portfolio	**119**	**155**	110	159	116	159

Note: No covariance adjustment can be inferred from the above table as the high and low for each market factor will be from different close-of-business dates.

The following table provides the VAR for *ICG*, excluding the CVA relating to derivative counterparties, hedges of CVA, fair value option loans and hedges to the loan portfolio:

In millions of dollars		June 30, 2022
Total—all market risk factors, including general and specific risk		
Average—during quarter	**$**	**120**
High—during quarter		**153**
Low—during quarter		**103**

Regulatory VAR Back-testing

In accordance with Basel III, Citi is required to perform back-testing to evaluate the effectiveness of its Regulatory VAR model. Regulatory VAR back-testing is the process in which the daily one-day VAR, at a 99% confidence interval, is compared to the buy-and-hold profit and loss (i.e., the profit and loss impact if the portfolio is held constant at the end of the day and re-priced the following day). Buy-and-hold profit and loss represents the daily mark-to-market profit and loss attributable to price movements in covered positions from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue, net interest, fees and commissions, intra-day trading profit and loss and changes in reserves.

Based on a 99% confidence level, Citi would expect two to three days in any one year where buy-and-hold losses exceed the Regulatory VAR. Given the conservative calibration of Citi's VAR model (as a result of taking the greater of short- and long-term volatilities and fat-tail scaling of volatilities), Citi would expect fewer exceptions under normal and stable market conditions. Periods of unstable market conditions could increase the number of back-testing exceptions.

As of June 30, 2022, there were two back-testing exceptions observed for Citi's Regulatory VAR in the last 12 months.

OTHER RISKS

For additional information regarding other risks, including Citi's management of other risks, see "Managing Global Risk—Other Risks" in Citi's 2021 Form 10-K.

LIBOR Transition Risk

The Adjustable Interest Rate (LIBOR) Act (the LIBOR Act), enacted earlier this year, provides for the use of a statutory replacement for the overnight, one-month, three-month, six-month and 12-month tenors of USD LIBOR in all contracts governed by U.S. law that lack adequate fallback provisions. On July 28, 2022, the Federal Reserve Board published in the Federal Register its proposed rulemaking that implements the LIBOR Act. The proposal contains the Federal Reserve Board's recommendation of benchmark replacements for various product types. As required by the LIBOR Act, each proposed replacement rate is based on the Secured Overnight Financing Rate (SOFR). Citi continues to review the effect of the LIBOR Act and the Federal Reserve Board's proposal, which is expected to facilitate the transition to replacement rates for Citi's USD LIBOR-linked securities, loans and contracts without fallbacks or fallbacks based on USD LIBOR that have not yet been remediated.

For additional information about Citi's actions to address a transition away from and discontinuance of LIBOR, see "Managing Global Risk—Other Risks—LIBOR Transition Risk" in Citi's 2021 Form 10-K. For information about Citi's LIBOR transition risks, see "Risk Factors—Other Risks" in the 2021 Form 10-K.

Country Risk

Top 25 Country Exposures

The following table presents Citi's top 25 exposures by country (excluding the U.S.) as of June 30, 2022. (Including the U.S., the total exposure as of June 30, 2022 to the top 25 countries would represent approximately 97% of Citi's exposure to all countries.)

For purposes of the table, loan amounts are reflected in the country where the loan is booked, which is generally based on the domicile of the borrower. For example, a loan to a Chinese subsidiary of a Switzerland-based corporation will generally be categorized as a loan in China. In addition, Citi has developed regional booking centers in certain countries, most significantly in the United Kingdom (U.K.) and Ireland, in order to more efficiently serve its corporate customers. As an example, with respect to the U.K., only 37% of corporate loans presented in the table below are to U.K. domiciled entities (37% for unfunded commitments), with the balance of the loans predominately to European domiciled counterparties. Approximately 88% of the total U.K. funded loans and 87% of the total U.K. unfunded commitments were investment grade as of June 30, 2022.

Trading account assets and investment securities are generally categorized based on the domicile of the issuer of the security of the underlying reference entity. For additional information on the assets included in the table, see the footnotes to the table below.

In billions of dollars	ICG loans	PBWM loans(1)	Legacy Franchises loans	Other funded(2)	Unfunded(3)	Net MTM on derivatives/ repos(4)	Total hedges (on loans and CVA)	Investment securities(5)	Trading account assets(6)	Total as of 2Q22	Total as of 1Q22	Total as of 2Q21	Total as a % of Citi as of 2Q22
United Kingdom	$ 34.4	$ 5.6	$ —	$ 2.7	$ 40.8	$ 13.0	$ (5.5)	$ 3.8	$ 0.5	**$ 95.3**	$ 102.1	$ 112.7	5.4 %
Mexico	8.4	0.1	20.7	0.3	7.8	1.6	(1.5)	16.2	3.7	**57.3**	60.3	62.5	3.2
Ireland	17.1	—	—	2.7	29.7	0.5	(0.2)	—	0.6	**50.4**	48.9	43.8	2.8
Hong Kong	11.9	20.7	—	0.5	7.3	1.3	(1.9)	9.5	(0.2)	**49.1**	51.8	52.6	2.8
Singapore	9.6	19.3	—	0.2	6.6	1.3	(0.5)	9.2	1.9	**47.6**	48.6	43.6	2.7
Brazil	11.7	—	—	0.1	3.2	5.8	(0.9)	6.6	2.0	**28.5**	30.4	26.1	1.6
India(7)	7.1	—	3.6	0.6	4.8	3.3	(1.0)	8.6	0.7	**27.7**	30.1	27.7	1.6
South Korea	3.7	—	11.7	0.2	1.7	1.3	(0.8)	7.6	0.1	**25.5**	31.3	36.7	1.4
Germany	0.3	—	—	0.1	5.9	6.6	(3.5)	8.7	3.8	**21.9**	20.4	19.4	1.2
China	6.6	—	3.2	0.7	1.6	1.4	(0.9)	7.0	(0.8)	**18.8**	22.7	19.8	1.1
Jersey	2.2	4.2	—	—	10.6	—	(0.2)	—	—	**16.8**	16.1	15.0	0.9
Canada	1.5	1.6	—	0.1	7.0	1.8	(1.6)	3.1	2.6	**16.1**	15.9	17.9	0.9
United Arab Emirates	7.9	1.5	—	0.2	3.9	0.4	(0.5)	2.5	—	**15.9**	15.5	14.2	0.9
Australia(8)	6.9	0.5	—	—	5.3	1.2	(0.9)	0.8	1.4	**15.2**	26.7	24.9	0.9
Taiwan(7)	4.4	—	7.9	0.1	1.2	0.8	(0.1)	0.1	0.5	**14.9**	16.1	17.3	0.8
Poland	3.1	—	1.5	—	2.3	0.5	(0.1)	5.9	0.1	**13.3**	14.2	11.5	0.7
Japan	1.6	—	—	—	3.3	3.9	(2.2)	4.0	1.5	**12.1**	17.3	16.6	0.7
Malaysia(7)	1.4	—	3.0	0.2	0.9	0.2	(0.1)	2.4	0.1	**8.1**	7.9	8.3	0.5
Thailand(7)	1.2	—	2.6	—	2.0	0.1	—	1.6	0.1	**7.6**	7.8	7.5	0.4
Russia(9)	1.7	—	0.8	—	0.3	1.3	(0.2)	1.5	0.1	**5.5**	3.9	5.4	0.3
Indonesia(7)	2.3	—	0.5	—	1.2	0.5	(0.1)	1.0	0.1	**5.5**	5.8	6.0	0.3
Philippines(10)	0.7	—	1.2	0.1	0.5	1.6	—	1.3	(0.1)	**5.3**	4.2	4.1	0.3
Luxembourg	0.2	0.6	—	—	—	0.1	(0.6)	3.8	0.1	**4.2**	4.5	5.9	0.2
Colombia	1.6	—	—	—	0.4	1.1	(0.1)	1.3	(0.2)	**4.1**	3.1	3.2	0.2
Czech Republic	0.8	—	—	—	0.8	1.8	(0.1)	0.3	—	**3.6**	3.4	3.6	0.2
Total as a % of Citi's total exposure													**32.1 %**
Total as a % of Citi's non-U.S. total exposure													**94.6 %**

(1) *PBWM* loans reflect funded loans, including those related to the Private bank, net of unearned income. As of June 30, 2022, Private bank loans in the table above totaled $23.1 billion, concentrated in Singapore ($5.7 billion), Hong Kong ($5.6 billion) and the U.K. ($5.4 billion).
(2) Other funded includes other direct exposures such as accounts receivable, and investments accounted for under the equity method.
(3) Unfunded exposure includes unfunded corporate lending commitments, letters of credit and other contingencies.
(4) Net mark-to-market (MTM) counterparty risk on OTC derivatives and securities lending/borrowing transactions (repos). Exposures are shown net of collateral and inclusive of CVA. Also includes margin loans.
(5) Investment securities include debt securities available-for-sale, recorded at fair market value, and debt securities held-to-maturity, recorded at amortized cost.

(6) Trading account assets are shown on a net basis and include issuer risk on cash products and derivative exposure where the underlying reference entity/issuer is located in that country.
(7) June 30, 2022 and March 31, 2022 include *Legacy Franchises* loans reclassified to HFS as a result of Citi's agreement to sell its consumer banking business in this country. For additional information, see "*Legacy Franchises*" above and Note 2.
(8) March 31, 2022 includes *Legacy Franchises* loans reclassified to HFS as a result of Citi's agreement to sell its consumer banking business in Australia, which closed on June 1, 2022. For additional information, see "*Legacy Franchises*" above and Note 2.
(9) The increase in Russia exposure as of June 30, 2022 is because reverse repurchase agreements of $1.3 billion were shown gross of collateral and included in the net MTM on derivatives/repos in the table above, as netting of collateral for Russia-related reverse repurchase agreements was removed. This removal was due to the inability to conclude, with a well-founded basis, the enforceability of contractual rights in the Russian legal system in the event of a counterparty default, given the geopolitical uncertainty caused by the war in Ukraine. The Total Russia exposure, as presented in "Russia" below, was not impacted by this reclassification.
(10) June 30, 2022 and March 31, 2022 include *Legacy Franchises* loans reclassified to HFS as a result of Citi's agreement to sell its consumer banking business in the Philippines. For additional information, see "*Legacy Franchises*" above and Note 2.

Russia

Introduction

In Russia, Citi operates through both its *ICG* and *Legacy Franchises* segments. As previously announced, Citi intends to substantially reduce its activities in the country. Citi will continue to reduce its operations and exposures and has ceased soliciting any new business or new clients in Russia. Due to the nature of banking and financial services operations, escalation of the war in Ukraine, and the financial and economic sanctions that have been implemented by the U.S., the U.K., the EU and other jurisdictions, any exit and other reduction of activities will take time to complete. Citi will continue to manage its existing regulatory commitments and obligations to depositors, as well as support its employees, during this period.

Citi continues to monitor the war, sanctions and economic conditions and continues to mitigate its exposures and risks as appropriate. For additional information about Citi's risks related to its Russia exposures, see "Forward-Looking Statements" below and "Risk Factors—Market-Related Risk," "—Operational Risks" and "—Other Risks" in Citi's 2021 Form 10-K.

Impact of Russia's Invasion of Ukraine on Citi's Businesses

Russia-related Balance Sheet Exposures
Citi's domestic operations in Russia are conducted through a subsidiary of Citibank, AO Citibank, which uses the Russian ruble as its functional currency.

The following table summarizes Citi's exposures related to its Russia operations:

In billions of U.S. dollars	**June 30, 2022**	March 31, 2022	December 31, 2021	Change 2Q22 vs. 1Q22
Loans	$ 2.5	$ 2.3	$ 2.9	$ 0.2
Investment securities(1)	1.5	0.9	1.5	0.6
Net MTM on derivatives/repos(2)	1.3	0.4	0.4	0.9
Total hedges (on loans and CVA)	(0.2)	(0.2)	(0.1)	—
Unfunded(3)	0.3	0.5	0.7	(0.2)
Trading accounts assets	0.1	—	—	0.1
Country risk exposure (included in Top 25 Country Exposures)	**$ 5.5**	**$ 3.9**	**$ 5.4**	**$ 1.6**
Cash on deposit and placements(4)	2.5	2.6	1.0	(0.1)
Reverse repurchase agreements(2)	—	0.6	1.8	(0.6)
Total third-party exposure(5)	**$ 8.0**	**$ 7.1**	**$ 8.2**	**$ 0.9**
Additional exposures to Russian counterparties that are not held by the Russian subsidiary	0.4	0.8	1.6	(0.4)
Total Russia exposure(6)	**$ 8.4**	**$ 7.9**	**$ 9.8**	**$ 0.5**

(1) Investment securities include debt securities available-for-sale (AFS), recorded at fair market value, primarily local government debt securities. AO Citibank had AFS debt securities losses during the first quarter of 2022 due to yield increases, which were reflected in *AOCI*, although no credit impairment was recognized on the losses. There were no impairment losses recognized during the second quarter of 2022.
(2) Net mark-to-market (MTM) on OTC derivatives and securities lending/borrowing transactions (repos). The increase during the current quarter is because reverse repurchase agreements of $1.3 billion were shown gross of collateral and reclassified to net MTM on derivatives/repos in the table above, as netting of collateral for Russia-related reverse repurchase agreements was removed. This removal was due to the inability to conclude, with a well-founded basis, the enforceability of contractual rights in the Russian legal system in the event of a counterparty default, given the geopolitical uncertainty caused by the war in Ukraine. As this exposure was already included in Total third-party exposure, the Total Russia exposure was not impacted by this reclassification.
(3) Unfunded exposure consists of unfunded corporate lending commitments, letters of credit and other contingencies.
(4) Cash on deposit and placements are primarily with the Central Bank of Russia.
(5) The majority of AO Citibank's third-party exposures was funded with domestic deposit liabilities from both corporate and personal banking clients.
(6) Citigroup's currency translation adjustment (CTA) loss included in its *Accumulated other comprehensive income (AOCI)* related to its indirect subsidiary, AO Citibank, is excluded from the above table, because the CTA loss is not held in AO Citibank and would be recognized in Citigroup's earnings upon either the substantial liquidation of AO Citibank or a loss of control of AO Citibank. Citi has separately described these risks in "Deconsolidation Risk" below.

During the second quarter, Citi continued to reduce its operations in Russia and Russia-related exposures, resulting in a decline in local currency exposure of $3.1 billion, which was more than offset by an increase of $3.6 billion due to an approximate 40% appreciation of the Russian ruble versus the U.S. dollar during the quarter, for a net increase in Total Russia exposure of $0.5 billion in the table above.

The $3.1 billion decline in exposure was driven by Citi's risk mitigation efforts, including a reduction in loans, as well as a reduction in cash on deposits and placements. The reduction in loans primarily reflected a decline in *ICG* loans due to borrower paydowns and limiting extensions of new credit. *ICG*'s credit exposure also reflected a shift to a higher proportion of stronger credit names, including a higher proportion of subsidiaries of multinational companies that are headquartered outside of Russia, primarily in the U.S. and Europe. The decline in overall exposure was also driven by a reduction in exposures to Russian counterparties not held by AO Citibank.

In addition, Citi's net investment in Russia was approximately $1.2 billion as of June 30, 2022 (compared to $0.7 billion as of March 31, 2022). The increase was primarily driven by the aforementioned ruble appreciation. A significant portion of Citi's net investment was hedged for foreign currency depreciation as of June 30, 2022, using forward foreign exchange contracts executed with international peer banks. In the event of a loss of control of AO Citibank, in addition to a write-off of the $1.2 billion net investment, Citi would also recognize a CTA loss of approximately $0.9 billion (compared to $1.0 billion as of March 31, 2022) and $0.4 billion on intercompany liabilities (compared to $0.7 billion as of March 31, 2022) owed by AO Citibank to other Citi entities at the end of the second quarter of 2022 (see "Deconsolidation Risk" below). In the future, Citi may record devaluations on its net ruble-denominated assets in earnings, without the benefit from a change in the fair value of derivative positions used to economically hedge the exposures.

2Q22 Earnings Impacts on Citi's Businesses

Citi's *ICG*, *PBWM* and *Legacy Franchises* segments were impacted by a broad array of macroeconomic factors and volatilities, including, among other things, impacts related to the war in Ukraine:

- ***ICG* Markets revenues** of $5.3 billion increased 25% versus the second quarter of the prior year, reflecting higher revenues in Fixed income markets and Equity markets, driven by higher volatility, leading to client engagement. Fixed income markets revenues increased 31%, with growth across all regions, due to strong client engagement, particularly with corporate clients.

  Rates and currencies revenues increased 66%, driven by increased market volatility resulting from increasing interest rates from central banks in response to elevated levels of inflation. The increase in rates and currencies revenues was partially offset by a liquidity valuation adjustment of approximately $130 million for Russian sovereign bonds due to impacts from sanctions. Spread products and other fixed income revenues decreased 29%, reflecting lower client activity in spread products and a challenging market environment due to widening spreads. The decline in spread products and other fixed income revenues was partially offset by strength in commodities, particularly with corporate clients.

  Equity markets revenues increased 8%, primarily driven by equity derivatives, reflecting strong client engagement with both corporate and institutional clients, partially offset by lower client activity in cash and a net decrease in prime balances, as lower asset valuations more than offset new client balances.
- ***ICG* Banking revenues** of $2.1 billion decreased 4% compared to the prior-year period, largely driven by a decline in Investment banking revenues. Investment banking revenues declined 46%, reflecting a lower overall market wallet, as continued heightened geopolitical uncertainty and the overall macroeconomic backdrop reduced activity.
- **Global Wealth revenues** of $1.9 billion, recorded in *PBWM*, were largely unchanged, reflecting investment fee headwinds, particularly in Asia, driven by overall market volatility, offset by an increase in average deposits and average loans. Client assets decreased 8%, driven principally by declines in market valuation.
- ***Legacy Franchises* revenues** of $1.9 billion decreased 15% versus the second quarter in the prior year, primarily driven by the impacts related to the Korea wind-down and Australia consumer sale, as well as lower investment activity in Asia, largely driven by market volatility and macroeconomic challenges and uncertainties. The decline in revenues was also driven by a portion of the release of a CTA loss (net of hedges) from *AOCI* related to the substantial liquidation of a legacy U.K. consumer operation.
- **Citigroup expenses** increased by approximately $70 million due to a Russia-related impairment charge for long-lived assets, recorded in *Legacy Franchises* (see "Long-Lived Assets Impairment" below).
- **Citigroup cost of credit** of $1.3 billion in the current quarter compared to $(1.1) billion in the prior-year period, reflecting a net build in the ACL of $0.4 billion, compared to a net release of $2.4 billion in the prior-year period, partially offset by lower net credit losses. Citigroup's higher cost of credit was largely driven by higher *ICG* and *PBWM* cost of credit.

  ICG cost of credit of $(202) million compared to $(694) million in the prior-year period, with a net ACL release of $245 million and net credit losses of $18 million. The release was largely driven by a reduction in Russia-related risk in the quarter, partially offset by a build due to increased macroeconomic uncertainty.

  PBWM cost of credit of $1.4 billion compared to $(170) million in the prior-year period, largely driven by a net ACL build of $651 million in the current quarter, compared to a net ACL release of $1.0 billion in the prior-year period, reflecting increased macroeconomic uncertainty. Net credit losses declined 19%, reflecting continued strong credit performance across portfolios.

  As of June 30, 2022, Citigroup's ACL included a $1.6 billion remaining credit reserve for Citi's direct and indirect Russian exposure, consisting of approximately

$0.8 billion related to Citi's exposures to Russian counterparties and approximately $0.8 billion related to the impact of the war in Ukraine on the broader global macroeconomic environment.

Long-Lived Assets Impairment
In the second quarter of 2022, Citi recorded an impairment charge of approximately $70 million for long-lived assets related to the Russia consumer banking business. These assets included property, plant and equipment, internally developed software and the "right of use assets" on leased buildings.

Citi's Planned Reduction of Certain Russia Businesses
As discussed above, Citi continues to reduce its activities in Russia. Given the complex environment, Citi is considering a full range of possibilities to exit or substantially reduce its activities in Russia, including portfolio sales. Any additional financial or economic sanctions that may be implemented by the U.S., the U.K., the EU and any other jurisdictions, as well as any governmental approvals that may be required for any exit, may cause delays or reduce the certainty of such exit being concluded. Such delays may be significant.

Deconsolidation Risk
Citi's continued operations in Russia subject it to various risks, including, among others, foreign currency volatility, including appreciations or devaluations; business restrictions; sanctions or asset freezes; or other deconsolidation events (for additional information, see "Risk Factors—Other Risks" in Citi's 2021 Form 10-K). Examples of triggers that may result in deconsolidation of AO Citibank include voluntary or forced sale of ownership or loss of control due to actions of relevant governmental authorities, including expropriation (i.e., the entity becomes subject to the complete control of a government, court, administrator, trustee or regulator); revocation of banking license; and loss of ability to elect a board of directors or appoint members of senior management. As of June 30, 2022, Citi continued to consolidate AO Citibank because none of the deconsolidation factors was triggered.

As discussed above, in the event of a loss of control of AO Citibank, Citi would be required to write off its net investment of approximately $1.2 billion (compared to $0.7 billion as of March 31, 2022) and recognize a CTA loss of approximately $0.9 billion through earnings (compared to $1.0 billion as of March 31, 2022), in addition to a loss of $0.4 billion (compared to $0.7 billion as of March 31, 2022) on intercompany liabilities owed by AO Citibank to other Citi entities. In addition, in the sole event of a substantial liquidation, Citi would be required to recognize the CTA loss of approximately $0.9 billion through earnings and would evaluate its remaining net investment as circumstances evolve.

Citi as Paying Agent for Russian-related Clients
Citi serves or served as paying agent on bonds issued by various entities in Russia, including Russian corporate clients. Citi's role as paying agent is administrative. In its role as paying agent, Citi acts as an agent of its client, the bond issuer, receiving interest and principal payments from the bond issuer and then making payments to international central securities depositories (e.g., Depository Trust Company, Euroclear, Clearstream). The international central securities depositories (ICSDs) make payments to those participants or account holders (e.g., broker/dealers) that have clients that are investors in the applicable bonds (i.e., bondholders). As a paying agent, Citi generally does not have information about the identity of the bondholders. Citi may be exposed to risks due to its responsibilities for receiving and processing payments on behalf of its clients as a result of sanctions or other governmental requirements and prohibitions. To mitigate operational and sanctions risks, Citi has established policies, procedures and controls for client relationships and payment processing to help ensure compliance with U.S., U.K., EU and other jurisdictions' sanctions laws.

These processes may require Citi to delay or withhold the processing of payments as a result of sanctions on the bond issuer. Citi is also prevented from making payments to accounts on behalf of bondholders should the ICSDs disclose to Citi the presence of sanctioned bondholders. In both instances, Citi is generally required to segregate, restrict or block the funds until applicable sanctions are lifted or the payment is otherwise authorized under applicable law.

Reputational Risks
Citi has continued its efforts to enhance and protect its reputation with its colleagues, clients, customers, investors, regulators and the public. Citi's response to the war in Ukraine, including any action or inaction, may have a negative impact on Citi's reputation with some or all of these parties.

For example, Citi is exposed to reputational risk as a result of its presence in Russia and association with Russian individuals or entities, whether subject to sanctions or not, including Citi's inability to support its global clients in Russia as part of its core value proposition, which could adversely affect its broader client relationships and businesses; involvement in transactions or supporting activities involving Russian assets or interests; failure to correctly interpret and apply laws and regulations, including those related to sanctions; perceived misalignment of Citi's actions to its stated strategy toward Russia; and the reputational impact on Citi's Russia business from its activity and engagement with Ukraine or with non-Russian clients exiting their Russia businesses. Citi has considered the potential for reputation risk and taken actions to mitigate such risks. Citi established a Russia Special Review Process with Management's Reputation Risk Committee with oversight for significant Russia-related reputation risks and completed a number of reputation risk reviews of matters with a Russian nexus.

While Citi announced its intention to reduce its businesses in Russia, Citi will continue to manage those operations during the exit process, which may take significant time to complete. Also, sanctions and sanctions compliance are highly complex and may change over time and result in increased operational risk. Failure to fully comply with relevant sanctions or the application of sanctions where they should not be applied may negatively impact Citi's reputation. In addition, Citi continues to perform services for, conduct business with or deal in non-sanctioned Russian-owned businesses and Russian assets. This has attracted, and will likely continue to attract, negative attention, despite the previously announced plan to substantially reduce its activities in the country, cessation of new business and client originations, and reduction of other exposures.

Citi's continued presence or divestiture of businesses in Russia could also increase its susceptibility to cyberattacks that could negatively impact its relationships with clients and customers, harm its reputation, increase its compliance costs and adversely affect its business operations and results of operations. For additional information on operational and cyber risks, see "Risk Factors—Operational Risk" in Citi's 2021 Form 10-K.

Board's Role in Overseeing Related Risks

The Citi Board of Directors (Board) and the Board's Risk Management Committee (RMC) and its other Committees have received and continue to receive regular reports from senior management regarding the war in Ukraine and its impact on Citi's operations in Russia, Ukraine and elsewhere, as well as the war's broader geopolitical, macroeconomic and reputational impacts. In addition to receiving regular briefings from management, the full Board has routinely been invited to attend portions of the RMC meetings for discussions related to the war in Ukraine, including with respect to Citi's risk exposures and stress testing. The reports to the Board and its Committees from senior management who represent the impacted businesses and the EMEA region, Independent Risk Management, Finance, Independent Compliance Risk Management, including those individuals responsible for sanctions compliance, and Human Resources, have included detailed information regarding financial impacts, impacts on capital, cybersecurity, strategic considerations, sanctions compliance, employee assistance and reputational risks, enabling the Board and its Committees to properly exercise their oversight responsibilities. In addition, senior management has also provided updates to Citi's Executive Management Team and the Board, outside of formal meetings, regarding Citi's Russia-related risks, including with respect to cybersecurity matters.

Ukraine

Citi has continued to operate in Ukraine throughout the war through its *ICG* businesses, serving the local subsidiaries of multinationals, along with local financial institutions and the public sector. Citi employs approximately 250 people in Ukraine and their safety is the top priority.

All of Citi's domestic operations in Ukraine are conducted through a subsidiary of Citibank, which uses the Ukrainian hryvnia as its functional currency. Citi's exposures in Ukraine are not significant enough to be included in the "Top 25 Country Exposures" table above. As of June 30, 2022, these exposures amounted to $1.0 billion (compared to $0.9 billion as of March 31, 2022) and were exclusively composed of third-party assets held on the Citi Ukraine subsidiary.

Turkey

Citi operates in Turkey through its *ICG* businesses and conducts its operations through a subsidiary of Citibank. Since the fourth quarter of 2021, inflation in Turkey has increased significantly. At the end of February 2022, the three-year cumulative inflation exceeded 100%, and this increase in inflation is expected to continue in the near future. The Turkish economy is deemed to be hyperinflationary and as a result, the Citibank Turkey subsidiary changed its functional currency from the Turkish lira to the U.S. dollar, effective April 1, 2022.

As of June 30, 2022, Citi's net investment in its Turkey operations was approximately $327 million.

Argentina

Citi operates in Argentina through its *ICG* businesses. As of June 30, 2022, Citi's net investment in its Argentine operations was approximately $1.6 billion. Citi uses the U.S. dollar as the functional currency for its operations in countries that are deemed highly inflationary under U.S. GAAP. Citi uses Argentina's official market exchange rate to remeasure its net Argentine peso-denominated assets into the U.S. dollar. As of June 30, 2022, the official Argentine peso exchange rate against the U.S. dollar was 125.23.

As previously disclosed, the Central Bank of Argentina has continued to maintain certain capital and currency controls that restrict Citi's ability to access U.S. dollars in Argentina and remit earnings from its Argentine operations. As a result, Citi's net investment in its Argentine operations is likely to continue to increase as Citi generates net income in its Argentine franchise and its earnings cannot be remitted.

Due to the currency controls implemented by the Central Bank of Argentina, certain indirect foreign exchange mechanisms have developed that some Argentine entities may use to obtain U.S. dollars, generally at rates that are significantly higher than Argentina's official exchange rate. Citibank Argentina is precluded from accessing these alternative mechanisms, and these exchange mechanisms cannot be used to remeasure Citi's net monetary assets into the U.S. dollar under U.S. GAAP. However, if Argentina's official exchange rate converges with the approximate rate implied by the indirect foreign exchange mechanisms, Citi could incur a loss on its capital in Argentina. Citi cannot predict future fluctuations in Argentina's official market exchange rate or to what extent Citi may be able to access U.S. dollars at the official exchange rate in the future.

Citi economically hedges the foreign currency risk in its net Argentine peso-denominated assets to the extent possible and prudent using non-deliverable forward (NDF) derivative instruments that are primarily executed outside of Argentina. As of June 30, 2022, the international NDF market had very limited liquidity, resulting in Citi being unable to economically hedge its Argentine peso exposure. Accordingly, and to the extent that Citi does not execute NDF contracts for this unhedged exposure in the future, Citi would record devaluations on its net Argentine peso-denominated assets in earnings, without any benefit from a change in the fair value of derivative positions used to economically hedge the exposure.

Citi continually evaluates its economic exposure to its Argentine counterparties and reserves for changes in credit risk and sovereign risk associated with its Argentine assets. Citi believes it has established appropriate ACL on its Argentine loans, and appropriate fair value adjustments on Argentine assets and liabilities measured at fair value, for credit and sovereign risks under U.S. GAAP as of June 30, 2022. However, U.S. regulatory agencies may require Citi to record additional reserves in the future, increasing *ICG*'s cost of credit, based on the perceived country risk associated with its Argentine exposures. For additional information on emerging markets risks, see "Risk Factors—Strategic Risks" in Citi's 2021 Form 10-K.

SIGNIFICANT ACCOUNTING POLICIES AND SIGNIFICANT ESTIMATES

This section contains a summary of Citi's most significant accounting policies. Note 1 to the Consolidated Financial Statements in Citi's 2021 Form 10-K contains a summary of all of Citigroup's significant accounting policies. These policies, as well as estimates made by management, are integral to the presentation of Citi's results of operations and financial condition. While all of these policies require a certain level of management judgment and estimates, this section highlights and discusses the significant accounting policies that require management to make highly difficult, complex or subjective judgments and estimates at times regarding matters that are inherently uncertain and susceptible to change (see also "Risk Factors—Operational Risks" in Citi's 2021 Form 10-K). Management has discussed each of these significant accounting policies, the related estimates and its judgments with the Audit Committee of the Citigroup Board of Directors.

Valuations of Financial Instruments

Citigroup holds debt and equity securities, derivatives, retained interests in securitizations, investments in private equity and other financial instruments. A substantial portion of these assets and liabilities is reflected at fair value on Citi's Consolidated Balance Sheet as *Trading account assets*, *Available-for-sale securities* and *Trading account liabilities*.

Citi purchases securities under agreements to resell (reverse repos or resale agreements) and sells securities under agreements to repurchase (repos), a substantial portion of which is carried at fair value. In addition, certain loans, short-term borrowings, long-term debt and deposits, as well as certain securities borrowed and loaned positions that are collateralized with cash, are carried at fair value. Citigroup holds its investments, trading assets and liabilities, and resale and repurchase agreements on Citi's Consolidated Balance Sheet to meet customer needs and to manage liquidity needs, interest rate risks and private equity investing.

When available, Citi generally uses quoted market prices to determine fair value and classifies such items within Level 1 of the fair value hierarchy established under ASC 820-10, *Fair Value Measurement*. If quoted market prices are not available, fair value is based upon internally developed valuation models that use, where possible, current market-based or independently sourced market parameters, such as interest rates, currency rates and option volatilities. Such models are often based on a discounted cash flow analysis. In addition, items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified under the fair value hierarchy as Level 3 even though there may be some significant inputs that are readily observable.

Citi is required to exercise subjective judgments relating to the applicability and functionality of internal valuation models, the significance of inputs or value drivers to the valuation of an instrument and the degree of illiquidity and subsequent lack of observability in certain markets. The fair value of these instruments is reported on Citi's Consolidated Balance Sheet with the changes in fair value recognized in either the Consolidated Statement of Income or in *AOCI*.

Losses on available-for-sale securities whose fair values are less than the amortized cost, where Citi intends to sell the security or could more-likely-than-not be required to sell the security prior to recovery, are recognized in earnings. Where Citi does not intend to sell the security nor could more-likely-than-not be required to sell the security, any portion of the loss that is attributable to credit is recognized as an allowance for credit losses with a corresponding provision for credit losses and the remainder of the loss is recognized in *AOCI*. Such losses are capped at the difference between the fair value and amortized cost of the security.

For equity securities carried at cost or under the measurement alternative, decreases in fair value below the carrying value are recognized as impairment in the Consolidated Statement of Income. Moreover, for certain equity method investments, decreases in fair value are only recognized in earnings in the Consolidated Statement of Income if such decreases are judged to be an other-than-temporary impairment (OTTI). Adjudicating the temporary nature of fair value impairments is also inherently judgmental.

The fair value of financial instruments incorporates the effects of Citi's own credit risk and the market view of counterparty credit risk, the quantification of which is also complex and judgmental. For additional information on Citi's fair value analysis, see Notes 6, 20 and 21 in this Form 10-Q and Note 1 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Citi's Allowance for Credit Losses (ACL)

The table below shows Citi's ACL as of the second quarter of 2022. For information on the drivers of Citi's ACL release in the second quarter, see below. See Note 1 for the refinement in the ACL estimation approach to introduce multiple macroeconomic scenarios to the quantitative component of the ACL. For additional information on Citi's accounting policy on accounting for credit losses under ASC Topic 326, *Financial Instruments—Credit losses; Current Expected Credit Losses (CECL)*, see Note 1 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

	ACL							
In millions of dollars	Balance Dec. 31, 2021	1Q22 build (release)	1Q22 FX/ Other	Balance Mar. 31, 2022	**2Q22 build (release)**	**2Q22 FX/ Other**	**Balance Jun. 30, 2022**	**ACLL/EOP loans Jun. 30, 2022[1]**
ICG	$ 2,241	$ 596	$ 5	$ 2,842	$ (76)	$ 25	$ 2,791	
Legacy Franchises corporate (Mexico SBMM)	174	5	4	183	(3)	(2)	178	
Total corporate ACLL	**$ 2,415**	**$ 601**	**$ 9**	**$ 3,025**	**$ (79)**	**$ 23**	**$ 2,969**	**1.00 %**
U.S. Cards[1]	$ 10,840	$ (1,009)	$ —	$ 9,831	$ 447	$ —	$ 10,278	**7.48 %**
Retail banking and Global Wealth	1,181	(53)	(5)	1,123	191	(1)	1,313	
Total *PBWM*	$ 12,021	$ (1,062)	$ (5)	$ 10,954	$ 638	$ (1)	$ 11,591	
Legacy Franchises consumer	2,019	(151)	(454)	1,414	(25)	3	1,392	
Total consumer ACLL	**$ 14,040**	**$ (1,213)**	**$ (459)**	**$ 12,368**	**$ 613**	**$ 2**	**$ 12,983**	**3.65 %**
Total ACLL	**$ 16,455**	**$ (612)**	**$ (450)**	**$ 15,393**	**$ 534**	**$ 25**	**$ 15,952**	**2.44 %**
Allowance for credit losses on unfunded lending commitments (ACLUC)	$ 1,871	$ 474	$ (2)	$ 2,343	$ (159)	$ 9	$ 2,193	
Total ACLL and ACLUC	$ 18,326	$ (138)	$ (452)	$ 17,736	$ 375	$ 34	$ 18,145	
Other[2]	148	(6)	(6)	136	27	16	179	
Total ACL	**$ 18,474**	**$ (144)**	**$ (458)**	**$ 17,872**	**$ 402**	**$ 50**	**$ 18,324**	

(1) As of June 30, 2022, in U.S. Personal Banking, Branded cards ACLL/EOP loans was 6.3% and Retail services ACLL/EOP loans was 9.8%.
(2) Includes ACL on HTM securities and *Other assets*.

Citi's reserves for expected credit losses on funded loans and for unfunded lending commitments, standby letters of credit and financial guarantees are reflected on the Consolidated Balance Sheet in the *Allowance for credit losses on loans* (ACLL) and *Other liabilities* (for Allowance for credit losses on unfunded lending commitments (ACLUC)), respectively. In addition, Citi reserves for expected credit losses on other financial assets carried at amortized cost, including held-to-maturity securities, reverse repurchase agreements, securities borrowed, deposits with banks and other financial receivables. These reserves, together with the ACLL and ACLUC, are referred to as the ACL. Changes in the ACL are reflected as *Provision for credit losses* in the Consolidated Statement of Income for each reporting period. Citi's ability to estimate expected credit losses over the reasonable and supportable (R&S) period is based on the ability to forecast economic activity over an R&S timeframe. The R&S forecast period for consumer and corporate loans is eight quarters.

The ACL is composed of quantitative and qualitative management adjustment components. The quantitative component uses three forward-looking macroeconomic forecasts—base, upside and downside. The qualitative management adjustment component reflects portfolio characteristics and current economic conditions not captured in the quantitative component. Both the quantitative and qualitative components are further discussed below.

Quantitative Component

Citi estimates expected credit losses for its quantitative component using (i) its comprehensive internal data on loss and default history, (ii) internal credit risk ratings, (iii) external credit bureau and rating agencies information, and (iv) reasonable and supportable forecasts of macroeconomic conditions.

For its consumer and corporate portfolios, Citi's expected credit losses are determined primarily by utilizing models that consider the borrowers' probability of default (PD), loss given default (LGD) and exposure at default (EAD). The loss likelihood and severity models used for estimating expected credit losses are sensitive to changes in macroeconomic variables that inform the forecasts, and cover a wide range of geographic, industry, product and business segments.

In addition, Citi's models determine expected credit losses based on leading credit indicators, including loan delinquencies, changes in portfolio size, default frequency, risk ratings and loss recovery rates (among other things), as well as other current economic factors and credit trends, including housing prices, unemployment and gross domestic product (GDP).

Qualitative Component

The qualitative management adjustment component includes, among other things, management adjustments to reflect certain portfolio characteristics not captured in the quantitative component, such as concentrations, collateral valuation, idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. The qualitative management adjustment component also reflects uncertainty around the war in Ukraine and potential global recession. The extent of the impact of the war in Ukraine will depend on the spillover effects on European and global macroeconomic and market factors, including inflation, interest rates and commodity prices. Qualitative reserves also include the potential for normalization in portfolio performance and consumer behavior, after record low losses as a result of government stimulus and market liquidity.

2Q22 Changes in the ACL

In the second quarter of 2022, Citi had a build of $0.6 billion for the ACL for its consumer portfolios and releases of $0.3 billion for its corporate portfolios, for a net ACL build of $0.4 billion. The build was primarily driven by increased macroeconomic uncertainty reflected through an increase to the weight calculated for the downside macroeconomic scenario, which drove an approximate $0.8 billion build, partially offset by a $0.3 billion release due to methodology refinements related to the introduction of multiple macroeconomic scenarios in the quantitative ACL estimation process, as well as other net movements of $0.1 billion. The build in the consumer ACL was primarily driven by the impact of increased macroeconomic uncertainty. The release in the corporate ACL was primarily driven by reductions of Citi's exposures in Russia, partially offset by the impact of increased macroeconomic uncertainty. Based on its latest macroeconomic forecast, Citi believes its analysis of the ACL reflects the forward view of the economic environment as of June 30, 2022.

Macroeconomic Variables

Citi considers a multitude of macroeconomic variables for the base, upside and downside macroeconomic forecasts it uses to estimate the ACL, including domestic and international variables for its global portfolios and exposures. Citi's forecasts of the U.S. unemployment rate and U.S. Real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of the ACL.

The tables below show Citi's forecasted quarterly average U.S. unemployment rate and year-over-year U.S. Real GDP growth rate used in determining the base macroeconomic forecast for Citi's ACL for each quarterly reporting period from 2Q21 to 2Q22:

	Quarterly average			
U.S. unemployment	**3Q22**	**1Q23**	**3Q23**	**8-quarter average[1]**
Citi forecast at 2Q21	4.0 %	3.8 %	3.6 %	4.2 %
Citi forecast at 3Q21	3.9	3.9	3.8	4.0
Citi forecast at 4Q21	3.9	3.7	3.7	3.8
Citi forecast at 1Q22	3.6	3.5	3.5	3.6
Citi forecast at 2Q22	3.5	3.6	3.8	3.7

(1) Represents the average unemployment rate for the rolling, forward-looking eight quarters in the forecast horizon.

	Year-over-year growth rate[1]		
	Full year		
U.S. Real GDP	**2022**	**2023**	**2024**
Citi forecast at 2Q21	3.7 %	2.0 %	1.8 %
Citi forecast at 3Q21	3.9	2.1	1.8
Citi forecast at 4Q21	4.0	2.2	1.8
Citi forecast at 1Q22	3.3	2.4	2.1
Citi forecast at 2Q22	2.6	1.8	2.0

(1) The year-over-year growth rate is the percentage change in the Real (inflation adjusted) GDP level.

Under the base macroeconomic forecast as of 2Q22, U.S. Real GDP growth is expected to remain strong during the remainder of 2022 and in 2023, and the unemployment rate is expected to increase slightly over the forecast horizon to return to pre-pandemic levels.

Scenario Probability Weighting

Citi's ACL is estimated using three probability-weighted macroeconomic scenarios—base, upside and downside. The weights are calculated using a statistical model, which among other factors, takes into consideration key macroeconomic drivers of the allowance for credit losses, severity of the scenario and other macroeconomic uncertainties and risks. Citi evaluates scenario weights on a quarterly basis. Changes in these factors in future quarters will impact the weights assigned in those quarters.

During the second quarter of 2022, Citi increased the weight that was calculated for the downside scenario in order to reflect an increase in macroeconomic uncertainty driven by the potential impact of higher inflation, supply chain disruptions and geopolitical risks, including the war in Ukraine. Citi's downside scenario incorporates more adverse macroeconomic assumptions than the base scenario assumptions.

Consumer

As discussed above, Citi had a build of $0.6 billion in the ACLL for its consumer portfolios in the second quarter of 2022, which increased the ACLL balance to $13.0 billion, or 3.65% of total consumer loans at June 30, 2022. Citi's consumer ACLL is largely driven by U.S. cards.

For U.S. cards, the level of reserves as a percentage of EOP loans decreased to 7.48% at June 30, 2022, compared to

7.56% at March 31, 2022, primarily driven by the impact of volume growth in lower risk segments, partially offset by increased macroeconomic uncertainty. For the remaining consumer exposures, the level of reserves relative to EOP loans was 1.2% at June 30, 2022, unchanged from March 31, 2022.

Corporate

Citi had a corporate ACLL release of $0.1 billion in the second quarter of 2022, which reduced the ACLL reserve balance by $56 million to $3.0 billion, or 1.00% of total funded loans. The release was primarily driven by reductions of exposures in Russia, partially offset by a build related to increased macroeconomic uncertainty.

ACLUC

Citi had an ACLUC release of $0.2 billion in the second quarter of 2022, which reduced the ACLUC reserve balance, included in *Other liabilities*, to $2.2 billion. The release was primarily driven by reductions of exposures in Russia, partially offset by a build for increased macroeconomic uncertainty.

ACLL and Non-accrual Ratios

At June 30, 2022, the ratio of the ACLL to total funded loans was 2.44% (3.65% for consumer loans and 1.00% for corporate loans), compared to 2.35% at March 31, 2022 (3.53% for consumer loans and 1.00% for corporate loans).

Citi's total non-accrual loans were $3.0 billion at June 30, 2022, down $348 million from March 31, 2022. Consumer non-accrual loans decreased $137 million to $1.4 billion at June 30, 2022, compared to $1.5 billion at March 31, 2022. Corporate non-accrual loans decreased $211 million to $1.7 billion at June 30, 2022, compared to $1.9 billion at March 31, 2022. In addition, the ratio of non-accrual loans to total loans was 0.55% and 0.39% for corporate and consumer loans, respectively, at June 30, 2022.

Regulatory Capital Impact

Citi has elected to phase in the CECL impact for regulatory capital purposes. After two years with no impact on capital, the CECL adoption impact commenced phase in with 25% of the impact (net of deferred taxes) recognized on January 1, 2022, with an additional 25% to be recognized on the first day of each subsequent year through January 1, 2025. In addition, 25% of the build (pretax) made in 2020 and 2021 was deferred and is being amortized over the same timeframe.

See Notes 1 and 14 for a further description of the ACL and related accounts.

Goodwill

Citi tests goodwill for impairment annually as of July 1 and conducts interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. These events or circumstances include, among other things, a significant adverse change in the business climate, a decision to sell or dispose of all or a significant portion of a reporting unit or a significant decline in Citi's stock price.

During the first quarter of 2022, Citi performed an interim goodwill impairment test due to the previously disclosed changes in operating segments and reporting units during the quarter. The test resulted in an impairment of $535 million related to the Asia Consumer reporting unit within *Legacy Franchises*, due to the changes to Citi's operating segments and reporting units during the quarter, as well as the timing of mutual execution of sales agreements for Asia consumer banking businesses.

During the second quarter of 2022, Citi's Banking reporting unit within the *ICG* operating segment was negatively impacted by the industry-wide decline in investment banking activity and macroeconomic challenges and uncertainties. These conditions resulted in a corresponding decline in the operating results of the Banking reporting unit as of June 30, 2022, and qualitatively indicated that the Banking reporting unit's fair value could be insufficient to support its carrying value, inclusive of goodwill.

Accordingly, Citi performed an interim goodwill impairment test for the Banking reporting unit as of June 30, 2022. This included completing an independent valuation of the Banking reporting unit as of June 30, 2022, which concluded that the fair value of the Banking reporting unit exceeded its book value, inclusive of goodwill. The results of the impairment test showed that the fair value of the Banking reporting unit as a percentage of its carrying value was 102%, with the carrying value including approximately $1.5 billion of goodwill. Therefore no impairment charge was recorded during the quarter. No other events or circumstances were identified to indicate that the fair values of Citi's other reporting units were more-likely-than-not reduced below their respective carrying amounts.

Based on the interim impairment tests, the fair value of Citi's reporting units as a percentage of their allocated carrying values ranged from approximately 102% to 267%, resulting in no further impairment recognized as of June 30, 2022. While the inherent risk related to uncertainty is embedded in the key assumptions used in the valuations of the reporting units, the economic and business environments continue to evolve as Citi's management implements its strategic refresh. If management's future estimates of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future. See Note 15 for a further discussion of goodwill, including key assumptions and related uncertainties that drive the fair value of the Banking reporting unit.

Litigation Accruals

See the discussion in Note 23 for information regarding Citi's policies on establishing accruals for litigation and regulatory contingencies.

INCOME TAXES

Deferred Tax Assets

For additional information on Citi's deferred tax assets (DTAs), see "Capital Resources," "Risk Factors—Strategic Risks," "Significant Accounting Policies and Significant Estimates—Income Taxes" and Notes 1 and 9 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

The table below summarizes Citi's net DTAs balance:

Jurisdiction/Component	**DTAs balance**	
In billions of dollars	**June 30, 2022**	December 31, 2021
Total U.S.	**$ 23.7**	$ 22.1
Total foreign	**2.8**	2.7
Total	**$ 26.5**	$ 24.8

At June 30, 2022, Citigroup had recorded net DTAs of approximately $26.5 billion, a decrease of $0.2 billion from March 31, 2022 and an increase of $1.7 billion from December 31, 2021. The increase from year-end 2021 was primarily a result of losses in *Other comprehensive income*. Of Citi's $26.5 billion of net DTAs, $15.8 billion was not deducted in calculating regulatory capital and was appropriately risk weighted under the Basel III rules.

The remaining $10.7 billion (compared to $11.3 billion at March 31, 2022) was deducted in calculating Citi's regulatory capital.

The $10.7 billion of DTA deducted from regulatory capital is composed of $11.7 billion related to tax carry-forwards and $0.8 billion of temporary differences in excess of the 10%/15% regulatory limitations, and is reduced by $1.8 billion of deferred tax liabilities, primarily associated with goodwill and certain other intangible assets that are separately deducted from capital. The primary driver of the decrease in the DTA deducted from Citi's regulatory capital during the quarter was a decline in the temporary differences in excess of the 10%/15% regulatory limitations (from $1.2 billion at March 31, 2022 to $0.8 billion at June 30, 2022), which was attributable to a higher capital limitation and lower temporary difference DTAs subject to the limitation.

DTA Realizability

Citi believes that realization of the net DTAs of $26.5 billion at June 30, 2022 is more-likely-than-not based on management's expectations of future taxable income generation in the jurisdictions in which the DTAs arise, as well as consideration of available tax planning strategies (as defined in ASC Topic 740, *Income Taxes*).

Effective Tax Rate

Citi's reported effective tax rate for the second quarter of 2022 was 19.8%, compared to the second quarter of 2021 effective tax rate of 15.7%. The lower rate in the prior-year period reflected a $450 million valuation allowance release related to foreign tax credit carry-forwards, compared to a significantly lower release in the current quarter. These releases were due to revised projections of future income.

DISCLOSURE CONTROLS AND PROCEDURES

Citi's disclosure controls and procedures are designed to ensure that information required to be disclosed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including without limitation that information required to be disclosed by Citi in its SEC filings is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), as appropriate, to allow for timely decisions regarding required disclosure.

Citi's Disclosure Committee assists the CEO and CFO in their responsibilities to design, establish, maintain and evaluate the effectiveness of Citi's disclosure controls and procedures. The Disclosure Committee is responsible for, among other things, the oversight, maintenance and implementation of the disclosure controls and procedures, subject to the supervision and oversight of the CEO and CFO.

Citi's management, with the participation of its CEO and CFO, has evaluated the effectiveness of Citigroup's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of June 30, 2022. Based on that evaluation, the CEO and CFO have concluded that at that date Citigroup's disclosure controls and procedures were effective.

DISCLOSURE PURSUANT TO SECTION 219 OF THE IRAN THREAT REDUCTION AND SYRIA HUMAN RIGHTS ACT

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Section 219), which added Section 13(r) to the Securities Exchange Act of 1934, as amended, Citi is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with certain individuals or entities that are the subject of sanctions under U.S. law. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Citi, in its First Quarter of 2022 Form 10-Q, identified and reported certain activities pursuant to Section 219 for the first quarter of 2022. Citi did not identify any reportable activities pursuant to Section 219 for the second quarter of 2022.

FORWARD-LOOKING STATEMENTS

Certain statements in this Form 10-Q, including but not limited to statements included within the Management's Discussion and Analysis of Financial Condition and Results of Operations, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, Citigroup also may make forward-looking statements in its other documents filed or furnished with the SEC, and its management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

Generally, forward-looking statements are not based on historical facts but instead represent Citigroup's and its management's beliefs regarding future events. Such statements may be identified by words such as believe, expect, anticipate, intend, estimate, may increase, may fluctuate, target and illustrative, and similar expressions or future or conditional verbs such as will, should, would and could.

Such statements are based on management's current expectations and are subject to risks, uncertainties and changes in circumstances. Actual results of operations and financial conditions including capital and liquidity may differ materially from those included in these statements due to a variety of factors, including without limitation (i) the precautionary statements included within the "Executive Summary" and each individual business's discussion and analysis of its results of operations above, in Citi's First Quarter of 2022 Form 10-Q, in Citi's 2021 Form 10-K and in Citi's other SEC filings; (ii) the factors listed and described under "Risk Factors" in Citi's 2021 Form 10-K; and (iii) the risks and uncertainties summarized below:

- the potential impact to Citi from continued macroeconomic, geopolitical and other challenges and uncertainties and volatilities, including, among others, a continued elevated level of inflation and related financial impacts on consumers and clients and their sentiments; governmental fiscal and monetary actions or expected actions, such as further changes in interest rate policies, including a sustained increase in interest rates, and reductions in central bank balance sheets; the increasing potential of recession in Europe, the U.S. and other countries; slowing of the Chinese economy and related impacts or any policy actions; significant disruptions and volatility in financial markets; geopolitical tensions and conflicts, including the Russia–Ukraine war; protracted or widespread trade tensions; financial market, other economic and political disruption driven by anti-establishment movements; natural disasters; additional pandemics; and election outcomes;
- impacts related to or resulting from the war in Ukraine, including further escalation of tensions between Russia and the U.S. and its allies; the potential adverse effects on Citi's ability to exit and/or substantially reduce its activities in Russia; potential negative impacts on Citi's businesses and customers in and related to Russia and Ukraine, including credit costs or other losses, charges or other negative financial or strategic impacts, including from any expropriation or other deconsolidation event; impacts from existing and future financial and economic sanctions and export controls against Russian organizations and/or individuals imposed by the U.S., the EU, the U.K. and other jurisdictions; rising food insecurity, particularly in emerging markets; commodity and energy market disruptions; inflationary impacts; additional supply chain disruptions; the impact of cyber incidents; and the resulting negative impacts and uncertainties on regional and global financial markets and economic conditions;
- rapidly evolving challenges and uncertainties related to the COVID-19 pandemic in the U.S. and globally, including the duration and further spread of the coronavirus as well as any variants becoming more prevalent and impactful; further production, distribution, acceptance and effectiveness of vaccines; availability and efficiency of testing; the public response and government actions (or inaction); any weakness or slowing in the economic recovery or a further economic downturn, whether due to further pandemic restrictions and lockdowns, supply chain disruptions, higher inflation, higher interest rates or otherwise; the impact of the pandemic on Citi's consumer and corporate borrowers, including greater stress levels on some borrowers as the benefits of credit assistance and customer support further wane; and the potential impact on Citi's businesses and overall results of operations and financial condition;
- the potential impact on Citi's ability to return capital to common shareholders consistent with its capital planning efforts and targets, due to, among other things: regulatory capital requirements, including annual recalibration of the Stress Capital Buffer (most recently in June 2022), which is based upon the results of the CCAR process as well as supervisory stress tests; recalibration of the GSIB surcharge; Citi's results of operations and financial condition; the capital impact related to Citi's divestitures, which involve significant execution complexity, including the timing of transaction signings and closings, as well as achievement of the expected results from the divestitures; Citi's DTA utilization; forecasts of macroeconomic conditions; Citi's implementation and maintenance of an effective capital planning framework, and effectiveness in planning, managing and calculating its level of risk-weighted assets under both the Advanced Approaches and the Standardized Approach and Supplementary Leverage ratio; elevated levels of liquidity in the financial system related to the pandemic; the reduction of central bank balance sheets and the impact on liquidity in the financial system; changes in regulatory capital rules, requirements or interpretations, including adoption of the U.S. SA-CCR rule for purposes of future supervisory stress testing or otherwise; and changes to the U.S. regulatory capital framework, including among other things, revisions to the U.S. Basel III rules;
- the ongoing regulatory and legislative uncertainties and changes faced by financial institutions, including Citi, in the U.S. and globally, such as potential fiscal, monetary, regulatory, tax and other changes due to the differing priorities of the current U.S. presidential administration, changes in regulatory leadership or focus and actions of

Congress; potential changes to various aspects of the regulatory capital framework; future legislative and regulatory requirements in the U.S. and globally relating to climate change, including any new disclosure requirements, such as those recently proposed by the SEC and those by the EU; and the potential impact these uncertainties and changes could have on Citi's businesses, results of operations, financial condition, business planning and compliance risks and costs;

- the additional disclosure and other requirements proposed by the SEC regarding special purpose acquisition companies (SPACs) that more closely align SPAC transaction requirements with those for an initial public offering with the objective of enhancing investor protection and expanding the responsibilities of underwriters; and the potential impact of these final requirements on the results of operations of *ICG*'s Banking reporting unit;
- Citi's ability, as part of its transformation initiatives and strategic refresh, to achieve its projected or expected results from its continued investments and other initiatives, including to improve its infrastructure, risk management and controls and further strengthen safety and soundness, deepen client relationships and enhance client offerings and capabilities in order to simplify Citi and streamline its allocation of resources, including as a result of factors that Citi cannot control, such as macroeconomic uncertainties and challenges, higher inflation and the highly competitive environment for talent, which could make the initiatives more costly and more challenging to implement, and limit their effectiveness;
- Citi's ability to achieve its objectives from its strategic refresh, including, among others, those related to its Global Wealth business and its exits of remaining consumer banking businesses in Asia and EMEA and consumer, small business and middle-market banking operations in Mexico, and the exit and/or substantial reduction of its activities in Russia, which involve significant execution complexity, may not be as productive, effective or timely as Citi expects, may impact the local businesses during the exit process, and could result in additional foreign currency translation adjustment (CTA) or other losses, charges or other negative financial or strategic impacts, which could be material;
- Citi's ability to utilize its DTAs (including the foreign tax credit component of its DTAs) and thus reduce the negative impact of the DTAs on Citi's regulatory capital, including as a result of its ability to generate U.S. taxable income;
- the potential impact to Citi if its interpretation or application of the complex income and non-income based tax laws to which it is subject, such as the Tax Cuts and Jobs Act (Tax Reform), the Foreign Tax Credit guidelines that became effective in March 2022, and withholding, stamp, service and other non-income taxes, differs from those of the relevant governmental taxing authorities, including as a result of litigation or examinations regarding non-income based tax matters, and the resulting payment of additional taxes, penalties or interest;
- the potential impact from a deterioration in or failure to maintain Citi's co-branding or private label credit card relationships, due to, among other things, the economic environment; changes in consumer sentiment, spending patterns and credit card usage behaviors; a decline in sales and revenues, partner store closures, government-imposed restrictions, reduced air and business travel or other operational difficulties of the retailer or merchant; early termination of a particular relationship; or other factors, such as bankruptcies, liquidations, restructurings, consolidations or other similar events, whether due to the impact of the pandemic or otherwise;
- Citi's ability in its resolution plan submissions to address any shortcomings or deficiencies identified or guidance provided by the Federal Reserve Board or FDIC;
- the potential impact on Citi's performance and the performance of its individual businesses, including its competitive position and ability to effectively manage its businesses and continue to execute its strategies, if Citi is unable to attract, retain and motivate highly qualified employees, particularly given the highly competitive environment for talent;
- Citi's ability to effectively compete in the U.S. and globally with both financial and non-financial services firms, including as a result of certain competitors being subject to less stringent legal and regulatory requirements; emerging technologies; changes in the payments space; growth of digital assets; and the increased operational, compliance and other risks resulting from the need to develop new or change or adapt existing products and services to attract and retain customers or clients or to compete more effectively with competitors;
- the potential impact to Citi from a prior or future failure or disruption of its operational processes or systems, including as a result of, among other things, human error, such as manual transaction processing errors (e.g., a manual error by any Citi trader that causes system or market disruptions or losses for Citi or its clients), which can be exacerbated by staffing challenges and processing backlogs; fraud or malice; insufficient (or limited) straight-through processing between legacy systems leading to risk of errors and operating losses; accidental system or technological failure; electrical or telecommunication outages; failure of or cyber incidents involving computer servers or infrastructure; or other similar losses or damage to Citi's property or assets; failures by third parties, as well as disruptions in the operations of Citi's businesses, clients, customers or other third parties; and the increased reputational, legal and compliance risks resulting from any such failure or disruption of its operational process or systems, including fines or legal or regulatory actions or proceedings;
- the increasing risk of continually evolving, sophisticated cybersecurity activities faced by financial institutions and others, including Citi and third parties with which it does business, that could result in, among other things, theft, loss, misuse or disclosure of confidential client or customer information or assets and a disruption of

computer, software or network systems; and the potential impact from such risks, including reputational damage, regulatory penalties, loss of revenues, additional costs (including repair, remediation and other costs), exposure to litigation and other financial losses;
- the potential impact of changes to, or the application of incorrect, assumptions, judgments or estimates in Citi's financial statements, including the assessment of goodwill or other assets for impairment; estimates of Citi's ACL, which depends on its CECL models and assumptions and forecasted macroeconomic conditions and qualitative management adjustment component; reserves related to litigation, regulatory and tax matters exposures; valuation of DTAs; and fair value of certain assets and liabilities;
- the financial impact from reclassification of any CTA component of *AOCI*, including related hedges and taxes, into Citi's earnings, due to the sale, substantial liquidation or any other deconsolidation event of any foreign entity, such as those related to any of Citi's *Legacy Franchises* segment or exit businesses, whether due to Citi's strategic refresh or otherwise;
- the potential impact of settlement charges under any of Citi's pension plans, whether due to plan settlements (including lump sum payments) for a year exceeding the service plus interest costs or due to more than 10% of the plan's projected benefit obligation being settled;
- the impact of changes to financial accounting and reporting standards or interpretations on how Citi records and reports its financial condition and results of operations;
- the potential impact to Citi's results of operations and/or regulatory capital and capital ratios if Citi's risk management and mitigation processes, strategies or models, including those related to its comprehensive stress testing initiatives or ability to manage and aggregate data, are deficient or ineffective, or Citi's Basel III regulatory capital models require refinement, modification or enhancement, or any related action is taken by Citi's U.S. banking regulators;
- the potential impact of credit risk and concentrations of risk on Citi's results of operations, whether due to a default of or deterioration involving consumer, corporate or public sector borrowers or other counterparties in the U.S. or in various countries and jurisdictions globally, including from indemnification obligations in connection with various transactions, such as hedging or reinsurance arrangements related to those obligations, or Citi being unable to liquidate or realize the fair value of its collateral, and these risks can be heightened for vulnerable industries or sectors impacted by the continued macroeconomic, geopolitical, market and other challenges and uncertainties and volatilities;
- the potential impact on Citi's liquidity and/or costs of funding as a result of various factors, including, among others, general disruptions in the financial markets, governmental fiscal and monetary policies, regulatory changes or negative investor perceptions of Citi's creditworthiness, unexpected increases in cash or collateral requirements and the inability to monetize available liquidity resources, the competitive environment for deposits, changes in Citi's credit spreads, higher interest rates and changes in currency exchange rates;
- the impact of a ratings downgrade of Citi or one or more of its more significant subsidiaries or issuing entities on Citi's funding and liquidity as well as operations of certain of its businesses;
- the potential impact to Citi of ongoing interpretation and implementation of regulatory and legislative requirements and changes in the U.S. and globally, as well as heightened regulatory scrutiny and expectations for large financial institutions and their employees and agents, with respect to governance, infrastructure, data and risk management practices and controls, customer and client protection, market practices, anti-money laundering and sanctions, including the impact on Citi's compliance, regulatory and other risks and costs, such as increased regulatory oversight and restrictions, enforcement proceedings, penalties and fines;
- the potential outcomes of the extensive legal and regulatory proceedings, examinations, investigations, consent orders and related compliance efforts and other inquiries, to which Citi is or may be subject at any given time, such as the previously disclosed October 2020 FRB and OCC consent orders, particularly given the increased focus by regulators on risks and controls, such as risk management, compliance, data quality management and governance and internal controls, and policies and procedures; Citi's ability to remediate deficiencies on a timely and sufficient basis, including the resulting significant investments required for such remediation efforts; the heightened scrutiny and expectations generally from regulators, and the severity of the remedies sought by regulators, such as significant monetary penalties, supervisory or enforcement orders, business restrictions, limitations on dividends and changes to directors and/or officers and collateral consequences to Citi arising from such outcomes;
- the various risks faced by Citi as a result of its presence in the emerging markets, including, among others, limitations, cost or unavailability of hedges on foreign investments; foreign currency volatility and devaluations; sovereign volatility; election outcomes; regulatory changes and political events; foreign exchange controls, including inability to access indirect foreign exchange mechanisms; macroeconomic volatility and disruptions, including with respect to commodity prices; the impacts of inflation and food insecurity; limitations on foreign investment; sociopolitical instability (including from hyperinflation); fraud; nationalization or loss of licenses; business restrictions; sanctions or asset freezes; potential criminal charges; closure of branches or subsidiaries; confiscation of assets, whether related to geopolitical conflicts or otherwise; U.S. regulators or the ICERC imposing mandatory loan loss or other reserve requirements on Citi; and increased compliance and regulatory risks and costs;
- the potential impact to Citi from climate change and the transition to a low-carbon economy, including both physical risks, such as increased frequency and/or severity of adverse weather events and transition risks, such as

those arising from changes in regulations or market preferences toward a low-carbon economy, as well as higher regulatory, compliance and reputational risks and costs and data-related challenges, including as a result of any new SEC rules related to climate change disclosures, such as those recently proposed by the SEC, and an increased focus by banking regulators and others on the issue of climate change at financial institutions directly and with respect to their clients; and

- the transition away from and discontinuance of LIBOR and any other interest rate benchmark and the adverse consequences it could have for market participants, including Citi.

Any forward-looking statements made by or on behalf of Citigroup speak only as to the date they are made, and Citi does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the forward-looking statements were made.

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CONSOLIDATED FINANCIAL STATEMENTS

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF INCOME (UNAUDITED)

Citigroup Inc. and Subsidiaries

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars, except per share amounts	**2022**	2021	**2022**	2021
Revenues				
Interest revenue	**$ 15,630**	$ 12,463	**$ 28,781**	$ 24,997
Interest expense	**3,666**	1,985	**5,946**	4,013
Net interest income	**$ 11,964**	$ 10,478	**$ 22,835**	$ 20,984
Commissions and fees	**$ 2,452**	$ 3,374	**$ 5,020**	$ 7,044
Principal transactions	**4,525**	2,304	**9,115**	6,217
Administration and other fiduciary fees	**1,023**	1,022	**1,989**	1,983
Realized gains (losses) on sales of investments, net	**(58)**	137	**22**	538
Impairment losses on investments:				
Impairment losses on investments and other assets	**(96)**	(13)	**(186)**	(82)
Provision for credit losses on AFS debt securities[1]	**2**	—	**2**	—
Net impairment losses recognized in earnings	**(94)**	(13)	**(184)**	(82)
Other revenue	**$ (174)**	$ 451	**$ 27**	$ 736
Total non-interest revenues	**$ 7,674**	$ 7,275	**$ 15,989**	$ 16,436
Total revenues, net of interest expense	**$ 19,638**	$ 17,753	**$ 38,824**	$ 37,420
Provisions for credit losses and for benefits and claims				
Provision for credit losses on loans	**$ 1,384**	$ (1,126)	**$ 1,644**	$ (2,605)
Provision for credit losses on held-to-maturity (HTM) debt securities	**20**	4	**18**	(7)
Provision for credit losses on other assets	**7**	(3)	**3**	6
Policyholder benefits and claims	**22**	15	**49**	67
Provision for credit losses on unfunded lending commitments	**(159)**	44	**315**	(582)
Total provisions for credit losses and for benefits and claims[2]	**$ 1,274**	$ (1,066)	**$ 2,029**	$ (3,121)
Operating expenses				
Compensation and benefits	**$ 6,472**	$ 5,982	**$ 13,292**	$ 11,983
Premises and equipment	**619**	558	**1,162**	1,134
Technology/communication	**2,068**	1,895	**4,084**	3,747
Advertising and marketing	**414**	340	**725**	610
Other operating	**2,820**	2,696	**6,295**	5,410
Total operating expenses	**$ 12,393**	$ 11,471	**$ 25,558**	$ 22,884
Income from continuing operations before income taxes	**$ 5,971**	$ 7,348	**$ 11,237**	$ 17,657
Provision for income taxes	**1,182**	1,155	**2,123**	3,487
Income from continuing operations	**$ 4,789**	$ 6,193	**$ 9,114**	$ 14,170
Discontinued operations				
Income (loss) from discontinued operations	**$ (262)**	$ 10	**$ (264)**	$ 8
Benefit for income taxes	**(41)**	—	**(41)**	—
Income (loss) from discontinued operations, net of taxes	**$ (221)**	$ 10	**$ (223)**	$ 8
Net income before attribution to noncontrolling interests	**$ 4,568**	$ 6,203	**$ 8,891**	$ 14,178
Noncontrolling interests	**21**	10	**38**	43
Citigroup's net income	**$ 4,547**	$ 6,193	**$ 8,853**	$ 14,135
Basic earnings per share[3]				
Income from continuing operations	**$ 2.32**	$ 2.86	**$ 4.34**	$ 6.51
Income from discontinued operations, net of taxes	**(0.11)**	—	**(0.11)**	—
Net income	**$ 2.20**	$ 2.87	**$ 4.23**	$ 6.52
Weighted average common shares outstanding *(in millions)*	**1,941.5**	2,056.5	**1,956.6**	2,069.3
Diluted earnings per share[3]				
Income from continuing operations	**$ 2.30**	$ 2.84	**$ 4.32**	$ 6.47
Income (loss) from discontinued operations, net of taxes	**(0.11)**	—	**(0.11)**	—
Net income	**$ 2.19**	$ 2.85	**$ 4.20**	$ 6.47
Adjusted weighted average common shares outstanding *(in millions)*	**1,958.1**	2,073.0	**1,973.2**	2,084.8

(1) In accordance with ASC 326, which requires the provision for credit losses on AFS securities to be included in revenue.
(2) This total excludes the provision for credit losses on AFS securities, which is disclosed separately above.
(3) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (UNAUDITED)

Citigroup Inc. and Subsidiaries

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Citigroup's net income	**$ 4,547**	$ 6,193	**$ 8,853**	$ 14,135
Add: Citigroup's other comprehensive income[1]				
Net change in unrealized gains and losses on debt securities, net of taxes[1]	**$ (1,501)**	$ (474)	**$ (5,778)**	$ (2,259)
Net change in debt valuation adjustment (DVA), net of taxes[2]	**1,967**	(62)	**2,760**	(104)
Net change in cash flow hedges, net of taxes	**(666)**	(173)	**(2,207)**	(729)
Benefit plans liability adjustment, net of taxes	**(89)**	87	**82**	801
Net change in foreign currency translation adjustment, net of taxes and hedges	**(1,630)**	523	**(1,644)**	(751)
Net change in excluded component of fair value hedges, net of taxes	**9**	(10)	**57**	(20)
Citigroup's total other comprehensive income (loss)	**$ (1,910)**	$ (109)	**$ (6,730)**	$ (3,062)
Citigroup's total comprehensive income	**$ 2,637**	$ 6,084	**$ 2,123**	$ 11,073
Add: Other comprehensive income (loss) attributable to noncontrolling interests	**$ (53)**	$ 18	**$ (82)**	$ (40)
Add: Net income (loss) attributable to noncontrolling interests	**21**	10	**38**	43
Total comprehensive income	**$ 2,605**	$ 6,112	**$ 2,079**	$ 11,076

(1) See Note 17.
(2) See Note 20.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

In millions of dollars	June 30, 2022 (Unaudited)	December 31, 2021
Assets		
Cash and due from banks (including segregated cash and other deposits)	**$ 24,902**	$ 27,515
Deposits with banks, net of allowance	**259,128**	234,518
Securities borrowed and purchased under agreements to resell (including $242,760 and $216,466 as of June 30, 2022 and December 31, 2021, respectively, at fair value), net of allowance	**361,334**	327,288
Brokerage receivables, net of allowance	**80,486**	54,340
Trading account assets (including $128,223 and $133,828 pledged to creditors at June 30, 2022 and December 31, 2021, respectively)	**340,875**	331,945
Investments:		
Available-for-sale debt securities (including $7,070 and $9,226 pledged to creditors as of June 30, 2022 and December 31, 2021, respectively), net of allowance	**238,499**	288,522
Held-to-maturity debt securities (including $35 and $1,460 pledged to creditors as of June 30, 2022 and December 31, 2021, respectively), net of allowance	**267,592**	216,963
Equity securities (including $1,046 and $1,032 at fair value as of June 30, 2022 and December 31, 2021, respectively)	**7,787**	7,337
Total investments	**$ 513,878**	$ 512,822
Loans:		
Consumer (including $8 and $12 as of June 30, 2022 and December 31, 2021, respectively, at fair value)	**355,605**	376,534
Corporate (including $4,528 and $6,070 as of June 30, 2022 and December 31, 2021, respectively, at fair value)	**301,728**	291,233
Loans, net of unearned income	**$ 657,333**	$ 667,767
Allowance for credit losses on loans (ACLL)	**(15,952)**	(16,455)
Total loans, net	**$ 641,381**	$ 651,312
Goodwill	**19,597**	21,299
Intangible assets (including MSRs of $600 and $404 as of June 30, 2022 and December 31, 2021, respectively, at fair value)	**4,526**	4,495
Other assets (including $10,085 and $12,342 as of June 30, 2022 and December 31, 2021, respectively, at fair value), net of allowance	**134,797**	125,879
Total assets	**$ 2,380,904**	$ 2,291,413

The following table presents certain assets of consolidated variable interest entities (VIEs), which are included on the Consolidated Balance Sheet above. The assets in the table below include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. In addition, the assets in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation.

In millions of dollars	June 30, 2022 (Unaudited)	December 31, 2021
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs		
Cash and due from banks	**$ 94**	$ 260
Trading account assets	**9,072**	10,038
Investments	**596**	844
Loans, net of unearned income		
Consumer	**34,243**	34,677
Corporate	**14,537**	14,312
Loans, net of unearned income	**$ 48,780**	$ 48,989
Allowance for credit losses on loans (ACLL)	**(2,460)**	(2,668)
Total loans, net	**$ 46,320**	$ 46,321
Other assets	**52**	1,174
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	**$ 56,134**	$ 58,637

Statement continues on the next page.

In millions of dollars, except shares and per share amounts		**June 30, 2022 (Unaudited)**		December 31, 2021
Liabilities				
Non-interest-bearing deposits in U.S. offices	**$**	**147,214**	$	158,552
Interest-bearing deposits in U.S. offices (including $856 and $879 as of June 30, 2022 and December 31, 2021, respectively, at fair value)		**565,785**		543,283
Non-interest-bearing deposits in offices outside the U.S.		**100,266**		97,270
Interest-bearing deposits in offices outside the U.S. (including $1,452 and $787 as of June 30, 2022 and December 31, 2021, respectively, at fair value)		**508,583**		518,125
Total deposits	**$**	**1,321,848**	$	1,317,230
Securities loaned and sold under agreements to repurchase (including $64,574 and $56,694 as of June 30, 2022 and December 31, 2021, respectively, at fair value)		**198,472**		191,285
Brokerage payables (including $3,288 and $3,575 as of June 30, 2022 and December 31, 2021, respectively, at fair value)		**96,474**		61,430
Trading account liabilities		**180,453**		161,529
Short-term borrowings (including $6,852 and $7,358 as of June 30, 2022 and December 31, 2021, respectively, at fair value)		**40,054**		27,973
Long-term debt (including $89,388 and $82,609 as of June 30, 2022 and December 31, 2021, respectively, at fair value)		**257,425**		254,374
Other liabilities		**86,552**		74,920
Total liabilities	**$**	**2,181,278**	$	2,088,741
Stockholders' equity				
Preferred stock ($1.00 par value; authorized shares: 30 million), issued shares: **as of June 30, 2022—759,800** and as of December 31, 2021—759,800, at aggregate liquidation value	**$**	**18,995**	$	18,995
Common stock ($0.01 par value; authorized shares: 6 billion), issued shares: **as of June 30, 2022—3,099,669,331** and as of December 31, 2021—3,099,651,835		**31**		31
Additional paid-in capital		**108,210**		108,003
Retained earnings		**191,261**		184,948
Treasury stock, at cost: **June 30, 2022—1,162,959,708 shares** and December 31, 2021—1,115,296,641 shares		**(73,988)**		(71,240)
Accumulated other comprehensive income (loss) (*AOCI*)		**(45,495)**		(38,765)
Total Citigroup stockholders' equity	**$**	**199,014**	$	201,972
Noncontrolling interests		**612**		700
Total equity	**$**	**199,626**	$	202,672
Total liabilities and equity	**$**	**2,380,904**	$	2,291,413

The following table presents certain liabilities of consolidated VIEs, which are included on the Consolidated Balance Sheet above. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude amounts where creditors or beneficial interest holders have recourse to the general credit of Citigroup.

In millions of dollars		**June 30, 2022 (Unaudited)**		December 31, 2021
Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup				
Short-term borrowings	**$**	**8,105**	$	8,376
Long-term debt		**12,511**		12,579
Other liabilities		**238**		694
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	**$**	**20,854**	$	21,649

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY (UNAUDITED)

Citigroup Inc. and Subsidiaries

In millions of dollars	Three Months Ended June 30, 2022	Three Months Ended June 30, 2021	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Preferred stock at aggregate liquidation value				
Balance, beginning of period	**$ 18,995**	$ 20,280	**$ 18,995**	$ 19,480
Issuance of new preferred stock	**—**	—	**—**	2,300
Redemption of preferred stock	**—**	(2,285)	**—**	(3,785)
Balance, end of period	**$ 18,995**	$ 17,995	**$ 18,995**	$ 17,995
Common stock and additional paid-in capital (APIC)				
Balance, beginning of period	**$ 108,081**	$ 107,725	**$ 108,034**	$ 107,877
Employee benefit plans	**160**	112	**206**	(63)
Preferred stock issuance costs (new issuances, net of reclassifications to retained earnings for redemptions)	**—**	8	**—**	40
Other	**—**	6	**1**	(3)
Balance, end of period	**$ 108,241**	$ 107,851	**$ 108,241**	$ 107,851
Retained earnings				
Balance, beginning of period	**$ 187,962**	$ 174,816	**$ 184,948**	$ 168,272
Citigroup's net income	**4,547**	6,193	**8,853**	14,135
Common dividends(1)	**(1,010)**	(1,062)	**(2,024)**	(2,136)
Preferred dividends	**(238)**	(253)	**(517)**	(545)
Other (primarily reclassifications from APIC for preferred issuance costs on redemptions)	**—**	(8)	**1**	(40)
Balance, end of period	**$ 191,261**	$ 179,686	**$ 191,261**	$ 179,686
Treasury stock, at cost				
Balance, beginning of period	**$ (73,744)**	$ (65,261)	**$ (71,240)**	$ (64,129)
Employee benefit plans(2)	**6**	8	**502**	476
Treasury stock acquired(3)	**(250)**	(3,000)	**(3,250)**	(4,600)
Balance, end of period	**$ (73,988)**	$ (68,253)	**$ (73,988)**	$ (68,253)
Citigroup's accumulated other comprehensive income (loss)				
Balance, beginning of period	**$ (43,585)**	$ (35,011)	**$ (38,765)**	$ (32,058)
Citigroup's total other comprehensive income	**(1,910)**	(109)	**(6,730)**	(3,062)
Balance, end of period	**$ (45,495)**	$ (35,120)	**$ (45,495)**	$ (35,120)
Total Citigroup common stockholders' equity	**$ 180,019**	$ 184,164	**$ 180,019**	$ 184,164
Total Citigroup stockholders' equity	**$ 199,014**	$ 202,159	**$ 199,014**	$ 202,159
Noncontrolling interests				
Balance, beginning of period	**$ 644**	$ 724	**$ 700**	$ 758
Transactions between noncontrolling-interest shareholders and the related consolidated subsidiary	**—**	—	**—**	—
Transactions between Citigroup and the noncontrolling-interest shareholders	**(1)**	1	**(34)**	1
Net income attributable to noncontrolling-interest shareholders	**21**	10	**38**	43
Distributions paid to noncontrolling-interest shareholders	**(1)**	—	**(11)**	—
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	**(53)**	18	**(82)**	(40)
Other	**2**	(2)	**1**	(11)
Net change in noncontrolling interests	**$ (32)**	$ 27	**$ (88)**	$ (7)
Balance, end of period	**$ 612**	$ 751	**$ 612**	$ 751
Total equity	**$ 199,626**	$ 202,910	**$ 199,626**	$ 202,910

(1) Common dividends declared were $0.51 per share for each of the first and second quarters of 2022 and 2021.

(2) Includes treasury stock related to (i) certain activity on employee stock option program exercises where the employee delivers existing shares to cover the option exercise, or (ii) under Citi's employee restricted or deferred stock programs where shares are withheld to satisfy tax requirements.

(3) Primarily consists of open market purchases under Citi's Board of Directors-approved common share repurchase program.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)

	Six Months Ended June 30,	
In millions of dollars	**2022**	2021
Cash flows from operating activities of continuing operations		
Net income before attribution of noncontrolling interests	**$ 8,891**	$ 14,178
Net income attributable to noncontrolling interests	**38**	43
Citigroup's net income	**$ 8,853**	$ 14,135
(Loss) gain from discontinued operations, net of taxes	**(223)**	8
Income from continuing operations—excluding noncontrolling interests	**$ 9,076**	$ 14,127
Adjustments to reconcile net income to net cash provided by (used in) operating activities of continuing operations		
Depreciation and amortization	**2,089**	1,944
Provisions for credit losses on loans and unfunded lending commitments	**1,959**	(3,187)
Goodwill impairment	**535**	—
Realized gains from sales of investments	**(22)**	(538)
Impairment losses on investments and other assets	**186**	82
Change in trading account assets	**(8,974)**	4,098
Change in trading account liabilities	**18,924**	6,679
Change in brokerage receivables net of brokerage payables	**8,898**	(7,400)
Change in loans HFS	**4,504**	(3,214)
Change in other assets	**(3,450)**	(2,260)
Change in other liabilities	**(2,117)**	3,300
Other, net	**(34,877)**	9,932
Total adjustments	**$ (12,345)**	$ 9,436
Net cash provided by (used in) operating activities of continuing operations	**$ (3,269)**	$ 23,563
Cash flows from investing activities of continuing operations		
Change in securities borrowed and purchased under agreements to resell	**$ (34,046)**	$ (14,335)
Change in loans	**(14,790)**	(3,088)
Proceeds from divestitures[1]	**1,940**	—
Proceeds from sales and securitizations of loans	**1,562**	869
Available-for-sale debt securities[2]:		
Purchases of investments	**(123,528)**	(114,240)
Proceeds from sales of investments	**79,952**	66,135
Proceeds from maturities of investments	**76,871**	62,904
Held-to-maturity debt securities[2]:		
Purchases of investments	**(34,317)**	(87,049)
Proceeds from maturities of investments	**5,821**	12,291
Capital expenditures on premises and equipment and capitalized software	**(2,465)**	(1,771)
Proceeds from sales of premises and equipment, subsidiaries and affiliates and repossessed assets	**31**	28
Other, net	**(332)**	145
Net cash used in investing activities of continuing operations	**$ (43,301)**	$ (78,111)
Cash flows from financing activities of continuing operations		
Dividends paid	**$ (2,514)**	$ (2,663)
Issuance of preferred stock	**—**	2,300
Redemption of preferred stock	**—**	(3,785)

CONSOLIDATED STATEMENT OF CASH FLOWS
(UNAUDITED) (Continued)

In millions of dollars	Six Months Ended June 30, 2022	2021
Treasury stock acquired	**$ (3,200)**	$ (4,381)
Stock tendered for payment of withholding taxes	**(334)**	(324)
Change in securities loaned and sold under agreements to repurchase	**7,187**	22,292
Issuance of long-term debt	**60,304**	41,511
Payments and redemptions of long-term debt	**(28,439)**	(41,894)
Change in deposits	**25,360**	29,610
Change in short-term borrowings	**12,081**	1,948
Net cash provided by financing activities of continuing operations	**$ 70,445**	$ 44,614
Effect of exchange rate changes on cash and due from banks	**$ (1,878)**	$ (443)
Change in cash, due from banks and deposits with banks	**21,997**	(10,377)
Cash, due from banks and deposits with banks at beginning of period	**262,033**	309,615
Cash, due from banks and deposits with banks at end of period	**$ 284,030**	$ 299,238
Cash and due from banks (including segregated cash and other deposits)	**$ 24,902**	$ 27,117
Deposits with banks, net of allowance	**259,128**	272,121
Cash, due from banks and deposits with banks at end of period	**$ 284,030**	$ 299,238
Supplemental disclosure of cash flow information for continuing operations		
Cash paid during the period for income taxes	**$ 1,661**	$ 2,176
Cash paid during the period for interest	**6,284**	3,926
Non-cash investing activities[(1)(3)]		
Transfer of investment securities from AFS to HTM	**$ 21,522**	$ —
Decrease in net loans associated with divestitures reclassified to HFS	**17,758**	—
Decrease in goodwill associated with divestitures reclassified to HFS	**873**	—
Transfers to loans HFS (*Other assets*) from loans	**1,874**	961
Non-cash financing activities[(1)]		
Decrease in deposits associated with divestitures reclassified to HFS	**$ 20,741**	$ —

(1) See Note 2 for further information on significant disposals.

(2) Citi has revised the Consolidated Statement of Cash Flows to present purchases of investments, sales of investments and proceeds from maturities of investments separately between available-for-sale debt securities and held-to-maturity debt securities. Citi had no sales of held-to-maturity debt securities during the periods presented.

(3) Operating and finance lease right-of-use assets and lease liabilities represent non-cash investing and financing activities, respectively, and are not included in the non-cash investing activities presented here. See Note 22 for more information and balances as of June 30, 2022.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

1. BASIS OF PRESENTATION, UPDATED ACCOUNTING POLICIES AND ACCOUNTING CHANGES

Basis of Presentation

The accompanying unaudited Consolidated Financial Statements as of June 30, 2022 and for the three- and six-month periods ended June 30, 2022 and 2021 include the accounts of Citigroup Inc. and its consolidated subsidiaries.

In the opinion of management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation have been reflected. The accompanying unaudited Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and related notes included within Citigroup's Annual Report on Form 10-K for the year ended December 31, 2021, Citigroup's Current Report on Form 8-K dated May 10, 2022 (as amended by a Current Report on Form 8-K/A dated May 10, 2022) with Historical Consolidated Financial Statements and Notes conformed to reflect changes in Citigroup's reportable segments from those contained in Citi's 2021 Annual Report on Form 10-K included as an exhibit thereto (such Current Report on Form 8-K together with Citigroup's 2021 Annual Report on Form 10-K, collectively referred to as the 2021 Form 10-K), and Citigroup's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (First Quarter of 2022 Form 10-Q).

Certain financial information that is normally included in annual financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP), but is not required for interim reporting purposes, has been condensed or omitted.

Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related footnote disclosures. While management uses its best judgment, actual results could differ from those estimates.

As noted above, the Notes to these Consolidated Financial Statements are unaudited.

Throughout these Notes, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries.

Certain reclassifications and updates have been made to the prior periods' financial statements and notes to conform to the current period's presentation.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

See Note 1 to the Consolidated Financial Statements in Citigroup's 2021 Form 10-K for a summary of all of Citigroup's significant accounting policies.

ACCOUNTING CHANGES

Multiple Macroeconomic Scenarios-Based ACL Approach

During the second quarter of 2022, Citi refined its ACL methodology to utilize multiple macroeconomic scenarios to estimate its allowance for credit losses. The ACL was previously estimated using a combination of a single base-case forecast scenario as part of its quantitative component and a qualitative management adjustment to reflect economic uncertainty from downside macroeconomic scenarios. As a result of this change, Citi now explicitly incorporates multiple macroeconomic scenarios—base, upside, and downside—and associated probabilities in the quantitative component when estimating its ACL.

This refinement represents a "change in accounting estimate" under ASC Topic 250, *Accounting Changes and Error Corrections*, with prospective application beginning in the period of change. This change in accounting estimate resulted in a decrease of approximately $0.3 billion in the allowance for credit losses, partially offsetting an increase of $0.8 billion in the allowance for credit losses due to the increased macroeconomic uncertainty and other factors in the second quarter.

Accounting for Deposit Insurance Expenses

During the fourth quarter of 2021, Citi changed its presentation of accounting for deposit insurance costs paid to the Federal Deposit Insurance Corporation (FDIC) and similar foreign regulators. These costs were previously presented within *Interest expense* and, as a result of this change, are now presented within *Other operating expenses*. Citi concluded that this presentation was preferable in Citi's circumstances, as it better reflected the nature of these deposit insurance costs in that these costs do not directly represent interest payments to creditors, but are similar in nature to other payments to regulatory agencies that are accounted for as operating expenses.

This change in income statement presentation represents a "change in accounting principle" under ASC Topic 250, *Accounting Changes and Error Corrections*, with retrospective application to the earliest period presented. This change in accounting principle resulted in a reclassification of $279 million and $619 million of deposit insurance expenses from *Interest expense* to *Other operating expenses*, for the quarter and six months ended June 30, 2021. This change had no impact on Citi's net income or the total deposit insurance expense incurred by Citi.

FUTURE ACCOUNTING CHANGES

Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions

In June 2022, FASB issued Accounting Standards Update (ASU) 2022-3, *Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions*. The ASU was issued to address diversity in practice whereby certain entities included the impact of contractual restrictions when valuing equity securities, and it clarifies that a contractual restriction on the sale of an equity security should not be considered part of the unit of account of the equity security and, therefore, should not be considered in measuring fair value. The ASU also includes requirements for entities to disclose the fair value of equity securities subject to contractual sale restrictions, the nature and remaining duration of the restrictions and the circumstances that could cause a lapse in the restrictions. The ASU is to be adopted on a prospective basis and will be effective for Citigroup on January 1, 2024, although early adoption is permitted. Adoption of the accounting standard is not expected to have an impact on Citi's operating results or financial position, as the Company excludes such restrictions when valuing equity securities.

Obligations to Safeguard Crypto-assets Held for Platform Users

In March 2022, the SEC issued Staff Accounting Bulletin (SAB) No. 121, which expresses the views of the SEC staff regarding the accounting for obligations to safeguard crypto-assets that an entity holds for platform users. Specifically, the guidance requires issuers that hold digital assets for their platform users to recognize a liability for their obligation to safeguard the digital assets held and a corresponding asset, measured initially and subsequently at fair value. The guidance is effective for interim and annual periods ending after June 15, 2022. Citigroup does not have any transactions within the scope of SAB 121 as of June 30, 2022.

Fair Value Hedging—Portfolio Layer Method

In March 2022, the FASB issued ASU No. 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging—Portfolio Layer Method*, intended to better align hedge accounting with an organization's risk management strategies. Specifically, the guidance expands the current single-layer method to allow multiple hedge layers of a single closed portfolio of qualifying assets, which include both prepayable and non-prepayable assets. Upon the adoption of the guidance, entities may elect to reclassify securities held-to-maturity to the available-for-sale category as long as the reclassified securities are designated in a portfolio hedge. The guidance is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years with early adoption permitted. Citi is evaluating when to adopt the amendments in ASU 2022-01. Citi does not expect a material impact to its results of operations as a result of adopting the amendments.

Troubled Debt Restructurings and Vintage Disclosures

In March 2022, the FASB issued ASU No. 2022-02, *Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*. The ASU eliminates the accounting guidance for troubled debt restructurings by creditors, enhances disclosure requirements for certain loan refinancings and restructurings by creditors and requires that an entity disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases within the scope of Subtopic 326-20. The guidance is effective beginning January 1, 2023 and early adoption is permitted. Citi plans to adopt the amendments in ASU 2022-02 on January 1, 2023, and is evaluating the effect they will have on its Consolidated Financial Statements and related disclosures.

Long-Duration Insurance Contracts

In August 2018, the FASB issued ASU No. 2018-12, *Financial Services—Insurance: Targeted Improvements to the Accounting for Long-Duration Contracts*, which changes the existing recognition, measurement, presentation and disclosures for long-duration contracts issued by an insurance entity. Specifically, the guidance (i) improves the timeliness of recognizing changes in the liability for future policy benefits and prescribes the rate used to discount future cash flows for long-duration insurance contracts, (ii) simplifies and improves the accounting for certain market-based options or guarantees associated with deposit (or account balance) contracts, (iii) simplifies the amortization of deferred acquisition costs and (iv) introduces additional quantitative and qualitative disclosures. Citi has certain insurance subsidiaries, primarily in Mexico, that issue long-duration insurance contracts such as traditional life insurance policies and life-contingent annuity contracts that will be impacted by the requirements of ASU 2018-12.

The effective date of ASU 2018-12 was deferred for all insurance entities by ASU 2019-09, *Financial Services—Insurance: Effective Date* (issued in October 2019) and by ASU 2020-11, *Financial Services—Insurance: Effective Date and Early Application* (issued in November 2020). Citi plans to adopt the targeted improvements in ASU 2018-12 on January 1, 2023 and is currently evaluating the impact of the standard on its insurance subsidiaries. Citi does not expect a material impact to its results of operations as a result of adopting the standard.

2. DISCONTINUED OPERATIONS, SIGNIFICANT DISPOSALS AND OTHER BUSINESS EXITS

Discontinued Operations

The Company's results from *Discontinued operations* consisted of residual activities related to previously divested operations. All *Discontinued operations* results are recorded within *Corporate/Other*.

The following table summarizes financial information for all *Discontinued operations*:

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Total revenues, net of interest expense	**$ —**	$ —	**$ —**	$ —
Income (loss) from discontinued operations[1]	**$ (262)**	$ 10	**$ (264)**	$ 8
Benefit for income taxes	**(41)**	—	**(41)**	—
Income (loss) from discontinued operations, net of taxes	**$ (221)**	$ 10	**$ (223)**	$ 8

(1) Amounts in each period relate to the sale of the Egg Banking business in 2011.

During the second quarter of 2022, the Company finalized the settlement of certain liabilities related to its legacy consumer operation in the U.K. (the legacy operation), including an indemnification liability related to its sale of the Egg Banking business in 2011, which led to the substantial liquidation of the legacy operation. As a result, a CTA loss (net of hedges) in *AOCI* of approximately $400 million pretax ($345 million after-tax) related to the legacy operation was released to earnings in the current period. Out of the total CTA release, a $260 million pretax loss ($221 million after-tax loss) was attributable to the Egg Banking business noted above, reported in *Discontinued operations*, and therefore the corresponding CTA release was also reported in *Discontinued operations* during the second quarter. The remaining CTA release of a $140 million pretax loss ($124 million after-tax loss) related to Legacy Holdings Assets was reported as part of *Continuing operations* within *Legacy Franchises*.

While the legacy operation was divested in multiple sales over the years, each transaction did not result in substantial liquidation given that Citi retained certain liabilities noted above, which were gradually settled over time until reaching the point of substantial liquidation during the second quarter, triggering the release of the CTA loss to earnings.

Cash flows from *Discontinued operations* were not material for the periods presented.

Significant Disposals

Citi entered into agreements to sell nine consumer banking businesses that, in aggregate, will result in a transfer to HFS of approximately $29 billion in assets, including $19 billion of loans (net of allowance of $409 million) and approximately $23 billion in liabilities, including $22 billion in deposits as of June 30, 2022. As a result, these assets and liabilities held by each business were reclassified to HFS within *Other assets* and *Other liabilities*, respectively, on the Consolidated Balance Sheet. The following five consumer banking business sale agreements (of nine) were identified as significant disposals that are recorded within the *Legacy Franchises* segment. All open sales agreements in the table below are subject to regulatory approvals and other closing conditions.

In millions of dollars			June 30, 2022									
			Assets						Liabilities			
Consumer banking business in	Sale agreement date	Expected close	Cash and deposits with banks	Loans[1]	Goodwill[2]	Other assets, advances to/from subsidiaries	Other assets	Total assets	Deposits	Long-term debt	Other liabilities	Total liabilities
Australia[3]	8/9/21	closed on 6/1/2022	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Philippines[4]	12/23/21	closed on 8/1/2022	**31**	**1,170**	**244**	**511**	**37**	**1,993**	**1,208**	**—**	**78**	**1,286**
Thailand[4]	1/14/22	second half 2022	**$ 15**	**$ 2,485**	**$ 160**	**$ 215**	**$ 84**	**$ 2,959**	**$ 925**	**$ —**	**$ 133**	**$ 1,058**
Taiwan[4]	1/28/22	second half 2023	**104**	**7,878**	**212**	**4,855**	**199**	**13,248**	**10,350**	**—**	**214**	**10,564**
India[4]	3/30/22	first half 2023	**29**	**3,515**	**346**	**2,482**	**102**	**6,474**	**5,916**	**—**	**184**	**6,100**

	Income (loss) before taxes[5]			
	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Australia[3]	**$ 28**	$ 69	**$ 193**	$ 142
Philippines	**14**	31	**65**	67
Thailand	**90**	43	**78**	91
Taiwan	**50**	65	**96**	150
India	**52**	29	**125**	98

(1) Loans, net of allowance as of June 30, 2022: Philippines $80 million, Thailand $80 million, Taiwan $57 million and India $51 million.
(2) For Thailand, includes intangible assets.
(3) On June 1, 2022, Citi completed the sale of its Australia consumer banking business, which was a part of *Legacy Franchises*. The Australia consumer banking business had approximately $9.4 billion in assets, including $9.3 billion of loans (net of allowance of $140 million) and excluding goodwill. The total amount of liabilities was $7.3 billion including $6.8 billion in deposits. The transaction generated a pretax loss on sale of approximately $800 million ($665 million after-tax), subject to closing adjustments, recorded in *Other revenue*. The loss on sale primarily reflected the impact of an approximate pretax $620 million currency translation adjustment (CTA) loss (net of hedges) ($470 million after-tax) already reflected in the *Accumulated other comprehensive income (AOCI)* component of equity. The sale closed on June 1, 2022, and the CTA-related balance was removed from the *AOCI* component of equity, resulting in a neutral CTA impact to Citi's Common Equity Tier 1 Capital. The income before taxes shown in the above table for Australia reflects the two months of Citi's ownership through June 1, 2022.
(4) These sales are expected to result in an after-tax gain upon closing.
(5) Income before taxes for the period in which the individually significant component was classified as HFS for all prior periods presented. For Australia, excludes the pretax loss on sale.

Citi did not have any other significant disposals to report as of June 30, 2022. As of August 3, 2022, Citi had not entered into any other definitive sales agreements related to its recently announced intention to pursue exits of its consumer franchises in 12 remaining markets across Asia and EMEA.

For a description of the Company's significant disposal transactions in prior periods and financial impact, see Note 2 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Other Business Exits

Wind-Down of Korea Consumer Banking Business

On October 25, 2021, Citi announced its decision to wind down and close its Korea consumer banking business, which is reported in the *Legacy Franchises* operating segment. In connection with the announcement, Citibank Korea Inc. (CKI) commenced a voluntary early termination program (Korea VERP). Due to the voluntary nature of this termination program, no liabilities for termination benefits are recorded until CKI makes formal offers to employees that are then irrevocably accepted by those employees. Related charges are recorded as *Compensation and benefits*.

During the first quarter of 2022, Citi recorded an additional pretax charge of $31 million, composed of gross charges connected to the Korea VERP.

The following table summarizes the reserve charges related to the Korea VERP and other initiatives reported in the *Legacy Franchises* operating segment and *Corporate/Other*:

In millions of dollars		**Employee termination costs**
Total Citigroup (pretax)		
Original charges	$	1,052
Utilization		(1)
Foreign exchange		3
Balance at December 31, 2021	$	1,054
Additional charges	$	31
Utilization		(347)
Foreign exchange		(24)
Balance at March 31, 2022	$	714
Additional charges (releases)	**$**	**(3)**
Utilization		**(670)**
Foreign exchange		**(41)**
Balance at June 30, 2022	**$**	**—**

The total estimated cash charges for the wind-down are $1.1 billion, most of which were recognized in 2021.

See Note 8 for details on the pension impact of the Korea wind-down.

3. OPERATING SEGMENTS

Effective January 1, 2022, Citi changed its management structure resulting in changes in its operating segments and reporting units to reflect how the CEO, who is the chief operating decision maker, intends to manage the Company, allocate resources and measure performance. Citi reorganized its reporting into three operating segments: *Institutional Clients Group (ICG)*, *Personal Banking and Wealth Management (PBWM)* and *Legacy Franchises*, with *Corporate/Other* including activities not assigned to a specific operating segment, as well as discontinued operations. The prior-period balances reflect reclassifications to conform the presentation in those periods to the current operating segment structure. Citi's consolidated results were not impacted by the changes discussed above and remain unchanged for all periods presented.

The operating segments are determined based on how management allocates resources and measures financial performance to make business decisions, and are reflective of the types of customers served and the products and services provided.

ICG consists of Services, Markets and Banking, providing corporate, institutional and public sector clients around the world with a full range of wholesale banking products and services.

PBWM consists of U.S. Personal Banking and Global Wealth Management (Global Wealth), providing traditional banking services and credit cards to retail and small business customers in the U.S., and financial services to the entire continuum of wealth clients—from affluent to ultra-high-net-worth—through banking, lending, mortgages, investment, custody and trust product offerings in approximately 20 countries, including the U.S., Mexico and the four wealth management centers: Singapore, Hong Kong, the UAE and London.

Legacy Franchises consists of Asia Consumer and Mexico Consumer/SBMM businesses that Citi intends to exit, and its remaining Legacy Holdings Assets.

Corporate/Other includes activities not assigned to the operating segments, including certain unallocated costs of global functions, other corporate expenses and net treasury results, offsets to certain line-item reclassifications and eliminations, and unallocated taxes, as well as discontinued operations.

The following tables present certain information regarding the Company's continuing operations by operating segment and *Corporate/Other*:

In millions of dollars, except identifiable assets, average loans and average deposits in billions	Three Months Ended June 30, ICG 2022	ICG 2021	PBWM 2022	PBWM 2021	Legacy Franchises 2022	Legacy Franchises 2021	Corporate/Other 2022	Corporate/Other 2021	Total Citi 2022	Total Citi 2021
Net interest income	**$ 4,520**	$ 3,760	**$ 5,569**	$ 4,985	**$ 1,474**	$ 1,621	**$ 401**	$ 112	**$ 11,964**	$ 10,478
Non-interest revenue	**6,899**	5,789	**460**	713	**461**	658	**(146)**	115	**7,674**	7,275
Total revenues, net of interest expense	**$11,419**	$ 9,549	**$ 6,029**	$ 5,698	**$ 1,935**	$ 2,279	**$ 255**	$ 227	**$ 19,638**	$ 17,753
Operating expense	**6,434**	5,829	**3,985**	3,547	**1,814**	1,788	**160**	307	**12,393**	11,471
Provisions for credit losses	**(202)**	(694)	**1,355**	(170)	**121**	(204)	**—**	2	**1,274**	(1,066)
Income (loss) from continuing operations before taxes	**$ 5,187**	$ 4,414	**$ 689**	$ 2,321	**$ —**	$ 695	**$ 95**	$ (82)	**$ 5,971**	$ 7,348
Provision (benefits) for income taxes	**1,209**	981	**136**	516	**15**	203	**(178)**	(545)	**1,182**	1,155
Income (loss) from continuing operations	**$ 3,978**	$ 3,433	**$ 553**	$ 1,805	**$ (15)**	$ 492	**$ 273**	$ 463	**$ 4,789**	$ 6,193
Identifiable assets (June 30, 2022 and December 31, 2021)	**$ 1,700**	$ 1,613	**$ 479**	$ 464	**$ 108**	$ 125	**$ 94**	$ 89	**$ 2,381**	$ 2,291
Average loans	**297**	287	**317**	304	**43**	79	**—**	—	**657**	670
Average deposits	**830**	818	**435**	410	**51**	85	**7**	8	**1,323**	1,321

In millions of dollars, except average loans and average deposits in billions	Six Months Ended June 30, ICG 2022	ICG 2021	PBWM 2022	PBWM 2021	Legacy Franchises 2022	Legacy Franchises 2021	Corporate/Other 2022	Corporate/Other 2021	Total Citi 2022	Total Citi 2021
Net interest income	**$ 8,304**	$ 7,493	**$10,954**	$10,150	**$ 2,982**	$ 3,184	**$ 595**	$ 157	**$ 22,835**	$ 20,984
Non-interest revenue	**14,275**	13,444	**980**	1,540	**884**	1,338	**(150)**	114	**15,989**	16,436
Total revenues, net of interest expense	**$22,579**	$20,937	**$11,934**	$11,690	**$ 3,866**	$ 4,522	**$ 445**	$ 271	**$ 38,824**	$ 37,420
Operating expense	**13,157**	11,761	**7,874**	6,969	**4,107**	3,540	**420**	614	**25,558**	22,884
Provisions for credit losses	**769**	(2,233)	**979**	(727)	**281**	(160)	**—**	(1)	**2,029**	(3,121)
Income (loss) from continuing operations before taxes	**$ 8,653**	$11,409	**$ 3,081**	$ 5,448	**$ (522)**	$ 1,142	**$ 25**	$ (342)	**$ 11,237**	$ 17,657
Provision (benefits) for income taxes	**2,017**	2,546	**668**	1,223	**(122)**	330	**(440)**	(612)	**2,123**	3,487
Income (loss) from continuing operations	**$ 6,636**	$ 8,863	**$ 2,413**	$ 4,225	**$ (400)**	$ 812	**$ 465**	$ 270	**$ 9,114**	$ 14,170
Average loans	**$ 293**	$ 284	**$ 315**	$ 304	**$ 45**	$ 80	**$ —**	$ —	**$ 653**	$ 668
Average deposits	**828**	814	**441**	404	**53**	85	**7**	10	**1,329**	1,313

4. INTEREST REVENUE AND EXPENSE

Interest revenue and *Interest expense* consisted of the following:

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Interest revenue				
Consumer loans	**$ 6,601**	$ 6,521	**$ 12,863**	$ 13,223
Corporate loans	**2,894**	2,212	**5,348**	4,419
Loan interest, including fees	**$ 9,495**	$ 8,733	**$ 18,211**	$ 17,642
Deposits with banks	**658**	126	**954**	271
Securities borrowed and purchased under agreements to resell	**805**	205	**1,199**	499
Investments, including dividends	**2,370**	1,818	**4,420**	3,570
Trading account assets(1)	**1,659**	1,470	**2,805**	2,807
Other interest-bearing assets(2)	**643**	111	1,192	208
Total interest revenue	**$ 15,630**	$ 12,463	**$ 28,781**	$ 24,997
Interest expense				
Deposits	**$ 1,420**	$ 676	**$ 2,291**	$ 1,388
Securities loaned and sold under agreements to repurchase	**655**	260	**937**	513
Trading account liabilities(1)	**137**	150	**284**	264
Short-term borrowings and other interest-bearing liabilities(3)	**268**	31	**323**	62
Long-term debt	**1,186**	868	**2,111**	1,786
Total interest expense	**$ 3,666**	$ 1,985	**$ 5,946**	$ 4,013
Net interest income	**$ 11,964**	$ 10,478	**$ 22,835**	$ 20,984
Provision (benefit) for credit losses on loans	**1,384**	(1,126)	**1,644**	(2,605)
Net interest income after provision for credit losses on loans	**$ 10,580**	$ 11,604	**$ 21,191**	$ 23,589

(1) Interest expense on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(2) Includes assets from businesses held-for-sale (see Note 2) and *Brokerage receivables*.
(3) Includes liabilities from businesses held-for-sale (see Note 2) and *Brokerage payables*.

5. COMMISSIONS AND FEES; ADMINISTRATION AND OTHER FIDUCIARY FEES

For additional information on Citi's commissions and fees, and administration and other fiduciary fees, see Note 5 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

The following tables present *Commissions and fees* revenue:

In millions of dollars	Three Months Ended June 30, 2022 ICG	PBWM	Legacy Franchises	Total	Six Months Ended June 30, 2022 ICG	PBWM	Legacy Franchises	Total
Investment banking	**$ 845**	**$ —**	**$ —**	**$ 845**	**$ 1,753**	**$ —**	**$ —**	**$ 1,753**
Brokerage commissions	**393**	**213**	**53**	**659**	**853**	**454**	**121**	**1,428**
Credit and bank card income								
Interchange fees	**321**	**2,435**	**227**	**2,983**	**561**	**4,534**	**448**	**5,543**
Card-related loan fees	**11**	**73**	**79**	**163**	**20**	**137**	**160**	**317**
Card rewards and partner payments[1]	**(165)**	**(2,871)**	**(160)**	**(3,196)**	**(282)**	**(5,370)**	**(332)**	**(5,984)**
Deposit-related fees[2]	**279**	**44**	**19**	**342**	**546**	**103**	**36**	**685**
Transactional service fees	**267**	**5**	**26**	**298**	**521**	**9**	**52**	**582**
Corporate finance[3]	**136**	**—**	**—**	**136**	**252**	**3**	**—**	**255**
Insurance distribution revenue	**—**	**56**	**33**	**89**	**—**	**108**	**69**	**177**
Insurance premiums	**—**	**1**	**22**	**23**	**—**	**2**	**46**	**48**
Loan servicing	**7**	**12**	**4**	**23**	**19**	**22**	**7**	**48**
Other	**3**	**49**	**35**	**87**	**2**	**97**	**69**	**168**
Total commissions and fees[4]	**$ 2,097**	**$ 17**	**$ 338**	**$ 2,452**	**$ 4,245**	**$ 99**	**$ 676**	**$ 5,020**

In millions of dollars	Three Months Ended June 30, 2021 ICG	PBWM	Legacy Franchises	Total	Six Months Ended June 30, 2021 ICG	PBWM	Legacy Franchises	Total
Investment banking	$ 1,386	$ —	$ —	$ 1,386	$ 3,010	$ —	$ —	$ 3,010
Brokerage commissions	447	277	97	821	968	566	229	1,763
Credit and bank card income								
Interchange fees	197	2,061	212	2,470	355	3,755	424	4,534
Card-related loan fees	6	74	97	177	11	151	197	359
Card rewards and partner payments[1]	(104)	(2,301)	(110)	(2,515)	(179)	(4,258)	(249)	(4,686)
Deposit-related fees[2]	257	42	26	325	500	96	58	654
Transactional service fees	242	6	29	277	474	11	57	542
Corporate finance[3]	180	—	—	180	335	3	—	338
Insurance distribution revenue	—	76	37	113	—	159	89	248
Insurance premiums	—	6	24	30	—	8	42	50
Loan servicing	11	8	5	24	23	15	9	47
Other	8	43	35	86	17	98	70	185
Total commissions and fees[4]	$ 2,630	$ 292	$ 452	$ 3,374	$ 5,514	$ 604	$ 926	$ 7,044

(1) Citi's consumer credit card programs have certain partner-sharing agreements that vary by partner. These agreements are subject to contractually based performance thresholds that, if met, would require Citi to make ongoing payments to the partner. The threshold is based on the profitability of a program and is generally calculated based on predefined program revenues less predefined program expenses. In most of Citi's partner-sharing agreements, program expenses include net credit losses and, to the extent that the increase in net credit losses reduces Citi's liability for the partners' share for a given program year, would generally result in lower payments to partners in total for that year and vice versa. Further, in some instances, other partner payments are based on program sales and new account acquisitions.

(2) Includes overdraft fees of $28 million and $24 million for the three months ended June 30, 2022 and 2021, respectively, and $59 million and $47 million for the six months ended June 30, 2022 and 2021, respectively. Overdraft fees are accounted for under ASC 310.

(3) Consists primarily of fees earned from structuring and underwriting loan syndications or related financing activity. This activity is accounted for under ASC 310.

(4) *Commissions and fees* include $(2,811) million and $(2,073) million not accounted for under ASC 606, *Revenue from Contracts with Customers*, for the three months ended June 30, 2022 and 2021, respectively, and $(5,240) million and $(3,822) million for the six months ended June 30, 2022 and 2021, respectively. Amounts reported in *Commissions and fees* accounted for under other guidance primarily include card-related loan fees, card reward programs and certain partner payments, corporate finance fees, insurance premiums and loan servicing fees.

The following tables present *Administration and other fiduciary fees* revenue:

In millions of dollars	Three Months Ended June 30, 2022 ICG	PBWM	Legacy Franchises	Total	Six Months Ended June 30, 2022 ICG	PBWM	Legacy Franchises	Total
Custody fees	$ 506	$ 22	$ 2	$ 530	$ 952	$ 45	$ 5	$ 1,002
Fiduciary fees	68	196	79	343	133	401	159	693
Guarantee fees	134	14	2	150	266	24	4	294
Total administration and other fiduciary fees[1]	$ 708	$ 232	$ 83	$ 1,023	$ 1,351	$ 470	$ 168	$ 1,989

In millions of dollars	Three Months Ended June 30, 2021 ICG	PBWM	Legacy Franchises	Total	Six Months Ended June 30, 2021 ICG	PBWM	Legacy Franchises	Total
Custody fees	$ 476	$ 24	$ 3	$ 503	$ 908	$ 45	$ 7	$ 960
Fiduciary fees	61	200	111	372	123	392	216	731
Guarantee fees	133	11	3	147	266	22	4	292
Total administration and other fiduciary fees[1]	$ 670	$ 235	$ 117	$ 1,022	$ 1,297	$ 459	$ 227	$ 1,983

(1) *Administration and other fiduciary fees* include $150 million and $147 million for the three months ended June 30, 2022 and 2021, respectively, and $294 million and $292 million for the six months ended June 30, 2022 and 2021, respectively, that are not accounted for under ASC 606, *Revenue from Contracts with Customers*. These generally include guarantee fees.

6. PRINCIPAL TRANSACTIONS

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. Trading activities include revenues from fixed income, equities, credit and commodities products and foreign exchange transactions that are managed on a portfolio basis and characterized below based on the primary risk managed by each trading desk. Not included in the table below is the impact of net interest income related to trading activities, which is an integral part of trading activities' profitability. See Note 4 for information about net interest income related to trading activities. Principal transactions include CVA (credit valuation adjustments) and FVA (funding valuation adjustments) on over-the-counter derivatives, and gains (losses) on certain economic hedges on loans in *ICG*. These adjustments are discussed further in Note 20.

In certain transactions, Citi incurs fees and presents these fees paid to third parties in operating expenses.

The following table presents *Principal transactions* revenue:

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Interest rate risks(1)	**$ 1,450**	$ 530	**$ 2,920**	$ 1,964
Foreign exchange risks(2)	**1,639**	965	**3,187**	1,927
Equity risks(3)	**345**	358	**1,276**	1,203
Commodity and other risks(4)	**612**	393	**1,063**	593
Credit products and risks(5)	**479**	58	**669**	530
Total	**$ 4,525**	$ 2,304	**$ 9,115**	$ 6,217

(1) Includes revenues from government securities and corporate debt, municipal securities, mortgage securities and other debt instruments. Also includes spot and forward trading of currencies and exchange-traded and over-the-counter (OTC) currency options, options on fixed income securities, interest rate swaps, currency swaps, swap options, caps and floors, financial futures, OTC options and forward contracts on fixed income securities.

(2) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as foreign currency translation (FX translation) gains and losses.

(3) Includes revenues from common, preferred and convertible preferred stock, convertible corporate debt, equity-linked notes and exchange-traded and OTC equity options and warrants.

(4) Primarily includes revenues from crude oil, refined oil products, natural gas and other commodities trades.

(5) Includes revenues from structured credit products.

7. INCENTIVE PLANS

For additional information on Citi's incentive plans, see Note 7 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

8. RETIREMENT BENEFITS

For additional information on Citi's retirement benefits, see Note 8 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Net (Benefit) Expense

The following tables summarize the components of net (benefit) expense recognized in the Consolidated Statement of Income for the Company's pension and postretirement plans for Significant Plans and All Other Plans. Benefits earned during the period are reported in *Compensation and benefits expenses* and all other components of the net period benefit cost are reported in *Other operating expenses* in the Consolidated Statement of Income:

	Three Months Ended June 30,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Benefits earned during the period	**$ —**	$ —	**$ 30**	$ 38	**$ —**	$ —	**$ —**	$ 2
Interest cost on benefit obligation	**105**	95	**79**	70	**4**	3	**23**	24
Expected return on assets	**(154)**	(174)	**(66)**	(63)	**(3)**	(3)	**(18)**	(21)
Amortization of unrecognized:								
Prior service benefit	**—**	—	**(1)**	(2)	**(3)**	(2)	**(1)**	(3)
Net actuarial loss (gain)	**44**	54	**14**	14	**(2)**	(1)	**1**	3
Curtailment (gain)(1)	**—**	—	**(23)**	—	**—**	—	**—**	—
Settlement (gain) loss(1)	**—**	—	**(10)**	4	**—**	—	**—**	—
Total net (benefit) expense	**$ (5)**	$ (25)	**$ 23**	$ 61	**$ (4)**	$ (3)	**$ 5**	$ 5

(1) (Gains) losses due to curtailment and settlement relate to divestiture activities. Total net expense for non-U.S. plans includes a $28 million net benefit related to the wind-down of Citi's consumer banking business in Korea.

	Six Months Ended June 30,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Benefits earned during the period	**$ —**	$ —	**$ 64**	$ 77	**$ —**	$ —	**$ 1**	4
Interest cost on benefit obligation	**191**	177	**152**	132	**7**	6	**46**	49
Expected return on plan assets	**(308)**	(356)	**(132)**	(124)	**(6)**	(7)	**(38)**	(43)
Amortization of unrecognized:								
Prior service cost (benefit)	**1**	1	**(3)**	$ (3)	**(5)**	(4)	**(4)**	(5)
Net actuarial loss (gain)	**100**	116	**27**	32	**(3)**	(1)	**2**	8
Curtailment (gain)(1)	—	—	**(23)**	—	**—**	—	**—**	—
Settlement (gain) loss(1)	—	—	**(10)**	4	**—**	—	**—**	—
Total net (benefit) expense	**$ (16)**	$ (62)	**$ 75**	$ 118	**$ (7)**	$ (6)	**$ 7**	$ 13

(1) (Gains) losses due to curtailment and settlement relate to divestiture activities. Total net expense for non-U.S. plans includes a $28 million net benefit related to the wind-down of Citi's consumer banking business in Korea.

Funded Status and *Accumulated Other Comprehensive Income (AOCI)*

The following table summarizes the funded status and amounts recognized on the Consolidated Balance Sheet for the Company's Significant Plans:

	Six Months Ended June 30, 2022			
	Pension plans		Postretirement benefit plans	
In millions of dollars	U.S. plans	Non-U.S. plans	U.S. plans	Non-U.S. plans
Change in projected benefit obligation				
Projected benefit obligation at beginning of year	$ 12,766	$ 8,001	$ 501	$ 1,169
Plans measured annually	(23)	(2,071)	—	(298)
Projected benefit obligation at beginning of year—Significant Plans	$ 12,743	$ 5,930	$ 501	$ 871
First quarter activity	(1,234)	(285)	(50)	(71)
Projected benefit obligation at June 30, 2022—Significant Plans	$ 11,509	$ 5,645	$ 451	$ 800
Benefits earned during the period	—	15	—	—
Interest cost on benefit obligation	105	68	4	20
Actuarial (gain)(1)	(903)	(489)	(36)	(43)
Benefits paid, net of participants' contributions and government subsidy	(253)	(69)	(13)	(17)
Settlement (gain)(2)	—	(246)	—	—
Curtailment (gain)(2)	—	(23)	—	—
Foreign exchange impact and other	—	(163)	—	(9)
Projected benefit obligation at period end—Significant Plans	$ 10,458	$ 4,738	$ 406	$ 751
Change in plan assets				
Plan assets at fair value at beginning of year	$ 12,977	$ 7,614	$ 319	$ 1,043
Plans measured annually	—	(1,419)	—	(7)
Plan assets at fair value at beginning of year—Significant Plans	$ 12,977	$ 6,195	$ 319	$ 1,036
First quarter activity	(1,030)	(226)	(19)	(135)
Plan assets at fair value at June 30, 2022—Significant Plans	$ 11,947	$ 5,969	$ 300	$ 901
Actual return on plan assets	(868)	(512)	(15)	(45)
Company contributions, net of reimbursements	13	208	(6)	—
Benefits paid, net of participants' contributions and government subsidy	(253)	(69)	(13)	(17)
Settlement (gain)(2)	—	(246)	—	—
Foreign exchange impact and other	—	(143)	—	(11)
Plan assets at fair value at period end—Significant Plans	$ 10,839	$ 5,207	$ 266	$ 828
Qualified plans(3)	$ 940	$ 469	$ (140)	$ 77
Nonqualified plans(4)	(559)	—	—	—
Funded status of the plans at period end—Significant Plans	$ 381	$ 469	$ (140)	$ 77
Net amount recognized at period end				
Benefit asset	$ 940	$ 844	$ —	$ 77
Benefit liability	(559)	(375)	(140)	—
Net amount recognized on the balance sheet—Significant Plans	$ 381	$ 469	$ (140)	$ 77
Amounts recognized in *AOCI* at period end(5)				
Prior service benefit	$ —	$ —	$ 87	$ 37
Net actuarial (loss) gain	(6,464)	(992)	119	(213)
Net amount recognized in equity (pretax)—Significant Plans	$ (6,464)	$ (992)	$ 206	$ (176)
Accumulated benefit obligation at period end—Significant Plans	$ 10,457	$ 4,563	$ 406	$ 751

(1) During 2022, the actuarial gain is primarily due to the increase in global discount rates.
(2) Gains due to settlement and curtailment relate to divestiture activities.
(3) The U.S. qualified pension plan is fully funded under specified Employee Retirement Income Security Act of 1974, as amended (ERISA), funding rules as of January 1, 2022 and no minimum required funding is expected for 2022.
(4) The nonqualified plans of the Company are unfunded.

(5) The framework for the Company's pension oversight process includes monitoring of potential settlement charges for all plans. Settlement accounting is triggered when either the sum of all settlements (including lump sum payments) for the year is greater than service plus interest costs or if more than 10% of the plan's projected benefit obligation will be settled. Because some of Citi's significant plans are frozen and have no material service cost, settlement accounting may apply in the future.

The following table shows the change in *AOCI* related to the Company's pension, postretirement and post employment plans:

In millions of dollars	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Beginning of period balance, net of tax[1][2]	**$ (5,681)**	**$ (5,852)**
Actuarial assumptions changes and plan experience	**1,499**	**3,024**
Net asset (loss) due to difference between actual and expected returns	**(1,675)**	**(3,137)**
Net amortization	**52**	**116**
Curtailment/settlement (gain)[3]	**(32)**	**(32)**
Foreign exchange impact and other	**83**	**133**
Change in deferred taxes, net	**(16)**	**(22)**
Change, net of tax	**$ (89)**	**$ 82**
End of period balance, net of tax[1][2]	**$ (5,770)**	**$ (5,770)**

(1) See Note 17 for further discussion of net *AOCI* balance.
(2) Includes net-of-tax amounts for certain profit-sharing plans outside the U.S.
(3) Curtailment and settlement relate to divestiture activities.

Plan Assumptions

The discount rates utilized during the period in determining the pension and postretirement net (benefit) expense for the Significant Plans are as follows:

Net (benefit) expense assumed discount rates during the period	Three Months Ended Jun. 30, 2022	Jun. 30, 2021
U.S. plans		
Qualified pension	**3.80 %**	3.10 %
Nonqualified pension	**3.85**	3.00
Postretirement	**3.85**	2.85
Non-U.S. plans		
Pension	**1.10–10.00**	0.25–9.30
Weighted average	**5.55**	4.26
Postretirement	**10.10**	9.70

The discount rates utilized at period end in determining the pension and postretirement benefit obligations for the Significant Plans are as follows:

Plan obligations assumed discount rates at period ended	**Jun. 30, 2022**	Mar. 31, 2022	Dec. 31, 2021
U.S. plans			
Qualified pension	**4.80 %**	3.80 %	2.80 %
Nonqualified pension	**4.80**	3.85	2.80
Postretirement	**4.75**	3.85	2.75
Non-U.S. plans			
Pension	**2.00–10.75**	1.10–10.00	0.25–9.80
Weighted average	**6.68**	5.55	4.56
Postretirement	**10.75**	10.10	10.00

Sensitivities of Certain Key Assumptions

The following table summarizes the estimated effect on the Company's Significant Plans quarterly expense of a one-percentage-point change in the discount rate:

In millions of dollars	Three Months Ended June 30, 2022 One-percentage-point increase	One-percentage-point decrease
Pension		
U.S. plans	**$ 7**	**$ (9)**
Non-U.S. plans	**5**	**6**
Postretirement		
U.S. plans	**—**	**—**
Non-U.S. plans	**(1)**	**1**

Contributions

For the U.S. pension plans, there were no required minimum cash contributions during the first six months of 2022.

The following table summarizes the Company's actual contributions for the six months ended June 30, 2022 and 2021, as well as expected Company contributions for the remainder of 2022 and the actual contributions made in 2021:

	Pension plans				Postretirement plans			
	U.S. plans(1)		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Company contributions (reimbursements)(2)(3) for the six months ended June 30	**$ 28**	$ 27	**$ 389**	$ 78	**$ (1)**	$ 9	**$ 5**	$ 4
Company contributions during the remainder of the year	**—**	29	**—**	77	**—**	13	**—**	4
Company contributions expected to be made during the remainder of the year(3)	**31**	—	**52**	—	**3**	—	**4**	—

(1) The U.S. plans include benefits paid directly by the Company for the nonqualified pension plans.

(2) Company contributions are composed of cash contributions made to the plans and benefits paid directly by the Company.

(3) 2022 benefit payments have increased due to the wind-down of Citi's consumer banking business in Korea, as it is expected that employees who elected the VERP will be withdrawing their pension plan assets.

Defined Contribution Plans

The following table summarizes the Company's contributions for the defined contribution plans:

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
U.S. plans	**$ 119**	$ 106	**$ 238**	$ 211
Non-U.S. plans	**99**	91	**205**	183

Post Employment Plans

The following table summarizes the net expense recognized in the Consolidated Statement of Income for the Company's U.S. post employment plans:

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Service-related expense				
Amortization of unrecognized:				
Net actuarial loss	**$ 1**	$ 1	**$ 1**	$ 1
Total service-related expense	**$ 1**	$ 1	**$ 1**	$ 1
Non-service-related expense (benefit)	**$ 1**	$ (1)	**$ 6**	$ 4
Total net expense	**$ 2**	$ —	**$ 7**	$ 5

9. EARNINGS PER SHARE

The following table reconciles the income and share data used in the basic and diluted earnings per share (EPS) computations:

In millions of dollars, except per share amounts	Three Months Ended June 30, 2022	Three Months Ended June 30, 2021	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Earnings per common share				
Income from continuing operations before attribution to noncontrolling interests	**$ 4,789**	$ 6,193	**$ 9,114**	$ 14,170
Less: Noncontrolling interests from continuing operations	**21**	10	**38**	43
Net income from continuing operations (for EPS purposes)	**$ 4,768**	$ 6,183	**$ 9,076**	$ 14,127
Income (loss) from discontinued operations, net of taxes	**(221)**	10	**(223)**	8
Citigroup's net income	**$ 4,547**	$ 6,193	**$ 8,853**	$ 14,135
Less: Preferred dividends	**238**	253	**517**	545
Net income available to common shareholders	**$ 4,309**	$ 5,940	**$ 8,336**	$ 13,590
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with rights to dividends, applicable to basic EPS	**35**	41	**60**	107
Net income allocated to common shareholders for basic EPS	**$ 4,274**	$ 5,899	**$ 8,276**	$ 13,483
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**1,941.5**	2,056.5	**1,956.6**	2,069.3
Basic earnings per share[1]				
Income from continuing operations	**$ 2.32**	$ 2.86	**$ 4.34**	$ 6.51
Discontinued operations	**(0.11)**	—	**(0.11)**	—
Net income per share—basic	**$ 2.20**	$ 2.87	**$ 4.23**	$ 6.52
Diluted earnings per share				
Net income allocated to common shareholders for basic EPS	**$ 4,274**	$ 5,899	**$ 8,276**	$ 13,483
Add back: Dividends allocated to employee restricted and deferred shares with rights to dividends that are forfeitable	**11**	8	**19**	15
Net income allocated to common shareholders for diluted EPS	**$ 4,285**	$ 5,907	**$ 8,295**	$ 13,498
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**1,941.5**	2,056.5	**1,956.6**	2,069.3
Effect of dilutive securities				
Options[2]	**—**	—	**—**	—
Other employee plans	**16.6**	16.5	**16.6**	15.5
Adjusted weighted-average common shares outstanding applicable to diluted EPS *(in millions)*[3]	**1,958.1**	2,073.0	**1,973.2**	2,084.8
Diluted earnings per share[1]				
Income from continuing operations	**$ 2.30**	$ 2.84	**$ 4.32**	$ 6.47
Discontinued operations	**(0.11)**	—	**(0.11)**	—
Net income per share—diluted	**$ 2.19**	$ 2.85	**$ 4.20**	$ 6.47

(1) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.
(2) During the first and second quarters of 2022 and 2021, no significant options to purchase shares of common stock were outstanding.
(3) Due to rounding, weighted-average common shares outstanding applicable to basic EPS and the effect of dilutive securities may not sum to weighted-average common shares outstanding applicable to diluted EPS.

10. SECURITIES BORROWED, LOANED AND SUBJECT TO REPURCHASE AGREEMENTS

For additional information on the Company's resale and repurchase agreements and securities borrowing and lending agreements, see Note 11 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Securities borrowed and purchased under agreements to resell, at their respective carrying values, consisted of the following:

In millions of dollars	**June 30, 2022**	December 31, 2021
Securities purchased under agreements to resell	**$ 271,890**	$ 236,252
Deposits paid for securities borrowed	**89,471**	91,042
Total, net[1]	**$ 361,361**	$ 327,294
Allowance for credit losses on securities purchased and borrowed[2]	**(27)**	(6)
Total, net of allowance	**$ 361,334**	$ 327,288

Securities loaned and sold under agreements to repurchase, at their respective carrying values, consisted of the following:

In millions of dollars	**June 30, 2022**	December 31, 2021
Securities sold under agreements to repurchase	**$ 177,977**	$ 174,255
Deposits received for securities loaned	**20,495**	17,030
Total, net[1]	**$ 198,472**	$ 191,285

(1) The above tables do not include securities-for-securities lending transactions of $3.3 billion and $3.6 billion at June 30, 2022 and December 31, 2021, respectively, where the Company acts as lender and receives securities that can be sold or pledged as collateral. In these transactions, the Company recognizes the securities received at fair value within *Other assets* and the obligation to return those securities as a liability within *Brokerage payables*.
(2) See Note 14 for further information.

It is the Company's policy to take possession of the underlying collateral, monitor its market value relative to the amounts due under the agreements and, when necessary, require prompt transfer of additional collateral in order to maintain contractual margin protection. For resale and repurchase agreements, when necessary, the Company posts additional collateral in order to maintain contractual margin protection.

A substantial portion of the resale and repurchase agreements is recorded at fair value as the Company elected the fair value option, as described in Notes 20 and 21. The remaining portion is carried at the amount of cash initially advanced or received, plus accrued interest, as specified in the respective agreements.

A substantial portion of securities borrowing and lending agreements is recorded at the amount of cash advanced or received. The remaining portion is recorded at fair value as the Company elected the fair value option for certain securities borrowed and loaned portfolios, as described in Note 21. With respect to securities loaned, the Company receives cash collateral in an amount generally in excess of the market value of the securities loaned. The Company monitors the market value of securities borrowed and securities loaned on a daily basis and posts or obtains additional collateral in order to maintain contractual margin protection.

The following tables present the gross and net resale and repurchase agreements and securities borrowing and lending agreements and the related offsetting amounts permitted under ASC 210-20-45. The tables also include amounts related to financial instruments that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting rights has been obtained. Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

	As of June 30, 2022				
In millions of dollars	**Gross amounts of recognized assets**	**Gross amounts offset on the Consolidated Balance Sheet[1]**	**Net amounts of assets included on the Consolidated Balance Sheet**	**Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[2]**	**Net amounts[3]**
Securities purchased under agreements to resell	**$ 371,889**	**$ 99,999**	**$ 271,890**	**$ 179,718**	**$ 92,172**
Deposits paid for securities borrowed	**98,890**	**9,419**	**89,471**	**12,690**	**76,781**
Total	**$ 470,779**	**$ 109,418**	**$ 361,361**	**$ 192,408**	**$ 168,953**

In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet[(1)]	Net amounts of liabilities included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]	Net amounts[(3)]
Securities sold under agreements to repurchase	**$ 277,976**	**$ 99,999**	**$ 177,977**	**$ 72,056**	**$ 105,921**
Deposits received for securities loaned	**29,914**	**9,419**	**20,495**	**2,517**	**17,978**
Total	**$ 307,890**	**$ 109,418**	**$ 198,472**	**$ 74,573**	**$ 123,899**

	As of December 31, 2021				
In millions of dollars	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet[(1)]	Net amounts of assets included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]	Net amounts[(3)]
Securities purchased under agreements to resell	$ 367,594	$ 131,342	$ 236,252	$ 205,349	$ 30,903
Deposits paid for securities borrowed	107,041	15,999	91,042	17,326	73,716
Total	$ 474,635	$ 147,341	$ 327,294	$ 222,675	$ 104,619

In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet[(1)]	Net amounts of liabilities included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[(2)]	Net amounts[(3)]
Securities sold under agreements to repurchase	$ 305,597	$ 131,342	$ 174,255	$ 85,184	$ 89,071
Deposits received for securities loaned	33,029	15,999	17,030	2,868	14,162
Total	$ 338,626	$ 147,341	$ 191,285	$ 88,052	$ 103,233

(1) Includes financial instruments subject to enforceable master netting agreements that are permitted to be offset under ASC 210-20-45.
(2) Includes financial instruments subject to enforceable master netting agreements that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting right has been obtained.
(3) Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by remaining contractual maturity:

	As of June 30, 2022				
In millions of dollars	**Open and overnight**	**Up to 30 days**	**31–90 days**	**Greater than 90 days**	**Total**
Securities sold under agreements to repurchase	**$ 122,684**	**$ 74,776**	**$ 27,466**	**$ 53,050**	**$ 277,976**
Deposits received for securities loaned	**20,504**	**1**	**1,452**	**7,957**	**29,914**
Total	**$ 143,188**	**$ 74,777**	**$ 28,918**	**$ 61,007**	**$ 307,890**

	As of December 31, 2021				
In millions of dollars	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
Securities sold under agreements to repurchase	$ 127,679	$ 93,257	$ 32,908	$ 51,753	$ 305,597
Deposits received for securities loaned	23,387	6	1,392	8,244	33,029
Total	$ 151,066	$ 93,263	$ 34,300	$ 59,997	$ 338,626

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by class of underlying collateral:

	As of June 30, 2022		
In millions of dollars	**Repurchase agreements**	**Securities lending agreements**	**Total**
U.S. Treasury and federal agency securities	**$ 92,263**	**$ —**	**$ 92,263**
State and municipal securities	**993**	**—**	**993**
Foreign government securities	**125,611**	**127**	**125,738**
Corporate bonds	**15,494**	**133**	**15,627**
Equity securities	**11,428**	**29,637**	**41,065**
Mortgage-backed securities	**23,506**	**—**	**23,506**
Asset-backed securities	**1,683**	**—**	**1,683**
Other	**6,998**	**17**	**7,015**
Total	**$ 277,976**	**$ 29,914**	**$ 307,890**

	As of December 31, 2021		
In millions of dollars	Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$ 85,861	$ 90	$ 85,951
State and municipal securities	1,053	—	1,053
Foreign government securities	133,352	212	133,564
Corporate bonds	20,398	152	20,550
Equity securities	25,653	32,517	58,170
Mortgage-backed securities	33,573	—	33,573
Asset-backed securities	1,681	—	1,681
Other	4,026	58	4,084
Total	$ 305,597	$ 33,029	$ 338,626

11. BROKERAGE RECEIVABLES AND BROKERAGE PAYABLES

The Company has receivables and payables for financial instruments sold to and purchased from brokers, dealers and customers, which arise in the ordinary course of business.

For additional information on these receivables and payables, see Note 12 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Brokerage receivables and *Brokerage payables* consisted of the following:

In millions of dollars		**June 30, 2022**		December 31, 2021
Receivables from customers	**$**	**25,531**	$	26,403
Receivables from brokers, dealers and clearing organizations		**54,955**		27,937
Total brokerage receivables[1]	**$**	**80,486**	$	54,340
Payables to customers	**$**	**75,299**	$	52,158
Payables to brokers, dealers and clearing organizations		**21,175**		9,272
Total brokerage payables[1]	**$**	**96,474**	$	61,430

(1) Includes brokerage receivables and payables recorded by Citi broker-dealer entities that are accounted for in accordance with the AICPA Accounting Guide for Brokers and Dealers in Securities as codified in ASC 940-320.

12. INVESTMENTS

For additional information regarding Citi's investment portfolios, including evaluating investments for impairment, see Note 13 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

The following table presents Citi's investments by category:

In millions of dollars		**June 30, 2022**		December 31, 2021
Debt securities available-for-sale (AFS)	**$**	**238,499**	$	288,522
Debt securities held-to-maturity (HTM)[1]		**267,592**		216,963
Marketable equity securities carried at fair value[2]		**588**		543
Non-marketable equity securities carried at fair value[2]		**458**		489
Non-marketable equity securities measured using the measurement alternative[3]		**1,670**		1,413
Non-marketable equity securities carried at cost[4]		**5,071**		4,892
Total investments	**$**	**513,878**	$	512,822

(1) Carried at adjusted amortized cost basis, net of any ACL.
(2) Unrealized gains and losses are recognized in earnings.
(3) Impairment losses and adjustments to the carrying value as a result of observable price changes are recognized in earnings. See "Non-Marketable Equity Securities Not Carried at Fair Value" below.
(4) Represents shares issued by the Federal Reserve Bank, Federal Home Loan Banks and certain exchanges of which Citigroup is a member.

The following table presents interest and dividend income on investments:

	Three Months Ended June 30,				**Six Months Ended June 30,**			
In millions of dollars		**2022**		2021		**2022**		2021
Taxable interest	**$**	**2,274**	$	1,723	**$**	**4,287**	$	3,375
Interest exempt from U.S. federal income tax		**38**		57		**43**		123
Dividend income		**58**		38		**90**		72
Total interest and dividend income on investments	**$**	**2,370**	$	1,818	**$**	**4,420**	$	3,570

The following table presents realized gains and losses on the sales of investments, which exclude impairment losses:

	Three Months Ended June 30,				**Six Months Ended June 30,**			
In millions of dollars		**2022**		2021		**2022**		2021
Gross realized investment gains	**$**	**27**	$	155	**$**	**180**	$	615
Gross realized investment losses		**(85)**		(18)		**(158)**		(77)
Net realized gains (losses) on sales of investments	**$**	**(58)**	$	137	**$**	**22**	$	538

Debt Securities Available-for-Sale

The amortized cost and fair value of AFS debt securities were as follows:

	June 30, 2022					December 31, 2021				
In millions of dollars	**Amortized cost**	**Gross unrealized gains**	**Gross unrealized losses**	**Allowance for credit losses**	**Fair value**	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value
Debt securities AFS										
Mortgage-backed securities(1)										
U.S. government-sponsored agency guaranteed(2)	**$ 12,982**	**$ 25**	**$ 492**	**$ —**	**$ 12,515**	$ 33,064	$ 453	$ 301	$ —	$ 33,216
Non-U.S. residential	**281**	**—**	**3**	**—**	**278**	380	1	1	—	380
Commercial	**7**	**—**	**—**	**—**	**7**	25	—	—	—	25
Total mortgage-backed securities	**$ 13,270**	**$ 25**	**$ 495**	**$ —**	**$ 12,800**	$ 33,469	$ 454	$ 302	$ —	$ 33,621
U.S. Treasury and federal agency securities										
U.S. Treasury	**$ 94,740**	**$ 42**	**$ 2,918**	**$ —**	**$ 91,864**	$ 122,669	$ 615	$ 844	$ —	$122,440
Agency obligations	**—**	**—**	**—**	**—**	**—**	—	—	—	—	—
Total U.S. Treasury and federal agency securities	**$ 94,740**	**$ 42**	**$ 2,918**	**$ —**	**$ 91,864**	$ 122,669	$ 615	$ 844	$ —	$122,440
State and municipal	**$ 2,677**	**$ 16**	**$ 201**	**$ —**	**$ 2,492**	$ 2,643	$ 79	$ 101	$ —	$ 2,621
Foreign government	**122,184**	**424**	**2,922**	**—**	**119,686**	119,426	337	1,023	—	118,740
Corporate	**6,646**	**19**	**214**	**6**	**6,445**	5,972	33	77	8	5,920
Asset-backed securities(1)	**275**	**2**	**1**	**—**	**276**	304	—	1	—	303
Other debt securities	**4,948**	**—**	**12**	**—**	**4,936**	4,880	1	4	—	4,877
Total debt securities AFS	**$ 244,740**	**$ 528**	**$ 6,763**	**$ 6**	**$238,499**	$ 289,363	$ 1,519	$ 2,352	$ 8	$288,522

(1) The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. See Note 18 for mortgage- and asset-backed securitizations in which the Company has other involvement.

(2) In June 2022, Citibank transferred $21.5 billion of agency residential mortgage-backed securities from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized loss position of $2.3 billion. The loss amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

The following table shows the fair value of AFS debt securities that have been in an unrealized loss position:

In millions of dollars	Less than 12 months Fair value	Less than 12 months Gross unrealized losses	12 months or longer Fair value	12 months or longer Gross unrealized losses	Total Fair value	Total Gross unrealized losses
June 30, 2022						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	**$ 10,219**	**$ 387**	**$ 1,048**	**$ 105**	**$ 11,267**	**$ 492**
Non-U.S. residential	**197**	**3**	**—**	**—**	**197**	**3**
Commercial	**6**	**—**	**1**	**—**	**7**	**—**
Total mortgage-backed securities	**$ 10,422**	**$ 390**	**$ 1,049**	**$ 105**	**$ 11,471**	**$ 495**
U.S. Treasury	**$ 53,236**	**$ 1,322**	**$ 29,263**	**$ 1,596**	**$ 82,499**	**$ 2,918**
State and municipal	**842**	**53**	**1,037**	**148**	**1,879**	**201**
Foreign government	**85,907**	**2,407**	**10,757**	**515**	**96,664**	**2,922**
Corporate	**4,601**	**196**	**254**	**18**	**4,855**	**214**
Asset-backed securities	**174**	**1**	**—**	**—**	**174**	**1**
Other debt securities	**3,475**	**12**	**—**	**—**	**3,475**	**12**
Total debt securities AFS	**$ 158,657**	**$ 4,381**	**$ 42,360**	**$ 2,382**	**$ 201,017**	**$ 6,763**
December 31, 2021						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ 17,039	$ 270	$ 698	$ 31	$ 17,737	$ 301
Non-U.S. residential	96	1	1	—	97	1
Commercial	—	—	—	—	—	—
Total mortgage-backed securities	$ 17,135	$ 271	$ 699	$ 31	$ 17,834	$ 302
U.S. Treasury and federal agency securities						
U.S. Treasury	$ 56,448	$ 713	$ 6,310	$ 131	$ 62,758	$ 844
Agency obligations	—	—	—	—	—	—
Total U.S. Treasury and federal agency securities	$ 56,448	$ 713	$ 6,310	$ 131	$ 62,758	$ 844
State and municipal	$ 229	$ 3	$ 874	$ 98	$ 1,103	$ 101
Foreign government	64,319	826	9,924	197	74,243	1,023
Corporate	2,655	77	22	—	2,677	77
Asset-backed securities	108	1	—	—	108	1
Other debt securities	3,439	4	—	—	3,439	4
Total debt securities AFS	$ 144,333	$ 1,895	$ 17,829	$ 457	$ 162,162	$ 2,352

The following table presents the amortized cost and fair value of AFS debt securities by contractual maturity dates:

In millions of dollars	June 30, 2022 Amortized cost	June 30, 2022 Fair value	December 31, 2021 Amortized cost	December 31, 2021 Fair value
Mortgage-backed securities[1]				
Due within 1 year	**$ 92**	**$ 92**	$ 188	$ 189
After 1 but within 5 years	**250**	**245**	211	211
After 5 but within 10 years	**418**	**402**	523	559
After 10 years	**12,510**	**12,061**	32,547	32,662
Total	**$ 13,270**	**$ 12,800**	$ 33,469	$ 33,621
U.S. Treasury and federal agency securities				
Due within 1 year	**$ 14,951**	**$ 14,893**	$ 34,321	$ 34,448
After 1 but within 5 years	**79,446**	**76,660**	87,987	87,633
After 5 but within 10 years	**343**	**311**	361	359
After 10 years	**—**	**—**	—	—
Total	**$ 94,740**	**$ 91,864**	$ 122,669	$ 122,440
State and municipal				
Due within 1 year	**$ 25**	**$ 26**	$ 40	$ 40
After 1 but within 5 years	**103**	**103**	121	124
After 5 but within 10 years	**233**	**221**	156	161
After 10 years	**2,316**	**2,142**	2,326	2,296
Total	**$ 2,677**	**$ 2,492**	$ 2,643	$ 2,621
Foreign government				
Due within 1 year	**$ 58,444**	**$ 58,203**	$ 49,263	$ 49,223
After 1 but within 5 years	**59,663**	**57,644**	64,555	63,961
After 5 but within 10 years	**2,555**	**2,324**	3,736	3,656
After 10 years	**1,522**	**1,515**	1,872	1,900
Total	**$ 122,184**	**$ 119,686**	$ 119,426	$ 118,740
All other[2]				
Due within 1 year	**$ 5,902**	**$ 5,882**	$ 5,175	$ 5,180
After 1 but within 5 years	**5,096**	**4,965**	5,177	5,149
After 5 but within 10 years	**812**	**806**	750	750
After 10 years	**59**	**4**	54	21
Total	**$ 11,869**	**$ 11,657**	$ 11,156	$ 11,100
Total debt securities AFS	**$ 244,740**	**$ 238,499**	$ 289,363	$ 288,522

(1) Includes mortgage-backed securities of U.S. government-sponsored agencies. The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions.
(2) Includes corporate, asset-backed and other debt securities.

Debt Securities Held-to-Maturity

The carrying value and fair value of debt securities HTM were as follows:

In millions of dollars	Amortized cost, net(1)	Gross unrealized gains	Gross unrealized losses	Fair value
June 30, 2022				
Debt securities HTM				
Mortgage-backed securities(2)				
U.S. government-sponsored agency guaranteed(3)	**$ 88,744**	**$ 446**	**$ 6,611**	**$ 82,579**
Non-U.S. residential	**541**	**—**	**—**	**541**
Commercial	**1,157**	**5**	**1**	**1,161**
Total mortgage-backed securities	**$ 90,442**	**$ 451**	**$ 6,612**	**$ 84,281**
U.S. Treasury securities	**$ 134,978**	**$ —**	**$ 10,152**	**$ 124,826**
State and municipal	**9,076**	**60**	**594**	**8,542**
Foreign government	**2,016**	**—**	**90**	**1,926**
Asset-backed securities(2)	**31,080**	**4**	**855**	**30,229**
Total debt securities HTM, net	**$ 267,592**	**$ 515**	**$ 18,303**	**$ 249,804**
December 31, 2021				
Debt securities HTM				
Mortgage-backed securities(2)				
U.S. government-sponsored agency guaranteed	$ 63,885	$ 1,076	$ 925	$ 64,036
Non-U.S. residential	736	3	—	739
Commercial	1,070	4	2	1,072
Total mortgage-backed securities	$ 65,691	$ 1,083	$ 927	$ 65,847
U.S. Treasury securities	$ 111,819	$ 30	$ 1,632	$ 110,217
State and municipal(4)	8,923	589	12	9,500
Foreign government	1,651	4	36	1,619
Asset-backed securities(2)	28,879	8	32	28,855
Total debt securities HTM, net	$ 216,963	$ 1,714	$ 2,639	$ 216,038

(1) Amortized cost is reported net of ACL of $105 million and $87 million at June 30, 2022 and December 31, 2021, respectively.

(2) The Company invests in mortgage- and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. See Note 18 for mortgage- and asset-backed securitizations in which the Company has other involvement.

(3) In June 2022, Citibank transferred $21.5 billion of agency residential mortgage-backed securities from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized loss position of $2.3 billion. The loss amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

(4) In February 2021, the Company transferred $237 million of state and municipal bonds from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized gain position of $14 million. The gain amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

The following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

	June 30, 2022		December 31, 2021	
In millions of dollars	**Amortized cost[1]**	**Fair value**	Amortized cost[1]	Fair value
Mortgage-backed securities				
Due within 1 year	**$ 15**	**$ 15**	$ 152	$ 151
After 1 but within 5 years	**722**	**722**	684	725
After 5 but within 10 years	**1,563**	**1,504**	1,655	1,739
After 10 years	**88,142**	**82,040**	63,200	63,232
Total	**$ 90,442**	**$ 84,281**	$ 65,691	$ 65,847
U.S. Treasury securities				
Due within 1 year	**$ —**	**$ —**	$ —	$ —
After 1 but within 5 years	**89,460**	**83,848**	65,498	64,516
After 5 but within 10 years	**45,518**	**40,978**	46,321	45,701
After 10 years	**—**	**—**	—	—
Total	**$ 134,978**	**$ 124,826**	$ 111,819	$ 110,217
State and municipal				
Due within 1 year	**$ 54**	**$ 54**	$ 51	$ 50
After 1 but within 5 years	**159**	**160**	166	170
After 5 but within 10 years	**919**	**902**	908	951
After 10 years	**7,944**	**7,426**	7,798	8,329
Total	**$ 9,076**	**$ 8,542**	$ 8,923	$ 9,500
Foreign government				
Due within 1 year	**$ —**	**$ —**	$ 292	$ 291
After 1 but within 5 years	**2,016**	**1,926**	1,359	1,328
After 5 but within 10 years	**—**	**—**	—	—
After 10 years	**—**	**—**	—	—
Total	**$ 2,016**	**$ 1,926**	$ 1,651	$ 1,619
All other[2]				
Due within 1 year	**$ —**	**$ —**	$ —	$ —
After 1 but within 5 years	**—**	**—**	—	—
After 5 but within 10 years	**11,926**	**11,720**	11,520	11,515
After 10 years	**19,154**	**18,509**	17,359	17,340
Total	**$ 31,080**	**$ 30,229**	$ 28,879	$ 28,855
Total debt securities HTM	**$ 267,592**	**$ 249,804**	$ 216,963	$ 216,038

(1) Amortized cost is reported net of ACL of $105 million and $87 million at June 30, 2022 and December 31, 2021, respectively.
(2) Includes corporate and asset-backed securities.

HTM Debt Securities Delinquency and Non-Accrual Details

Citi did not have any HTM securities that were delinquent or on non-accrual status at June 30, 2022 or December 31, 2021.

There were no purchased credit-deteriorated HTM debt securities held by the Company as of June 30, 2022 or December 31, 2021.

Evaluating Investments for Impairment

AFS Debt Securities

Overview—AFS Debt Securities
The Company conducts periodic reviews of all AFS debt securities with unrealized losses to evaluate whether the impairment resulted from expected credit losses or from other factors and to evaluate the Company's intent to sell such securities.

An AFS debt security is impaired when the current fair value of an individual AFS debt security is less than its amortized cost basis.

The Company recognizes the entire difference between amortized cost basis and fair value in earnings for impaired AFS debt securities that Citi has an intent to sell or for which Citi believes it will more-likely-than-not be required to sell prior to recovery of the amortized cost basis. However, for those AFS debt securities that the Company does not intend to sell and is not likely to be required to sell, only the credit-related impairment is recognized in earnings by recording an allowance for credit losses. Any remaining fair value decline for such securities is recorded in *AOCI*. The Company does not consider the length of time that the fair value of a security is below its amortized cost when determining if a credit loss exists.

For AFS debt securities, credit losses exist where Citi does not expect to receive contractual principal and interest cash flows sufficient to recover the entire amortized cost basis of a security. The allowance for credit losses is limited to the amount by which the AFS debt security's amortized cost basis exceeds its fair value. The allowance is increased or decreased if credit conditions subsequently worsen or improve. Reversals of credit losses are recognized in earnings.

Citi records no allowances for credit losses on U.S. Treasury securities and U.S. government-agency-guaranteed mortgage-backed securities, because the Company expects to incur no credit losses in the event of default due to a history of incurring no credit losses and due to the nature of the counterparties.

Equity Method Investments
For impaired equity method investments that Citi plans to sell prior to recovery of value or would more-likely-than-not be required to sell, with no expectation that the fair value will recover prior to the expected sale date, the full impairment is recognized as OTTI in *Other revenue* regardless of severity and duration. The measurement of the OTTI does not include partial projected recoveries subsequent to the balance sheet date.

For impaired equity method investments that management does not plan to sell nor will likely be required to sell prior to recovery of value, the evaluation of whether an impairment is other-than-temporary is based on (i) whether and when an equity method investment will recover in value and (ii) whether the investor has the intent and ability to hold that investment for a period of time sufficient to recover the value.

For more information on evaluating investments for impairment, see Note 13 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Recognition and Measurement of Impairment

The following tables present total impairment on *Investments* recognized in earnings:

	Three Months Ended June 30, 2022			Three Months Ended June 30, 2021		
In millions of dollars	**AFS**	**Other assets**	**Total**	AFS	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:						
Total impairment losses recognized during the period	**$ —**	**$ —**	**$ —**	$ —	$ —	$ —
Less: portion of impairment loss recognized in *AOCI* (before taxes)	**—**	**—**	**—**	—	—	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	**$ —**	**$ —**	**$ —**	$ —	$ —	$ —
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	**90**	**—**	**90**	9	—	9
Total impairment losses recognized in earnings	**$ 90**	**$ —**	**$ 90**	$ 9	$ —	$ 9

	Six Months Ended June 30, 2022			Six Months Ended June 30, 2021		
In millions of dollars	**AFS**	**Other assets**	**Total**	AFS	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:						
Total impairment losses recognized during the period	**$ —**	**$ —**	**$ —**	$ —	$ —	$ —
Less: portion of impairment loss recognized in *AOCI* (before taxes)	**—**	**—**	**—**	—	—	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	**$ —**	**$ —**	**$ —**	$ —	$ —	$ —
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	**180**	**—**	**180**	78	—	78
Total impairment losses recognized in earnings	**$ 180**	**$ —**	**$ 180**	$ 78	$ —	$ 78

Allowance for Credit Losses on AFS Debt Securities

In millions of dollars	Three Months Ended June 30, 2022 Corporate	Three Months Ended June 30, 2022 Total AFS
Allowance for credit losses at beginning of period	**$ 8**	**$ 8**
Gross write-offs	—	—
Gross recoveries	—	—
Net credit losses (NCLs)	**$ —**	**$ —**
NCLs	**$ —**	**$ —**
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	**(2)**	**(2)**
Total provision for credit losses	**$ (2)**	**$ (2)**
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	**$ 6**	**$ 6**

In millions of dollars	Six Months Ended June 30, 2022 Corporate	Six Months Ended June 30, 2022 Total AFS
Allowance for credit losses at beginning of period	**$ 8**	**$ 8**
Gross write-offs	—	—
Gross recoveries	—	—
Net credit losses (NCLs)	**$ —**	**$ —**
NCLs	**$ —**	**$ —**
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	**(2)**	**(2)**
Total provision for credit losses	**$ (2)**	**$ (2)**
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	**$ 6**	**$ 6**

In millions of dollars	Three Months Ended June 30, 2021 Corporate	Total AFS
Allowance for credit losses at beginning of period	$ 5	$ 5
Gross write-offs	—	—
Gross recoveries	—	—
Net credit losses (NCLs)	$ —	$ —
NCLs	$ —	$ —
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	—	—
Total provision for credit losses	$ —	$ —
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	$ 5	$ 5

In millions of dollars	Six Months Ended June 30, 2021 Corporate	Total AFS
Allowance for credit losses at beginning of period	$ 5	$ 5
Gross write-offs	—	—
Gross recoveries	—	—
Net credit losses (NCLs)	$ —	$ —
NCLs	$ —	$ —
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	—	—
Total provision for credit losses	$ —	$ —
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	$ 5	$ 5

Non-Marketable Equity Securities Not Carried at Fair Value

Non-marketable equity securities are required to be measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost.

The election to measure a non-marketable equity security using the measurement alternative is made on an instrument-by-instrument basis. Under the measurement alternative, an equity security is carried at cost plus or minus changes resulting from observable prices in orderly transactions for the identical or a similar investment of the same issuer. The carrying value of the equity security is adjusted to fair value on the date of an observed transaction. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Equity securities under the measurement alternative are also assessed for impairment. On a quarterly basis, management qualitatively assesses whether each equity security under the measurement alternative is impaired. For details on impairment indicators that are considered, see Note 13 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

When the qualitative assessment indicates that impairment exists, the investment is written down to fair value, with the full difference between the fair value of the investment and its carrying amount recognized in earnings.

Below is the carrying value of non-marketable equity securities measured using the measurement alternative at June 30, 2022 and December 31, 2021:

In millions of dollars	**June 30, 2022**	December 31, 2021
Measurement alternative:		
Carrying value	**$ 1,670**	$ 1,413

Below are amounts recognized in earnings and life-to-date amounts for non-marketable equity securities measured using the measurement alternative:

	Three Months Ended June 30,		**Six Months Ended June 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Measurement alternative:(1)				
Impairment losses	**$ 6**	$ 4	**$ 6**	$ 4
Downward changes for observable prices	**—**	—	**—**	—
Upward changes for observable prices	**48**	215	**134**	296

(1) See Note 20 for additional information on these nonrecurring fair value measurements.

In millions of dollars	**Life-to-date amounts on securities still held June 30, 2022**
Measurement alternative:	
Impairment losses	**$ 86**
Downward changes for observable prices	**3**
Upward changes for observable prices	**824**

A similar impairment analysis is performed for non-marketable equity securities carried at cost. For the three months ended June 30, 2022 and 2021, there was no impairment loss recognized in earnings for non-marketable equity securities carried at cost.

Investments in Alternative Investment Funds That Calculate Net Asset Value

The Company holds investments in certain alternative investment funds that calculate net asset value (NAV), or its equivalent, including private equity funds, funds of funds and real estate funds, as provided by third-party asset managers. Investments in such funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV of the Company's ownership interest in the funds. Some of these investments are in "covered funds" for purposes of the Volcker Rule, which prohibits certain proprietary investment activities and limits the ownership of, and relationships with, covered funds. Citi has concluded that it is in conformance with the Volcker Rule with respect to its investments in these funds.

	Fair value		Unfunded commitments		Redemption frequency (if currently eligible) monthly, quarterly, annually	Redemption notice period
In millions of dollars	**June 30, 2022**	December 31, 2021	**June 30, 2022**	December 31, 2021		
Private equity funds[1][2]	**$ 118**	$ 123	**$ 60**	$ 60	N/A	N/A
Real estate funds[2][3]	**1**	2	**1**	1	N/A	N/A
Mutual/collective investment funds	**22**	20	**—**	—	N/A	N/A
Total	**$ 141**	$ 145	**$ 61**	$ 61	N/A	N/A

(1) Private equity funds include funds that invest in infrastructure, emerging markets and venture capital.

(2) With respect to the Company's investments in private equity funds and real estate funds, distributions from each fund will be received as the underlying assets held by these funds are liquidated. It is estimated that the underlying assets of these funds will be liquidated over a period of several years as market conditions allow. Private equity and real estate funds do not allow redemption of investments by their investors. Investors are permitted to sell or transfer their investments, subject to the approval of the general partner or investment manager of these funds, which generally may not be unreasonably withheld.

(3) Includes several real estate funds that invest primarily in commercial real estate in the U.S., Europe and Asia.

N/A Not applicable

13. LOANS

Citigroup loans are reported in two categories: corporate and consumer. These categories are classified primarily according to the operating segment and component that manage the loans in addition to the nature of the obligor, with corporate loans generally made for corporate institutional and public sector clients around the world and consumer loans to retail and small business customers. For additional information regarding Citi's corporate and consumer loans, including related accounting policies, see Note 1 and Notes 1 and 14 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Corporate Loans

Corporate loans represent loans and leases managed by *ICG* and the Mexico SBMM component of *Legacy Franchises.* The following table presents information by corporate loan type:

In millions of dollars	**June 30, 2022**	December 31, 2021
In North America offices[1]		
Commercial and industrial	**$ 55,823**	$ 48,364
Financial institutions	**46,088**	49,804
Mortgage and real estate[2]	**17,359**	15,965
Installment and other	**20,466**	20,143
Lease financing	**379**	415
Total	**$ 140,115**	$ 134,691
In offices outside North America[1]		
Commercial and industrial	**$ 108,274**	$ 102,735
Financial institutions	**24,654**	22,158
Mortgage and real estate[2]	**4,455**	4,374
Installment and other	**19,862**	22,812
Lease financing	**53**	40
Governments and official institutions	**4,315**	4,423
Total	**$ 161,613**	$ 156,542
Corporate loans, net of unearned income[3]	**$ 301,728**	$ 291,233

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.
(2) Loans secured primarily by real estate.
(3) Corporate loans are net of unearned income of ($759) million and ($770) million at June 30, 2022 and December 31, 2021, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

The Company sold and/or reclassified to held-for-sale $1.1 billion and $1.5 billion of corporate loans during the three and six months ended June 30, 2022, respectively, and $1.7 billion and $3.1 billion of corporate loans during the three and six months ended June 30, 2021, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the three and six months ended June 30, 2022 or 2021.

Corporate Loan Delinquencies and Non-Accrual Details at June 30, 2022

In millions of dollars	30–89 days past due and accruing(1)	≥ 90 days past due and accruing(1)	Total past due and accruing	Total non-accrual(2)	Total current(3)	Total loans(4)
Commercial and industrial	**$ 919**	**$ 358**	**$ 1,277**	**$ 1,407**	**$ 158,654**	**$ 161,338**
Financial institutions	**304**	**162**	**466**	**78**	**69,904**	**70,448**
Mortgage and real estate	**11**	**20**	**31**	**77**	**21,653**	**21,761**
Lease financing	**—**	**—**	**—**	**11**	**421**	**432**
Other	**86**	**29**	**115**	**82**	**43,024**	**43,221**
Loans at fair value						**4,528**
Total	**$ 1,320**	**$ 569**	**$ 1,889**	**$ 1,655**	**$ 293,656**	**$ 301,728**

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2021

In millions of dollars	30–89 days past due and accruing(1)	≥ 90 days past due and accruing(1)	Total past due and accruing	Total non-accrual(2)	Total current(3)	Total loans(4)
Commercial and industrial	$ 1,072	$ 239	$ 1,311	$ 1,263	$ 144,430	$ 147,004
Financial institutions	320	166	486	2	71,279	71,767
Mortgage and real estate	1	1	2	136	20,153	20,291
Lease financing	—	—	—	14	441	455
Other	77	19	96	138	45,412	45,646
Loans at fair value						6,070
Total	$ 1,470	$ 425	$ 1,895	$ 1,553	$ 281,715	$ 291,233

(1) Corporate loans that are 90 days past due are generally classified as non-accrual. Corporate loans are considered past due when principal or interest is contractually due but unpaid.
(2) Non-accrual loans generally include those loans that are 90 days or more past due or those loans for which Citi believes, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest and/or principal is doubtful.
(3) Loans less than 30 days past due are presented as current.
(4) Total loans include loans at fair value, which are not included in the various delinquency columns.

Corporate Loans Credit Quality Indicators

	Recorded investment in loans[1]							
	Term loans by year of origination							
In millions of dollars	2022	2021	2020	2019	2018	Prior	Revolving line of credit arrangements[2]	June 30, 2022
Investment grade[3]								
Commercial and industrial[4]	$ 43,233	$ 7,890	$ 4,305	$ 4,009	$ 3,268	$ 9,500	$ 39,383	$ 111,588
Financial institutions[4]	9,239	5,787	1,434	1,172	828	1,636	39,935	60,031
Mortgage and real estate	2,363	3,323	3,881	3,256	1,640	2,148	277	16,888
Other[5]	6,049	2,752	2,228	1,027	2,177	5,244	18,476	37,953
Total investment grade	$ 60,884	$ 19,752	$ 11,848	$ 9,464	$ 7,913	$ 18,528	$ 98,071	$ 226,460
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 14,009	$ 5,880	$ 2,167	$ 1,601	$ 1,511	$ 4,752	$ 18,423	$ 48,343
Financial institutions[4]	5,092	1,111	252	341	57	494	2,992	10,339
Mortgage and real estate	196	853	519	860	995	994	379	4,796
Other[5]	886	712	374	449	224	298	2,664	5,607
Non-accrual								
Commercial and industrial[4]	160	110	313	133	82	148	461	1,407
Financial institutions	41	35	—	—	—	—	2	78
Mortgage and real estate	6	1	1	—	—	23	46	77
Other[5]	30	5	3	9	17	12	17	93
Total non-investment grade	$ 20,420	$ 8,707	$ 3,629	$ 3,393	$ 2,886	$ 6,721	$ 24,984	$ 70,740
Loans at fair value[6]								$ 4,528
Corporate loans, net of unearned income	$ 81,304	$ 28,459	$ 15,477	$ 12,857	$ 10,799	$ 25,249	$ 123,055	$ 301,728

In millions of dollars	Recorded investment in loans[1] Term loans by year of origination 2021	2020	2019	2018	2017	Prior	Revolving line of credit arrangements[2]	December 31, 2021
Investment grade[3]								
Commercial and industrial[4]	$ 42,422	$ 5,529	$ 4,642	$ 3,757	$ 2,911	$ 8,392	$ 30,588	$ 98,241
Financial institutions[4]	12,862	1,678	1,183	1,038	419	1,354	43,630	62,164
Mortgage and real estate	2,423	3,660	3,332	2,015	1,212	1,288	141	14,071
Other[5]	9,037	3,099	1,160	2,789	330	4,601	18,727	39,743
Total investment grade	$ 66,744	$ 13,966	$ 10,317	$ 9,599	$ 4,872	$ 15,635	$ 93,086	$ 214,219
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 16,783	$ 2,281	$ 2,343	$ 2,024	$ 1,412	$ 3,981	$ 18,676	$ 47,500
Financial institutions[4]	4,325	347	567	101	71	511	3,679	9,601
Mortgage and real estate	1,275	869	1,228	1,018	493	586	615	6,084
Other[5]	1,339	349	554	364	119	245	3,236	6,206
Non-accrual								
Commercial and industrial[4]	53	119	64	104	94	117	712	1,263
Financial institutions	—	—	—	—	—	—	2	2
Mortgage and real estate	11	8	2	49	10	25	31	136
Other[5]	19	5	19	19	—	90	—	152
Total non-investment grade	$ 23,805	$ 3,978	$ 4,777	$ 3,679	$ 2,199	$ 5,555	$ 26,951	$ 70,944
Loans at fair value[6]								$ 6,070
Corporate loans, net of unearned income	$ 90,549	$ 17,944	$ 15,094	$ 13,278	$ 7,071	$ 21,190	$ 120,037	$ 291,233

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
(2) There were no significant revolving line of credit arrangements that converted to term loans during the quarter.
(3) Held-for-investment loans are accounted for on an amortized cost basis.
(4) Includes certain short-term loans with less than one year in tenor.
(5) Other includes installment and other, lease financing and loans to government and official institutions.
(6) Loans at fair value include loans to commercial and industrial, financial institutions, mortgage and real estate and other.

Non-Accrual Corporate Loans

The following tables present non-accrual loan information by corporate loan type and interest income recognized on non-accrual corporate loans:

In millions of dollars	June 30, 2022 Recorded investment(1)	Unpaid principal balance	Related specific allowance	Average carrying value(2)	Three Months Ended June 30, 2022 Interest income recognized	Six Months Ended June 30, 2022 Interest income recognized(3)
Non-accrual corporate loans						
Commercial and industrial	$ 1,407	$ 2,042	$ 518	$ 1,485	$ 10	$ 18
Financial institutions	78	137	35	36	—	—
Mortgage and real estate	77	77	1	129	—	2
Lease financing	11	11	—	15	—	—
Other	82	134	6	134	1	3
Total non-accrual corporate loans	**$ 1,655**	**$ 2,401**	**$ 560**	**$ 1,799**	**$ 11**	**$ 23**

In millions of dollars	December 31, 2021 Recorded investment(1)	Unpaid principal balance	Related specific allowance	Average carrying value(2)
Non-accrual corporate loans				
Commercial and industrial	$ 1,263	$ 1,858	$ 198	$ 1,839
Financial institutions	2	55	—	4
Mortgage and real estate	136	285	10	163
Lease financing	14	14	—	21
Other	138	165	4	134
Total non-accrual corporate loans	$ 1,553	$ 2,377	$ 212	$ 2,161

In millions of dollars	June 30, 2022 Recorded investment(1)	June 30, 2022 Related specific allowance	December 31, 2021 Recorded investment(1)	December 31, 2021 Related specific allowance
Non-accrual corporate loans with specific allowances				
Commercial and industrial	$ 1,052	$ 518	$ 637	$ 198
Financial institutions	35	35	—	—
Mortgage and real estate	9	1	29	10
Other	20	6	37	4
Total non-accrual corporate loans with specific allowances	**$ 1,116**	**$ 560**	$ 703	$ 212
Non-accrual corporate loans without specific allowances				
Commercial and industrial	$ 355	N/A	$ 626	N/A
Financial institutions	43	N/A	2	N/A
Mortgage and real estate	68	N/A	107	N/A
Lease financing	11	N/A	14	N/A
Other	62	N/A	101	N/A
Total non-accrual corporate loans without specific allowances	**$ 539**	**N/A**	$ 850	N/A

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
(2) Average carrying value represents the average recorded investment balance and does not include related specific allowances.
(3) Interest income recognized for the three and six months ended June 30, 2021 was $15 million and $31 million, respectively.
N/A Not applicable

Corporate Troubled Debt Restructurings[1]

For the Three and Six Months Ended June 30, 2022

In millions of dollars	Carrying value of TDRs modified during the period	TDRs involving changes in the amount and/or timing of principal payments[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Three Months Ended June 30, 2022				
Commercial and industrial	$ 3	$ —	$ —	$ 3
Other	23	—	—	23
Total	$ 26	$ —	$ —	$ 26
Six Months Ended June 30, 2022				
Commercial and industrial	$ 15	$ —	$ —	$ 15
Other	23	1	—	22
Total	$ 38	$ 1	$ —	$ 37

For the Three and Six Months Ended June 30, 2021

In millions of dollars	Carrying value of TDRs modified during the period	TDRs involving changes in the amount and/or timing of principal payments[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Three Months Ended June 30, 2021				
Commercial and industrial	$ 52	$ —	$ —	$ 52
Mortgage and real estate	5	—	—	5
Other	—	—	—	—
Total	$ 57	$ —	$ —	$ 57
Six Months Ended June 30, 2021				
Commercial and industrial	$ 73	$ —	$ —	$ 73
Mortgage and real estate	6	—	—	6
Other	1	1	—	—
Total	$ 80	$ 1	$ —	$ 79

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the CARES Act or the interagency guidance.
(2) TDRs involving changes in the amount or timing of principal payments may involve principal forgiveness or deferral of periodic and/or final principal payments. Because forgiveness of principal is rare for corporate loans, modifications typically have little to no impact on the loans' projected cash flows and thus little to no impact on the allowance established for the loans. Charge-offs for amounts deemed uncollectible may be recorded at the time of the restructuring or may have already been recorded in prior periods such that no charge-off is required at the time of the modification.
(3) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.

The following table presents total corporate loans modified in a TDR as well as those TDRs that defaulted and for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due, except for classifiably managed commercial banking loans, where default is defined as 90 days past due.

		TDR loans that re-defaulted within one year of modification during the			TDR loans that re-defaulted within one year of modification during the	
In millions of dollars	**TDR balances at June 30, 2022**	**Three Months Ended June 30, 2022**	**Six Months Ended June 30, 2022**	TDR balances at June 30, 2021	Three Months Ended June 30, 2021	Six Months Ended June 30, 2021
Commercial and industrial	$ 148	$ —	$ —	$ 298	$ —	$ —
Mortgage and real estate	16	—	—	80	—	—
Other	39	—	—	38	—	—
Total[1]	$ 203	$ —	$ —	$ 416	$ —	$ —

(1) The above table reflects activity for loans outstanding that were considered TDRs as of the end of the reporting period.

Consumer Loans

Consumer loans represent loans and leases managed primarily by *PBWM* and *Legacy Franchises* (except Mexico SBMM). The tables below present details about these loans, including the following loan categories:

- Residential first mortgages and Home equity loans in North America offices primarily represent secured mortgage lending to customers of Retail banking and Global Wealth (primarily Private bank and Citigold).
- Credit cards in North America offices primarily represents unsecured credit card lending to customers of Branded cards and Retail services.
- Personal, small business and other loans in North America is primarily composed of classifiably managed loans to customers of Global Wealth (mostly within the Private bank) who are typically high credit quality borrowers that historically experienced minimal delinquencies and credit losses. Loans to these borrowers are generally well collateralized in the form of liquid securities and other forms of collateral.
- Residential first mortgages and Home equity loans in offices outside of North America primarily represent secured mortgage lending to customers of Global Wealth (primarily Private bank and Citigold) as well as customers of *Legacy Franchises*.
- Credit cards in offices outside of North America primarily represents unsecured credit card lending to customers of *Legacy Franchises*, primarily in Asia and Mexico.
- Personal, small business and other loans in offices outside of North America is primarily composed of secured and unsecured loans to customers of *PBWM* and *Legacy Franchises*. A significant portion of *PBWM* loans are classifiably managed and represent loans to high credit quality Private bank customers who historically experienced minimal delinquencies and credit losses. Loans to these borrowers are generally well collateralized in the form of liquid securities and other forms of collateral.

Consumer Loans, Delinquencies and Non-Accrual Status

In millions of dollars at June 30, 2022	Total current[(1)(2)]	30–89 days past due[(3)(4)]	≥ 90 days past due[(3)(4)]	Past due government guaranteed[(5)]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[(6)]									
Residential first mortgages[(7)]	$ 87,675	$ 341	$ 363	$ 283	$ 88,662	$ 83	$ 467	$ 550	$ 179
Home equity loans[(8)(9)]	4,892	29	153	—	5,074	57	183	240	—
Credit cards	135,454	1,009	949	—	137,412	—	—	—	949
Personal, small business and other[(10)]	39,320	72	25	19	39,436	2	14	16	26
Total	$ 267,341	$ 1,451	$ 1,490	$ 302	$ 270,584	$ 142	$ 664	$ 806	$ 1,154
In offices outside North America[(6)]									
Residential mortgages[(7)(9)]	$ 27,988	$ 50	$ 91	$ —	$ 28,129	$ —	$ 290	$ 290	$ 10
Credit cards	11,610	123	125	—	11,858	—	98	98	52
Personal, small business and other[(10)]	44,860	104	70	—	45,034	—	186	186	—
Total	$ 84,458	$ 277	$ 286	$ —	$ 85,021	$ —	$ 574	$ 574	$ 62
Total Citigroup[(11)]	$ 351,799	$ 1,728	$ 1,776	$ 302	$ 355,605	$ 142	$ 1,238	$ 1,380	$ 1,216

(1) Loans less than 30 days past due are presented as current.
(2) Includes $8 million of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes delinquencies on $33.9 billion and $20.9 billion of classifiably managed Private bank loans in North America and outside of North America, respectively.
(4) Loans modified under Citi's consumer relief programs continue to be reported in the same delinquency bucket they were in at the time of modification. Most modified loans in North America would not be reported as 30–89 or 90+ days past due for the duration of the programs (which have various durations, and certain of which may be renewed).
(5) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of $0.1 billion and 90 days or more past due of $0.2 billion.
(6) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(7) Includes approximately $0.1 billion and $0.0 billion of residential first mortgage loans in process of foreclosure in North America and outside of North America, respectively, and $19.6 billion of residential mortgages outside of North America related to the Global Wealth business.
(8) Includes approximately $0.1 billion of home equity loans in process of foreclosure.
(9) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(10) Includes loans related to the Global Wealth business: $36.3 billion in North America, approximately $33.9 billion of which are classifiably managed, and as of June 30, 2022 approximately 95% were rated investment grade; and $30.6 billion outside of North America, approximately $20.9 billion of which are classifiably managed, and as of June 30, 2022 approximately 93% were rated investment grade. The classifiably managed portion of these loans is shown as "current" because the delinquency status is not applicable, since these loans are primarily evaluated for credit risk based on their internal risk classification.
(11) Consumer loans are net of unearned income of $631 million. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

Consumer Loans, Delinquencies and Non-Accrual Status

In millions of dollars at December 31, 2021	Total current(1)(2)	30–89 days past due(3)(4)(5)	≥ 90 days past due(3)(4)(5)	Past due government guaranteed(5)(6)	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices(7)									
Residential first mortgages(8)	$ 82,087	$ 381	$ 499	$ 394	$ 83,361	$ 134	$ 559	$ 693	$ 282
Home equity loans(9)(10)	5,546	43	156	—	5,745	64	221	285	—
Credit cards	132,050	947	871	—	133,868	—	—	—	871
Personal, small business and other(11)	40,533	126	16	38	40,713	2	70	72	30
Total	$ 260,216	$ 1,497	$ 1,542	$ 432	$ 263,687	$ 200	$ 850	$1,050	$ 1,183
In offices outside North America(7)									
Residential mortgages(8)	$ 37,566	$ 165	$ 158	$ —	$ 37,889	$ —	$ 409	$ 409	$ 10
Credit cards	17,428	192	188	—	17,808	—	140	140	133
Personal, small business and other(11)	56,930	145	75	—	57,150	—	227	227	—
Total	$ 111,924	$ 502	$ 421	$ —	$ 112,847	$ —	$ 776	$ 776	$ 143
Total Citigroup(12)	$ 372,140	$ 1,999	$ 1,963	$ 432	$ 376,534	$ 200	$ 1,626	$1,826	$ 1,326

(1) Loans less than 30 days past due are presented as current.
(2) Includes $12 million of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes $35.3 billion and $24.5 billion of classifiably managed Private bank loans in North America and outside of North America, respectively.
(4) Loans modified under Citi's consumer relief programs continue to be reported in the same delinquency bucket they were in at the time of modification, and thus almost all would not be reported as 30–89 or 90+ days past due for the duration of the programs (which have various durations, and certain of which may be renewed).
(5) Conformed to be consistent with the current period's delineation between delinquency-managed and classifiably managed loans.
(6) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of $0.1 billion and 90 days or more past due of $0.3 billion.
(7) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(8) Includes approximately $0.1 billion of residential first mortgage loans in process of foreclosure, and $19.8 billion of residential mortgages outside of North America related to the Global Wealth reporting unit.
(9) Includes approximately $0.1 billion of home equity loans in process of foreclosure.
(10) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(11) Includes loans related to the Global Wealth business: $37.9 billion in North America, approximately $35.3 billion of which are classifiably managed, and as of December 31, 2021 approximately 95% were rated investment grade; and $34.6 billion outside of North America, approximately $24.5 billion of which are classifiably managed and as of December 31, 2021 94% of these loans were rated investment grade. The classifiably managed portion of these loans is shown as "current" because the delinquency status is not applicable, since these loans are primarily evaluated for credit risk based on their internal risk classification.
(12) Consumer loans are net of unearned income of $629 million. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

Interest Income Recognized for Non-Accrual Consumer Loans

In millions of dollars		**Three Months Ended June 30, 2022**		Three Months Ended June 30, 2021		**Six Months Ended June 30, 2022**		Six Months Ended June 30, 2021
In North America offices[1]								
Residential first mortgages	**$**	**3**	$	3	**$**	**6**	$	7
Home equity loans		**1**		2		**2**		4
Credit cards		**—**		—		**—**		—
Personal, small business and other		**1**		—		**1**		—
Total	**$**	**5**	$	5	**$**	**9**	$	11
In offices outside North America[1]								
Residential mortgages	**$**	**—**	$	—	**$**	**—**	$	—
Credit cards		**—**		—		**—**		—
Personal, small business and other		**—**		—		**—**		—
Total	**$**	**—**	$	—	**$**	**—**	$	—
Total Citigroup	**$**	**5**	$	5	**$**	**9**	$	11

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

During the three and six months ended June 30, 2022, the Company sold and/or reclassified to HFS $367 million and $374 million of consumer loans, respectively. During the three and six months ended June 30, 2021, the Company sold and/or reclassified to HFS $1,007 million and $1,103 million of consumer loans, respectively. Loans held by a business for sale are not included in the above. The Company did not have significant purchases of consumer loans classified as held-for-investment for the three and six months ended June 30, 2022 or 2021. See Note 2 for additional information regarding Citigroup's businesses for sale.

Consumer Credit Scores (FICO)

The following tables provide details on the Fair Isaac Corporation (FICO) scores for Citi's U.S. consumer loan portfolio based on end-of-period receivables by year of origination. FICO scores are updated monthly for substantially all of the portfolio or, otherwise, on a quarterly basis for the remaining portfolio. For Citi's $86.6 billion and $114.3 billion in the consumer loan portfolio outside of the U.S. as of June 30, 2022 and December 31, 2021, respectively, various country-specific or regional credit risk metrics and acquisition and behavior scoring models are leveraged as one of the factors to evaluate the credit quality of customers (for additional information on loans outside of the U.S., see "Consumer Loans and Ratios Outside of North America" below). As a result, details of relevant credit quality indicators for those loans are not comparable to the below FICO score distribution for the U.S. portfolio.

FICO score distribution—U.S. portfolio(1)(2)	**June 30, 2022**					
In millions of dollars	**Less than 680**	**680 to 760**	**Greater than 760**	**Classifiably managed**(3)	**FICO not available**(4)	**Total loans**
Residential first mortgages						
2022	**$ 293**	**$ 3,639**	**$ 7,637**			
2021	**728**	**6,387**	**12,488**			
2020	**485**	**4,978**	**10,931**			
2019	**322**	**2,772**	**5,504**			
2018	**375**	**1,067**	**2,004**			
Prior	**2,175**	**7,012**	**13,549**			
Total residential first mortgages	**$ 4,378**	**$ 25,855**	**$ 52,113**	**$ —**	**$ 6,316**	**$ 88,662**
Home equity loans (pre-reset)	**$ 240**	**$ 965**	**$ 1,344**			
Home equity loans (post-reset)	**541**	**934**	**1,010**			
Total home equity loans	**$ 781**	**$ 1,899**	**$ 2,354**	**$ —**	**$ 40**	**$ 5,074**
Credit cards(5)	**$ 24,233**	**$ 53,858**	**$ 56,987**	**$ —**	**$ 1,776**	**$ 136,854**
Personal, small business and other						
2022	**$ 65**	**$ 185**	**$ 302**			
2021	**94**	**221**	**308**			
2020	**18**	**29**	**44**			
2019	**30**	**36**	**45**			
2018	**19**	**20**	**21**			
Prior	**121**	**188**	**158**			
Total personal, small business and other(6)	**$ 347**	**$ 679**	**$ 878**	**$ 33,935**	**$ 2,618**	**$ 38,457**
Total	**$ 29,739**	**$ 82,291**	**$ 112,332**	**$ 33,935**	**$ 10,750**	**$ 269,047**

FICO score distribution—U.S. portfolio[1][2]	December 31, 2021					
In millions of dollars	Less than 680	680 to 760	Greater than 760	Classifiably managed[3]	FICO not available[4]	Total loans
Residential first mortgages						
2021	$ 626	$ 6,729	$ 12,349			
2020	508	5,102	12,153			
2019	373	3,074	6,167			
2018	394	1,180	2,216			
2017	343	1,455	2,568			
Prior	2,053	6,540	12,586			
Total residential first mortgages	$ 4,297	$ 24,080	$ 48,039	$ —	$ 6,945	$ 83,361
Home equity loans (pre-reset)	$ 263	$ 1,030	$ 1,539			
Home equity loans (post-reset)	639	1,047	1,160			
Total home equity loans	$ 902	$ 2,077	$ 2,699	$ —	$ 67	$ 5,745
Credit cards[5]	$ 23,115	$ 52,907	$ 55,137	$ —	$ 2,192	$ 133,351
Personal, small business and other						
2021	$ 59	$ 201	$ 319			
2020	22	41	64			
2019	42	53	68			
2018	34	35	37			
2017	7	8	9			
Prior	120	179	143			
Total personal, small business and other[6]	$ 284	$ 517	$ 640	$ 35,324	$ 3,041	$ 39,806
Total	$ 28,598	$ 79,581	$ 106,515	$ 35,324	$ 12,245	$ 262,263

(1) The FICO bands in the tables are consistent with general industry peer presentations.
(2) FICO scores are updated on either a monthly or quarterly basis. For updates that are made only quarterly, certain current-period loans by year of origination are greater than those disclosed in the prior periods. Loans that did not have FICO scores as of the prior period have been updated with FICO scores as they become available.
(3) These personal, small business and other loans without a FICO score available include $33.9 billion and $35.3 billion of Private bank loans as of June 30, 2022 and December 31, 2021, respectively, which are classifiably managed within Global Wealth and are primarily evaluated for credit risk based on their internal risk ratings. As of June 30, 2022 and December 31, 2021, approximately 95% and 95% of these loans, respectively, were rated investment grade.
(4) FICO scores not available related to loans guaranteed by government-sponsored enterprises for which FICO scores are generally not utilized.
(5) Excludes $558 million and $517 million of balances related to Canada for June 30, 2022 and December 31, 2021, respectively.
(6) Excludes $979 million and $907 million of balances related to Canada for June 30, 2022 and December 31, 2021, respectively.

Loan-to-Value (LTV) Ratios—U.S. Consumer Mortgages

The following tables provide details on the LTV ratios for Citi's U.S. consumer mortgage portfolio by year of origination. LTV ratios are updated monthly using the most recent Core Logic Home Price Index data available for substantially all of the portfolio applied at the Metropolitan Statistical Area level, if available, or the state level if not. The remainder of the portfolio is updated in a similar manner using the Federal Housing Finance Agency indices.

LTV distribution—U.S. portfolio	**June 30, 2022**				
In millions of dollars	**Less than or equal to 80%**	**> 80% but less than or equal to 100%**	**Greater than 100%**	**LTV not available**	**Total**
Residential first mortgages					
2022	**$ 9,773**	**$ 2,176**	**$ 13**		
2021	**19,616**	**1,078**	**31**		
2020	**17,437**	**205**	**—**		
2019	**9,142**	**129**	**29**		
2018	**3,777**	**92**	**10**		
Prior	**23,993**	**198**	**85**		
Total residential first mortgages[1]	**$ 83,738**	**$ 3,878**	**$ 168**	**$ 878**	**$ 88,662**
Home equity loans (pre-reset)	**$ 2,389**	**$ 32**	**$ 63**		
Home equity loans (post-reset)	**2,415**	**28**	**31**		
Total home equity loans	**$ 4,804**	**$ 60**	**$ 94**	**$ 116**	**$ 5,074**
Total	**$ 88,542**	**$ 3,938**	**$ 262**	**$ 994**	**$ 93,736**

LTV distribution—U.S. portfolio	December 31, 2021				
In millions of dollars	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available	Total
Residential first mortgages					
2021	$ 18,107	$ 2,723	$ 34		
2020	18,715	446	—		
2019	10,047	269	29		
2018	4,117	136	11		
2017	4,804	103	4		
Prior	22,161	128	14		
Total residential first mortgages[1]	$ 77,951	$ 3,805	$ 92	$ 1,513	$ 83,361
Home equity loans (pre-reset)	$ 2,637	$ 46	$ 69		
Home equity loans (post-reset)	2,751	52	32		
Total home equity loans	$ 5,388	$ 98	$ 101	$ 158	$ 5,745
Total	$ 83,339	$ 3,903	$ 193	$ 1,671	$ 89,106

(1) Residential first mortgages with no LTV information available are primarily due to government-guaranteed loans that do not require LTV information for credit risk assessment and fair value loans.

Loan-to-Value (LTV) Ratios—Outside of U.S. Consumer Mortgages

The following tables provide details on the LTV ratios for Citi's consumer mortgage portfolio outside of the U.S. by year of origination.

LTV distribution—outside of U.S. portfolio(1)	**June 30, 2022**				
In millions of dollars	**Less than or equal to 80%**	**> 80% but less than or equal to 100%**	**Greater than 100%**	**LTV not available**	**Total**
Residential mortgages					
2022	**$ 1,684**	**$ 431**	**$ 21**		
2021	**4,685**	**913**	**3**		
2020	**4,189**	**267**	**—**		
2019	**3,537**	**71**	**1**		
2018	**2,448**	**7**	**—**		
Prior	**9,791**	**40**	**12**		
Total	**$ 26,334**	**$ 1,729**	**$ 37**	**$ 29**	**$ 28,129**

LTV distribution—outside of U.S. portfolio(1)	December 31, 2021				
In millions of dollars	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available	Total
Residential mortgages					
2021	$ 6,334	$ 989	$ —		
2020	5,996	292	—		
2019	5,293	116	1		
2018	3,729	32	—		
2017	2,739	38	—		
Prior	12,190	102	14		
Total	$ 36,281	$ 1,569	$ 15	$ 24	$ 37,889

(1) Mortgage portfolios outside of the U.S. are primarily in Global Wealth. As of June 30, 2022 and December 31, 2021, mortgage portfolios outside of the U.S. have an average LTV of approximately 47% and 46%, respectively.

Consumer Loans and Ratios Outside of North America

In millions of dollars at June 30, 2022	Total loans outside of North America(1)	Classifiably managed loans(2)	Delinquency-managed loans and ratios: Delinquency-managed loans	30–89 days past due ratio	≥ 90 days past due ratio	2Q22 NCL ratio	2Q21 NCL ratio
Residential mortgages(3)	**$ 28,129**	**$ —**	**$ 28,129**	**0.18 %**	**0.32 %**	**0.04 %**	0.10 %
Credit cards	**11,858**	**—**	**11,858**	**1.04**	**1.05**	**3.08**	5.09
Personal, small business and other(4)	**45,034**	**20,889**	**24,145**	**0.43**	**0.29**	**0.55**	1.04
Total	**$ 85,021**	**$ 20,889**	**$ 64,132**	**0.43 %**	**0.45 %**	**0.72 %**	1.39 %

In millions of dollars at December 31, 2021	Total loans outside of North America(1)	Classifiably managed loans(2)	Delinquency-managed loans and ratios: Delinquency-managed loans	30–89 days past due ratio	≥ 90 days past due ratio
Residential mortgages(3)	$ 37,889	$ —	$ 37,889	0.44 %	0.42 %
Credit cards	17,808	—	17,808	1.08	1.06
Personal, small business and other(4)	57,150	24,482	32,668	0.44	0.23
Total	$ 112,847	$ 24,482	$ 88,365	0.57 %	0.48 %

(1) Mexico is included in offices outside North America.
(2) Classifiably managed loans are primarily evaluated for credit risk based on their internal risk classification. As of June 30, 2022 and December 31, 2021, approximately 93% and 94% of these loans, respectively, were rated investment grade.
(3) Includes $19.6 billion and $19.8 billion as of June 30, 2022 and December 31, 2021, respectively, of residential mortgages related to the Global Wealth business.
(4) Includes $30.6 billion and $34.6 billion as of June 30, 2022 and December 31, 2021, respectively, of loans related to the Global Wealth business.

Impaired Consumer Loans

The following tables present information about impaired consumer loans and interest income recognized on impaired consumer loans:

	Balance at June 30, 2022				Three Months Ended June 30,		Six Months Ended June 30,	
					2022	2021	**2022**	2021
In millions of dollars	**Recorded investment(1)(2)**	**Unpaid principal balance**	**Related specific allowance(3)(4)**	**Average carrying value(5)**	**Interest income recognized(6)**	Interest income recognized(6)	**Interest income recognized(6)**	Interest income recognized(6)
Mortgage and real estate								
Residential first mortgages	**$ 1,179**	**$ 1,290**	**$ 56**	**$ 1,382**	**$ 49**	$ 21	**$ 71**	$ 44
Home equity loans	**274**	**344**	**(8)**	**248**	**2**	3	**5**	5
Credit cards	**1,227**	**1,229**	**463**	**1,450**	**15**	33	**33**	68
Personal, small business and other	**127**	**149**	**39**	**295**	**4**	15	**7**	27
Total	**$ 2,807**	**$ 3,012**	**$ 550**	**$ 3,375**	**$ 70**	$ 72	**$ 116**	$ 144

In millions of dollars	Balance at December 31, 2021			
	Recorded investment(1)(2)	Unpaid principal balance	Related specific allowance(3)(4)	Average carrying value(5)
Mortgage and real estate				
Residential first mortgages	$ 1,521	$ 1,595	$ 87	$ 1,564
Home equity loans	191	344	(1)	336
Credit cards	1,582	1,609	594	1,795
Personal, small business and other	454	461	133	505
Total	$ 3,748	$ 4,009	$ 813	$ 4,200

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount and direct write-downs and includes accrued interest only on credit card loans.

(2) At June 30, 2022, $182 million of residential first mortgages and $84 million of home equity loans do not have a specific allowance. At December 31, 2021, $190 million of residential first mortgages and $94 million of home equity loans do not have a specific allowance because they are accounted for based on collateral value, and that value is in excess of the outstanding loan balance.

(3) Included in the *Allowance for credit losses on loans*.

(4) The negative allowance on home equity loans resulted from expected recoveries on previously written-off accounts.

(5) Average carrying value represents the average recorded investment ending balance for the last four quarters and does not include the related specific allowance.

(6) Includes amounts recognized on both accrual and cash basis.

Consumer Troubled Debt Restructurings[1]

In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment[2][3]	Deferred principal[4]	Contingent principal forgiveness[5]	Principal forgiveness[6]	Average interest rate reduction
	For the Three Months Ended June 30, 2022					
North America						
Residential first mortgages	279	$ 56	$ —	$ —	$ —	— %
Home equity loans	103	7	—	—	—	—
Credit cards	36,820	157	—	—	—	18
Personal, small business and other	105	1	—	—	—	5
Total[7]	37,307	$ 221	$ —	$ —	$ —	
International						
Residential mortgages	110	$ 4	$ —	$ —	$ —	— %
Credit cards	3,462	13	—	—		27
Personal, small business and other	595	7	—	—	—	8
Total[7]	4,167	$ 24	$ —	$ —	$ —	

In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment[2][8]	Deferred principal[4]	Contingent principal forgiveness[5]	Principal forgiveness[6]	Average interest rate reduction
	For the Six Months Ended June 30, 2022					
North America						
Residential first mortgages	625	$ 137	$ —	$ —	$ —	— %
Home equity loans	207	16	—	—	—	—
Credit cards	77,560	330	—	—	—	17
Personal, small business and other	251	2	—	—	—	5
Total[7]	78,643	$ 485	$ —	$ —	$ —	
International						
Residential first mortgages	293	$ 10	$ —	$ —	$ —	— %
Credit cards	8,462	35	—	—	1	23
Personal, small business and other	1,267	16	—	—		8
Total[7]	10,022	$ 61	$ —	$ —	$ 1	

In millions of dollars, except number of loans modified	For the Three Months Ended June 30, 2021					
	Number of loans modified	Post-modification recorded investment(2)(3)	Deferred principal(4)	Contingent principal forgiveness(5)	Principal forgiveness(6)	Average interest rate reduction
North America						
Residential first mortgages	334	$ 60	$ —	$ —	$ —	— %
Home equity loans	53	4	—	—	—	—
Credit cards	36,337	181	—	—	—	17
Personal, small business and other	225	3	—	—	—	3
Total(7)	36,949	$ 248	$ —	$ —	$ —	
International						
Residential mortgages	530	$ 28	$ —	$ —	$ —	1 %
Credit cards	18,297	94	—	—	1	12
Personal, small business and other	6,780	57	—	—	2	10
Total(7)	25,607	$ 179	$ —	$ —	$ 3	

In millions of dollars, except number of loans modified	For the Six Months Ended June 30, 2021					
	Number of loans modified	Post-modification recorded investment(2)(8)	Deferred principal(4)	Contingent principal forgiveness(5)	Principal forgiveness(6)	Average interest rate reduction
North America						
Residential first mortgages	670	$ 120	$ —	$ —	$ —	— %
Home equity loans	112	10		—	—	—
Credit cards	95,383	481	—	—	—	17
Personal, small business and other	686	10	—	—	—	3
Total(7)	96,851	$ 621	$ —	$ —	$ —	
International						
Residential first mortgages	997	$ 52	$ —	$ —	$ —	1 %
Credit cards	42,896	196	—	—	8	14
Personal, small business and other	14,318	115	—	—	4	10
Total(7)	58,211	$ 363	$ —	$ —	$ 12	

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) or the interagency guidance.
(2) Post-modification balances include past-due amounts that are capitalized at the modification date.
(3) Post-modification balances in North America include $0.4 million and $4 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the three months ended June 30, 2022 and June 30, 2021, respectively. These amounts include $0.4 million and $1 million of residential first mortgages that were newly classified as TDRs in the three months ended June 30, 2022 and June 30, 2021, respectively, based on previously received OCC guidance.
(4) Represents portion of contractual loan principal that is non-interest bearing, but still due from the borrower. Such deferred principal is charged off at the time of permanent modification to the extent that the related loan balance exceeds the underlying collateral value.
(5) Represents portion of contractual loan principal that is non-interest bearing and, depending upon borrower performance, eligible for forgiveness.
(6) Represents portion of contractual loan principal that was forgiven at the time of permanent modification.
(7) The above tables reflect activity for restructured loans that were considered TDRs during the reporting period.
(8) Post-modification balances in North America include $2 million and $7 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the six months ended June 30, 2022 and June 30, 2021, respectively. These amounts include $2 million and $2 million of residential first mortgages that were newly classified as TDRs in the six months ended June 30, 2022 and June 30, 2021, respectively, based on previously received OCC guidance.

The following table presents consumer TDRs that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due:

In millions of dollars	Three Months Ended June 30, **2022**	Three Months Ended June 30, 2021	Six Months Ended June 30, **2022**	Six Months Ended June 30, 2021
North America				
Residential first mortgages	**$ 13**	$ 15	**$ 17**	$ 33
Home equity loans	**2**	3	**2**	7
Credit cards	**59**	73	**116**	136
Personal, small business and other	**—**	1	**—**	2
Total	**$ 74**	$ 92	**$ 135**	$ 178
International				
Residential mortgages	**$ 3**	$ 10	**$ 7**	$ 22
Credit cards	**3**	45	**7**	97
Personal, small business and other	**1**	36	**2**	58
Total	**$ 7**	$ 91	**$ 16**	$ 177

Purchased Credit-Deteriorated Assets

In millions of dollars	**Three Months Ended June 30, 2022**			Three Months Ended December 31, 2021			Three Months Ended June 30, 2021		
	Credit cards	**Mortgages(1)**	**Installment and other**	Credit cards	Mortgages(1)	Installment and other	Credit cards	Mortgages(1)	Installment and other
Purchase price	**$ —**	**$ 3**	**$ —**	$ —	$ 4	$ —	$ —	$ 10	$ —
Allowance for credit losses at acquisition date	**—**	**—**	**—**	—	—	—	—	—	—
Discount or premium attributable to non-credit factors	**—**	**—**	**—**	—	—	—	—	—	—
Par value (amortized cost basis)	**$ —**	**$ 3**	**$ —**	$ —	$ 4	$ —	$ —	$ 10	$ —

(1) Includes loans sold to agencies that were bought back at par due to repurchase agreements.

14. ALLOWANCE FOR CREDIT LOSSES

In millions of dollars	Three Months Ended June 30, 2022	Three Months Ended June 30, 2021	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 15,393**	$ 21,638	**$ 16,455**	$ 24,956
Adjusted ACLL at beginning of period	**$ 15,393**	$ 21,638	**$ 16,455**	$ 24,956
Gross credit losses on loans	**$ (1,212)**	$ (1,844)	**$ (2,452)**	$ (4,052)
Gross recoveries on loans	**362**	524	**730**	984
Net credit losses on loans (NCLs)	**$ (850)**	$ (1,320)	**$ (1,722)**	$ (3,068)
Replenishment of NCLs	**$ 850**	$ 1,320	**$ 1,722**	$ 3,068
Net reserve builds (releases) for loans	**520**	(2,184)	**(260)**	(5,252)
Net specific reserve builds (releases) for loans	**14**	(262)	**182**	(421)
Total provision for credit losses on loans (PCLL)	**$ 1,384**	$ (1,126)	**$ 1,644**	$ (2,605)
Other, net (see table below)	**25**	46	**(425)**	(45)
ACLL at end of period	**$ 15,952**	$ 19,238	**$ 15,952**	$ 19,238
Allowance for credit losses on unfunded lending commitments (ACLUC) at beginning of period[1]	**$ 2,343**	$ 2,012	**$ 1,871**	$ 2,655
Provision (release) for credit losses on unfunded lending commitments	**(159)**	44	**315**	(582)
Other, net	**9**	17	**7**	—
ACLUC at end of period[1]	**$ 2,193**	$ 2,073	**$ 2,193**	$ 2,073
Total allowance for credit losses on loans, leases and unfunded lending commitments[2]	**$ 18,145**	$ 21,311	**$ 18,145**	$ 21,311

Other, net details *In millions of dollars*	Three Months Ended June 30, 2022	Three Months Ended June 30, 2021	Six Months Ended June 30, 2022	Six Months Ended June 30, 2021
Reclasses of consumer ACLL to HFS[3]	**$ —**	$ —	**$ (350)**	$ —
FX translation and other	**25**	46	**(75)**	(45)
Other, net	**$ 25**	$ 46	**$ (425)**	$ (45)

(1) Represents additional credit loss reserves for unfunded lending commitments and letters of credit recorded in *Other liabilities* on the Consolidated Balance Sheet.
(2) See below for ACL on *HTM debt securities* and *Other assets*.
(3) See Note 2.

Allowance for Credit Losses on Loans and End-of-Period Loans

	Three Months Ended					
	June 30, 2022			June 30, 2021		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL at beginning of period	**$ 3,025**	**$ 12,368**	**$ 15,393**	$ 3,542	$ 18,096	$ 21,638
Charge-offs	**(57)**	**(1,155)**	**(1,212)**	(137)	(1,707)	(1,844)
Recoveries	**34**	**328**	**362**	60	464	524
Replenishment of NCLs	**23**	**827**	**850**	77	1,243	1,320
Net reserve builds (releases)	**(128)**	**648**	**520**	(751)	(1,433)	(2,184)
Net specific reserve builds (releases)	**49**	**(35)**	**14**	(112)	(150)	(262)
Other	**23**	**2**	**25**	(7)	53	46
Ending balance	**$ 2,969**	**$ 12,983**	**$ 15,952**	$ 2,672	$ 16,566	$ 19,238

	Six Months Ended					
	June 30, 2022			June 30, 2021		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL at beginning of period	**$ 2,415**	**$ 14,040**	**$ 16,455**	$ 4,776	$ 20,180	$ 24,956
Charge-offs	**(105)**	**(2,347)**	**(2,452)**	(336)	(3,716)	(4,052)
Recoveries	**51**	**679**	**730**	74	910	984
Replenishment of NCLs	**54**	**1,668**	**1,722**	262	2,806	3,068
Net reserve builds (releases)	**249**	**(509)**	**(260)**	(1,944)	(3,308)	(5,252)
Net specific reserve builds (releases)	**273**	**(91)**	**182**	(146)	(275)	(421)
Other	**32**	**(457)**	**(425)**	(14)	(31)	(45)
Ending balance	**$ 2,969**	**$ 12,983**	**$ 15,952**	$ 2,672	$ 16,566	$ 19,238

	June 30, 2022			December 31, 2021		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL						
Collectively evaluated	**$ 2,409**	**$ 12,431**	**$ 14,840**	$ 2,203	$ 13,227	$ 15,430
Individually evaluated	**560**	**550**	**1,110**	212	813	1,025
Purchased credit deteriorated	**—**	**2**	**2**	—	—	—
Total ACLL	**$ 2,969**	**$ 12,983**	**$ 15,952**	$ 2,415	$ 14,040	$ 16,455
Loans, net of unearned income						
Collectively evaluated	**$ 295,545**	**$ 352,683**	**$ 648,228**	$ 283,610	$ 372,655	$ 656,265
Individually evaluated	**1,655**	**2,807**	**4,462**	1,553	3,748	5,301
Purchased credit deteriorated	**—**	**107**	**107**	—	119	119
Held at fair value	**4,528**	**8**	**4,536**	6,070	12	6,082
Total loans, net of unearned income	**$ 301,728**	**$ 355,605**	**$ 657,333**	$ 291,233	$ 376,534	$ 667,767

Allowance for Credit Losses on HTM Debt Securities

In millions of dollars	Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
	Three Months Ended June 30, 2022				
Allowance for credit losses on HTM debt securities at beginning of quarter	$ 4	$ 79	$ 2	$ —	$ 85
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(2)	14	1	7	20
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ (2)	$ 14	$ 1	$ 7	$ 20
Allowance for credit losses on HTM debt securities at end of quarter	$ 2	$ 93	$ 3	$ 7	$ 105

In millions of dollars	Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
	Six Months Ended June 30, 2022				
Allowance for credit losses on HTM debt securities at beginning of year	$ 6	$ 75	$ 4	$ 2	$ 87
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(4)	18	(1)	5	18
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ (4)	$ 18	$ (1)	$ 5	$ 18
Allowance for credit losses on HTM debt securities at end of quarter	$ 2	$ 93	$ 3	$ 7	$ 105

Allowance for Credit Losses on HTM Debt Securities

In millions of dollars	Three Months Ended June 30, 2021 Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of quarter	$ 4	$ 69	$ 5	$ —	$ 78
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	1	3	—	—	4
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ 1	$ 3	$ —	$ —	$ 4
Other, net	$ —	$ —	$ —	$ 1	$ 1
Allowance for credit losses on HTM debt securities at end of quarter	$ 5	$ 72	$ 5	$ 1	$ 83

In millions of dollars	Six Months Ended June 30, 2021 Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of year	$ 3	$ 74	$ 6	$ 3	$ 86
Gross credit losses	—	—	—	—	—
Gross recoveries	3	—	—	—	3
Net credit losses (NCLs)	$ 3	$ —	$ —	$ —	$ 3
Replenishment of NCLs	$ (3)	$ —	$ —	$ —	$ (3)
Net reserve builds	2	(2)	(1)	(3)	(4)
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ (1)	$ (2)	$ (1)	$ (3)	$ (7)
Other, net	$ —	$ —	$ —	$ 1	$ 1
Allowance for credit losses on HTM debt securities at end of quarter	$ 5	$ 72	$ 5	$ 1	$ 83

Allowance for Credit Losses on Other Assets

	Three Months Ended June 30, 2022				
In millions of dollars	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[(1)]	Total
Allowance for credit losses on other assets at beginning of quarter	$ 15	$ 4	$ —	$ 24	$ 43
Gross credit losses	—	—	—	(8)	(8)
Gross recoveries	—	—	—	2	2
Net credit losses (NCLs)	$ —	$ —	$ —	$ (6)	$ (6)
Replenishment of NCLs	$ —	$ —	$ —	$ 6	$ 6
Net reserve builds (releases)	2	(8)	—	7	1
Total provision for credit losses	$ 2	$ (8)	$ —	$ 13	$ 7
Other, net[(2)]	$ —	$ 31	$ —	$ (1)	$ 30
Allowance for credit losses on other assets at end of quarter	$ 17	$ 27	$ —	$ 30	$ 74

	Six Months Ended June 30, 2022				
In millions of dollars	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[(1)]	Total
Allowance for credit losses on other assets at beginning of year	$ 21	$ 6	$ —	$ 26	$ 53
Gross credit losses	—	—	—	(15)	(15)
Gross recoveries	—	—	—	2	2
Net credit losses (NCLs)	$ —	$ —	$ —	$ (13)	$ (13)
Replenishment of NCLs	$ —	$ —	$ —	$ 13	$ 13
Net reserve builds (releases)	(4)	(10)	—	4	(10)
Total provision for credit losses	$ (4)	$ (10)	$ —	$ 17	$ 3
Other, net[(2)]	$ —	$ 31	$ —	$ —	$ 31
Allowance for credit losses on other assets at end of quarter	$ 17	$ 27	$ —	$ 30	$ 74

(1) Primarily accounts receivable.
(2) Includes $30 million of ACL transferred from *ICG* loans ACL as of June 30, 2022 for securities borrowed and purchased under agreements to resell.

Allowance for Credit Losses on Other Assets

In millions of dollars	Three Months Ended June 30, 2021 Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[(1)]	Total
Allowance for credit losses on other assets at beginning of quarter	$ 28	$ 5	$ —	$ 30	$ 63
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(4)	3	—	(2)	(3)
Total provision for credit losses	$ (4)	$ 3	$ —	$ (2)	$ (3)
Other, net	$ —	$ —	$ —	$ —	$ —
Allowance for credit losses on other assets at end of quarter	$ 24	$ 8	$ —	$ 28	$ 60

In millions of dollars	Six Months Ended June 30, 2021 Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[(1)]	Total
Allowance for credit losses on other assets at beginning of year	$ 20	$ 10	$ —	$ 25	$ 55
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	5	(2)	—	3	6
Total provision for credit losses	$ 5	$ (2)	$ —	$ 3	$ 6
Other, net	$ (1)	$ —	$ —	$ —	$ (1)
Allowance for credit losses on other assets at end of year	$ 24	$ 8	$ —	$ 28	$ 60

(1) Primarily accounts receivable.

For ACL on AFS debt securities, see Note 12.

15. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in *Goodwill* were as follows:

In millions of dollars	Institutional Clients Group	Personal Banking and Wealth Management	Legacy Franchises	Total
Balance at December 31, 2021	$ 9,215	$ 9,717	$ 2,367	$ 21,299
Impairment(1)	—	—	(535)	(535)
Divestitures(2)	—	—	(873)	(873)
Foreign currency translation	(44)	18	—	(26)
Balance at March 31, 2022	$ 9,171	$ 9,735	$ 959	$ 19,865
Foreign currency translation	(223)	(20)	(25)	(268)
Balance at June 30, 2022	**$ 8,948**	**$ 9,715**	**$ 934**	**$ 19,597**

(1) Goodwill impairment of $535 million (approximately $489 million after-tax) was incurred in the Asia Consumer reporting unit of *Legacy Franchises* due to the re-segmentation and timing of divestitures recorded in the first quarter.

(2) Primarily relates to Citi's agreements to sell its consumer banking businesses in Malaysia, Thailand, Indonesia, Vietnam, Taiwan, India and Bahrain within Asia Consumer, during the first quarter of 2022 and reclassified as HFS as of March 31, 2022. See Note 2.

Citi tests goodwill for impairment annually as of July 1 (the annual test) and through interim assessments between annual tests if an event occurs or circumstances change that could more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. The results of the 2021 annual impairment test resulted in no impairment.

As discussed in Note 3, effective January 1, 2022, as part of its strategic refresh, Citi made changes to its management structure, which resulted in changes in its operating segments and reporting units to reflect how the CEO, who is the chief operating decision maker, intends to manage the Company, allocate resources and measure performance. Goodwill balances were reallocated across the new reporting units based on their relative fair values using the valuation performed as of the effective date of the reorganization. Further, the goodwill balances associated with certain Asia Consumer businesses within the *Legacy Franchises* operating segment were reclassified to HFS as of March 31, 2022. See Note 2 for a discussion of Citi's divestiture activities.

The reorganization of Citi's reporting structure and the announced sales of businesses within a reporting unit were identified as triggering events for purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, interim goodwill impairment tests were performed that resulted in an impairment of $535 million to the Asia Consumer reporting unit within the *Legacy Franchises* operating segment, due to the implementation of Citi's revised operating segments and reporting units, as well as the timing of mutual execution of sales agreements for Asia consumer banking businesses. This impairment was recorded in the first quarter of 2022 as an operating expense. The interim goodwill impairment tests were performed using a combination of the income approach, market approach and bids from buyers, where available, to determine the fair value of its reporting units.

During the second quarter of 2022, Citi's Banking reporting unit within the *ICG* operating segment was negatively impacted by the industry-wide decline in investment banking activity and macroeconomic challenges and uncertainties. These conditions resulted in a corresponding decline in the operating results of the Banking reporting unit as of June 30, 2022 and were identified as a triggering event for purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, interim goodwill impairment tests were performed that resulted in no impairment of the Banking reporting unit within the *ICG* operating segment. The results of the impairment test showed that the fair value of the Banking reporting unit as a percentage of its carrying value was 102%, with the carrying value including approximately $1.5 billion of goodwill. No other events or circumstances were identified for any other reporting unit as a triggering event for purposes of goodwill impairment testing.

The interim goodwill impairment test was performed using a combination of the income approach and market approach to determine the fair value of its reporting units.

Under the market approach, Citi estimated fair value by comparing the business to similar businesses or guideline companies whose securities are actively traded in public markets. Under the income approach, Citi used a discounted cash flow (DCF) model in which cash flows anticipated over several periods, plus a terminal value at the end of that time horizon, are discounted to their present value using an appropriate rate that is commensurate with the risk inherent within the reporting unit.

The key assumptions used to determine the fair value of Citi's reporting units consisted primarily of significant unobservable inputs (Level 3 fair value inputs), including discount rates, estimated cash flows, growth rates, earnings multiples and/or transaction multiples of similar businesses or guideline public companies, and bids from buyers. The DCF method employs a capital asset pricing model in estimating the discount rate based on several factors including market interest rates, and includes adjustments for market risk and company-specific risk. Estimated cash flows are based on internally developed estimates and the growth rates are based on industry knowledge and historical performance.

Based on the interim impairment tests, the fair values of all of Citi's other reporting units as a percentage of their allocated carrying values ranged from approximately 102% to 267%, resulting in no further impairment recognized as of June 30, 2022.

While the inherent risk of uncertainty is embedded in the key assumptions used in the valuations, the economic and business environments continue to evolve as management implements its strategic refresh. If management's future estimate of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future.

See Note 3 for a description of Citi's operating segments. For additional information regarding Citi's accounting policy for goodwill and its related goodwill impairment testing process, see Note 1 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Intangible Assets

The components of intangible assets were as follows:

	June 30, 2022			December 31, 2021		
In millions of dollars	**Gross carrying amount**	**Accumulated amortization**	**Net carrying amount**	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships	**$ 5,514**	**$ 4,357**	**$ 1,157**	$ 5,579	$ 4,348	$ 1,231
Credit card contract-related intangibles[1]	**3,903**	**1,440**	**2,463**	3,912	1,372	2,540
Core deposit intangibles	**37**	**37**	**—**	39	39	—
Other customer relationships	**362**	**267**	**95**	429	305	124
Present value of future profits	**32**	**30**	**2**	31	29	2
Indefinite-lived intangible assets	**186**	**—**	**186**	183	—	183
Other	**27**	**4**	**23**	37	26	11
Intangible assets (excluding MSRs)	**$ 10,061**	**$ 6,135**	**$ 3,926**	$ 10,210	$ 6,119	$ 4,091
Mortgage servicing rights (MSRs)[2]	**600**	**—**	**600**	404	—	404
Total intangible assets	**$ 10,661**	**$ 6,135**	**$ 4,526**	$ 10,614	$ 6,119	$ 4,495

(1) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represented 98% and 97% of the aggregate net carrying amount at June 30, 2022 and December 31, 2021, respectively.
(2) See Note 18 for additional information on Citi's MSRs.

The changes in intangible assets were as follows:

In millions of dollars	Net carrying amount at December 31, 2021	**Acquisitions/ renewals/ divestitures**	**Amortization**	**Impairments**	**FX translation and other**	**Net carrying amount at June 30, 2022**
Purchased credit card relationships[1]	$ 1,231	**$ 3**	**$ (70)**	**$ —**	**$ (7)**	**$ 1,157**
Credit card contract-related intangibles[2]	2,540	**—**	**(77)**	**—**	**—**	**2,463**
Core deposit intangibles	—	**—**	**—**	**—**	**—**	**—**
Other customer relationships	124	**6**	**(13)**	**—**	**(22)**	**95**
Present value of future profits	2	**—**	**—**	**—**	**—**	**2**
Indefinite-lived intangible assets	183	**—**	**—**	**—**	**3**	**186**
Other	11	**30**	**(17)**	**—**	**(1)**	**23**
Intangible assets (excluding MSRs)	$ 4,091	**$ 39**	**$ (177)**	**$ —**	**$ (27)**	**$ 3,926**
Mortgage servicing rights (MSRs)[3]	404					**600**
Total intangible assets	$ 4,495					**$ 4,526**

(1) Reflects intangibles for the value of cardholder relationships, which are discrete from partner contract-related intangibles, and includes credit card accounts primarily in the Costco, Macy's and Sears portfolios.
(2) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represented 98% and 97% of the aggregate net carrying amount at June 30, 2022 and December 31, 2021, respectively.
(3) See Note 18 for additional information on Citi's MSRs, including the rollforward for the three and six months ended June 30, 2022.

16. DEBT

For additional information regarding Citi's short-term borrowings and long-term debt, see Note 17 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Short-Term Borrowings

In millions of dollars		June 30, 2022		December 31, 2021
Commercial paper				
Bank[1]	**$**	**9,050**	$	9,026
Broker-dealer and other[2]		**12,429**		6,992
Total commercial paper	**$**	**21,479**	$	16,018
Other borrowings[3]		**18,575**		11,955
Total	**$**	**40,054**	$	27,973

(1) Represents Citibank entities as well as other bank entities.
(2) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company.
(3) Includes borrowings from Federal Home Loan Banks and other market participants. At June 30, 2022 and December 31, 2021, collateralized short-term advances from the Federal Home Loan Banks were $7.0 billion and $0.0 billion, respectively.

Long-Term Debt

In millions of dollars		June 30, 2022		December 31, 2021
Citigroup Inc.[1]	**$**	**167,874**	$	164,945
Bank[2]		**18,799**		23,567
Broker-dealer and other[3]		**70,752**		65,862
Total	**$**	**257,425**	$	254,374

(1) Represents the parent holding company.
(2) Represents Citibank entities as well as other bank entities. At June 30, 2022 and December 31, 2021, collateralized long-term advances from the Federal Home Loan Banks were $2.3 billion and $5.3 billion, respectively.
(3) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company. Certain Citigroup consolidated hedging activities are also included in this line.

Long-term debt outstanding includes trust preferred securities with a balance sheet carrying value of $1.6 billion and $1.7 billion at June 30, 2022 and December 31, 2021, respectively.

The following table summarizes Citi's outstanding trust preferred securities at June 30, 2022:

						Junior subordinated debentures owned by trust				
Trust	**Issuance date**	**Securities issued**		**Liquidation value[1]**	**Coupon rate[2]**	**Common shares issued to parent**		**Amount**	**Maturity**	**Redeemable by issuer beginning**
In millions of dollars, except securities and share amounts										
Citigroup Capital III	Dec. 1996	194,053	$	194	7.625 %	6,003	$	200	Dec. 1, 2036	Not redeemable
Citigroup Capital XIII	Oct. 2010	89,840,000		2,246	3 mo. LIBOR + 637 bps	1,000		2,246	Oct. 30, 2040	Oct. 30, 2015
Total obligated			**$**	**2,440**			**$**	**2,446**		

Note: Distributions on the trust preferred securities and interest on the subordinated debentures are payable semiannually for Citigroup Capital III and quarterly for Citigroup Capital XIII.
(1) Represents the notional value received by outside investors from the trusts at the time of issuance. This differs from Citi's balance sheet carrying value due primarily to unamortized discount and issuance costs.
(2) In each case, the coupon rate on the subordinated debentures is the same as that on the trust preferred securities.

17. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

Changes in each component of Citigroup's *Accumulated other comprehensive income (loss)* were as follows:

Three and Six Months Ended June 30, 2022

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)(1)	Cash flow hedges(2)	Benefit plans(3)	Foreign currency translation adjustment (CTA), net of hedges(4)(5)	Excluded component of fair value hedges	Accumulated other comprehensive income (loss)
Three Months Ended June 30, 2022							
Balance, March 31, 2022	$ (4,891)	$ (394)	$ (1,440)	$ (5,681)	$ (31,180)	$ 1	$ (43,585)
Other comprehensive income before reclassifications	(1,612)	1,968	(515)	(271)	(1,975)	4	(2,401)
Increase (decrease) due to amounts reclassified from *AOCI*	111	(1)	(151)	182	345	5	491
Change, net of taxes	$ (1,501)	$ 1,967	$ (666)	$ (89)	$ (1,630)	$ 9	$ (1,910)
Balance at June 30, 2022	**$ (6,392)**	**$ 1,573**	**$ (2,106)**	**$ (5,770)**	**$ (32,810)**	**$ 10**	**$ (45,495)**
Six Months Ended June 30, 2022							
Balance, December 31, 2021	$ (614)	$ (1,187)	$ 101	$ (5,852)	$ (31,166)	$ (47)	$ (38,765)
Other comprehensive income before reclassifications	(5,895)	2,761	(1,839)	21	(1,989)	50	(6,891)
Increase (decrease) due to amounts reclassified from *AOCI*	117	(1)	(368)	61	345	7	161
Change, net of taxes	$ (5,778)	$ 2,760	$ (2,207)	$ 82	$ (1,644)	$ 57	$ (6,730)
Balance at June 30, 2022	**$ (6,392)**	**$ 1,573**	**$ (2,106)**	**$ (5,770)**	**$ (32,810)**	**$ 10**	**$ (45,495)**

Footnotes to the table above appear on the following page.

Three and Six Months Ended June 30, 2021

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)(1)	Cash flow hedges(2)	Benefit plans(3)	Foreign currency translation adjustment (CTA), net of hedges(4)	Excluded component of fair value hedges	Accumulated other comprehensive income (loss)
Three Months Ended June 30, 2021							
Balance, March 31, 2021	$ 1,535	$ (1,461)	$ 1,037	$ (6,150)	$ (29,915)	$ (57)	$ (35,011)
Other comprehensive income before reclassifications	(379)	(72)	28	36	523	(11)	125
Increase (decrease) due to amounts reclassified from *AOCI*	(95)	10	(201)	51	—	1	(234)
Change, net of taxes	$ (474)	$ (62)	$ (173)	$ 87	$ 523	$ (10)	$ (109)
Balance at June 30, 2021	$ 1,061	$ (1,523)	$ 864	$ (6,063)	$ (29,392)	$ (67)	$ (35,120)
Six Months Ended June 30, 2021							
Balance, December 31, 2020	$ 3,320	$ (1,419)	$ 1,593	$ (6,864)	$ (28,641)	$ (47)	$ (32,058)
Other comprehensive income before reclassifications	(1,898)	(156)	(316)	689	(751)	(21)	(2,453)
Increase (decrease) due to amounts reclassified from *AOCI*	(361)	52	(413)	112	—	1	(609)
Change, net of taxes	$ (2,259)	$ (104)	$ (729)	$ 801	$ (751)	$ (20)	$ (3,062)
Balance at June 30, 2021	$ 1,061	$ (1,523)	$ 864	$ (6,063)	$ (29,392)	$ (67)	$ (35,120)

(1) Reflects the after-tax valuation of Citi's fair value option liabilities. See "Market Valuation Adjustments" in Note 20.

(2) Primarily driven by Citi's pay floating/receive fixed interest rate swap programs that hedge certain floating rates on assets.

(3) Primarily reflects adjustments based on the quarterly actuarial valuations of the Company's significant pension and postretirement plans, annual actuarial valuations of all other plans and amortization of amounts previously recognized in other comprehensive income.

(4) Primarily reflects the movements in (by order of impact) the South Korean won, Euro, Chilean peso, Mexican peso, Japanese yen and Brazilian real against the U.S. dollar and changes in related tax effects and hedges for the three months ended June 30, 2022. Primarily reflects the movements in (by order of impact) the South Korean won, Euro, Japanese yen, Indian rupee, British pound sterling and Chilean peso against the U.S. dollar and changes in related tax effects and hedges for the six months ended June 30, 2022. Primarily reflects the movements in (by order of impact) the Mexican peso, Brazilian real, Polish zloty, New Taiwan dollar, Euro and Indian rupee against the U.S. dollar and changes in related tax effects and hedges for the three months ended June 30, 2021. Primarily reflects the movements in (by order of impact) the South Korean won, Japanese yen, Euro, Indian rupee, Mexican peso and New Taiwan dollar against the U.S. dollar and changes in related tax effects and hedges for the six months ended June 30, 2021. Amounts recorded in the CTA component of *AOCI* remain in *AOCI* until the sale or substantial liquidation of the foreign entity, at which point such amounts related to the foreign entity are reclassified into earnings.

(5) June 30, 2022 reflects a reduction of $470 million (after-tax) ($620 million pretax) currency translation adjustment (CTA) loss (net of hedges) associated with Citi's sale of its consumer banking business in Australia (see Note 2). The reduction from *AOCI* had a neutral impact on Citi's Common Equity Tier 1 Capital.

The pretax and after-tax changes in each component of *Accumulated other comprehensive income (loss)* were as follows:

Three and Six Months Ended June 30, 2022

In millions of dollars	**Pretax**	**Tax effect**	**After-tax**
Three Months Ended June 30, 2022			
Balance, March 31, 2022	$ (51,807)	$ 8,222	$ (43,585)
Change in net unrealized gains (losses) on debt securities	(1,990)	489	(1,501)
Debt valuation adjustment (DVA)	2,592	(625)	1,967
Cash flow hedges	(886)	220	(666)
Benefit plans	(73)	(16)	(89)
Foreign currency translation adjustment	(1,414)	(216)	(1,630)
Excluded component of fair value hedges	12	(3)	9
Change	$ (1,759)	$ (151)	$ (1,910)
Balance at June 30, 2022	**$ (53,566)**	**$ 8,071**	**$ (45,495)**
Six Months Ended June 30, 2022			
Balance, December 31, 2021	$ (45,383)	$ 6,618	$ (38,765)
Change in net unrealized gains (losses) on debt securities	(7,614)	1,836	(5,778)
Debt valuation adjustment (DVA)	3,642	(882)	2,760
Cash flow hedges	(2,908)	701	(2,207)
Benefit plans	104	(22)	82
Foreign currency translation adjustment	(1,483)	(161)	(1,644)
Excluded component of fair value hedges	76	(19)	57
Change	$ (8,183)	$ 1,453	$ (6,730)
Balance at June 30, 2022	**$ (53,566)**	**$ 8,071**	**$ (45,495)**

Three and Six Months Ended June 30, 2021

In millions of dollars	Pretax	Tax effect	After-tax
Three Months Ended June 30, 2021			
Balance, March 31, 2021	$ (40,631)	$ 5,620	$ (35,011)
Change in net unrealized gains (losses) on debt securities	(638)	164	(474)
Debt valuation adjustment (DVA)	(110)	48	(62)
Cash flow hedges	(224)	51	(173)
Benefit plans	84	3	87
Foreign currency translation adjustment	445	78	523
Excluded component of fair value hedges	(13)	3	(10)
Change	$ (456)	$ 347	$ (109)
Balance, June 30, 2021	$ (41,087)	$ 5,967	$ (35,120)
Six Months Ended June 30, 2021			
Balance, December 31, 2020	$ (36,992)	$ 4,934	$ (32,058)
Change in net unrealized gains (losses) on debt securities	(3,065)	806	(2,259)
Debt valuation adjustment (DVA)	(148)	44	(104)
Cash flow hedges	(953)	224	(729)
Benefit plans	991	(190)	801
Foreign currency translation adjustment	(894)	143	(751)
Excluded component of fair value hedges	(26)	6	(20)
Change	$ (4,095)	$ 1,033	$ (3,062)
Balance, June 30, 2021	$ (41,087)	$ 5,967	$ (35,120)

The Company recognized pretax (gains) losses related to amounts in *AOCI* reclassified to the Consolidated Statement of Income as follows:

	Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income			
	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Realized (gains) losses on sales of investments	**$ 58**	$ (137)	**$ (22)**	$ (538)
Gross impairment losses	**90**	9	**180**	78
Subtotal, pretax	**$ 148**	$ (128)	**$ 158**	$ (460)
Tax effect	**(37)**	33	**(41)**	99
Net realized (gains) losses on investments after-tax[(1)]	**$ 111**	$ (95)	**$ 117**	$ (361)
Realized DVA (gains) losses on fair value option liabilities, pretax	**$ (1)**	$ 13	**$ (1)**	$ 69
Tax effect	**—**	(3)	**—**	(17)
Net realized DVA, after-tax	**$ (1)**	$ 10	**$ (1)**	$ 52
Interest rate contracts	**$ (199)**	$ (266)	**$ (485)**	$ (544)
Foreign exchange contracts	**1**	1	**2**	2
Subtotal, pretax	**$ (198)**	$ (265)	**$ (483)**	$ (542)
Tax effect	**47**	64	**115**	129
Amortization of cash flow hedges, after-tax[(2)]	**$ (151)**	$ (201)	**$ (368)**	$ (413)
Amortization of unrecognized:				
Prior service cost (benefit)	**$ (5)**	$ (6)	**$ (11)**	$ (12)
Net actuarial loss	**58**	71	**128**	158
Curtailment/settlement impact[(3)]	**183**	4	**(33)**	4
Subtotal, pretax	**$ 236**	$ 69	**$ 84**	$ 150
Tax effect	**(54)**	(18)	**(23)**	(38)
Amortization of benefit plans, after-tax[(3)]	**$ 182**	$ 51	**$ 61**	$ 112
Excluded component of fair value hedges, pretax	**$ 7**	$ 1	**$ 10**	$ 1
Tax effect	**(2)**	—	**(3)**	—
Excluded component of fair value hedges, after-tax	**$ 5**	$ 1	**$ 7**	$ 1
Foreign currency translation adjustment, pretax	**$ 397**	$ —	**$ 397**	$ —
Tax effect	**(52)**	—	**(52)**	—
Foreign currency translation adjustment, after-tax	**$ 345**	$ —	**$ 345**	$ —
Total amounts reclassified out of *AOCI*, pretax	**$ 589**	$ (310)	**$ 165**	$ (782)
Total tax effect	**(98)**	76	**(4)**	173
Total amounts reclassified out of *AOCI*, after-tax	**$ 491**	$ (234)	**$ 161**	$ (609)

(1) The pretax amount is reclassified to *Realized gains (losses) on sales of investments, net* and *Gross impairment losses* in the Consolidated Statement of Income. See Note 12 for additional details.
(2) See Note 19 for additional details.
(3) See Note 8 for additional details.

18. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

For additional information regarding Citi's use of special purpose entities (SPEs) and variable interest entities (VIEs), see Note 21 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Citigroup's involvement with consolidated and unconsolidated VIEs with which the Company holds significant variable interests or has continuing involvement through servicing a majority of the assets in a VIE is presented below:

	As of June 30, 2022							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets[3]	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$ 31,266	$ 31,266	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations[4]								
U.S. agency-sponsored	115,494	—	115,494	2,100	—	—	51	2,151
Non-agency-sponsored	60,155	—	60,155	2,747	—	5	—	2,752
Citi-administered asset-backed commercial paper conduits	14,291	14,291	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	8,259	—	8,259	2,599	—	—	—	2,599
Asset-based financing[5]	246,990	9,439	237,551	36,051	1,088	11,639	—	48,778
Municipal securities tender option bond trusts (TOBs)	2,839	678	2,161	8	—	1,571	—	1,579
Municipal investments	22,191	3	22,188	2,673	3,368	4,010	—	10,051
Client intermediation	810	373	437	66	—	—	63	129
Investment funds	385	84	301	2	2	20	1	25
Other	—	—	—	—	—	—	—	—
Total	$ 502,680	$ 56,134	$ 446,546	$ 46,246	$ 4,458	$ 17,245	$ 115	$ 68,064

	As of December 31, 2021							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets[3]	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$ 31,518	$ 31,518	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations[4]								
U.S. agency-sponsored	113,641	—	113,641	1,582	—	—	43	1,625
Non-agency-sponsored	60,851	632	60,219	2,479	—	5	—	2,484
Citi-administered asset-backed commercial paper conduits	14,018	14,018	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	8,302	—	8,302	2,636	—	—	—	2,636
Asset-based financing[5]	246,632	11,085	235,547	32,242	1,139	12,189	—	45,570
Municipal securities tender option bond trusts (TOBs)	3,251	905	2,346	2	—	1,498	—	1,500
Municipal investments	20,597	3	20,594	2,512	3,617	3,562	—	9,691
Client intermediation	904	297	607	75	—	—	224	299
Investment funds	498	179	319	—	—	12	1	13
Other	—	—	—	—	—	—	—	—
Total	$ 500,212	$ 58,637	$ 441,575	$ 41,528	$ 4,756	$ 17,266	$ 268	$ 63,818

(1) The definition of maximum exposure to loss is included in the text that follows this table.
(2) Included on Citigroup's June 30, 2022 and December 31, 2021 Consolidated Balance Sheet.
(3) A significant unconsolidated VIE is an entity in which the Company has any variable interest or continuing involvement considered to be significant, regardless of the likelihood of loss.
(4) Citigroup mortgage securitizations also include agency and non-agency (private label) re-securitization activities. These SPEs are not consolidated. See "Re-securitizations" below for further discussion.
(5) Included within this line are loans to third-party sponsored private equity funds, which represent $86 billion and $100 billion in unconsolidated VIE assets and $499 million and $497 million in maximum exposure to loss as of June 30, 2022 and December 31, 2021, respectively.

The previous tables do not include:

- certain venture capital investments made by some of the Company's private equity subsidiaries, as the Company accounts for these investments in accordance with the Investment Company Audit Guide (codified in ASC 946);
- certain investment funds for which the Company provides investment management services and personal estate trusts for which the Company provides administrative, trustee and/or investment management services;
- certain third-party-sponsored private equity funds to which the Company provides secured credit facilities. The Company has no decision-making power and does not consolidate these funds, some of which may meet the definition of a VIE. The Company's maximum exposure to loss is generally limited to a loan or lending-related commitment. As of June 30, 2022 and December 31, 2021, the Company's maximum exposure to loss related to these deals was $50.5 billion and $55.6 billion, respectively (for more information on these positions, see Note 13 and Note 26 to the Consolidated Financial Statements in Citigroup's 2021 Form 10-K);
- certain VIEs structured by third parties in which the Company holds securities in inventory, as these investments are made on arm's-length terms;
- certain positions in mortgage- and asset-backed securities held by the Company, which are classified as *Trading account assets* or *Investments*, in which the Company has no other involvement with the related securitization entity deemed to be significant (see Notes 12 and 20 for more information on these positions);
- certain representations and warranties exposures in Citigroup residential mortgage securitizations, in which the original mortgage loan balances are no longer outstanding; and
- VIEs such as preferred securities trusts used in connection with the Company's funding activities. The Company does not have a variable interest in these trusts.

The asset balances for consolidated VIEs represent the carrying amounts of the assets consolidated by the Company. The carrying amount may represent the amortized cost or the current fair value of the assets depending on the classification of the asset (e.g., loan or security) and the associated accounting model ascribed to that classification.

The asset balances for unconsolidated VIEs in which the Company has significant involvement represent the most current information available to the Company. In most cases, the asset balances represent an amortized cost basis without regard to impairments, unless fair value information is readily available to the Company.

The maximum funded exposure represents the balance sheet carrying amount of the Company's investment in the VIE. It reflects the initial amount of cash invested in the VIE, adjusted for any accrued interest and cash principal payments received. The carrying amount may also be adjusted for increases or declines in fair value or any impairment in value recognized in earnings. The maximum exposure of unfunded positions represents the remaining undrawn committed amount, including liquidity and credit facilities provided by the Company or the notional amount of a derivative instrument considered to be a variable interest. In certain transactions, the Company has entered into derivative instruments or other arrangements that are not considered variable interests in the VIE (e.g., interest rate swaps, cross-currency swaps or where the Company is the purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE). Receivables under such arrangements are not included in the maximum exposure amounts.

Funding Commitments for Significant Unconsolidated VIEs—Liquidity Facilities and Loan Commitments
The following table presents the notional amount of liquidity facilities and loan commitments that are classified as funding commitments in the VIE tables above:

	June 30, 2022		December 31, 2021	
In millions of dollars	**Liquidity facilities**	**Loan/equity commitments**	Liquidity facilities	Loan/equity commitments
Non-agency-sponsored mortgage securitizations	**$ —**	**$ 5**	$ —	$ 5
Asset-based financing	**—**	**11,639**	—	12,189
Municipal securities tender option bond trusts (TOBs)	**1,571**	**—**	1,498	—
Municipal investments	**—**	**4,010**	—	3,562
Investment funds	**—**	**20**	—	12
Other	—	—	—	—
Total funding commitments	**$ 1,571**	**$ 15,674**	$ 1,498	$ 15,768

Significant Interests in Unconsolidated VIEs—Balance Sheet Classification
The following table presents the carrying amounts and classification of significant variable interests in unconsolidated VIEs:

In billions of dollars	**June 30, 2022**	December 31, 2021
Cash	**$ —**	$ —
Trading account assets	**1.8**	1.4
Investments	**8.9**	8.8
Total loans, net of allowance	**39.6**	35.4
Other	**0.5**	0.8
Total assets	**$ 50.8**	$ 46.4

Credit Card Securitizations
Substantially all of the Company's credit card securitization activity is through two trusts—Citibank Credit Card Master Trust (Master Trust) and Citibank Omni Trust (Omni Trust), with the substantial majority through the Master Trust. These trusts are consolidated entities. The following table reflects amounts related to the Company's securitized credit card receivables:

In billions of dollars	**June 30, 2022**	December 31, 2021
Ownership interests in principal amount of trust credit card receivables		
Sold to investors via trust-issued securities	**$ 9.7**	$ 9.7
Retained by Citigroup as trust-issued securities	**6.5**	7.2
Retained by Citigroup via non-certificated interests	**16.9**	16.1
Total	**$ 33.1**	$ 33.0

The following table summarizes selected cash flow information related to Citigroup's credit card securitizations:

	Three Months Ended June 30,		Six Months Ended June 30,	
In billions of dollars	**2022**	2021	**2022**	2021
Proceeds from new securitizations	**$ —**	$ —	**$ —**	$ —
Pay down of maturing notes	**—**	(1.1)	**—**	(4.7)

Master Trust Liabilities (at Par Value)
The weighted average maturity of the third-party term notes issued by the Master Trust was 3.1 years as of June 30, 2022 and 3.6 years as of December 31, 2021.

In billions of dollars	**Jun. 30, 2022**	Dec. 31, 2021
Term notes issued to third parties	**$ 8.4**	$ 8.4
Term notes retained by Citigroup affiliates	**1.7**	2.2
Total Master Trust liabilities	**$ 10.1**	$ 10.6

Omni Trust Liabilities (at Par Value)
The weighted average maturity of the third-party term notes issued by the Omni Trust was 1.1 years as of June 30, 2022 and 1.6 years as of December 31, 2021.

In billions of dollars	**Jun. 30, 2022**	Dec. 31, 2021
Term notes issued to third parties	**$ 1.3**	$ 1.3
Term notes retained by Citigroup affiliates	**4.8**	5.0
Total Omni Trust liabilities	**$ 6.1**	$ 6.3

Mortgage Securitizations

The following tables summarize selected cash flow information and retained interests related to Citigroup mortgage securitizations:

	Three Months Ended June 30,			
	2022		2021	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$ 1.9**	**$ 8.6**	$ 1.9	$ 7.1
Proceeds from new securitizations	**1.8**	**8.4**	1.9	7.2
Contractual servicing fees received	**—**	**—**	—	—
Cash flows received on retained interests and other new cash flows	**—**	**—**	—	—
Purchases of previously transferred financial assets	**—**	**—**	—	—

	Six Months Ended June 30,			
	2022		2021	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$ 4.0**	**$ 10.2**	$ 4.9	$ 18.1
Proceeds from new securitizations	**3.9**	**10.0**	5.1	17.8
Purchases of previously transferred financial assets	**—**	**—**	0.1	—

Note: Excludes re-securitization transactions.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $0.3 million and $0.6 million for the three and six months ended June 30, 2022, respectively. For the three and six months ended June 30, 2022, gains recognized on the securitization of non-agency-sponsored mortgages were $35 million and $73.7 million, respectively.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $0.2 million and $1.3 million for the three and six months ended June 30, 2021, respectively. Gains recognized on the securitization of non-agency-sponsored mortgages were $135.6 million and $301.7 million for the three and six months ended June 30, 2021, respectively.

	June 30, 2022			December 31, 2021		
		Non-agency-sponsored mortgages[1]			Non-agency-sponsored mortgages[1]	
In millions of dollars	**U.S. agency-sponsored mortgages**	**Senior interests**[2]	**Subordinated interests**	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Carrying value of retained interests[3]	**$ 597**	**$ 1,172**	**$ 945**	$ 374	$ 1,452	$ 955

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Senior interests in non-agency-sponsored mortgages include $48 million related to personal loan securitizations at June 30, 2022.

(3) Retained interests consist of Level 2 and Level 3 assets depending on the observability of significant inputs. See Note 20 for more information about fair value measurements.

Key assumptions used in measuring the fair value of retained interests at the date of sale or securitization of mortgage receivables were as follows:

	Three Months Ended June 30, 2022		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	**7.6 %**	**4.4 %**	**4.1 %**
Weighted average constant prepayment rate	**2.1 %**	**5.0 %**	**12.3 %**
Weighted average anticipated net credit losses[2]	**NM**	**4.6 %**	**0.5 %**
Weighted average life	**9.6 years**	**8.4 years**	**6.0 years**

	Six Months Ended June 30, 2022		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	**7.4 %**	**3.4 %**	**3.9 %**
Weighted average constant prepayment rate	**2.7 %**	**5.9 %**	**12.3 %**
Weighted average anticipated net credit losses[2]	**NM**	**2.9 %**	**0.4 %**
Weighted average life	**9.0 years**	**6.5 years**	**5.8 years**

	Three Months Ended June 30, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	9.0 %	1.8 %	2.8 %
Weighted average constant prepayment rate	4.2 %	— %	10.0 %
Weighted average anticipated net credit losses[2]	NM	— %	1.0 %
Weighted average life	7.8 years	6.7 years	5.7 years

	Six Months Ended June 30, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	8.9 %	0.4 %	2.9 %
Weighted average constant prepayment rate	5.0 %	— %	10.3 %
Weighted average anticipated net credit losses[2]	NM	0.4 %	1.1 %
Weighted average life	7.8 years	3.4 years	5.5 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The interests retained by the Company range from highly rated and/or senior in the capital structure to unrated and/or residual interests. Key assumptions used in measuring the fair value of retained interests in securitizations of mortgage receivables at period end were as follows:

	June 30, 2022		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	**5.1 %**	**6.7 %**	**— %**
Weighted average constant prepayment rate	**6.0 %**	**10.0 %**	**— %**
Weighted average anticipated net credit losses[2]	**NM**	**1.0 %**	**— %**
Weighted average life	**7.7 years**	**6.5 years**	**NM**

	December 31, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	3.7 %	16.2 %	4.0 %
Weighted average constant prepayment rate	14.5 %	6.8 %	9.0 %
Weighted average anticipated net credit losses[2]	NM	1.0 %	2.0 %
Weighted average life	5.1 years	8.8 years	18.0 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.
NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The sensitivity of the fair value to adverse changes of 10% and 20% in each of the key assumptions is presented in the tables below. The negative effect of each change is calculated independently, holding all other assumptions constant. Because the key assumptions may not be independent, the net effect of simultaneous adverse changes in the key assumptions may be less than the sum of the individual effects shown below.

	June 30, 2022		
		Non-agency-sponsored mortgages	
In millions of dollars	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	**$ (16)**	**$ —**	**$ —**
Adverse change of 20%	**(31)**	**(1)**	**—**
Constant prepayment rate			
Adverse change of 10%	**(14)**	**—**	**—**
Adverse change of 20%	**(27)**	**(1)**	**—**
Anticipated net credit losses			
Adverse change of 10%	**NM**	**—**	**—**
Adverse change of 20%	**NM**	**—**	**—**

In millions of dollars	December 31, 2021 U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	$ (6)	$ (1)	$ —
Adverse change of 20%	(11)	(1)	—
Constant prepayment rate			
Adverse change of 10%	(19)	—	—
Adverse change of 20%	(37)	—	—
Anticipated net credit losses			
Adverse change of 10%	NM	—	—
Adverse change of 20%	NM	—	—

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The following table includes information about loan delinquencies and liquidation losses for assets held in non-consolidated, non-agency-sponsored securitization entities:

In billions of dollars, except liquidation losses in millions	Securitized assets Jun. 30, 2022	Dec. 31, 2021	90 days past due Jun. 30, 2022	Dec. 31, 2021	Liquidation losses Three Months Ended June 30, 2022	2021	Six Months Ended June 30, 2022	2021
Securitized assets								
Residential mortgages[(1)]	**$ 29.3**	$ 29.2	**$ 0.5**	$ 0.4	**$ (0.3)**	$ 5.0	**$ 1.2**	$ 6.6
Commercial and other	**21.7**	26.2	**—**	—	**—**	—	**—**	—
Total	**$ 51.0**	$ 55.4	**$ 0.5**	$ 0.4	**$ (0.3)**	$ 5.0	**$ 1.2**	$ 6.6

(1) Securitized assets include $0.2 billion of personal loan securitizations as of June 30, 2022.

Mortgage Servicing Rights (MSRs)

The fair value of Citi's capitalized MSRs was $600 million and $419 million at June 30, 2022 and 2021, respectively. The MSRs correspond to principal loan balances of $49 billion and $50 billion as of June 30, 2022 and 2021, respectively. The following table summarizes the changes in capitalized MSRs:

In millions of dollars	Three Months Ended June 30, 2022	2021	Six Months Ended June 30, 2022	2021
Balance, beginning of period	**$ 520**	$ 433	**$ 404**	$ 336
Originations	**35**	25	**69**	68
Changes in fair value of MSRs due to changes in inputs and assumptions	**59**	(21)	**158**	52
Other changes[(1)]	**(14)**	(18)	**(31)**	(37)
Sales of MSRs	**—**	—	**—**	—
Balance, as of June 30	**$ 600**	$ 419	**$ 600**	$ 419

(1) Represents changes due to customer payments and passage of time.

The fair value of the MSRs is primarily affected by changes in prepayments of mortgages that result from shifts in mortgage interest rates. Specifically, higher interest rates tend to lead to declining prepayments, which causes the fair value of the MSRs to increase. In managing this risk, Citigroup economically hedges a significant portion of the value of its MSRs through the use of interest rate derivative contracts, forward purchase and sale commitments of mortgage-backed securities and purchased securities, all classified as *Trading account assets*.

The Company receives fees during the course of servicing previously securitized mortgages. The amounts of these fees were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Servicing fees	**$ 30**	$ 37	**$ 59**	$ 68
Late fees	**1**	—	**2**	1
Ancillary fees	**—**	—	**—**	—
Total MSR fees	**$ 31**	$ 37	**$ 61**	$ 69

In the Consolidated Statement of Income these fees are primarily classified as *Commissions and fees*, and changes in MSR fair values are classified as *Other revenue*.

Re-securitizations

The Company engages in re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. Citi did not transfer non-agency (private label) securities to re-securitization entities during the three months ended June 30, 2022 and 2021. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of June 30, 2022 and December 31, 2021, Citi held no retained interests in private label re-securitization transactions structured by Citi.

The Company also re-securitizes U.S. government-agency-guaranteed mortgage-backed (agency) securities. During the three and six months ended June 30, 2022, Citi transferred agency securities with a fair value of approximately $5.6 billion and $14.9 billion, respectively, to re-securitization entities compared to approximately $11.4 billion and $24.5 billion for the three and six months ended June 30, 2021, respectively.

As of June 30, 2022, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately $1.5 billion (including $656 million related to re-securitization transactions executed in 2022), an increase from $1.2 billion as of December 31, 2021 (including $641 million related to re-securitization transactions executed in 2021), which is recorded in *Trading account assets*. The original fair values of agency re-securitization transactions in which Citi holds a retained interest as of June 30, 2022 and December 31, 2021 were approximately $78.8 billion and $78.4 billion, respectively.

As of June 30, 2022 and December 31, 2021, the Company did not consolidate any private label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

At June 30, 2022 and December 31, 2021, the commercial paper conduits administered by Citi had approximately $14.3 billion and $14 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately $16.4 billion and $18.3 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At June 30, 2022 and December 31, 2021, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 61 and 70 days, respectively.

The primary credit enhancement provided to the conduit investors is in the form of transaction-specific credit enhancements described above. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on Citi's internal risk ratings. In addition to the transaction-specific credit enhancements, the conduits, other than the government-guaranteed loan conduit, have obtained letters of credit from the Company, which equal at least 8% to 10% of the conduit's assets with a minimum of $200 million. The letters of credit provided by the Company to the conduits total approximately $1.5 billion and $1.3 billion as of June 30, 2022 and December 31, 2021, respectively. The net result across multiseller conduits administered by the Company is that, in the event that defaulted assets exceed the transaction-specific credit enhancements described above, any losses in each conduit are allocated first to the Company and then to the commercial paper investors.

At June 30, 2022 and December 31, 2021, the Company owned $5.3 billion and $4.9 billion, respectively, of the commercial paper issued by its administered conduits. The Company's investments were not driven by market illiquidity and the Company is not obligated under any agreement to purchase the commercial paper issued by the conduits.

Collateralized Loan Obligations (CLOs)

There were no new securitizations during the three months ended June 30, 2022 and 2021. The following table summarizes selected retained interests related to Citigroup CLOs:

In millions of dollars	**Jun. 30, 2022**	Dec. 31, 2021
Carrying value of retained interests	**$ 681**	$ 921

All of Citi's retained interests were held-to-maturity securities as of June 30, 2022 and December 31, 2021.

Municipal Securities Tender Option Bond (TOB) Trusts

At June 30, 2022 and December 31, 2021, none of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

At June 30, 2022 and December 31, 2021, liquidity agreements provided with respect to customer TOB trusts totaled $1.6 billion and $1.5 billion, respectively, of which $0.8 billion and $0.6 billion, respectively, were offset by reimbursement agreements. For the remaining exposure related to TOB transactions, where the residual owned by the customer was at least 25% of the bond value at the inception of the transaction, no reimbursement agreement was executed.

The Company also provides other liquidity agreements or letters of credit to customer-sponsored municipal investment funds, which are not variable interest entities, and municipality-related issuers that totaled $1.6 billion and $2 billion as of June 30, 2022 and December 31, 2021, respectively. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

Asset-Based Financing

The primary types of Citi's asset-based financings, total assets of the unconsolidated VIEs with significant involvement and Citi's maximum exposure to loss are shown below. For Citi to realize the maximum loss, the VIE (borrower) would have to default with no recovery from the assets held by the VIE.

	June 30, 2022		December 31, 2021	
In millions of dollars	**Total unconsolidated VIE assets**	**Maximum exposure to unconsolidated VIEs**	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type				
Commercial and other real estate	**$ 42,600**	**$ 8,802**	$ 32,932	$ 7,461
Corporate loans	**23,656**	**15,139**	18,257	12,581
Other (including investment funds, airlines and shipping)	**171,295**	**24,837**	184,358	25,528
Total	**$ 237,551**	**$ 48,778**	$ 235,547	$ 45,570

19. DERIVATIVES

In the ordinary course of business, Citigroup enters into various types of derivative transactions. All derivatives are recorded in *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet. For additional information regarding Citi's use of and accounting for derivatives, see Note 22 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Information pertaining to Citigroup's derivatives activities, based on notional amounts, is presented in the table below. Derivative notional amounts are reference amounts from which contractual payments are derived and do not represent a complete measure of Citi's exposure to derivative transactions. Citi's derivative exposure arises primarily from market fluctuations (i.e., market risk), counterparty failure (i.e., credit risk) and/or periods of high volatility or financial stress (i.e., liquidity risk), as well as any market valuation adjustments that may be required on the transactions. Moreover, notional amounts do not reflect the netting of offsetting trades. For example, if Citi enters into a receive-fixed interest rate swap with $100 million notional, and offsets this risk with an identical but opposite pay-fixed position with a different counterparty, $200 million in derivative notionals is reported, although these offsetting positions may result in de minimis overall market risk.

In addition, aggregate derivative notional amounts can fluctuate from period to period in the normal course of business based on Citi's market share, levels of client activity and other factors.

Derivative Notionals

	Hedging instruments under ASC 815		Trading derivative instruments	
In millions of dollars	**June 30, 2022**	December 31, 2021	**June 30, 2022**	December 31, 2021
Interest rate contracts				
Swaps	**$ 318,974**	$ 267,035	**$ 23,331,571**	$ 21,873,538
Futures and forwards	**—**	—	**2,714,997**	2,383,702
Written options	**—**	—	**1,879,285**	1,584,451
Purchased options	**—**	—	**1,843,472**	1,428,376
Total interest rate contracts	**$ 318,974**	$ 267,035	**$ 29,769,325**	$ 27,270,067
Foreign exchange contracts				
Swaps	**$ 45,428**	$ 47,298	**$ 6,276,146**	$ 6,288,193
Futures, forwards and spot	**43,351**	50,926	**3,668,569**	4,316,242
Written options	**—**	—	**846,794**	664,942
Purchased options	**—**	—	**840,987**	651,958
Total foreign exchange contracts	**$ 88,779**	$ 98,224	**$ 11,632,496**	$ 11,921,335
Equity contracts				
Swaps	**$ —**	$ —	**$ 243,070**	$ 269,062
Futures and forwards	**—**	—	**73,495**	71,363
Written options	**—**	—	**485,109**	492,433
Purchased options	**—**	—	**396,981**	398,129
Total equity contracts	**$ —**	$ —	**$ 1,198,655**	$ 1,230,987
Commodity and other contracts				
Swaps	**$ —**	$ —	**$ 110,833**	$ 91,962
Futures and forwards	**1,365**	2,096	**201,926**	157,195
Written options	**—**	—	**63,643**	51,224
Purchased options	**—**	—	**60,695**	47,868
Total commodity and other contracts	**$ 1,365**	$ 2,096	**$ 437,097**	$ 348,249
Credit derivatives(1)				
Protection sold	**$ —**	$ —	**$ 638,379**	$ 572,486
Protection purchased	**—**	—	**682,144**	645,996
Total credit derivatives	**$ —**	$ —	**$ 1,320,523**	$ 1,218,482
Total derivative notionals	**$ 409,118**	$ 367,355	**$ 44,358,096**	$ 41,989,120

(1) Credit derivatives are arrangements designed to allow one party (protection purchaser) to transfer the credit risk of a "reference asset" to another party (protection seller). These arrangements allow a protection seller to assume the credit risk associated with the reference asset without directly purchasing that asset. The Company enters into credit derivative positions for purposes such as risk management, yield enhancement, reduction of credit concentrations and diversification of overall risk.

The following tables present the gross and net fair values of the Company's derivative transactions and the related offsetting amounts as of June 30, 2022 and December 31, 2021. Gross positive fair values are offset against gross negative fair values by counterparty, pursuant to enforceable master netting agreements. Under ASC 815-10-45, payables and receivables in respect of cash collateral received from or paid to a given counterparty pursuant to a credit support annex are included in the offsetting amount if a legal opinion supporting the enforceability of netting and collateral rights has been obtained. GAAP does not permit similar offsetting for security collateral.

In addition, the following tables reflect rule changes adopted by clearing organizations that require or allow entities to treat certain derivative assets, liabilities and the related variation margin as settlement of the related derivative fair values for legal and accounting purposes, as opposed to presenting gross derivative assets and liabilities that are subject to collateral, whereby the counterparties would also record a related collateral payable or receivable. The tables also present amounts that are not permitted to be offset, such as security collateral or cash collateral posted at third-party custodians, but which would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the netting and collateral rights has been obtained.

Derivative Mark-to-Market (MTM) Receivables/Payables

In millions of dollars at June 30, 2022	Derivatives classified in Trading account assets/liabilities[(1)(2)]	
Derivatives instruments designated as ASC 815 hedges	**Assets**	**Liabilities**
Over-the-counter	$ 671	$ 2
Cleared	126	426
Interest rate contracts	**$ 797**	**$ 428**
Over-the-counter	$ 1,729	$ 2,147
Cleared	1	—
Foreign exchange contracts	**$ 1,730**	**$ 2,147**
Total derivatives instruments designated as ASC 815 hedges	**$ 2,527**	**$ 2,575**
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 123,716	$ 115,511
Cleared	34,690	33,926
Exchange traded	322	272
Interest rate contracts	**$ 158,728**	**$ 149,709**
Over-the-counter	$ 183,935	$ 178,416
Cleared	445	829
Foreign exchange contracts	**$ 184,380**	**$ 179,245**
Over-the-counter	$ 25,577	$ 27,170
Cleared	22	12
Exchange traded	29,992	31,327
Equity contracts	**$ 55,591**	**$ 58,509**
Over-the-counter	$ 47,253	$ 41,326
Exchange traded	2,423	3,303
Commodity and other contracts	**$ 49,676**	**$ 44,629**
Over-the-counter	$ 9,837	$ 8,401
Cleared	1,964	1,894
Credit derivatives	**$ 11,801**	**$ 10,295**
Total derivatives instruments not designated as ASC 815 hedges	**$ 460,176**	**$ 442,387**
Total derivatives	**$ 462,703**	**$ 444,962**
Less: Netting agreements[(3)]	$ (348,255)	$ (348,255)
Less: Netting cash collateral received/paid[(4)]	(32,563)	(33,950)
Net receivables/payables included on the Consolidated Balance Sheet[(5)]	**$ 81,885**	**$ 62,757**
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	**$ (2,244)**	**$ (1,918)**
Less: Non-cash collateral received/paid	**(4,878)**	**(12,975)**
Total net receivables/payables[(5)]	**$ 74,763**	**$ 47,864**

(1) The derivative fair values are also presented in Note 20.
(2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.
(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately $286 billion, $31 billion and $31 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.
(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
(5) The net receivables/payables include approximately $7 billion of derivative asset and $11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

In millions of dollars at December 31, 2021	Derivatives classified in Trading account assets/liabilities(1)(2)	
Derivatives instruments designated as ASC 815 hedges	**Assets**	**Liabilities**
Over-the-counter	$ 1,167	$ 6
Cleared	122	89
Interest rate contracts	$ 1,289	$ 95
Over-the-counter	$ 1,338	$ 1,472
Cleared	6	—
Foreign exchange contracts	$ 1,344	$ 1,472
Total derivatives instruments designated as ASC 815 hedges	$ 2,633	$ 1,567
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 152,524	$ 138,114
Cleared	11,579	11,821
Exchange traded	96	44
Interest rate contracts	$ 164,199	$ 149,979
Over-the-counter	$ 133,357	$ 133,548
Cleared	848	278
Foreign exchange contracts	$ 134,205	$ 133,826
Over-the-counter	$ 23,452	$ 28,352
Cleared	19	—
Exchange traded	21,781	21,332
Equity contracts	$ 45,252	$ 49,684
Over-the-counter	$ 29,279	$ 29,833
Exchange traded	1,065	1,546
Commodity and other contracts	$ 30,344	$ 31,379
Over-the-counter	$ 6,896	$ 6,959
Cleared	3,322	4,056
Credit derivatives	$ 10,218	$ 11,015
Total derivatives instruments not designated as ASC 815 hedges	$ 384,218	$ 375,883
Total derivatives	$ 386,851	$ 377,450
Less: Netting agreements(3)	$ (292,628)	$ (292,628)
Less: Netting cash collateral received/paid(4)	(24,447)	(29,306)
Net receivables/payables included on the Consolidated Balance Sheet(5)	$ 69,776	$ 55,516
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	$ (907)	$ (538)
Less: Non-cash collateral received/paid	(5,777)	(13,607)
Total net receivables/payables(5)	$ 63,092	$ 41,371

(1) The derivative fair values are also presented in Note 20.

(2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.

(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately $259 billion, $14 billion and $20 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.

(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(5) The net receivables/payables include approximately $10 billion of derivative asset and $11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

For the three and six months ended June 30, 2022 and 2021, amounts recognized in *Principal transactions* in the Consolidated Statement of Income include certain derivatives not designated in a qualifying hedging relationship. Citigroup presents this disclosure by business classification, showing derivative gains and losses related to its trading activities together with gains and losses related to non-derivative instruments within the same trading portfolios, as this represents how these portfolios are risk managed. See Note 6 for further information.

The amounts recognized in *Other revenue* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship are shown below. The table below does not include any offsetting gains (losses) on the economically hedged items to the extent that such amounts are also recorded in *Other revenue*.

	Gains (losses) included in Other revenue			
	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Interest rate contracts	**$ 72**	$ (15)	**$ 144**	$ (75)
Foreign exchange	**(4)**	(13)	**(81)**	(34)
Total	**$ 68**	$ (28)	**$ 63**	$ (109)

Fair Value Hedges

Hedging of Benchmark Interest Rate Risk

Citigroup's fair value hedges are primarily hedges of fixed-rate long-term debt or assets, such as available-for-sale debt securities or loans.

For qualifying fair value hedges of interest rate risk, the changes in the fair value of the derivative and the change in the fair value of the hedged item attributable to the hedged risk are presented within *Interest revenue* or *Interest expense* based on whether the hedged item is an asset or a liability.

Citigroup has executed a last-of-layer hedge, which permits an entity to hedge the interest rate risk of a stated portion of a closed portfolio of prepayable financial assets that are expected to remain outstanding for the designated tenor of the hedge. In accordance with ASC 815, an entity may exclude prepayment risk when measuring the change in fair value of the hedged item attributable to interest rate risk under the last-of-layer approach. Similar to other fair value hedges, where the hedged item is an asset, the fair value of the hedged item attributable to interest rate risk will be presented in *Interest revenue* along with the change in the fair value of the hedging instrument.

Hedging of Foreign Exchange Risk

Citigroup hedges the change in fair value attributable to foreign exchange rate movements in available-for-sale debt securities and long-term debt that are denominated in currencies other than the functional currency of the entity holding the securities or issuing the debt. The hedging instrument is generally a forward foreign exchange contract or a cross-currency swap contract. Citigroup considers the premium associated with forward contracts (i.e., the differential between the spot and contractual forward rates) as the cost of hedging; this amount is excluded from the assessment of hedge effectiveness and is generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in cross-currency basis associated with cross-currency swaps from the assessment of hedge effectiveness and records it in *Other comprehensive income.*

Hedging of Commodity Price Risk

Citigroup hedges the change in fair value attributable to spot price movements in physical commodities inventories. The hedging instrument is a futures contract to sell the underlying commodity. In this hedge, the change in the value of the hedged inventory is reflected in earnings, which offsets the change in the fair value of the futures contract that is also reflected in earnings. Although the change in the fair value of the hedging instrument recorded in earnings includes changes in forward rates, Citigroup excludes the differential between the spot and the contractual forward rates under the futures contract from the assessment of hedge effectiveness, and it is generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in forward rates from the assessment of hedge effectiveness and records it in *Other comprehensive income.*

The following table summarizes the gains (losses) on the Company's fair value hedges:

	Gains (losses) on fair value hedges[1]							
	Three Months Ended June 30,				Six Months Ended June 30,			
	2022		2021		**2022**		2021	
In millions of dollars	**Other revenue**	**Net interest income**	Other revenue	Net interest income	**Other revenue**	**Net interest income**	Other revenue	Net interest income
Gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges								
Interest rate hedges	**$ —**	**$ (1,717)**	$ —	$ 454	**$ —**	**$ (6,383)**	$ —	$ (3,481)
Foreign exchange hedges	**(1,234)**	**—**	220	—	**(1,659)**	**—**	10	—
Commodity hedges	**(257)**	**—**	(277)	—	**615**	**—**	(566)	—
Total gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges	**$ (1,491)**	**$ (1,717)**	$ (57)	$ 454	**$ (1,044)**	**$ (6,383)**	$ (556)	$ (3,481)
Gain (loss) on the hedged item in designated and qualifying fair value hedges								
Interest rate hedges	**$ —**	**$ 1,646**	$ —	$ (559)	**$ —**	**$ 6,243**	$ —	$ 3,267
Foreign exchange hedges	**1,233**	**—**	(220)	—	**1,657**	**—**	(10)	—
Commodity hedges	**257**	**—**	277	—	**(615)**	**—**	566	—
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	**$ 1,490**	**$ 1,646**	$ 57	$ (559)	**$ 1,042**	**$ 6,243**	$ 556	$ 3,267
Net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges								
Interest rate hedges	**$ —**	**$ (5)**	$ —	$ 1	**$ —**	**$ (11)**	$ —	$ (3)
Foreign exchange hedges[2]	**73**	**—**	13	—	**104**	**—**	17	—
Commodity hedges	**(26)**	**—**	(53)	—	**23**	**—**	(75)	—
Total net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges	**$ 47**	**$ (5)**	$ (40)	$ 1	**$ 127**	**$ (11)**	$ (58)	$ (3)

(1) Gain (loss) amounts for interest rate risk hedges are included in *Interest income/Interest expense*. The accrued interest income on fair value hedges is recorded in *Net interest income* and is excluded from this table.

(2) Amounts relate to the premium associated with forward contracts (differential between spot and contractual forward rates) that are excluded from the assessment of hedge effectiveness and are generally reflected directly in earnings. Amounts related to cross-currency basis, which are recognized in *AOCI*, are not reflected in the table above. The amount of cross-currency basis included in *AOCI* was $12 million and $76 million for the three and six months ended June 30, 2022 and $(13) million and $(26) million for the three and six months ended June 30, 2021, respectively.

Cumulative Basis Adjustment

Upon electing to apply ASC 815 fair value hedge accounting, the carrying value of the hedged item is adjusted to reflect the cumulative changes in the hedged risk. This cumulative hedge basis adjustment becomes part of the carrying value of the hedged item until the hedged item is derecognized from the balance sheet. The table below presents the carrying amount of Citi's hedged assets and liabilities under qualifying fair value hedges at June 30, 2022 and December 31, 2021, along with the cumulative hedge basis adjustments included in the carrying value of those hedged assets and liabilities that would reverse through earnings in future periods.

In millions of dollars

Balance sheet line item in which hedged item is recorded	Carrying amount of hedged asset/ liability	Cumulative fair value hedging adjustment increasing (decreasing) the carrying amount	
		Active	De-designated
As of June 30, 2022			
Debt securities AFS[1][3]	**$ 101,249**	**$ (1,137)**	**$ (270)**
Long-term debt	**148,863**	**(3,848)**	**(587)**
As of December 31, 2021			
Debt securities AFS[2][3]	$ 62,733	$ 149	$ 212
Long-term debt	149,305	623	3,936

(1) These amounts include a cumulative basis adjustment of $(11) million for active hedges and $(228) million for de-designated hedges as of June 30, 2022, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $3 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $11 billion as of June 30, 2022) in a last-of-layer hedging relationship.

(2) These amounts include a cumulative basis adjustment of $24 million for active hedges and $(92) million for de-designated hedges as of December 31, 2021, related to certain prepayable financial assets designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $6 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $25 billion as of December 31, 2021) in a last-of-layer hedging relationship.

(3) Carrying amount represents the amortized cost.

Cash Flow Hedges

Citigroup hedges the variability of forecasted cash flows due to changes in contractually specified interest rates associated with floating-rate assets/liabilities and other forecasted transactions. These cash flow hedging relationships use either regression analysis or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

For cash flow hedges, the entire change in the fair value of the hedging derivative is recognized in *AOCI* and then reclassified to earnings in the same period that the forecasted hedged cash flows impact earnings. The net gain (loss) associated with cash flow hedges expected to be reclassified from *AOCI* within 12 months of June 30, 2022 is approximately $(1.2) billion. The maximum length of time over which forecasted cash flows are hedged is 10 years.

The pretax change in *AOCI* from cash flow hedges is presented below. The after-tax impact of cash flow hedges on *AOCI* is shown in Note 17.

	Three Months Ended June 30,				Six Months Ended June 30,			
In millions of dollars	**2022**		2021		**2022**		2021	
Amount of gain (loss) recognized in *AOCI* on derivatives								
Interest rate contracts		**$ (681)**		$ 39		**$ (2,441)**		$ (416)
Foreign exchange contracts		**(7)**		(3)		**16**		—
Total gain (loss) recognized in *AOCI*		**$ (688)**		$ 36		**$ (2,425)**		$ (416)
	Other revenue	**Net interest revenue**	Other revenue	Net interest revenue	**Other revenue**	**Net interest revenue**	Other revenue	Net interest revenue
Amount of gain (loss) reclassified from *AOCI* to earnings(1)								
Interest rate contracts	**$ —**	**$ 199**	$ —	$ 266	**$ —**	**$ 485**	$ —	$ 544
Foreign exchange contracts	**(1)**	**—**	(1)	—	**(2)**	**—**	(2)	—
Total gain (loss) reclassified from *AOCI* into earnings	**$ (1)**	**$ 199**	$ (1)	$ 266	**$ (2)**	**$ 485**	$ (2)	$ 544
Net pretax change in cash flow hedges included within *AOCI*		**$ (886)**		$ (229)		**$ (2,908)**		$ (958)

(1) All amounts reclassified into earnings for interest rate contracts are included in *Interest income/Interest expense (Net interest income)*. For all other hedges, the amounts reclassified to earnings are included primarily in *Other revenue* and *Net interest income* in the Consolidated Statement of Income.

Net Investment Hedges

Citi uses foreign currency forwards, cross-currency swaps, options and foreign currency-denominated debt instruments to manage the foreign exchange risk associated with Citi's equity investments in several non-U.S.-dollar-functional-currency foreign subsidiaries. Citi records the change in the fair value of these hedging instruments and the translation adjustment for the investments in these foreign subsidiaries in Foreign currency translation adjustment within *AOCI*.

The pretax gain (loss) recorded in Foreign currency translation adjustment within *AOCI*, related to net investment hedges, was $836 million and $641 million for the three and six months ended June 30, 2022 and $(426) million and $131 million for the three and six months ended June 30, 2021, respectively. June 30, 2022 includes a $47 million pretax loss related to net investment hedges that was reclassified from *AOCI* into earnings (recorded in Other revenue).

Credit Derivatives

The following tables summarize the key characteristics of Citi's credit derivatives portfolio by counterparty and derivative form:

	Fair values		Notionals	
In millions of dollars at June 30, 2022	**Receivable**(1)	**Payable**(2)	**Protection purchased**	**Protection sold**
By industry of counterparty				
Banks	**$ 3,507**	**$ 3,767**	**$ 111,649**	**$ 115,903**
Broker-dealers	**2,872**	**1,865**	**46,453**	**39,567**
Non-financial	**73**	**22**	**2,161**	**1,515**
Insurance and other financial institutions	**5,349**	**4,641**	**521,881**	**481,394**
Total by industry of counterparty	**$ 11,801**	**$ 10,295**	**$ 682,144**	**$ 638,379**
By instrument				
Credit default swaps and options	**$ 10,182**	**$ 9,935**	**$ 667,694**	**$ 631,332**
Total return swaps and other	**1,619**	**360**	**14,450**	**7,047**
Total by instrument	**$ 11,801**	**$ 10,295**	**$ 682,144**	**$ 638,379**
By rating of reference entity				
Investment grade	**$ 4,201**	**$ 3,602**	**$ 536,771**	**$ 499,423**
Non-investment grade	**7,600**	**6,693**	**145,373**	**138,956**
Total by rating of reference entity	**$ 11,801**	**$ 10,295**	**$ 682,144**	**$ 638,379**
By maturity				
Within 1 year	**$ 2,504**	**$ 1,722**	**$ 159,569**	**$ 160,373**
From 1 to 5 years	**6,486**	**6,078**	**467,326**	**437,448**
After 5 years	**2,811**	**2,495**	**55,249**	**40,558**
Total by maturity	**$ 11,801**	**$ 10,295**	**$ 682,144**	**$ 638,379**

(1) The fair value amount receivable is composed of $9,839 million under protection purchased and $1,962 million under protection sold.
(2) The fair value amount payable is composed of $2,672 million under protection purchased and $7,623 million under protection sold.

In millions of dollars at December 31, 2021	Fair values		Notionals	
	Receivable[1]	Payable[2]	Protection purchased	Protection sold
By industry of counterparty				
Banks	$ 2,375	$ 3,031	$ 108,415	$ 103,756
Broker-dealers	1,962	1,139	44,364	40,068
Non-financial	113	306	2,785	2,728
Insurance and other financial institutions	5,768	6,539	490,432	425,934
Total by industry of counterparty	$ 10,218	$ 11,015	$ 645,996	$ 572,486
By instrument				
Credit default swaps and options	$ 9,923	$ 10,234	$ 628,136	$ 565,131
Total return swaps and other	295	781	17,860	7,355
Total by instrument	$ 10,218	$ 11,015	$ 645,996	$ 572,486
By rating of reference entity				
Investment grade	$ 4,149	$ 4,258	$ 511,652	$ 448,944
Non-investment grade	6,069	6,757	134,344	123,542
Total by rating of reference entity	$ 10,218	$ 11,015	$ 645,996	$ 572,486
By maturity				
Within 1 year	$ 878	$ 1,462	$ 133,866	$ 115,603
From 1 to 5 years	6,674	6,638	454,617	413,174
After 5 years	2,666	2,915	57,513	43,709
Total by maturity	$ 10,218	$ 11,015	$ 645,996	$ 572,486

(1) The fair value amount receivable is composed of $3,705 million under protection purchased and $6,513 million under protection sold.
(2) The fair value amount payable is composed of $7,354 million under protection purchased and $3,661 million under protection sold.

Credit Risk-Related Contingent Features in Derivatives

Certain derivative instruments contain provisions that require the Company to either post additional collateral or immediately settle any outstanding liability balances upon the occurrence of a specified event related to the credit risk of the Company. These events, which are defined by the existing derivative contracts, are primarily downgrades in the credit ratings of the Company and its affiliates.

The fair value (excluding CVA) of all derivative instruments with credit risk-related contingent features that were in a net liability position at June 30, 2022 and December 31, 2021 was $18 billion and $19 billion, respectively. The Company posted $15 billion and $16 billion as collateral for this exposure in the normal course of business as of June 30, 2022 and December 31, 2021, respectively.

A downgrade could trigger additional collateral or cash settlement requirements for the Company and certain affiliates. In the event that Citigroup and Citibank were downgraded a single notch by all three major rating agencies as of June 30, 2022, the Company could be required to post an additional $1.1 billion as either collateral or settlement of the derivative transactions. In addition, the Company could be required to segregate with third-party custodians collateral previously received from existing derivative counterparties in the amount of $0.1 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately $1.2 billion.

Derivatives Accompanied by Financial Asset Transfers

For transfers of financial assets accounted for as a sale by the Company, and for which the Company has retained substantially all of the economic exposure to the transferred asset through a total return swap executed with the same counterparty in contemplation of the initial sale (and still outstanding), the asset amounts derecognized and the gross cash proceeds received as of the date of derecognition were $2.0 billion and $2.9 billion as of June 30, 2022 and December 31, 2021, respectively.

At June 30, 2022, the fair value of these previously derecognized assets was $1.9 billion. The fair value of the total return swaps as of June 30, 2022 was $19 million recorded as gross derivative assets and $83 million recorded as gross derivative liabilities. At December 31, 2021, the fair value of these previously derecognized assets was $2.9 billion, and the fair value of the total return swaps was $13 million recorded as gross derivative assets and $58 million recorded as gross derivative liabilities.

The balances for the total return swaps are on a gross basis, before the application of counterparty and cash collateral netting, and are included primarily as equity derivatives in the tabular disclosures in this Note.

20. FAIR VALUE MEASUREMENT

For additional information regarding fair value measurement at Citi, see Note 24 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Market Valuation Adjustments

The table below summarizes the credit valuation adjustments (CVA) and funding valuation adjustments (FVA) applied to the fair value of derivative instruments at June 30, 2022 and December 31, 2021:

	Credit and funding valuation adjustments contra-liability (contra-asset)	
In millions of dollars	**June 30, 2022**	December 31, 2021
Counterparty CVA	**$ (849)**	$ (705)
Asset FVA	**(625)**	(433)
Citigroup (own credit) CVA	**746**	379
Liability FVA	**199**	110
Total CVA and FVA—derivative instruments	**$ (529)**	$ (649)

The table below summarizes pretax gains (losses) related to changes in CVA on derivative instruments, net of hedges, FVA on derivatives and debt valuation adjustments (DVA) on Citi's own fair value option (FVO) liabilities for the periods indicated:

	Credit/funding/debt valuation adjustments gain (loss)			
	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Counterparty CVA	**$ (94)**	$ 34	**$ (201)**	$ 43
Asset FVA	**(46)**	25	**(151)**	94
Own credit CVA	**182**	(41)	**298**	(78)
Liability FVA	**68**	(13)	**90**	11
Total CVA and FVA—derivative instruments	**$ 110**	$ 5	**$ 36**	$ 70
DVA related to own FVO liabilities(1)	**$ 2,592**	$ (110)	**$ 3,642**	$ (148)
Total CVA, DVA and FVA	**$ 2,702**	$ (105)	**$ 3,678**	$ (78)

(1) See Notes 1 and 17 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Fair Value Hierarchy

ASC 820-10 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs are developed using market data and reflect market participant assumptions, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for *identical* instruments in active markets.
- Level 2: Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations in which all significant inputs and significant value drivers are *observable* in the market.
- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are *unobservable*.

As required under the fair value hierarchy, the Company considers relevant and observable market inputs in its valuations where possible.

The fair value hierarchy classification approach typically utilizes rules-based and data-driven selection criteria to determine whether an instrument is classified as Level 1, Level 2 or Level 3:

- The determination of whether an instrument is quoted in an active market and therefore considered a Level 1 instrument is based upon the frequency of observed transactions and the quality of independent market data available on the measurement date.
- A Level 2 classification is assigned where there is observability of prices/market inputs to models, or where any unobservable inputs are not significant to the valuation. The determination of whether an input is considered observable is based on the availability of independent market data and its corroboration, for example through observed transactions in the market.
- Otherwise, an instrument is classified as Level 3.

Items Measured at Fair Value on a Recurring Basis

The following tables present for each of the fair value hierarchy levels the Company's assets and liabilities that are measured at fair value on a recurring basis at June 30, 2022 and December 31, 2021. The Company may hedge positions that have been classified in the Level 3 category with other financial instruments (hedging instruments) that may be classified as Level 3, but also with financial instruments classified as Level 1 or Level 2. The effects of these hedges are presented gross in the following tables:

Fair Value Levels

In millions of dollars at June 30, 2022	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 340,834	$ 183	$ 341,017	$ (98,257)	$ 242,760
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	32,121	708	32,829	—	32,829
Residential	—	519	153	672	—	672
Commercial	—	860	138	998	—	998
Total trading mortgage-backed securities	$ —	$ 33,500	$ 999	$ 34,499	$ —	$ 34,499
U.S. Treasury and federal agency securities	$ 56,991	$ 3,917	$ 1	$ 60,909	$ —	$ 60,909
State and municipal	—	1,681	80	1,761	—	1,761
Foreign government	43,585	26,703	364	70,652	—	70,652
Corporate	2,415	14,577	537	17,529	—	17,529
Equity securities	42,192	8,946	133	51,271	—	51,271
Asset-backed securities	—	1,404	554	1,958	—	1,958
Other trading assets[2]	18	19,577	816	20,411	—	20,411
Total trading non-derivative assets	$ 145,201	$ 110,305	$ 3,484	$ 258,990	$ —	$ 258,990
Trading derivatives						
Interest rate contracts	$ 476	$ 155,912	$ 3,137	$ 159,525		
Foreign exchange contracts	—	185,093	1,017	186,110		
Equity contracts	55	53,351	2,185	55,591		
Commodity contracts	—	47,253	2,423	49,676		
Credit derivatives	—	10,558	1,243	11,801		
Total trading derivatives—before netting and collateral	$ 531	$ 452,167	$ 10,005	$ 462,703		
Netting agreements					$ (348,255)	
Netting of cash collateral received					(32,563)	
Total trading derivatives—after netting and collateral	$ 531	$ 452,167	$ 10,005	$ 462,703	$ (380,818)	$ 81,885
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 12,487	$ 28	$ 12,515	$ —	$ 12,515
Residential	—	238	40	278	—	278
Commercial	—	7	—	7	—	7
Total investment mortgage-backed securities	$ —	$ 12,732	$ 68	$ 12,800	$ —	$ 12,800
U.S. Treasury and federal agency securities	$ 91,530	$ 334	$ —	$ 91,864	$ —	$ 91,864
State and municipal	—	1,953	539	2,492	—	2,492
Foreign government	51,472	67,213	1,001	119,686	—	119,686
Corporate	2,838	3,273	334	6,445	—	6,445
Marketable equity securities	406	172	10	588	—	588
Asset-backed securities	—	275	1	276	—	276
Other debt securities	—	4,936	—	4,936	—	4,936
Non-marketable equity securities[3]	—	7	310	317	—	317
Total investments	$ 146,246	$ 90,895	$ 2,263	$ 239,404	$ —	$ 239,404

Table continues on the next page.

In millions of dollars at June 30, 2022	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Loans	$ —	$ 4,211	$ 325	$ 4,536	$ —	$ 4,536
Mortgage servicing rights	—	—	600	600	—	600
Non-trading derivatives and other financial assets measured on a recurring basis	$ 3,502	$ 6,520	$ 63	$ 10,085	$ —	$ 10,085
Total assets	$ 295,480	$ 1,004,932	$ 16,923	$ 1,317,335	$ (479,075)	$ 838,260
Total as a percentage of gross assets[4]	22.4%	76.3%	1.3%			
Liabilities						
Interest-bearing deposits	$ —	$ 2,290	$ 18	$ 2,308	$ —	$ 2,308
Securities loaned and sold under agreements to repurchase	—	154,757	593	155,350	(90,776)	64,574
Trading account liabilities						
Securities sold, not yet purchased	98,389	19,231	72	117,692	—	117,692
Other trading liabilities	—	4	—	4	—	4
Total trading liabilities	$ 98,389	$ 19,235	$ 72	$ 117,696	$ —	$ 117,696
Trading derivatives						
Interest rate contracts	$ 347	$ 147,534	$ 2,256	$ 150,137		
Foreign exchange contracts	—	180,531	861	181,392		
Equity contracts	108	56,115	2,286	58,509		
Commodity contracts	—	42,461	2,168	44,629		
Credit derivatives	—	8,703	1,592	10,295		
Total trading derivatives—before netting and collateral	$ 455	$ 435,344	$ 9,163	$ 444,962		
Netting agreements					$ (348,255)	
Netting of cash collateral paid					(33,950)	
Total trading derivatives—after netting and collateral	$ 455	$ 435,344	$ 9,163	$ 444,962	$ (382,205)	$ 62,757
Short-term borrowings	$ —	$ 6,771	$ 81	$ 6,852	$ —	$ 6,852
Long-term debt	—	59,610	29,778	89,388	—	89,388
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$ 3,288	$ —	$ —	$ 3,288	$ —	$ 3,288
Total liabilities	$ 102,132	$ 678,007	$ 39,705	$ 819,844	$ (472,981)	$ 346,863
Total as a percentage of gross liabilities[4]	12.5 %	82.7 %	4.8 %			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 21. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(3) Amounts exclude $0.1 billion of investments measured at net asset value (NAV) in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*

(4) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Fair Value Levels

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[(1)]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 342,030	$ 231	$ 342,261	$ (125,795)	$216,466
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	34,534	496	35,030	—	35,030
Residential	1	643	104	748	—	748
Commercial	—	778	81	859	—	859
Total trading mortgage-backed securities	$ 1	$ 35,955	$ 681	$ 36,637	$ —	$ 36,637
U.S. Treasury and federal agency securities	$ 44,900	$ 3,230	$ 4	$ 48,134	$ —	$ 48,134
State and municipal	—	1,995	37	2,032	—	2,032
Foreign government	39,176	31,485	23	70,684	—	70,684
Corporate	1,544	16,156	412	18,112	—	18,112
Equity securities	53,833	10,047	174	64,054	—	64,054
Asset-backed securities	—	981	613	1,594	—	1,594
Other trading assets[(2)]	—	20,346	576	20,922	—	20,922
Total trading non-derivative assets	$ 139,454	$ 120,195	$ 2,520	$ 262,169	$ —	$262,169
Trading derivatives						
Interest rate contracts	$ 90	$ 161,500	$ 3,898	$ 165,488		
Foreign exchange contracts	—	134,912	637	135,549		
Equity contracts	41	43,904	1,307	45,252		
Commodity contracts	—	28,547	1,797	30,344		
Credit derivatives	—	9,299	919	10,218		
Total trading derivatives—before netting and collateral	$ 131	$ 378,162	$ 8,558	$ 386,851		
Netting agreements					$ (292,628)	
Netting of cash collateral received[(3)]					(24,447)	
Total trading derivatives—after netting and collateral	$ 131	$ 378,162	$ 8,558	$ 386,851	$ (317,075)	$ 69,776
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 33,165	$ 51	$ 33,216	$ —	$ 33,216
Residential	—	286	94	380	—	380
Commercial	—	25	—	25	—	25
Total investment mortgage-backed securities	$ —	$ 33,476	$ 145	$ 33,621	$ —	$ 33,621
U.S. Treasury and federal agency securities	$ 122,271	$ 168	$ 1	$ 122,440	$ —	$122,440
State and municipal	—	1,849	772	2,621	—	2,621
Foreign government	56,842	61,112	786	118,740	—	118,740
Corporate	2,861	2,871	188	5,920	—	5,920
Marketable equity securities	350	177	16	543	—	543
Asset-backed securities	—	300	3	303	—	303
Other debt securities	—	4,877	—	4,877	—	4,877
Non-marketable equity securities[(4)]	—	28	316	344	—	344
Total investments	$ 182,324	$ 104,858	$ 2,227	$ 289,409	$ —	$289,409

Table continues on the next page.

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Loans	$ —	$ 5,371	$ 711	$ 6,082	$ —	$ 6,082
Mortgage servicing rights	—	—	404	404	—	404
Non-trading derivatives and other financial assets measured on a recurring basis	$ 4,075	$ 8,194	$ 73	$ 12,342	$ —	$ 12,342
Total assets	$ 325,984	$ 958,810	$ 14,724	$ 1,299,518	$ (442,870)	$856,648
Total as a percentage of gross assets[5]	25.1%	73.8%	1.1%			
Liabilities						
Interest-bearing deposits	$ —	$ 1,483	$ 183	$ 1,666	$ —	$ 1,666
Securities loaned and sold under agreements to repurchase	—	174,318	643	174,961	(118,267)	56,694
Trading account liabilities						
Securities sold, not yet purchased	82,675	23,268	65	106,008	—	106,008
Other trading liabilities	—	5	—	5	—	5
Total trading liabilities	$ 82,675	$ 23,273	$ 65	$ 106,013	$ —	$106,013
Trading derivatives						
Interest rate contracts	$ 56	$ 147,846	$ 2,172	$ 150,074		
Foreign exchange contracts	—	134,572	726	135,298		
Equity contracts	60	46,177	3,447	49,684		
Commodity contracts	—	30,004	1,375	31,379		
Credit derivatives	—	10,065	950	11,015		
Total trading derivatives—before netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450		
Netting agreements					$ (292,628)	
Netting of cash collateral paid[3]					(29,306)	
Total trading derivatives—after netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450	$ (321,934)	$ 55,516
Short-term borrowings	$ —	$ 7,253	$ 105	$ 7,358	$ —	$ 7,358
Long-term debt	—	57,100	25,509	82,609	—	82,609
Non-trading derivatives and other financial liabilities measured on a recurring basis	$ 3,574	$ —	$ 1	$ 3,575	$ —	$ 3,575
Total liabilities	$ 86,365	$ 632,091	$ 35,176	$ 753,632	$ (440,201)	$313,431
Total as a percentage of gross liabilities[5]	11.5 %	83.9 %	4.7 %			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 21. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(3) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(4) Amounts exclude $0.1 billion of investments measured at NAV in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*

(5) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the three and six months ended June 30, 2022 and 2021. The gains and losses presented below include changes in the fair value related to both observable and unobservable inputs.

The Company often hedges positions with offsetting positions that are classified in a different level. For example, the gains and losses for assets and liabilities in the Level 3 category presented in the tables below do not reflect the effect of offsetting losses and gains on hedging instruments that may be classified in the Level 1 or Level 2 categories. In addition, the Company hedges items classified in the Level 3 category with instruments also classified in Level 3 of the fair value hierarchy. The hedged items and related hedges are presented gross in the following tables:

Level 3 Fair Value Rollforward

		Net realized/unrealized gains (losses) incl. in[1]		Transfers							
In millions of dollars	Mar. 31, 2022	Principal transactions	Other[1][2]	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2022	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 202	$ (12)	$ —	$ —	$ —	$ 36	$ —	$ —	$ (43)	$ 183	$ (10)
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	498	(15)	—	80	(89)	318	—	(84)	—	708	(19)
Residential	118	—	—	28	(11)	47	—	(29)	—	153	(4)
Commercial	52	(3)	—	96	(8)	4	—	(3)	—	138	(3)
Total trading mortgage-backed securities	$ 668	$ (18)	$ —	$ 204	$ (108)	$ 369	$ —	$ (116)	$ —	$ 999	$ (26)
U.S. Treasury and federal agency securities	$ 2	$ —	$ —	$ —	$ (1)	$ —	$ —	$ —	$ —	$ 1	$ —
State and municipal	6	4	—	71	—	—	—	(1)	—	80	(3)
Foreign government	94	(27)	—	249	(1)	57	—	(8)	—	364	(12)
Corporate	1,013	59	—	120	(244)	181	—	(592)	—	537	38
Marketable equity securities	199	(9)	—	14	(61)	58	—	(68)	—	133	(23)
Asset-backed securities	466	(24)	—	82	(100)	262	—	(132)	—	554	(26)
Other trading assets	492	79	—	305	(30)	117	6	(149)	(4)	816	54
Total trading non-derivative assets	$ 2,940	$ 64	$ —	$ 1,045	$ (545)	$ 1,044	$ 6	$ (1,066)	$ (4)	$ 3,484	$ 2
Trading derivatives, net[4]											
Interest rate contracts	$ 779	$ 434	$ —	$ 141	$ (272)	$ 7	$ 6	$ (6)	$ (208)	$ 881	$ 473
Foreign exchange contracts	(131)	769	—	34	(50)	73	20	(547)	(12)	156	126
Equity contracts	(1,564)	1,189	—	(60)	232	220	—	(91)	(27)	(101)	1,182
Commodity contracts	217	208	—	(74)	84	67	—	(98)	(149)	255	246
Credit derivatives	(4)	6	—	(97)	(164)	—	—	—	(90)	(349)	(26)
Total trading derivatives, net[4]	$ (703)	$ 2,606	$ —	$ (56)	$ (170)	$ 367	$ 26	$ (742)	$ (486)	$ 842	$ 2,001

Table continues on the next page.

In millions of dollars	Mar. 31, 2022	Net realized/unrealized gains (losses) incl. in(1) Principal transactions	Other(1)(2)	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2022	Unrealized gains (losses) still held(3)
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 46	$ —	$ (2)	$ —	$ (10)	$ —	$ —	$ (6)	$ —	$ 28	$ (2)
Residential	44	—	(4)	—	—	—	—	—	—	40	(4)
Total investment mortgage-backed securities	$ 90	$ —	$ (6)	$ —	$ (10)	$ —	$ —	$ (6)	$ —	$ 68	$ (6)
U.S. Treasury and federal agency securities	$ 1	$ —	$ (1)	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	705	—	(34)	—	(131)	1	—	(2)	—	539	(14)
Foreign government	1,029	—	(15)	—	(54)	202	—	(161)	—	1,001	(16)
Corporate	237	—	(3)	100	—	—	—	—	—	334	(1)
Marketable equity securities	16	—	(6)	—	—	—	—	—	—	10	(7)
Asset-backed securities	2	—	(1)	—	—	—	—	—	—	1	—
Non-marketable equity securities	298	—	2	—	—	20	—	(10)	—	310	(1)
Total investments	$ 2,378	$ —	$ (64)	$ 100	$ (195)	$ 223	$ —	$ (179)	$ —	$ 2,263	$ (45)
Loans	$ 622	$ —	$ (105)	$ 1	$ (193)	$ —	$ 1	$ —	$ (1)	$ 325	$ (7)
Mortgage servicing rights	520	—	59		—		35		(14)	600	59
Other financial assets measured on a recurring basis	68	—	4	7	(12)	13	15	—	(32)	63	7
Liabilities											
Interest-bearing deposits	$ 191	$ —	$ 7	$ —	$ (122)	$ —	$ 17	$ —	$ (61)	$ 18	$ —
Securities loaned and sold under agreements to repurchase	612	24	—	—	(3)	16	—	—	(8)	593	10
Trading account liabilities											
Securities sold, not yet purchased	38	(8)	—	10	(4)	30	—	1	(11)	72	(12)
Short-term borrowings	36	1	—	12	(12)	—	69	—	(23)	81	2
Long-term debt	27,432	4,719	—	3,335	(2,634)	—	6,527	—	(163)	29,778	4,232

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.

(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at June 30, 2022.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2021	Net realized/unrealized gains (losses) incl. in[1]: Principal transactions	Other[1][2]	Transfers: into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2022	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 231	$ (1)	$ —	$ —	$ —	$ 124	$ —	$ —	$ (171)	$ 183	$ (7)
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	496	(13)	—	127	(158)	484	—	(228)	—	708	(21)
Residential	104	—	—	61	(32)	85	—	(65)	—	153	(5)
Commercial	81	(5)	—	97	(34)	9	—	(10)	—	138	(2)
Total trading mortgage-backed securities	$ 681	$ (18)	$ —	$ 285	$ (224)	$ 578	$ —	$ (303)	$ —	$ 999	$ (28)
U.S. Treasury and federal agency securities	$ 4	$ (4)	$ —	$ 2	$ (1)	$ —	$ —	$ —	$ —	$ 1	$ —
State and municipal	37	5	—	71	(20)	1	—	(14)	—	80	(5)
Foreign government	23	(26)	—	299	(1)	87	—	(18)	—	364	(18)
Corporate	412	68	—	262	(278)	828	—	(755)	—	537	18
Marketable equity securities	174	(14)	—	63	(87)	108	—	(111)	—	133	(40)
Asset-backed securities	613	(19)	—	140	(167)	393	—	(406)	—	554	(45)
Other trading assets	576	126	—	333	(92)	366	16	(501)	(8)	816	75
Total trading non-derivative assets	$ 2,520	$ 118	$ —	$ 1,455	$ (870)	$ 2,361	$ 16	$ (2,108)	$ (8)	$ 3,484	$ (43)
Trading derivatives, net[4]											
Interest rate contracts	$ 1,726	$ 600	$ —	$ 73	$ (803)	$ 9	$ 6	$ (6)	$ (724)	$ 881	$ 650
Foreign exchange contracts	(89)	1,164	—	(475)	(6)	175	20	(611)	(22)	156	235
Equity contracts	(2,140)	1,997	—	(73)	207	405	—	(316)	(181)	(101)	1,634
Commodity contracts	422	622	—	(45)	(409)	120	—	(142)	(313)	255	410
Credit derivatives	(31)	(57)	—	(65)	(151)	—	—	(1)	(44)	(349)	(95)
Total trading derivatives, net[4]	$ (112)	$ 4,326	$ —	$ (585)	$ (1,162)	$ 709	$ 26	$ (1,076)	$ (1,284)	$ 842	$ 2,834

Table continues on the next page.

In millions of dollars	Dec. 31, 2021	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2022	Unrealized gains (losses) still held[3]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 51	$ —	$ (9)	$ 1	$ (10)	$ 4	$ —	$ (9)	$ —	$ 28	$ (4)
Residential	94	—	(6)	—	(39)	—	—	(9)	—	40	(5)
Total investment mortgage-backed securities	$ 145	$ —	$ (15)	$ 1	$ (49)	$ 4	$ —	$ (18)	$ —	$ 68	$ (9)
U.S. Treasury and federal agency securities	$ 1	$ —	$ (1)	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	772	—	(78)	—	(142)	1	—	(14)	—	539	(47)
Foreign government	786	—	(39)	250	(113)	385	—	(268)	—	1,001	(19)
Corporate	188	—	(7)	153	—	—	—	—	—	334	(2)
Marketable equity securities	16	—	(6)	—	—	—	—	—	—	10	(7)
Asset-backed securities	3	—	11	—	—	—	—	(13)	—	1	—
Non-marketable equity securities	316	—	(12)	11	—	20	—	(25)	—	310	(1)
Total investments	$ 2,227	$ —	$ (147)	$ 415	$ (304)	$ 410	$ —	$ (338)	$ —	$ 2,263	$ (85)
Loans	$ 711	$ —	$ (190)	$ 1	$ (195)	$ —	$ 1	$ —	$ (3)	$ 325	$ 166
Mortgage servicing rights	404	—	158	—	—	—	69	—	(31)	600	157
Other financial assets measured on a recurring basis	73	—	7	7	(16)	14	40	(1)	(61)	63	48
Liabilities											
Interest-bearing deposits	$ 183	$ —	$ 3	$ 7	$ (122)	$ —	$ 18	$ —	$ (65)	$ 18	$ —
Securities loaned and sold under agreements to repurchase	643	50	—	—	(3)	16	—	—	(13)	593	28
Trading account liabilities											
Securities sold, not yet purchased	65	21	—	35	(19)	83	—	1	(72)	72	(2)
Short-term borrowings	105	89	—	40	(21)	—	76	—	(30)	81	1
Long-term debt	25,509	8,245	—	6,743	(3,507)	—	9,699	—	(421)	29,778	(4,197)
Other financial liabilities measured on a recurring basis	1	—	1	—	—	—	—	—	—	—	—

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.

(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at June 30, 2022.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

		Net realized/unrealized gains (losses) incl. in[1]		Transfers							
In millions of dollars	Mar. 31, 2021	Principal transactions	Other[1][2]	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2021	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 262	$ (2)	$ —	$ —	$ (49)	$ 43	$ —	$ —	$ (43)	$ 211	$ 1
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	38	2	—	238	(7)	113	—	(8)	—	376	(12)
Residential	268	(1)	—	41	(65)	57	—	(205)	—	95	2
Commercial	59	16	—	60	(8)	11	—	(51)	—	87	3
Total trading mortgage-backed securities	$ 365	$ 17	$ —	$ 339	$ (80)	$ 181	$ —	$ (264)	$ —	$ 558	$ (7)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	94	—	—	—	(29)	5	—	—	—	70	—
Foreign government	81	4	—	125	(28)	14	—	(55)	—	141	1
Corporate	290	(15)	—	312	(50)	408	—	(122)	—	823	(36)
Marketable equity securities	89	2	—	80	(40)	23	—	(7)	—	147	15
Asset-backed securities	1,208	209	—	17	(148)	352	—	(946)	—	692	22
Other trading assets	571	62	—	31	(121)	201	—	(189)	—	555	4
Total trading non-derivative assets	$ 2,698	$ 279	$ —	$ 904	$ (496)	$ 1,184	$ —	$ (1,583)	$ —	$ 2,986	$ (1)
Trading derivatives, net[4]											
Interest rate contracts	$ 1,229	$ (126)	$ —	$ 218	$ 321	$ 2	$ —	$ —	$ 120	$ 1,764	$ (70)
Foreign exchange contracts	(86)	59	—	—	4	111	—	(282)	10	(184)	(28)
Equity contracts	(2,876)	309	—	(634)	892	85	—	(94)	(232)	(2,550)	349
Commodity contracts	732	236	—	(148)	(612)	28	—	(45)	(49)	142	(194)
Credit derivatives	71	(57)	—	(52)	(74)	—	—	—	71	(41)	(107)
Total trading derivatives, net[4]	$ (930)	$ 421	$ —	$ (616)	$ 531	$ 226	$ —	$ (421)	$ (80)	$ (869)	$ (50)

Table continues on the next page.

In millions of dollars	Mar. 31, 2021	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2021	Unrealized gains (losses) still held[3]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 30	$ —	$ 2	$ 22	$ —	$ 3	$ —	$ (5)	$ —	$ 52	$ (21)
Total investment mortgage-backed securities	$ 30	$ —	$ 2	$ 22	$ —	$ 3	$ —	$ (5)	$ —	$ 52	$ (21)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	794	—	8	54	(108)	2	—	(2)	—	748	6
Foreign government	523	—	3	440	(289)	315	—	(35)	—	957	3
Corporate	56	—	(7)	32	—	30	—	(7)	—	104	(1)
Asset-backed securities	4	—	(21)	33	—	—	—	(13)	—	3	1
Non-marketable equity securities	352	—	30	—	—	—	—	—	—	382	2
Total investments	$ 1,759	$ —	$ 15	$ 581	$ (397)	$ 350	$ —	$ (62)	$ —	$ 2,246	$ (10)
Loans	$ 1,944	$ —	$ 476	$ 60	$ (2,051)	$ —	$ —	$ —	$ —	$ 429	$ 169
Mortgage servicing rights	433	—	(21)	—	—	—	25	—	(18)	419	(21)
Other financial assets measured on a recurring basis	—	—	—	55	—	—	—	—	—	55	—
Liabilities											
Interest-bearing deposits	$ 199	$ —	$ 2	$ —	$ (44)	$ —	$ 11	$ —	$ (10)	$ 154	$ —
Securities loaned and sold under agreements to repurchase	977	22	—	—	(483)	80	—	—	(64)	488	—
Trading account liabilities											
Securities sold, not yet purchased	167	7	—	54	(21)	10	—	—	(35)	168	26
Other trading liabilities	6	5	—	—	—	—	—	—	—	1	4
Short-term borrowings	49	33	—	40	(32)	—	17	—	—	41	17
Long-term debt	26,337	(849)	—	3,937	(5,966)	—	1,825	—	(1,914)	25,068	(699)
Other financial liabilities measured on a recurring basis	8	—	—	—	(4)	—	—		—	4	—

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to other-than-temporary impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.

(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at March 31, 2022.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2020	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2021	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 320	$ (11)	$ —	$ —	$ (49)	$ 276	$ —	$ —	$ (325)	$ 211	$ 1
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	27	1	—	252	(8)	114	—	(10)	—	376	16
Residential	340	22	—	69	(68)	201	—	(469)	—	95	18
Commercial	136	21	—	76	(41)	24	—	(129)	—	87	2
Total trading mortgage-backed securities	$ 503	$ 44	$ —	$ 397	$ (117)	$ 339	$ —	$ (608)	$ —	$ 558	$ 36
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	94	—	—	—	(29)	5	—	—	—	70	1
Foreign government	51	5	—	136	(28)	71	—	(94)	—	141	(6)
Corporate	375	75	—	318	(168)	475	—	(252)	—	823	(7)
Marketable equity securities	73	47	—	84	(42)	35	—	(50)	—	147	32
Asset-backed securities	1,606	248	—	35	(198)	934	—	(1,933)	—	692	8
Other trading assets	945	18	—	61	(129)	348	4	(688)	(4)	555	(5)
Total trading non-derivative assets	$ 3,647	$ 437	$ —	$ 1,031	$ (711)	$ 2,207	$ 4	$ (3,625)	$ (4)	$ 2,986	$ 59
Trading derivatives, net[4]											
Interest rate contracts	$ 1,614	$ (298)	$ —	$ 173	$ 321	$ 2	$ (84)	$ —	$ 36	$ 1,764	$ (197)
Foreign exchange contracts	52	(79)	—	8	4	134	—	(297)	(6)	(184)	(57)
Equity contracts	(3,213)	612	—	(598)	898	109	—	(117)	(241)	(2,550)	213
Commodity contracts	292	550	—	10	(617)	94	—	(155)	(32)	142	280
Credit derivatives	48	(121)	—	15	(71)	—	—	—	88	(41)	(198)
Total trading derivatives, net[4]	$ (1,207)	$ 664	$ —	$ (392)	$ 535	$ 339	$ (84)	$ (569)	$ (155)	$ (869)	$ 41
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 30	$ —	$ 2	$ 22	$ —	$ 3	$ —	$ (5)	$ —	$ 52	$ (42)
Total investment mortgage-backed securities	$ 30	$ —	$ 2	$ 22	$ —	$ 3	$ —	$ (5)	$ —	$ 52	$ (42)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	834	—	(10)	58	(108)	3	—	(29)	—	748	(8)
Foreign government	268	—	1	440	(289)	645	—	(108)	—	957	3
Corporate	60	—	(11)	32	—	30	—	(7)	—	104	(1)
Asset-backed securities	1	—	(21)	36	—	—	—	(13)	—	3	(37)
Non-marketable equity securities	349	—	40	1	—	—	—	(8)	—	382	2
Total investments	$ 1,542	$ —	$ 1	$ 589	$ (397)	$ 681	$ —	$ (170)	$ —	$ 2,246	$ (83)

Table continues on the next page.

In millions of dollars	Dec. 31 2020	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Jun. 30, 2021	Unrealized gains (losses) still held[3]
Loans	$ 1,985	$ —	$ 348	$ 271	$ (2,051)	$ —	$ 1	$ —	$ (125)	$ 429	$ 100
Mortgage servicing rights	336	—	52	—	—	—	68	—	(37)	419	59
Other financial assets measured on a recurring basis	—	—	—	55	—	—	—	—	—	55	—
Liabilities											
Interest-bearing deposits	$ 206	$ —	$ 18	$ —	$ (44)	$ —	$ 20	$ —	$ (10)	$ 154	$ (45)
Securities loaned and sold under agreements to repurchase	631	7	—	—	(483)	488	—	—	(141)	488	19
Trading account liabilities											
Securities sold, not yet purchased	214	61	—	62	(25)	20	—	—	(42)	168	(2)
Other trading liabilities	26	25	—	—	—	—	—	—	—	1	—
Short-term borrowings	219	32	—	42	(44)	—	25	—	(169)	41	17
Long-term debt	25,210	1,773	—	4,869	(5,968)	—	7,545	—	(4,815)	25,068	791
Other financial liabilities measured on a recurring basis	1	—	(3)	—	(4)	—	14	—	(10)	4	—

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to other-than-temporary impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.
(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.
(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at June 30, 2021.
(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

Level 3 Fair Value Transfers

The following were the significant Level 3 transfers for the period December 31, 2021 to June 30, 2022:

- During the three and six months ended June 30, 2022, transfers of *Long-term debt* were $3.3 billion and $6.7 billion, respectively, from Level 2 to Level 3. Of the $6.7 billion transfer in the six months ended June 30, 2021, approximately $4.5 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $2.2 billion related to equity and credit derivative inputs (in addition to other volatility inputs, e.g., interest rate volatility inputs) becoming unobservable and/or significant to their overall valuation. In other instances, market changes have resulted in some inputs becoming more observable, and some unobservable inputs becoming less significant to the overall valuation of the instruments (e.g., when an option becomes deep-in or deep-out of the money). This has primarily resulted in $2.6 billion and $3.5 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the three and six months ended June 30, 2022, respectively.

The following were the significant Level 3 transfers for the period December 31, 2020 to June 30, 2021:

- During the three and six months ended June 30, 2021, transfers of *Loans* of $2.1 billion from Level 3 to Level 2 were primarily driven by equity forward and volatility inputs that have been assessed as not significant to the overall valuation of certain hybrid loan instruments, including equity options and long dated equity call spreads.
- During the three and six months ended June 30, 2021, transfers of *Long-term debt* were $3.9 billion and $4.9 billion, respectively, from Level 2 to Level 3. Of the $4.9 billion transfer in the six months ended June 30, 2021, approximately $4.0 billion related to interest option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $0.8 billion related to equity volatility inputs (in addition to the other volatility inputs, e.g, interest rate volatility inputs) becoming unobservable and/or significant relative to their overall valuation. In other instances, market changes have resulted in some inputs becoming less significant to the overall valuation of the instruments (e.g., when an option becomes deep-in or deep-out of the money). This has primarily resulted in $6.0 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the three and six months ended June 30, 2021.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements. Differences between this table and amounts presented in the Level 3 Fair Value Rollforward table represent individually immaterial items that have been measured using a variety of valuation techniques other than those listed.

As of June 30, 2022	Fair value[1] *(in millions)*	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Assets						
Securities borrowed and purchased under agreements to resell	**$ 183**	Model-based	Interest rate	**1.50 %**	**2.80 %**	**2.20 %**
Mortgage-backed securities	**$ 804**	Yield analysis	Yield	**3.50 %**	**22.00 %**	**8.80 %**
	243	Price-based	Price	**$ 0.80**	**$ 100.10**	**$ 59.70**
State and municipal, foreign government, corporate and other debt securities	**$ 2,483**	Price-based	Price	**$ —**	**$ 934.30**	**$ 186.50**
	499	Model-based				
Marketable equity securities[5]	**$ 136**	Price-based	Price	**$ —**	**$ 8,922.80**	**$ 52.70**
Asset-backed securities	**$ 328**	Price-based	Price	**$ 4.10**	**$ 100.00**	**$ 79.60**
	192	Yield analysis	Yield	**4.20 %**	**16.00 %**	**7.90 %**
Non-marketable equities	**$ 148**	Comparables analysis	Illiquidity discount	**15.00 %**	**32.00 %**	**27.60 %**
	150	Price-based	PE ratio	**15.20x**	**18.00x**	**15.90x**
			Revenue multiple	**12.80x**	**30.00x**	**14.00x**
			EBITDA multiples	**17.40x**	**17.40x**	**17.40x**
			Cost of capital	**17.50 %**	**20.00 %**	**17.60 %**
			Adjustment factor	**0.30x**	**0.50x**	**0.30x**
Derivatives—gross[6]						
Interest rate contracts (gross)	**$ 5,279**	Model-based	IR Normal volatility	**0.30 %**	**1.70 %**	**0.90 %**
			Yield	**(0.20)%**	**1.60 %**	**0.50 %**
Foreign exchange contracts (gross)	**$ 1,754**	Model-based	IR Basis	**(1.20)%**	**5.20 %**	**0.20 %**
			IR Normal volatility	**0.40 %**	**1.60 %**	**0.60 %**
Equity contracts (gross)[7]	**$ 4,366**	Model-based	Equity volatility	**0.10 %**	**313.90 %**	**46.70 %**
			Equity forward	**49.00 %**	**247.10 %**	**97.00 %**
			Equity-Equity correlation	**(6.49)%**	**99.70 %**	**86.80 %**
			Equity-FX correlation	**(95.00)%**	**80.00 %**	**(17.20)%**
Commodity and other contracts (gross)	**$ 4,043**	Model-based	Commodity correlation	**(53.00)%**	**93.50 %**	**19.10 %**
			Commodity volatility	**13.00 %**	**107.30 %**	**26.30 %**
			Forward price	**12.45 %**	**381.82 %**	**86.52 %**
Credit derivatives (gross)	**$ 2,396**	Model-based	Credit spread	**16 bps**	**601 bps**	**123 bps**
	434	Price-based	Recovery rate	**5.00 %**	**75.00 %**	**37.00 %**
			Upfront points	**— %**	**99.00 %**	**43.90 %**
			Credit correlation	**15.00 %**	**85.00 %**	**43.60 %**
			Credit spread volatility	**23.40 %**	**79.20 %**	**47.00 %**
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	**$ 57**	Price-based	Price	**$ 84.35**	**$ 785.00**	**$ 181.80**
Loans and leases	**$ 309**	Model-based	Equity volatility	**60.88 %**	**99.02 %**	**94.64 %**
			Forward price	**12.45 %**	**369.11 %**	**83.72 %**
			Commodity volatility	**13.04 %**	**107.31 %**	**26.33 %**
			Commodity correlation	**(53.02)%**	**93.52 %**	**19.08 %**

As of June 30, 2022	**Fair value[1]** *(in millions)*	**Methodology**	**Input**	**Low[2][3]**	**High[2][3]**	**Weighted average[4]**
Mortgage servicing rights	**$ 529**	Cash flow	Yield	**— %**	**12.90 %**	**5.30 %**
	71	Model-based	WAL	**4 years**	**9.7 years**	**7.70 years**
Liabilities						
Interest-bearing deposits	**$ 18**	Model-based	IR Normal volatility	**0.30 %**	**0.90 %**	**0.50 %**
			Forward price	**100.00 %**	**100.00 %**	**100.00 %**
Securities loaned and sold under agreements to repurchase	**$ 593**	Model-based	Interest rate	**1.80 %**	**3.70 %**	**3.10 %**
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	**$ 46**	Price-based	Price	**$ —**	**$ 12,100**	**$ 2,133**
	24	Yield analysis	Yield	**3.40 %**	**4.60 %**	**4.00 %**
			Upfront points	**4.00 %**	**4.00 %**	**4.00 %**
Short-term borrowings and long-term debt	**$ 28,623**	Model-based	IR Normal volatility	**0.30 %**	**1.70 %**	**0.80 %**
			Equity volatility	**0.10 %**	**313.90 %**	**52.60 %**
			Equity forward	**49.00 %**	**247.10 %**	**96.90 %**

As of December 31, 2021	Fair value[1] *(in millions)*	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Assets						
Securities borrowed and purchased under agreements to resell	$ 231	Model-based	Credit spread	15 bps	15 bps	15 bps
			Interest rate	0.26 %	0.72 %	0.50 %
Mortgage-backed securities	$ 279	Price-based	Price	$ 4	$ 118	$ 79
	526	Yield analysis	Yield	1.43 %	23.79 %	7.25 %
State and municipal, foreign government, corporate and other debt securities	$ 2,264	Price-based	Price	$ —	$ 995	$ 193
	415	Model-based	Equity volatility	0.08 %	290.64 %	53.94 %
Marketable equity securities[5]	$ 128	Price-based	Price	$ —	$ 73,000	$ 6,477
	43	Model-based	WAL	1.73 years	1.73 years	1.73 years
			Recovery *(in millions)*	$ 7,148	$ 7,148	$ 7,148
Asset-backed securities	$ 386	Price-based	Price	$ 5	$ 754	$ 87
	208	Yield analysis	Yield	2.43 %	19.35 %	8.18 %
Non-marketable equities	$ 121	Price-based	Illiquidity discount	10.00 %	36.00 %	26.43 %
	112	Comparables analysis	PE ratio	11.00x	29.00x	15.42x
	83	Model-based	Price	$ 3	$ 2,601	$ 2,029
			Adjustment factor	0.33x	0.44x	0.34x
			Revenue multiple	19.80x	30.00x	20.48x
			Cost of capital	17.50 %	20.00 %	17.57 %
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 6,054	Model-based	IR normal volatility	0.24 %	0.94 %	0.70 %
Foreign exchange contracts (gross)	$ 1,364	Model-based	IR Normal volatility	0.24 %	0.74 %	0.58 %
			FX volatility	2.13 %	107.42 %	11.21 %
			Credit spread	140 bps	696 bps	639 bps
Equity contracts (gross)[7]	$ 4,690	Model-based	Equity volatility	0.08 %	290.64 %	47.67 %
			Equity forward	57.99 %	165.83 %	89.45 %
			Equity-FX correlation	(95.00)%	80.00 %	(16.00)%
			Equity-Equity correlation	(6.49)%	99.00 %	85.61 %

Commodity and other contracts (gross)	$ 3,172	Model-based	Forward price	8.00 %	599.44 %	123.22 %
			Commodity volatility	10.87 %	188.30 %	26.85 %
			Commodity correlation	(50.52)%	89.83 %	(7.11)%
Credit derivatives (gross)	$ 1,480	Model-based	Credit spread	1.00 bps	874.72 bps	68.83 bps
	427	Price-based	Recovery rate	20.00 %	75.00 %	44.72 %
			Upfront points	2.74 %	99.96 %	59.37 %
			Price	$ 40	$ 103	$ 80
			Credit correlation	30.00 %	80.00 %	54.57 %
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	$ 69	Price-based	Price	$ 94	$ 2,598	$ 591
Loans and leases	$ 691	Model-based	Equity volatility	22.48 %	85.44 %	50.56 %
			Forward price	26.95 %	333.08 %	106.97 %
			Commodity volatility	10.87 %	188.30 %	26.85 %
			Commodity correlation	(50.52)%	89.83 %	(7.11)%
Mortgage servicing rights	$ 331	Cash flow	Yield	(1.20)%	12.10 %	4.51 %
	73	Model-based	WAL	2.75 years	5.86 years	5.14 years
Liabilities						
Interest-bearing deposits	$ 183	Model-based	IR Normal volatility	0.34 %	0.88 %	0.68 %
			Equity volatility	0.08 %	290.64 %	54.05 %
			Equity forward	57.99 %	165.83 %	89.39 %
Securities loaned and sold under agreements to repurchase	$ 643	Model-based	Interest rate	0.12 %	1.95 %	1.47 %
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	$ 63	Price-based	Price	$ —	$ 12,875	$ 1,707
Short-term borrowings and long-term debt	$ 25,514	Model-based	IR Normal volatility	0.07 %	0.88 %	0.60 %
			Equity volatility	0.08 %	290.64 %	53.21 %
			Equity-IR correlation	(3.53)%	60.00 %	32.12 %
			Equity-FX correlation	(95.00)%	80.00 %	(15.98)%
			FX volatility	0.06 %	41.76 %	9.38 %

(1) The tables above include the fair values for the items listed and may not foot to the total population for each category.
(2) Some inputs are shown as zero due to rounding.
(3) When the low and high inputs are the same, there is either a constant input applied to all positions, or the methodology involving the input applies to only one large position.
(4) Weighted averages are calculated based on the fair values of the instruments.
(5) For equity securities, the price inputs are expressed on an absolute basis, not as a percentage of the notional amount.
(6) Both trading and non-trading account derivatives—assets and liabilities—are presented on a gross absolute value basis.
(7) Includes hybrid products.

Items Measured at Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis and, therefore, are not included in the tables above. These include assets measured at cost that have been written down to fair value during the periods as a result of an impairment. These also include non-marketable equity securities that have been measured using the measurement alternative and are either (i) written down to fair value during the periods as a result of an impairment or (ii) adjusted upward or downward to fair value as a result of a transaction observed during the periods for an identical or similar investment in the same issuer. In addition, these assets include loans held-for-sale and other real estate owned that are measured at the lower of cost or market value.

The following tables present the carrying amounts of all assets that were still held for which a nonrecurring fair value measurement was recorded:

In millions of dollars	**Fair value**	**Level 2**	**Level 3**
June 30, 2022			
Loans HFS[(1)]	**$ 2,431**	**$ 1,199**	**$ 1,232**
Other real estate owned	**3**	**—**	**3**
Loans[(2)]	**133**	**—**	**133**
Non-marketable equity securities measured using the measurement alternative	**153**	**—**	**153**
Total assets at fair value on a nonrecurring basis	**$ 2,720**	**$ 1,199**	**$ 1,521**

In millions of dollars	Fair value	Level 2	Level 3
December 31, 2021			
Loans HFS[(1)]	$ 2,298	$ 986	$ 1,312
Other real estate owned	11	—	11
Loans[(2)]	144	—	144
Non-marketable equity securities measured using the measurement alternative	655	104	551
Total assets at fair value on a nonrecurring basis	$ 3,108	$ 1,090	$ 2,018

(1) Net of fair value amounts on the unfunded portion of loans HFS recognized as *Other liabilities* on the Consolidated Balance Sheet.

(2) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Valuation Techniques and Inputs for Level 3 Nonrecurring Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 nonrecurring fair value measurements and the most significant unobservable inputs used in those measurements:

As of June 30, 2022	**Fair value[(1)]** *(in millions)*	**Methodology**	**Input**	**Low[(2)]**	**High**	**Weighted average[(3)]**
Loans held-for-sale	**$ 1,232**	Price-based	Price	**$ 84.00**	**$ 100.00**	**$ 95.40**
Other real estate owned	**$ 1**	Price-based	Appraised value[(4)]	**$ 38,899**	**$ 991,478**	**$ 775,330**
	1	Recovery analysis				
Loans[(5)]	**$ 133**	Recovery analysis	Appraised value[(4)]	**$ 10,000**	**$ 3,900,000**	**$ 243,283**
Non-marketable equity securities measured using the measurement alternative	**$ 135**	Price-based	Price	**$ 3.35**	**$ 2,416.43**	**$ 1,359.84**
	18	Comparable analysis	Revenue multiple	**11.30x**	**11.30x**	**11.30x**

As of December 31, 2021	Fair value[(1)] *(in millions)*	Methodology	Input	Low[(2)]	High	Weighted average[(3)]
Loans HFS	$ 1,312	Price-based	Price	$ 89	$ 100	$ 99
Other real estate owned	$ 4	Price-based	Appraised value[(4)]	$ 14,000	$ 2,392,464	$ 1,660,120
	5	Recovery analysis				
Loans[(5)]	$ 120	Recovery analysis	Appraised value[(4)]	$ 10,000	$ 3,900,000	$ 247,018
	24	Price-based	Price	3	75	35
			Recovery rate	84.00 %	100.00 %	84.00 %
Non-marketable equity securities measured using the measurement alternative	$ 551	Price-based	Price	$ 6	$ 1,339	$ 52

(1) The table above includes the fair values for the items listed and may not foot to the total population for each category.
(2) Some inputs are shown as zero due to rounding.
(3) Weighted averages are calculated based on the fair values of the instruments.
(4) Appraised values are disclosed in whole dollars.
(5) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Nonrecurring Fair Value Changes

The following table presents total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that were still held:

	Three Months Ended June 30,		**Six Months Ended June 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Loans HFS	**$ (86)**	$ (15)	**$ (223)**	$ (17)
Other real estate owned	**—**	—	**—**	—
Loans[(1)]	**4**	49	**9**	60
Non-marketable equity securities measured using the measurement alternative	**43**	211	**128**	291
Total nonrecurring fair value gains (losses)	**$ (39)**	$ 245	**$ (86)**	$ 334

(1) Represents loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

The following tables present the carrying value and fair value of Citigroup's financial instruments that are not carried at fair value. The tables below therefore exclude items measured at fair value on a recurring basis presented in the tables above.

	June 30, 2022		**Estimated fair value**		
In billions of dollars	**Carrying value**	**Estimated fair value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Investments, net of allowance	**$ 272.7**	**$ 255.0**	**$ 126.7**	**$ 124.9**	**$ 3.4**
Securities borrowed and purchased under agreements to resell	**118.6**	**118.6**	**—**	**118.6**	**—**
Loans[1][2]	**636.7**	**641.0**	**—**	**—**	**641.0**
Other financial assets[2][3]	**398.8**	**398.8**	**266.6**	**17.5**	**114.7**
Liabilities					
Deposits	**$ 1,319.5**	**$ 1,318.2**	**$ —**	**$ 1,175.0**	**$ 143.2**
Securities loaned and sold under agreements to repurchase	**133.9**	**133.9**	**—**	**133.9**	**—**
Long-term debt[4]	**168.0**	**165.5**	**—**	**161.4**	**4.1**
Other financial liabilities[5]	**159.0**	**159.0**	**—**	**22.4**	**136.6**

	December 31, 2021		Estimated fair value		
In billions of dollars	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments, net of allowance	$ 221.9	$ 221.0	$ 111.8	$ 106.4	$ 2.8
Securities borrowed and purchased under agreements to resell	110.8	110.8	—	106.4	4.4
Loans[1][2]	644.8	659.6	—	—	659.6
Other financial assets[2][3]	351.9	351.9	242.1	19.9	89.9
Liabilities					
Deposits	$ 1,315.6	$ 1,316.2	$ —	$ 1,153.9	$ 162.3
Securities loaned and sold under agreements to repurchase	134.6	134.6	—	134.5	0.1
Long-term debt[4]	171.8	184.6	—	171.9	12.7
Other financial liabilities[5]	111.1	111.1	—	17.0	94.1

(1) The carrying value of loans is net of the *Allowance for credit losses on loans* of $16.0 billion for June 30, 2022 and $16.5 billion for December 31, 2021. In addition, the carrying values exclude $0.4 billion and $0.5 billion of lease finance receivables at June 30, 2022 and December 31, 2021, respectively.
(2) Includes items measured at fair value on a nonrecurring basis.
(3) Includes cash and due from banks, deposits with banks, brokerage receivables, reinsurance recoverables and other financial instruments included in *Other assets* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.
(4) The carrying value includes long-term debt balances under qualifying fair value hedges.
(5) Includes brokerage payables, separate and variable accounts, short-term borrowings (carried at cost) and other financial instruments included in *Other liabilities* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

The estimated fair values of the Company's corporate unfunded lending commitments at June 30, 2022 and December 31, 2021 were off-balance sheet liabilities of $9.9 billion and $8.1 billion, respectively, substantially all of which are classified as Level 3. The Company does not estimate the fair values of consumer unfunded lending commitments, which are generally cancellable by providing notice to the borrower.

21. FAIR VALUE ELECTIONS

The Company may elect to report most financial instruments and certain other items at fair value on an instrument-by-instrument basis with changes in fair value reported in earnings, other than DVA (see below). The election is made upon the initial recognition of an eligible financial asset, financial liability or firm commitment or when certain specified reconsideration events occur. The fair value election may not otherwise be revoked once an election is made. The changes in fair value are recorded in current earnings. Movements in DVA are reported as a component of *AOCI*. Additional discussion regarding the applicable areas in which fair value elections were made is presented in Note 20.

The Company has elected fair value accounting for its mortgage servicing rights (MSRs). See Note 18 for additional details on Citi's MSRs.

The following table presents the changes in fair value of those items for which the fair value option has been elected:

	Changes in fair value—gains (losses)			
	Three Months Ended June 30,		Six Months Ended June 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Assets				
Securities borrowed and purchased under agreements to resell	**$ (21)**	$ (8)	**$ (83)**	$ (36)
Trading account assets	**(177)**	52	**(238)**	153
Loans				
Certain corporate loans	**(1,523)**	539	**(1,855)**	668
Consumer loans	**—**	—	**(1)**	—
Total loans	**$ (1,523)**	$ 539	**$ (1,856)**	$ 668
Other assets				
MSRs	**$ 60**	$ (21)	**$ 158**	$ 52
Certain mortgage loans HFS(1)	**(144)**	47	**(330)**	44
Total other assets	**$ (84)**	$ 26	**$ (172)**	$ 96
Total assets	**$ (1,805)**	$ 609	**$ (2,349)**	$ 881
Liabilities				
Interest-bearing deposits	**$ (168)**	$ (130)	**$ (123)**	$ (93)
Securities loaned and sold under agreements to repurchase	**19**	5	**96**	18
Trading account liabilities	**191**	8	**(449)**	10
Short-term borrowings(2)	**1,064**	327	**1,196**	192
Long-term debt(2)	**9,642**	(2,441)	**15,713**	(433)
Total liabilities	**$ 10,748**	$ (2,231)	**$ 16,433**	$ (306)

(1) Includes gains (losses) associated with interest rate lock commitments for those loans that have been originated and elected the fair value option.
(2) Includes DVA that is included in *AOCI*. See Notes 17 and 20.

Own Debt Valuation Adjustments (DVA)

Own debt valuation adjustments are recognized on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Changes in fair value of fair value option liabilities related to changes in Citigroup's own credit spreads (DVA) are reflected as a component of *AOCI*.

Among other variables, the fair value of liabilities for which the fair value option has been elected (other than non-recourse debt and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

The estimated changes in the fair value of these non-derivative liabilities due to such changes in the Company's own credit spread (or instrument-specific credit risk) were a gain of $2,592 million and a loss of $110 million for the three months ended June 30, 2022 and 2021, respectively, and a gain of $3,642 million and a loss of $148 million for the six months ended June 30, 2022 and 2021, respectively. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current credit spreads observable in the bond market into the relevant valuation technique used to value each liability as described above.

The Fair Value Option for Financial Assets and Financial Liabilities

Selected Portfolios of Securities Purchased Under Agreements to Resell, Securities Borrowed, Securities Sold Under Agreements to Repurchase, Securities Loaned and Certain Uncollateralized Short-Term Borrowings

The Company elected the fair value option for certain portfolios of fixed income securities purchased under agreements to resell and fixed income securities sold under agreements to repurchase, securities borrowed, securities loaned and certain uncollateralized short-term borrowings held primarily by broker-dealer entities in the United States, the United Kingdom and Japan. In each case, the election was made because the related interest rate risk is managed on a portfolio basis, primarily with offsetting derivative instruments that are accounted for at fair value through earnings.

Changes in fair value for transactions in these portfolios are recorded in *Principal transactions*. The related interest revenue and interest expense are measured based on the contractual rates specified in the transactions and are reported as *Interest revenue* and *Interest expense* in the Consolidated Statement of Income.

Certain Loans and Other Credit Products

Citigroup has also elected the fair value option for certain other originated and purchased loans, including certain unfunded loan products, such as guarantees and letters of credit, executed by Citigroup's lending and trading businesses. None of these credit products are highly leveraged financing commitments. Significant groups of transactions include loans and unfunded loan products that are expected to be either sold or securitized in the near term, or transactions where the economic risks are hedged with derivative instruments, such as purchased credit default swaps or total return swaps where the Company pays the total return on the underlying loans to a third party. Citigroup has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications. Fair value was not elected for most lending transactions across the Company.

The following table provides information about certain credit products carried at fair value:

	June 30, 2022		December 31, 2021	
In millions of dollars	**Trading assets**	**Loans**	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	**$ 7,655**	**$ 4,536**	$ 9,530	$ 6,082
Aggregate unpaid principal balance in excess of (less than) fair value	**152**	**195**	(100)	226
Balance of non-accrual loans or loans more than 90 days past due	**—**	**248**	—	1
Aggregate unpaid principal balance in excess of (less than) fair value for non-accrual loans or loans more than 90 days past due	**—**	**—**	—	—

In addition to the amounts reported above, $648 million and $719 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of June 30, 2022 and December 31, 2021, respectively.

Changes in the fair value of funded and unfunded credit products are classified in *Principal transactions* in Citi's Consolidated Statement of Income. Related interest revenue is measured based on the contractual interest rates and reported as *Interest revenue* on *Trading account assets* or loan interest depending on the balance sheet classifications of the credit products. The changes in fair value for the three months ended June 30, 2022 and 2021 due to instrument-specific credit risk totaled to losses of $(47) million and $(2) million, respectively. Changes in fair value due to instrument-specific credit risk are estimated based on changes in borrower-specific credit spreads and recovery assumptions.

Certain Investments in Unallocated Precious Metals

Citigroup invests in unallocated precious metals accounts (gold, silver, platinum and palladium) as part of its commodity and foreign currency trading activities or to economically hedge certain exposures from issuing structured liabilities. Under ASC 815, the investment is bifurcated into a debt host contract and a commodity forward derivative instrument. Citigroup elects the fair value option for the debt host contract, and reports the debt host contract within *Trading account assets* on the Company's Consolidated Balance Sheet. The total carrying amount of debt host contracts across unallocated precious metals accounts was approximately $0.5 billion and $0.3 billion at June 30, 2022 and December 31, 2021, respectively. The amounts are expected to fluctuate based on trading activity in future periods.

As part of its commodity and foreign currency trading activities, Citi trades unallocated precious metals investments and executes forward purchase and forward sale derivative contracts with trading counterparties. When Citi sells an unallocated precious metals investment, Citi's receivable from its depository bank is repaid and Citi derecognizes its investment in the unallocated precious metal. The forward purchase or sale contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings. As of June 30, 2022, there were approximately $22.7 billion and $15.9 billion of notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively.

Certain Investments in Private Equity and Real Estate Ventures

Citigroup invests in private equity and real estate ventures for the purpose of earning investment returns and for capital appreciation. The Company has elected the fair value option for certain of these ventures, because such investments are considered similar to many private equity or hedge fund activities in Citi's investment companies, which are reported at fair value. The fair value option brings consistency in the accounting and evaluation of these investments. All investments (debt and equity) in such private equity and real estate entities are accounted for at fair value. These investments are classified as *Investments* on Citigroup's Consolidated Balance Sheet.

Changes in the fair values of these investments are classified in *Other revenue* in the Company's Consolidated Statement of Income.

Certain Mortgage Loans Held-for-Sale (HFS)

Citigroup has elected the fair value option for certain purchased and originated prime fixed-rate and conforming adjustable-rate first mortgage loans HFS. These loans are intended for sale or securitization and are hedged with derivative instruments. The Company has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications.

The following table provides information about certain mortgage loans HFS carried at fair value:

In millions of dollars	**June 30, 2022**	December 31, 2021
Carrying amount reported on the Consolidated Balance Sheet	**$ 1,375**	$ 3,035
Aggregate fair value in excess of (less than) unpaid principal balance	**(46)**	70
Balance of non-accrual loans or loans more than 90 days past due	**5**	—
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	**1**	—

The changes in the fair values of these mortgage loans are reported in *Other revenue* in the Company's Consolidated Statement of Income. There was no net change in fair value during the six months ended June 30, 2022 and 2021 due to instrument-specific credit risk. Changes in fair value due to instrument-specific credit risk are estimated based on changes in the borrower default, prepayment and recovery forecasts in addition to instrument-specific credit spread. Related interest income continues to be measured based on the contractual interest rates and reported as *Interest revenue* in the Consolidated Statement of Income.

Certain Debt Liabilities

The Company has elected the fair value option for certain debt liabilities. The Company elected the fair value option because these exposures are considered to be trading-related positions and, therefore, are managed on a fair value basis. These positions will continue to be classified as debt, deposits or derivatives classified as *Trading account liabilities* on the Company's Consolidated Balance Sheet according to their legal form.

The following table provides information about the carrying value of notes carried at fair value, disaggregated by type of risk:

In billions of dollars	**June 30, 2022**	December 31, 2021
Interest rate linked	**$ 43.9**	$ 38.9
Foreign exchange linked	**0.1**	—
Equity linked	**36.9**	36.1
Commodity linked	**4.7**	3.9
Credit linked	**3.8**	3.7
Total	**$ 89.4**	$ 82.6

The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*. Changes in the fair value of these liabilities include accrued interest, which is also included in the change in fair value reported in *Principal transactions*.

The following table provides information about long-term debt carried at fair value:

In millions of dollars	**June 30, 2022**	December 31, 2021
Carrying amount reported on the Consolidated Balance Sheet	**$ 89,388**	$ 82,609
Aggregate unpaid principal balance in excess of (less than) fair value	**(3,011)**	(2,459)

The following table provides information about short-term borrowings carried at fair value:

In millions of dollars	**June 30, 2022**	December 31, 2021
Carrying amount reported on the Consolidated Balance Sheet	**$ 6,852**	$ 7,358
Aggregate unpaid principal balance in excess of (less than) fair value	**1**	(644)

22. GUARANTEES, LEASES AND COMMITMENTS

Citi provides a variety of guarantees and indemnifications to its customers to enhance their credit standing and enable them to complete a wide variety of business transactions. For certain contracts meeting the definition of a guarantee, the guarantor must recognize, at inception, a liability for the fair value of the obligation undertaken in issuing the guarantee.

In addition, the guarantor must disclose the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, if there were a total default by the guaranteed parties. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

For additional information regarding Citi's guarantees and indemnifications included in the tables below, as well as its other guarantees and indemnifications excluded from these tables, see Note 26 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

The following tables present information about Citi's guarantees at June 30, 2022 and December 31, 2021:

	Maximum potential amount of future payments			
In billions of dollars at June 30, 2022	**Expire within 1 year**	**Expire after 1 year**	**Total amount outstanding**	**Carrying value** *(in millions of dollars)*
Financial standby letters of credit	**$ 35.6**	**$ 57.2**	**$ 92.8**	**$ 784**
Performance guarantees	**6.3**	**5.6**	**11.9**	**74**
Derivative instruments considered to be guarantees	**18.1**	**35.8**	**53.9**	**511**
Loans sold with recourse	**—**	**1.6**	**1.6**	**15**
Securities lending indemnifications[(1)]	**120.5**	**—**	**120.5**	**—**
Credit card merchant processing[(2)]	**125.6**	**—**	**125.6**	**—**
Credit card arrangements with partners	**0.1**	**0.6**	**0.7**	**7**
Other	**0.7**	**12.0**	**12.7**	**29**
Total	**$ 306.9**	**$ 112.8**	**$ 419.7**	**$ 1,420**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	Expire within 1 year	Expire after 1 year	Total amount outstanding	Carrying value *(in millions of dollars)*
Financial standby letters of credit	$ 34.3	$ 58.4	$ 92.7	$ 791
Performance guarantees	6.6	6.4	13.0	47
Derivative instruments considered to be guarantees	14.6	48.9	63.5	514
Loans sold with recourse	—	1.7	1.7	15
Securities lending indemnifications[(1)]	121.9	—	121.9	—
Credit card merchant processing[(2)]	119.4	—	119.4	1
Credit card arrangements with partners	—	0.8	0.8	7
Other	2.0	12.0	14.0	34
Total	$ 298.8	$ 128.2	$ 427.0	$ 1,409

(1) The carrying values of securities lending indemnifications were not material for either period presented, as the probability of potential liabilities arising from these guarantees is minimal.
(2) At June 30, 2022 and December 31, 2021, this maximum potential exposure was estimated to be $126 billion and $119 billion, respectively. However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants.

Loans Sold with Recourse
Loans sold with recourse represent Citi's obligations to reimburse the buyers for loan losses under certain circumstances. Recourse refers to the clause in a sales agreement under which a seller/lender will fully reimburse the buyer/investor for any losses resulting from the purchased loans. This may be accomplished by the sellers taking back any loans that become delinquent.

In addition to the amounts shown in the tables above, Citi has recorded a repurchase reserve for its potential repurchases or make-whole liability regarding residential mortgage representation and warranty claims related to its whole loan sales to U.S. government-sponsored agencies and, to a lesser extent, private investors. The repurchase reserve was approximately $16 million and $19 million at June 30, 2022 and December 31, 2021, respectively, and these amounts are included in *Other liabilities* on the Consolidated Balance Sheet.

Credit Card Arrangements with Partners
Citi, in one of its credit card partner arrangements, provides guarantees to the partner regarding the volume of certain customer originations during the term of the agreement. To the extent that such origination targets are not met, the guarantees serve to compensate the partner for certain payments that otherwise would have been generated in connection with such originations.

Other Guarantees and Indemnifications

Credit Card Protection Programs
Citi, through its credit card businesses, provides various cardholder protection programs on several of its card products, including programs that provide insurance coverage for rental cars, coverage for certain losses associated with purchased products, price protection for certain purchases and protection for lost luggage. These guarantees are not included in the table, since the total outstanding amount of the guarantees and Citi's maximum exposure to loss cannot be quantified. The protection is limited to certain types of purchases and losses, and it is not possible to quantify the purchases that would qualify for these benefits at any given time. Citi assesses the probability and amount of its potential liability related to these programs based on the extent and nature of its historical loss experience. At June 30, 2022 and December 31, 2021, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were immaterial.

Value-Transfer Networks (Including Exchanges and Clearing Houses) (VTNs)
Citi is a member of, or shareholder in, hundreds of value-transfer networks (VTNs) (payment, clearing and settlement systems as well as exchanges) around the world. As a condition of membership, many of these VTNs require that members stand ready to pay a pro rata share of the losses incurred by the organization due to another member's default on its obligations. Citi's potential obligations may be limited to its membership interests in the VTNs, contributions to the VTN's funds, or, in certain narrow cases, to the full pro rata share. The maximum exposure is difficult to estimate as this would require an assessment of claims that have not yet occurred; however, Citi believes the risk of loss is remote given historical experience with the VTNs. Accordingly, Citi's participation in VTNs is not reported in the guarantees tables above, and there are no amounts reflected on the Consolidated Balance Sheet as of June 30, 2022 or December 31, 2021 for potential obligations that could arise from Citi's involvement with VTN associations.

Long-Term Care (LTC) Insurance Indemnification
Citi has an indemnification contingency to Brighthouse Financial in connection with Citi's sale of an insurance subsidiary. A liability under this indemnification agreement is currently remote because Brighthouse Financial would become responsible for LTC policyholder claims only when both the reinsurance provided by other parties ceases and trust assets set aside to meet these claims are not adequate. However, should events occur causing both the reinsurance protection and trust collateral to become insufficient to cover Brighthouse Financial's LTC policyholder claims, Citi will be required to either estimate and disclose a reasonably possible loss or range of loss to the extent that such an estimate can be made, or to accrue for such liability if the event becomes probable and estimable. Citi continues to closely monitor its potential exposure under this indemnification obligation. For additional information, see Note 26 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Futures and Over-the-Counter Derivatives Clearing
Citi provides clearing services on central clearing parties (CCP) for clients that need to clear exchange-traded and over-the-counter (OTC) derivatives contracts with CCPs. Based on all relevant facts and circumstances, Citi has concluded that it acts as an agent for accounting purposes in its role as clearing member for these client transactions. As such, Citi does not reflect the underlying exchange-traded or OTC derivatives contracts in its Consolidated Financial Statements. See Note 19 for a discussion of Citi's derivatives activities that are reflected in its Consolidated Financial Statements.

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers.

There are two types of margin: initial and variation. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP or depository institutions is reflected within *Brokerage payables* (payables to customers) and *Brokerage receivables* (receivables from brokers, dealers and clearing organizations) or *Cash and due from banks*, respectively.

However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin, (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets, (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately $19.5 billion and $18.7 billion as of June 30, 2022 and December 31, 2021, respectively.

Variation margin due from clients to the respective CCP, or from the CCP to clients, reflects changes in the value of the client's derivative contracts for each trading day. As a clearing member, Citi is exposed to the risk of non-performance by clients (e.g., failure of a client to post variation margin to the CCP for negative changes in the value of the client's derivative contracts). In the event of non-performance by a client, Citi would move to close out the client's positions. The CCP would typically utilize initial margin posted by the client and held by the CCP, with any remaining shortfalls required to be paid by Citi as clearing member. Citi generally holds incremental cash or securities margin posted by the client, which would typically be expected to be sufficient to mitigate Citi's credit risk in the event the client fails to perform.

As required by ASC 860-30-25-5, securities collateral posted by clients is not recognized on Citi's Consolidated Balance Sheet.

Carrying Value—Guarantees and Indemnifications

At June 30, 2022 and December 31, 2021, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately $1.4 billion and $1.4 billion, respectively. The carrying value of financial and performance guarantees is included in *Other liabilities*. For loans sold with recourse, the carrying value of the liability is included in *Other liabilities*.

Collateral

Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to $66.3 billion and $56.5 billion at June 30, 2022 and December 31, 2021, respectively. Securities and other marketable assets held as collateral amounted to $77.2 billion and $84.2 billion at June 30, 2022 and December 31, 2021, respectively. The majority of collateral is held to reimburse losses realized under securities lending indemnifications. In addition, letters of credit in favor of Citi held as collateral amounted to $4.2 billion and $4.1 billion at June 30, 2022 and December 31, 2021, respectively. Other property may also be available to Citi to cover losses under certain guarantees and indemnifications; however, the value of such property has not been determined.

Performance Risk

Presented in the tables below are the maximum potential amounts of future payments that are classified based on internal and external credit ratings. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

	Maximum potential amount of future payments			
In billions of dollars at June 30, 2022	**Investment grade**	**Non-investment grade**	**Not rated**	**Total**
Financial standby letters of credit	**$ 80.2**	**$ 10.8**	**$ 1.8**	**$ 92.8**
Performance guarantees	**9.7**	**2.2**	**—**	**11.9**
Derivative instruments deemed to be guarantees	**—**	**—**	**53.9**	**53.9**
Loans sold with recourse	**—**	**—**	**1.6**	**1.6**
Securities lending indemnifications	**—**	**—**	**120.5**	**120.5**
Credit card merchant processing	**—**	**—**	**125.6**	**125.6**
Credit card arrangements with partners	**—**	**—**	**0.7**	**0.7**
Other	**0.4**	**12.3**	**—**	**12.7**
Total	**$ 90.3**	**$ 25.3**	**$ 304.1**	**$ 419.7**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	$ 81.4	$ 11.3	$ —	$ 92.7
Performance guarantees	10.5	2.5	—	13.0
Derivative instruments deemed to be guarantees	—	—	63.5	63.5
Loans sold with recourse	—	—	1.7	1.7
Securities lending indemnifications	—	—	121.9	121.9
Credit card merchant processing	—	—	119.4	119.4
Credit card arrangements with partners	—	—	0.8	0.8
Other	—	12.0	2.0	14.0
Total	$ 91.9	$ 25.8	$ 309.3	$ 427.0

Leases

The Company’s operating leases, where Citi is a lessee, include real estate such as office space and branches and various types of equipment. These leases have a weighted-average remaining lease term of approximately six years as of June 30, 2022. The operating lease ROU asset and lease liability were $2.8 billion and $3.0 billion, respectively, as of June 30, 2022, compared to an operating lease ROU asset of $2.9 billion and lease liability of $3.1 billion as of December 31, 2021. The Company recognizes fixed lease costs on a straight-line basis throughout the lease term in the Consolidated Statement of Income. In addition, variable lease costs are recognized in the period in which the obligation for those payments is incurred.

Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

In millions of dollars	U.S.	Outside of U.S.[1]	June 30, 2022	December 31, 2021
Commercial and similar letters of credit	$ 732	$ 5,840	$ 6,572	$ 5,910
One- to four-family residential mortgages	2,048	1,692	3,740	4,351
Revolving open-end loans secured by one- to four-family residential properties	6,280	695	6,975	7,913
Commercial real estate, construction and land development	15,402	2,311	17,713	17,843
Credit card lines	608,097	92,859	700,956	700,559
Commercial and other consumer loan commitments	200,543	107,465	308,008	320,556
Other commitments and contingencies	5,228	219	5,447	5,649
Total	$ 838,330	$ 211,081	$ 1,049,411	$ 1,062,781

(1) Consumer commitments related to the business HFS countries under sales agreements are reflected in their original categories until the respective sales are completed.

The majority of unused commitments are contingent upon customers maintaining specific credit standards. Commercial commitments generally have floating interest rates and fixed expiration dates and may require payment of fees. Such fees (net of certain direct costs) are deferred and, upon exercise of the commitment, amortized over the life of the loan or, if exercise is deemed remote, amortized over the commitment period.

Other Commitments and Contingencies

Other commitments and contingencies include all other transactions related to commitments and contingencies not reported on the lines above.

Unsettled Reverse Repurchase and Securities Borrowing Agreements and Unsettled Repurchase and Securities Lending Agreements

In addition, in the normal course of business, Citigroup enters into reverse repurchase and securities borrowing agreements, as well as repurchase and securities lending agreements, which settle at a future date. At June 30, 2022 and December 31, 2021, Citigroup had approximately $130.9 billion and $126.6 billion of unsettled reverse repurchase and securities borrowing agreements, and approximately $59.4 billion and $41.1 billion of unsettled repurchase and securities lending agreements, respectively. See Note 10 for a further discussion of securities purchased under agreements to resell and securities borrowed, and securities sold under agreements to repurchase and securities loaned, including the Company's policy for offsetting repurchase and reverse repurchase agreements.

Restricted Cash

Citigroup defines restricted cash (as cash subject to withdrawal restrictions) to include cash deposited with central banks that must be maintained to meet minimum regulatory requirements, and cash set aside for the benefit of customers or for other purposes such as compensating balance arrangements or debt retirement. Restricted cash includes minimum reserve requirements with the Federal Reserve Bank and certain other central banks and cash segregated to satisfy rules regarding the protection of customer assets as required by Citigroup broker-dealers' primary regulators, including the United States Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission and the United Kingdom's Prudential Regulation Authority.

Restricted cash is included on the Consolidated Balance Sheet within the following balance sheet lines:

In millions of dollars	June 30, 2022	December 31, 2021
Cash and due from banks	$ 3,786	$ 2,786
Deposits with banks, net of allowance	13,603	10,636
Total	$ 17,389	$ 13,422

In response to the COVID-19 pandemic, the Federal Reserve Bank and certain other central banks eased regulations related to minimum required cash deposited with central banks.

23. CONTINGENCIES

The following information supplements and amends, as applicable, the disclosures in Note 23 to the Consolidated Financial Statements in Citi's First Quarter of 2022 Form 10-Q and in Note 27 to the Consolidated Financial Statements in Citi's 2021 Form 10-K. For purposes of this Note, Citigroup, its affiliates and subsidiaries and current and former officers, directors, and employees, are sometimes collectively referred to as Citigroup and Related Parties.

In accordance with ASC 450, Citigroup establishes accruals for contingencies, including any litigation, regulatory, or tax matters disclosed herein, when Citigroup believes it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Once established, accruals are adjusted from time to time, as appropriate, in light of additional information. The amount of loss ultimately incurred in relation to those matters may be substantially higher or lower than the amounts accrued for those matters.

If Citigroup has not accrued for a matter because the matter does not meet the criteria for accrual (as set forth above), or Citigroup believes an exposure to loss exists in excess of the amount accrued for a particular matter, in each case assuming a material loss is reasonably possible but not probable, Citigroup discloses the matter. In addition, for such matters, Citigroup discloses an estimate of the aggregate reasonably possible loss or range of loss in excess of the amounts accrued for those matters for which an estimate can be made. At June 30, 2022, Citigroup estimates that the reasonably possible unaccrued loss for these matters ranges up to approximately $1.2 billion in the aggregate.

As available information changes, the matters for which Citigroup is able to estimate will change, and the estimates themselves will change. In addition, while many estimates presented in financial statements and other financial disclosures involve significant judgment and may be subject to significant uncertainty, estimates of the range of reasonably possible loss arising from litigation, regulatory, tax, or other matters are subject to particular uncertainties. For example, at the time of making an estimate, Citigroup may only have preliminary or incomplete information about the facts underlying the claim; its assumptions about the future rulings of the court or other tribunal on significant issues, or the behavior and incentives of adverse parties, regulators, or tax authorities may prove to be wrong; and the outcomes it is attempting to predict are often not amenable to the use of statistical or other quantitative analytical tools. In addition, from time to time an outcome may occur that Citigroup had not accounted for in its estimates because it had deemed such an outcome to be remote. For all these reasons, the amount of loss in excess of amounts accrued in relation to matters for which an estimate has been made could be substantially higher or lower than the range of loss included in the estimate.

Subject to the foregoing, it is the opinion of Citigroup's management, based on current knowledge and after taking into account its current accruals, that the eventual outcome of all matters described in this Note would not be likely to have a material adverse effect on the consolidated financial condition of Citigroup. Nonetheless, given the substantial or indeterminate amounts sought in certain of these matters and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could, from time to time, have a material adverse effect on Citigroup's consolidated results of operations or cash flows in particular quarterly or annual periods.

For further information on ASC 450 and Citigroup's accounting and disclosure framework for contingencies, including for any litigation, regulatory, and tax matters disclosed herein, see Note 27 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Foreign Exchange Matters

Antitrust and Other Litigation: On March 31, 2022, in MICHAEL O'HIGGINS FX CLASS REPRESENTATIVE LIMITED v. BARCLAYS BANK PLC AND OTHERS and PHILLIP EVANS v. BARCLAYS BANK PLC AND OTHERS, the U.K.'s Competition Appeal Tribunal issued its judgment on certification. On April 21, 2022, both claimants applied for permission to appeal the judgment and for it to be judicially reviewed in the alternative. Additional information concerning these actions is publicly available in court filings under the case numbers 1329/7/7/19 and 1336/7/7/19.

Shareholder Derivative and Securities Litigations

On June 23, 2022, a third derivative action was filed in the Supreme Court of the State of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors, and certain current and former officers. This action is subject to consolidation with, and to the same stay as entered in, the actions captioned IN RE CITIGROUP INC. DERIVATIVE LITIGATION. Additional information concerning this action is publicly available in court filings under the docket numbers 656759/2020 and 656930/2022 (N.Y. Sup. Ct.) (Schecter, J.).

Sovereign Securities Matters

Regulatory Actions: Government and regulatory agencies are conducting investigations or making inquiries regarding Citigroup's sales and trading activities in connection with sovereign and other government-related securities. Citigroup is cooperating with these investigations and inquiries.

Antitrust and Other Litigation: On April 28, 2022, in IN RE TREASURY SECURITIES AUCTION ANTITRUST LITIGATION, plaintiffs filed a notice of appeal to the United States Court of Appeals for the Second Circuit from the district court's grant of defendants' motions to dismiss the amended consolidated class action complaint. Additional information concerning this action is publicly available in court filings under the docket numbers 15-MD-2673 (S.D.N.Y.) (Gardephe, J.) and 22-943 (2d Cir.).

On June 16, 2022, in IN RE EUROPEAN GOVERNMENT BONDS ANTITRUST LITIGATION, the court denied CGMI and CGML's motion for reconsideration of the court's March 14, 2022 decision denying CGMI and CGML's motion to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-02601 (S.D.N.Y.) (Marrero, J.).

Variable Rate Demand Obligation Litigation
On June 28, 2022, the court granted in part and denied in part defendants' partial motion to dismiss the consolidated amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-1608 (S.D.N.Y.) (Furman, J.).

24. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

Citigroup's Registration Statement on Form S-3 on file with the SEC includes its wholly owned subsidiary, Citigroup Global Markets Holdings Inc. (CGMHI), as a co-registrant. Any securities issued by CGMHI under the Form S-3 will be fully and unconditionally guaranteed by Citigroup.

The following are the Condensed Consolidating Statements of Income and Comprehensive Income for the three and six months ended June 30, 2022 and 2021, Condensed Consolidating Balance Sheet as of June 30, 2022 and December 31, 2021 and Condensed Consolidating Statement of Cash Flows for the six months ended June 30, 2022 and 2021 for Citigroup Inc., the parent holding company (Citigroup parent company), CGMHI, other Citigroup subsidiaries and eliminations and total consolidating adjustments. "Other Citigroup subsidiaries and eliminations" includes all other subsidiaries of Citigroup, intercompany eliminations and income (loss) from discontinued operations. "Consolidating adjustments" includes Citigroup parent company elimination of distributed and undistributed income of subsidiaries and investment in subsidiaries.

These Condensed Consolidating Financial Statements have been prepared and presented in accordance with SEC Regulation S-X Rule 3-10, "Financial Statements of Guarantors and Issuers of Guaranteed Securities Registered or Being Registered."

These Condensed Consolidating Financial Statements are presented for purposes of additional analysis, but should be considered in relation to the Consolidated Financial Statements of Citigroup taken as a whole.

Condensed Consolidating Statements of Income and Comprehensive Income

In millions of dollars	Three Months Ended June 30, 2022 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 1,800	$ —	$ —	$ (1,800)	$ —
Interest revenue	1	1,593	14,036	—	15,630
Interest revenue—intercompany	1,031	293	(1,324)	—	—
Interest expense	1,298	702	1,666	—	3,666
Interest expense—intercompany	150	682	(832)	—	—
Net interest income	$ (416)	$ 502	$ 11,878	$ —	$ 11,964
Commissions and fees	$ —	$ 1,228	$ 1,224	$ —	$ 2,452
Commissions and fees—intercompany	(1)	42	(41)	—	—
Principal transactions	2,032	8,213	(5,720)	—	4,525
Principal transactions—intercompany	(2,110)	(7,349)	9,459	—	—
Other revenue	319	106	272	—	697
Other revenue—intercompany	(124)	(17)	141	—	—
Total non-interest revenues	$ 116	$ 2,223	$ 5,335	$ —	$ 7,674
Total revenues, net of interest expense	$ 1,500	$ 2,725	$ 17,213	$ (1,800)	$ 19,638
Provisions for credit losses and for benefits and claims	$ —	$ 2	$ 1,272	$ —	$ 1,274
Operating expenses					
Compensation and benefits	$ (2)	$ 1,323	$ 5,151	$ —	$ 6,472
Compensation and benefits—intercompany	—	—	—	—	—
Other operating	(12)	890	5,043	—	5,921
Other operating—intercompany	4	618	(622)	—	—
Total operating expenses	$ (10)	$ 2,831	$ 9,572	$ —	$ 12,393
Equity in undistributed income of subsidiaries	$ 2,632	$ —	$ —	$ (2,632)	$ —
Income (loss) from continuing operations before income taxes	$ 4,142	$ (108)	$ 6,369	$ (4,432)	$ 5,971
Provision (benefit) for income taxes	(405)	101	1,486	—	1,182
Income (loss) from continuing operations	$ 4,547	$ (209)	$ 4,883	$ (4,432)	$ 4,789
Income (loss) from discontinued operations, net of taxes	—	—	(221)	—	(221)
Net income before attribution of noncontrolling interests	$ 4,547	$ (209)	$ 4,662	$ (4,432)	$ 4,568
Noncontrolling interests	—	—	21	—	21
Net income (loss)	$ 4,547	$ (209)	$ 4,641	$ (4,432)	$ 4,547
Comprehensive income					
Add: Other comprehensive income (loss)	$ (1,910)	$ 647	$ 889	$ (1,536)	$ (1,910)
Total Citigroup comprehensive income (loss)	$ 2,637	$ 438	$ 5,530	$ (5,968)	$ 2,637
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (53)	$ —	$ (53)
Add: Net income attributable to noncontrolling interests	—	—	21	—	21
Total comprehensive income (loss)	$ 2,637	$ 438	$ 5,498	$ (5,968)	$ 2,605

Condensed Consolidating Statements of Income and Comprehensive Income

	Six Months Ended June 30, 2022				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 2,050	$ —	$ —	$ (2,050)	$ —
Interest revenue	1	2,355	26,425	—	28,781
Interest revenue—intercompany	1,933	432	(2,365)	—	—
Interest expense	2,477	896	2,573	—	5,946
Interest expense—intercompany	240	1,036	(1,276)	—	—
Net interest income	$ (783)	$ 855	$ 22,763	$ —	$ 22,835
Commissions and fees	$ —	$ 2,589	$ 2,431	$ —	$ 5,020
Commissions and fees—intercompany	(1)	126	(125)	—	—
Principal transactions	3,894	9,810	(4,589)	—	9,115
Principal transactions—intercompany	(3,959)	(7,437)	11,396	—	—
Other revenue	388	264	1,202	—	1,854
Other revenue—intercompany	(181)	(35)	216	—	—
Total non-interest revenues	$ 141	$ 5,317	$ 10,531	$ —	$ 15,989
Total revenues, net of interest expense	$ 1,408	$ 6,172	$ 33,294	$ (2,050)	$ 38,824
Provisions for credit losses and for benefits and claims	$ —	$ 1	$ 2,028	$ —	$ 2,029
Operating expenses					
Compensation and benefits	$ (2)	$ 2,835	$ 10,459	$ —	$ 13,292
Compensation and benefits—intercompany	11	—	(11)	—	—
Other operating	12	1,546	10,708	—	12,266
Other operating—intercompany	7	1,372	(1,379)	—	—
Total operating expenses	$ 28	$ 5,753	$ 19,777	$ —	$ 25,558
Equity in undistributed income of subsidiaries	$ 6,766	$ —	$ —	$ (6,766)	$ —
Income (loss) from continuing operations before income taxes	$ 8,146	$ 418	$ 11,489	$ (8,816)	$ 11,237
Provision (benefit) for income taxes	(707)	(115)	2,945	—	2,123
Income (loss) from continuing operations	$ 8,853	$ 533	$ 8,544	$ (8,816)	$ 9,114
Income (loss) from discontinued operations, net of taxes	—	—	(223)	—	(223)
Net income before attribution of noncontrolling interests	$ 8,853	$ 533	$ 8,321	$ (8,816)	$ 8,891
Noncontrolling interests	—	—	38	—	38
Net income (loss)	$ 8,853	$ 533	$ 8,283	$ (8,816)	$ 8,853
Comprehensive income					
Add: Other comprehensive income (loss)	$ (6,730)	$ 1,096	$ (5,269)	$ 4,173	$ (6,730)
Total Citigroup comprehensive income (loss)	$ 2,123	$ 1,629	$ 3,014	$ (4,643)	$ 2,123
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (82)	$ —	$ (82)
Add: Net income attributable to noncontrolling interests	—	—	38	—	38
Total comprehensive income (loss)	$ 2,123	$ 1,629	$ 2,970	$ (4,643)	$ 2,079

Condensed Consolidating Statements of Income and Comprehensive Income

	Three Months Ended June 30, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 3,700	$ —	$ —	$ (3,700)	$ —
Interest revenue	—	1,014	11,449	—	12,463
Interest revenue—intercompany	954	136	(1,090)	—	—
Interest expense	1,209	221	555	—	1,985
Interest expense—intercompany	94	330	(424)	—	—
Net interest income	$ (349)	$ 599	$ 10,228	$ —	$ 10,478
Commissions and fees	$ —	$ 1,836	$ 1,538	$ —	$ 3,374
Commissions and fees—intercompany	(1)	88	(87)	—	—
Principal transactions	(892)	919	2,277	—	2,304
Principal transactions—intercompany	910	(110)	(800)	—	—
Other revenue	(4)	139	1,462	—	1,597
Other revenue—intercompany	3	(8)	5	—	—
Total non-interest revenues	$ 16	$ 2,864	$ 4,395	$ —	$ 7,275
Total revenues, net of interest expense	$ 3,367	$ 3,463	$ 14,623	$ (3,700)	$ 17,753
Provisions for credit losses and for benefits and claims	$ 2	$ 3	$ (1,071)	$ —	$ (1,066)
Operating expenses					
Compensation and benefits	$ —	$ 1,303	$ 4,679	$ —	$ 5,982
Compensation and benefits—intercompany	24	—	(24)	—	—
Other operating	14	680	4,795	—	5,489
Other operating—intercompany	3	808	(811)	—	—
Total operating expenses	$ 41	$ 2,791	$ 8,639	$ —	$ 11,471
Equity in undistributed income of subsidiaries	$ 2,567	$ —	$ —	$ (2,567)	$ —
Income (loss) from continuing operations before income taxes	$ 5,891	$ 669	$ 7,055	$ (6,267)	$ 7,348
Provision (benefit) for income taxes	(302)	(119)	1,576	—	1,155
Income (loss) from continuing operations	$ 6,193	$ 788	$ 5,479	$ (6,267)	$ 6,193
Income (loss) from discontinued operations, net of taxes	—	—	10	—	10
Net income (loss) before attribution of noncontrolling interests	$ 6,193	$ 788	$ 5,489	$ (6,267)	$ 6,203
Noncontrolling interests	—	—	10	—	10
Net income (loss)	$ 6,193	$ 788	$ 5,479	$ (6,267)	$ 6,193
Comprehensive income					
Add: Other comprehensive income (loss)	$ (109)	$ 7	$ (1,966)	$ 1,959	$ (109)
Total Citigroup comprehensive income (loss)	$ 6,084	$ 795	$ 3,513	$ (4,308)	$ 6,084
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ 18	$ —	$ 18
Add: Net income attributable to noncontrolling interests	—	—	10	—	10
Total comprehensive income (loss)	$ 6,084	$ 795	$ 3,541	$ (4,308)	$ 6,112

Condensed Consolidating Statements of Income and Comprehensive Income

In millions of dollars	Six Months Ended June 30, 2021 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 3,800	$ —	$ —	$ (3,800)	$ —
Interest revenue	—	1,985	23,012	—	24,997
Interest revenue—intercompany	1,912	281	(2,193)	—	—
Interest expense	2,421	444	1,148	—	4,013
Interest expense—intercompany	178	659	(837)	—	—
Net interest income	$ (687)	$ 1,163	$ 20,508	$ —	$ 20,984
Commissions and fees	$ —	$ 3,997	$ 3,047	$ —	$ 7,044
Commissions and fees—intercompany	(27)	135	(108)	—	—
Principal transactions	877	6,577	(1,237)	—	6,217
Principal transactions—intercompany	(968)	(4,348)	5,316	—	—
Other revenue	51	242	2,882	—	3,175
Other revenue—intercompany	(61)	(28)	89	—	—
Total non-interest revenues	$ (128)	$ 6,575	$ 9,989	$ —	$ 16,436
Total revenues, net of interest expense	$ 2,985	$ 7,738	$ 30,497	$ (3,800)	$ 37,420
Provisions for credit losses and for benefits and claims	$ 2	$ 7	$ (3,130)	$ —	$ (3,121)
Operating expenses					
Compensation and benefits	$ 28	$ 2,637	$ 9,318	$ —	$ 11,983
Compensation and benefits—intercompany	48	—	(48)	—	—
Other operating	25	1,322	9,554	—	10,901
Other operating—intercompany	6	1,488	(1,494)	—	—
Total operating expenses	$ 107	$ 5,447	$ 17,330	$ —	$ 22,884
Equity in undistributed income of subsidiaries	$ 10,740	$ —	$ —	$ (10,740)	$ —
Income (loss) from continuing operations before income taxes	$ 13,616	$ 2,284	$ 16,297	$ (14,540)	$ 17,657
Provision (benefit) for income taxes	(519)	333	3,673	—	3,487
Income (loss) from continuing operations	$ 14,135	$ 1,951	$ 12,624	$ (14,540)	$ 14,170
Income (loss) from discontinued operations, net of taxes	—	—	8	—	8
Net income (loss) before attribution of noncontrolling interests	$ 14,135	$ 1,951	$ 12,632	$ (14,540)	$ 14,178
Noncontrolling interests	—	—	43	—	43
Net income (loss)	$ 14,135	$ 1,951	$ 12,589	$ (14,540)	$ 14,135
Comprehensive income					
Add: Other comprehensive income (loss)	$ (3,062)	$ (43)	$ (1,429)	$ 1,472	$ (3,062)
Total Citigroup comprehensive income (loss)	$ 11,073	$ 1,908	$ 11,160	$ (13,068)	$ 11,073
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (40)	$ —	$ (40)
Add: Net income attributable to noncontrolling interests	—	—	43	—	43
Total comprehensive income (loss)	$ 11,073	$ 1,908	$ 11,163	$ (13,068)	$ 11,076

Condensed Consolidating Balance Sheet

In millions of dollars	June 30, 2022 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 1,103	$ 23,799	$ —	$ 24,902
Cash and due from banks—intercompany	14	5,357	(5,371)	—	—
Deposits with banks, net of allowance	—	8,105	251,023	—	259,128
Deposits with banks—intercompany	3,500	10,417	(13,917)	—	—
Securities borrowed and purchased under resale agreements	—	301,364	59,970	—	361,334
Securities borrowed and purchased under resale agreements—intercompany	—	19,070	(19,070)	—	—
Trading account assets	193	191,486	149,196	—	340,875
Trading account assets—intercompany	908	2,991	(3,899)	—	—
Investments, net of allowance	1	234	513,643	—	513,878
Loans, net of unearned income	—	1,862	655,471	—	657,333
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(15,952)	—	(15,952)
Total loans, net	$ —	$ 1,862	$ 639,519	$ —	$ 641,381
Advances to subsidiaries	$ 142,832	$ —	$ (142,832)	$ —	$ —
Investments in subsidiaries	222,196	—	—	(222,196)	—
Other assets, net of allowance[1]	11,177	90,338	137,891	—	239,406
Other assets—intercompany	3,857	77,889	(81,746)	—	—
Total assets	**$ 384,678**	**$ 710,216**	**$ 1,508,206**	**$ (222,196)**	**$ 2,380,904**
Liabilities and equity					
Deposits	$ —	$ —	$ 1,321,848	$ —	$ 1,321,848
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	179,917	18,555	—	198,472
Securities loaned and sold under repurchase agreements—intercompany	—	63,380	(63,380)	—	—
Trading account liabilities	29	114,029	66,395	—	180,453
Trading account liabilities—intercompany	141	2,624	(2,765)	—	—
Short-term borrowings	—	18,372	21,682	—	40,054
Short-term borrowings—intercompany	—	19,557	(19,557)	—	—
Long-term debt	167,874	71,603	17,948	—	257,425
Long-term debt—intercompany	—	86,144	(86,144)	—	—
Advances from subsidiaries	14,834	—	(14,834)	—	—
Other liabilities	2,639	97,035	83,352	—	183,026
Other liabilities—intercompany	147	17,915	(18,062)	—	—
Stockholders' equity	199,014	39,640	183,168	(222,196)	199,626
Total liabilities and equity	**$ 384,678**	**$ 710,216**	**$ 1,508,206**	**$ (222,196)**	**$ 2,380,904**

(1) *Other assets* for Citigroup parent company at June 30, 2022 included $36.8 billion of placements to Citibank and its branches, of which $27.1 billion had a remaining term of less than 30 days.

Condensed Consolidating Balance Sheet

	December 31, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 834	$ 26,681	$ —	$ 27,515
Cash and due from banks—intercompany	17	6,890	(6,907)	—	—
Deposits with banks, net of allowance	—	7,936	226,582	—	234,518
Deposits with banks—intercompany	3,500	11,005	(14,505)	—	—
Securities borrowed and purchased under resale agreements	—	269,608	57,680	—	327,288
Securities borrowed and purchased under resale agreements—intercompany	—	23,362	(23,362)	—	—
Trading account assets	248	189,841	141,856	—	331,945
Trading account assets—intercompany	1,215	1,438	(2,653)	—	—
Investments, net of allowance	1	224	512,597	—	512,822
Loans, net of unearned income	—	2,293	665,474	—	667,767
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(16,455)	—	(16,455)
Total loans, net	$ —	$ 2,293	$ 649,019	$ —	$ 651,312
Advances to subsidiaries	$ 142,144	$ —	$ (142,144)	$ —	$ —
Investments in subsidiaries	223,303	—	—	(223,303)	—
Other assets, net of allowance[1]	10,589	69,312	126,112	—	206,013
Other assets—intercompany	2,737	60,567	(63,304)	—	—
Total assets	$ 383,754	$ 643,310	$ 1,487,652	$ (223,303)	$ 2,291,413
Liabilities and equity					
Deposits	$ —	$ —	$ 1,317,230	$ —	$ 1,317,230
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	171,818	19,467	—	191,285
Securities loaned and sold under repurchase agreements—intercompany	—	62,197	(62,197)	—	—
Trading account liabilities	17	122,383	39,129	—	161,529
Trading account liabilities—intercompany	777	500	(1,277)	—	—
Short-term borrowings	—	13,425	14,548	—	27,973
Short-term borrowings—intercompany	—	17,230	(17,230)	—	—
Long-term debt	164,945	61,416	28,013	—	254,374
Long-term debt—intercompany	—	76,335	(76,335)	—	—
Advances from subsidiaries	13,469	—	(13,469)	—	—
Other liabilities	2,574	68,206	65,570	—	136,350
Other liabilities—intercompany	—	11,774	(11,774)	—	—
Stockholders' equity	201,972	38,026	185,977	(223,303)	202,672
Total liabilities and equity	$ 383,754	$ 643,310	$ 1,487,652	$ (223,303)	$ 2,291,413

(1) *Other assets* for Citigroup parent company at December 31, 2021 included $30.5 billion of placements to Citibank and its branches, of which $19.5 billion had a remaining term of less than 30 days.

Condensed Consolidating Statement of Cash Flows

	Six Months Ended June 30, 2022				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	**$ (6,787)**	**$ (5,447)**	**$ 8,965**	**$ —**	**$ (3,269)**
Cash flows from investing activities of continuing operations					
Available-for-sale debt securities:					
Purchases of investments	**$ —**	**$ —**	**$ (123,528)**	**$ —**	**$ (123,528)**
Proceeds from sales of investments	**—**	**—**	**79,952**	**—**	**79,952**
Proceeds from maturities of investments	**—**	**—**	**76,871**	**—**	**76,871**
Held-to-maturity debt securities:					
Purchases of investments	**—**	**—**	**(34,317)**	**—**	**(34,317)**
Proceeds from maturities of investments	**—**	**—**	**5,821**	**—**	**5,821**
Change in loans	**—**	**—**	**(14,790)**	**—**	**(14,790)**
Proceeds from sales and securitizations of loans	**—**	**—**	**1,562**	**—**	**1,562**
Proceeds from divestitures	**—**	**—**	**1,940**	**—**	**1,940**
Change in securities borrowed and purchased under agreements to resell	**—**	**(27,194)**	**(6,852)**	**—**	**(34,046)**
Changes in investments and advances—intercompany	**(2,951)**	**(16,450)**	**19,401**	**—**	**—**
Other investing activities	**—**	**(25)**	**(2,741)**	**—**	**(2,766)**
Net cash provided by (used in) investing activities of continuing operations	**$ (2,951)**	**$ (43,669)**	**$ 3,319**	**$ —**	**$ (43,301)**
Cash flows from financing activities of continuing operations					
Dividends paid	**$ (2,514)**	**$ (266)**	**$ 266**	**$ —**	**$ (2,514)**
Treasury stock acquired	**(3,200)**	**—**	**—**	**—**	**(3,200)**
Proceeds (repayments) from issuance of long-term debt, net	**14,418**	**21,082**	**(3,635)**	**—**	**31,865**
Proceeds (repayments) from issuance of long-term debt—intercompany, net	**—**	**11,110**	**(11,110)**	**—**	**—**
Change in deposits	**—**	**—**	**25,360**	**—**	**25,360**
Change in securities loaned and sold under agreements to repurchase	**—**	**9,282**	**(2,095)**	**—**	**7,187**
Change in short-term borrowings	**—**	**4,947**	**7,134**	**—**	**12,081**
Net change in short-term borrowings and other advances—intercompany	**1,365**	**1,027**	**(2,392)**	**—**	**—**
Capital contributions from (to) parent	**—**	**250**	**(250)**	**—**	**—**
Other financing activities	**(334)**	**1**	**(1)**	**—**	**(334)**
Net cash provided by (used in) financing activities of continuing operations	**$ 9,735**	**$ 47,433**	**$ 13,277**	**$ —**	**$ 70,445**
Effect of exchange rate changes on cash and due from banks	**$ —**	**$ —**	**$ (1,878)**	**$ —**	**$ (1,878)**
Change in cash and due from banks and deposits with banks	**$ (3)**	**$ (1,683)**	**$ 23,683**	**$ —**	**$ 21,997**
Cash and due from banks and deposits with banks at beginning of period	**3,517**	**26,665**	**231,851**	**—**	**262,033**
Cash and due from banks and deposits with banks at end of period	**$ 3,514**	**$ 24,982**	**$ 255,534**	**$ —**	**$ 284,030**
Cash and due from banks	**$ 14**	**$ 6,460**	**$ 18,428**	**$ —**	**$ 24,902**
Deposits with banks, net of allowance	**3,500**	**18,522**	**237,106**	**—**	**259,128**
Cash and due from banks and deposits with banks at end of period	**$ 3,514**	**$ 24,982**	**$ 255,534**	**$ —**	**$ 284,030**
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the period for income taxes	**$ (15)**	**$ (8)**	**$ 1,684**	**$ —**	**$ 1,661**
Cash paid during the period for interest	**1,305**	**1,869**	**3,110**	**—**	**6,284**
Non-cash investing activities					
Transfer of investment securities from AFS to HTM	**$ —**	**$ —**	**$ 21,522**	**$ —**	**$ 21,522**
Decrease in net loans associated with divestitures reclassified to HFS	**—**	**—**	**17,758**	**—**	**17,758**
Decrease in goodwill associated with divestitures reclassified to HFS	**—**	**—**	**873**	**—**	**873**
Transfers to loans HFS (*Other assets*) from loans	**—**	**—**	**1,874**	**—**	**1,874**
Non-cash financing activities					
Decrease in deposits associated with divestitures reclassified to HFS	**$ —**	**$ —**	**$ 20,741**	**$ —**	**$ 20,741**

Condensed Consolidating Statement of Cash Flows

	Six Months Ended June 30, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ 1,429	$ 5,912	$ 16,222	$ —	$ 23,563
Cash flows from investing activities of continuing operations					
Available-for-sale debt securities:					
Purchases of investments	$ —	$ —	$ (114,240)	$ —	$ (114,240)
Proceeds from sales of investments	—	—	66,135	—	66,135
Proceeds from maturities of investments	—	—	62,904	—	62,904
Held-to-maturity debt securities:					
Purchases of investments	—	—	(87,049)	—	(87,049)
Proceeds from maturities of investments	—	—	12,291	—	12,291
Change in loans	—	—	(3,088)	—	(3,088)
Proceeds from sales and securitizations of loans	—	—	869	—	869
Change in securities borrowed and purchased under agreements to resell	—	(14,084)	(251)	—	(14,335)
Changes in investments and advances—intercompany	(2,424)	(7,360)	9,784	—	—
Other investing activities	—	(15)	(1,583)	—	(1,598)
Net cash provided by (used in) investing activities of continuing operations	$ (2,424)	$ (21,459)	$ (54,228)	$ —	$ (78,111)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (2,663)	$ (187)	$ 187	$ —	$ (2,663)
Issuance of preferred stock	2,300	—	—	—	2,300
Redemption of preferred stock	(3,785)	—	—	—	(3,785)
Treasury stock acquired	(4,381)	—	—	—	(4,381)
Proceeds (repayments) from issuance of long-term debt, net	7,576	8,446	(16,405)	—	(383)
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	11,040	(11,040)	—	—
Change in deposits	—	—	29,610	—	29,610
Change in securities loaned and sold under agreements to repurchase	—	(9,152)	31,444	—	22,292
Change in short-term borrowings	—	3,358	(1,410)	—	1,948
Net change in short-term borrowings and other advances—intercompany	772	4,885	(5,657)	—	—
Other financing activities	(324)	—	—	—	(324)
Net cash provided by financing activities of continuing operations	$ (505)	$ 18,390	$ 26,729	$ —	$ 44,614
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (443)	$ —	$ (443)
Change in cash and due from banks and deposits with banks	$ (1,500)	$ 2,843	$ (11,720)	$ —	$ (10,377)
Cash and due from banks and deposits with banks at beginning of period	4,516	20,112	284,987	—	309,615
Cash and due from banks and deposits with banks at end of period	$ 3,016	$ 22,955	$ 273,267	$ —	$ 299,238
Cash and due from banks	$ 16	$ 6,642	$ 20,459	$ —	$ 27,117
Deposits with banks, net of allowance	3,000	16,313	252,808	—	272,121
Cash and due from banks and deposits with banks at end of period	$ 3,016	$ 22,955	$ 273,267	$ —	$ 299,238
Supplemental disclosure of cash flow information for continuing operations					
Cash paid during the period for income taxes	$ (1,437)	$ 649	$ 2,964	$ —	$ 2,176
Cash paid during the period for interest	1,287	1,197	1,442	—	3,926
Non-cash investing activities					
Transfers to loans HFS from loans	$ —	$ —	$ 961	$ —	$ 961

UNREGISTERED SALES OF EQUITY SECURITIES, REPURCHASES OF EQUITY SECURITIES AND DIVIDENDS

Unregistered Sales of Equity Securities
None.

Equity Security Repurchases
All large banks, including Citi, are subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see “Capital Resources—Regulatory Capital Buffers” and “Risk Factors—Strategic Risks” in Citi’s 2021 Form 10-K.

As indicated in the table below, Citi repurchased $250 million of common shares during the second quarter of 2022. All shares repurchased were added to treasury stock. For information on Citi’s pause of common share repurchases, see “Executive Summary” above.

The following table summarizes Citi’s common share repurchases:

In millions, except per share amounts	Total shares purchased	Average price paid per share
April 2022		
Open market repurchases	—	$ —
Employee transactions(1)	—	—
May 2022		
Open market repurchases	—	—
Employee transactions(1)	—	—
June 2022		
Open market repurchases	**5.3**	**47.07**
Employee transactions(1)	—	—
Total for 2Q22	**5.3**	**$ 47.07**

(1) During the second quarter, pursuant to Citigroup’s Board of Directors’ authorization, Citi withheld an insignificant number of shares of common stock, added to treasury stock, related to activity on employee stock programs to satisfy the employee tax requirements.

Dividends
Citi paid common dividends of $0.51 per share during the first and second quarters of 2022, and on July 21, 2022, declared common dividends of $0.51 per share for the third quarter of 2022. As previously announced, Citi intends to maintain its current quarterly common dividend of $0.51 per share, subject to financial and macroeconomic conditions as well as Board of Directors’ approval.

As discussed above, Citi’s ability to pay common stock dividends is subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see “Capital Resources—Regulatory Capital Buffers” and “Risk Factors—Strategic Risks” in Citi’s 2021 Form 10-K.

Any dividend on Citi’s outstanding common stock would also need to be in compliance with Citi’s obligations on its outstanding preferred stock.

On July 21, 2022, Citi declared preferred dividends of approximately $277 million for the third quarter of 2022.

For information on the ability of Citigroup’s subsidiary depository institutions to pay dividends, see Note 18 to the Consolidated Financial Statements in Citi’s 2021 Form 10-K.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 3rd day of August, 2022.

CITIGROUP INC.
(Registrant)

By /s/ Mark A. L. Mason
Mark A. L. Mason
Chief Financial Officer
(Principal Financial Officer)

By /s/ Johnbull E. Okpara
Johnbull E. Okpara
Controller and Chief Accounting Officer
(Principal Accounting Officer)

GLOSSARY OF TERMS AND ACRONYMS

The following is a list of terms and acronyms that are used in this Quarterly Report on Form 10-Q and other Citigroup SEC filings and presentations.

* Denotes a Citi metric

2021 Annual Report on Form 10-K: Annual report on Form 10-K for year ended December 31, 2021, filed with the SEC.

2021 Form 10-K: Current Report on Form 8-K dated May 10, 2022 (see "Overview" above) together with the 2021 Annual Report on Form 10-K.

90+ days past due delinquency rate*: Represents consumer loans that are past due by 90 or more days, divided by that period's total EOP loans.

ABS: Asset-backed securities

ACL: Allowance for credit losses

ACLL: Allowance for credit losses on loans

ACLUC: Allowance for credit losses on unfunded lending commitments

AFS: Available-for-sale

ALCO: Asset Liability Committee

Amortized cost: Amount at which a financing receivable or investment is originated or acquired, adjusted for accretion or amortization of premium, discount, and net deferred fees or costs, collection of cash, charge-offs, foreign exchange, and fair value hedge accounting adjustments. For AFS securities, amortized cost is also reduced by any impairment losses recognized in earnings. Amortized cost is not reduced by the allowance for credit losses, except where explicitly presented net.

AOCI: Accumulated other comprehensive income (loss)

ARM: Adjustable rate mortgage(s)

ASC: Accounting Standards Codification under GAAP issued by the FASB.

Asia Consumer: Asia Consumer Banking

ASU: Accounting Standards Update under GAAP issued by the FASB.

AUC: Assets under custody

AUM: Assets under management. Represent assets managed on behalf of Citi's clients.

Available liquidity resources*: Resources available at the balance sheet date to support Citi's client and business needs, including HQLA assets; additional unencumbered securities, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi's HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Basel III: Liquidity and capital rules adopted by the FRB based on an internationally agreed set of measures developed by the Basel Committee on Banking Supervision.

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities or other obligations, issued by VIEs that Citi consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

BHC: Bank holding company

Book value per share*: EOP common equity divided by EOP common shares outstanding.

Bps: Basis points. One basis point equals 1/100th of one percent.

Branded cards: Citi's branded cards business with a portfolio of proprietary cards (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco).

Build: A net increase in ACL through the provision for credit losses.

Cards: Citi's credit cards' businesses or activities.

CCAR: Comprehensive Capital Analysis and Review

CCO: Chief Compliance Officer

CDS: Credit default swaps

CECL: Current expected credit losses

CEO: Chief Executive Officer

CET1 Capital: Common Equity Tier 1 Capital. See "Capital Resources—Components of Citigroup Capital" above for the components of CET1.

CET1 Capital ratio*: Common Equity Tier 1 Capital ratio. A primary regulatory capital ratio representing end-of-period CET1 Capital divided by total risk-weighted assets.

CFO: Chief Financial Officer

CFTC: Commodity Futures Trading Commission

CGMHI: Citigroup Global Markets Holdings Inc.

Citi: Citigroup Inc.

Citibank or CBNA: Citibank, N.A. (National Association)

Classifiably managed: Loans primarily evaluated for credit risk based on internal risk rating classification.

Client assets: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

CLO: Collateralized loan obligations

Collateral dependent: A loan is considered collateral dependent when repayment of the loan is expected to be provided substantially through the operation or sale of the collateral when the borrower is experiencing financial difficulty, including when foreclosure is deemed probable based on borrower delinquency.

Commercial cards: Provides a wide range of payment services to corporate and public sector clients worldwide through commercial card products. Services include procurement, corporate travel and entertainment, expense management services, and business-to-business payment solutions.

Consent orders: In October 2020, Citigroup and Citibank entered into consent orders with the Federal Reserve and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls.

CRE: Commercial real estate

Credit card spend volume*: Dollar amount of card customers' purchases, net of returns. Also known as purchase sales.

Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again (or vice versa). The duration of a credit cycle can vary from a couple of years to several years.

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity), which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller).

Critical Audit Matters: Audit matters communicated by KPMG to Citi's Audit Committee of the Board of Directors, relating to accounts or disclosures that are material to the consolidated financial statements and involved especially challenging, subjective or complex judgments. See "Report of Independent Registered Public Accounting Firm" in Citi's Annual Reports on Form 10-K.

Criticized: Criticized loans, lending-related commitments and derivative receivables that are classified as special mention, substandard and doubtful categories for regulatory purposes.

CRO: Chief Risk Officer

CTA: Currency translation adjustment, or cumulative translation adjustment. A separate component of equity within *AOCI* reported net of tax. For Citi, represents the impact of translating non-USD balance sheet items into USD each period. The CTA amount in EOP *AOCI* is a cumulative balance, net of tax.

CVA: Credit valuation adjustment

Delinquency managed: Loans primarily evaluated for credit risk based on delinquencies, FICO scores and the value of underlying collateral.

Dividend payout ratio*: Represents dividends declared per common share as a percentage of net income per diluted share.

Dodd-Frank Act: Wall Street Reform and Consumer Protection Act

DPD: Days past due

DSA: Deferred stock awards

DTA: Deferred tax asset

DVA: Debit valuation adjustment

EC: European Commission

Efficiency ratio*: A ratio signifying how much of a dollar in expenses (as a percentage) it takes to generate one dollar in revenue. Represents total operating expenses divided by total revenues, net.

EMEA: Europe, Middle East and Africa

EOP: End-of-period

EPS*: Earnings per share

ERISA: Employee Retirement Income Security Act of 1974

ETR: Effective tax rate

EU: European Union

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

FFIEC: Federal Financial Institutions Examination Council

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICO: Fair Issac Corporation

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

FINRA: Financial Industry Regulatory Authority

Firm: Citigroup Inc.

FRBNY: Federal Reserve Bank of New York

Freddie Mac: Federal Home Loan Mortgage Corporation

Free standing derivatives: A derivative contract entered into either separate and apart from any of the Company's other financial instruments or equity transactions, or in conjunction with some other transaction and legally detachable and separately exercisable.

FTCs: Foreign tax credit carry-forwards

FTE: Full-time employee

FVA: Funding valuation adjustment

FX: Foreign exchange

FX translation: The impact of converting non-U.S.-dollar currencies into U.S. dollars.

G7: Group of Seven nations. Countries in the G7 are Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

GAAP or U.S. GAAP: Generally accepted accounting principles in the United States of America.

Ginnie Mae: Government National Mortgage Association

Global Wealth: Global Wealth Management

GSIB: Global systemically important banks

HELOC: Home equity line of credit

HFI loans: Loans that are held-for-investment (i.e., excludes loans held-for-sale).

HFS: Held-for-sale

HQLA: High-quality liquid assets. Consist of cash and certain high-quality liquid securities as defined in the LCR rule.

HTM: Held-to-maturity

Hyperinflation: Extreme economic inflation with prices rising at a very high rate in a very short time. Under U.S. GAAP, entities operating in a hyperinflationary economy need to change their functional currency to the U.S. dollar. Once an entity switches its functional currency to the U.S. dollar, the CTA balance is frozen.

IBOR: Interbank Offered Rate

ICG: Institutional Clients Group

ICRM: Independent Compliance Risk Management

IPO: Initial public offering

ISDA: International Swaps and Derivatives Association

KM: Key financial and non-financial metric used by management when evaluating consolidated and/or individual business results.

KPMG LLP: Citi's Independent Registered Public Accounting Firm.

LATAM: Latin America, which for Citi, includes Mexico.

LCR: Liquidity coverage ratio. Represents HQLA divided by net outflows in the period.

LDA: Loss Distribution Approach

LGD: Loss given default

LIBOR: London Interbank Offered Rate

LLC: Limited Liability Company

LTD: Long-term debt

LTV: Loan-to-value. For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Master netting agreement: A single agreement with a counterparty that permits multiple transactions governed by that agreement to be terminated or accelerated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due).

MBS: Mortgage-backed securities

MCA: Manager's control assessment

MD&A: Management's discussion and analysis

Measurement alternative: Measures equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer.

Mexico Consumer: Mexico Consumer Banking

Mexico Consumer/SBMM: Mexico Consumer Banking and Small Business and Middle-Market Banking

Mexico SBMM: Mexico Small Business and Middle-Market Banking

Moody's: Moody's Investor Services

MSRs: Mortgage servicing rights

MTM: Mark to market

N/A: Data is not applicable or available for the period presented.

NAA: Non-accrual assets. Consists of non-accrual loans and OREO.

NAL: Non-accrual loans. Loans for which interest income is not recognized on an accrual basis. Loans (other than credit card loans and certain consumer loans insured by U.S. government-sponsored agencies) are placed on non-accrual status when full payment of principal and interest is not expected, regardless of delinquency status, or when principal and interest have been in default for a period of 90 days or more unless the loan is both well secured and in the process of collection. Collateral-dependent loans are typically maintained on non-accrual status.

NAV: Net asset value

NCL(s): Net credit losses. Represents gross credit losses, less gross credit recoveries.

NCL ratio*: Represents net credit losses (recoveries) (annualized), divided by average loans for the reporting period.

Net interchange income: Includes the following components:

- Interchange revenue: Fees earned from merchants based on Citi's credit and debit card customers' sales transactions.
- Reward costs: The cost to Citi for points earned by cardholders enrolled in credit card rewards programs generally tied to sales transactions.
- Partner payments: Payments to co-brand credit card partners based on the cost of loyalty program rewards earned by cardholders on credit card transactions.

NII: Net interest income. Represents total interest revenue less total interest expenses.

NIM*: Net interest margin expressed as a yield percentage, calculated as annualized net interest income divided by average interest-earning assets for the period.

NIR: Non-interest revenues

NM: Not meaningful

Noncontrolling interests: The portion of an investment that has been consolidated by Citi that is not 100% owned by Citi.

Non-GAAP financial measure: Management uses these financial measures because it believes they provide information to enable investors to understand the underlying operational performance and trends of Citi and its businesses.

NSFR: Net stable funding ratio

O/S: Outstanding

OCC: Office of the Comptroller of the Currency

OCI: Other comprehensive income (loss)

OREO: Other real estate owned

OTTI: Other-than-temporary impairment

Over-the-counter cleared (OTC-cleared) derivatives: Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

Over-the-counter (OTC) derivatives: Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

Parent company: Citigroup Inc.

Participating securities: Represents unvested share-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings per share calculation using the two-class method. Citi grants RSUs to certain employees under its share-based compensation programs, which entitle the recipients to receive non-forfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method for calculating EPS, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

PBWM: Personal Banking and Wealth Management

PCD: Purchased credit-deteriorated assets are financial assets that as of the date of acquisition have experienced a more-than-insignificant deterioration in credit quality since origination, as determined by the Company.

PCI: Purchased credit-impaired loans represented certain loans that were acquired and deemed to be credit impaired on the acquisition date. The now superseded FASB guidance that allowed purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools, provided that the loans had common risk characteristics (e.g., product type, LTV ratios).

PD: Probability of default

Principal transactions revenue: Primarily trading-related revenues predominantly generated by the *ICG* businesses. See Note 6.

Provisions: Provisions for credit losses and for benefits and claims.

PSUs: Performance share units

Real GDP: Real gross domestic product is the inflation-adjusted value of the goods and services produced by labor and property located in a country.

Regulatory VAR: Daily aggregated VAR calculated in accordance with regulatory rules.

REITs: Real estate investment trusts

Release: A net decrease in ACL through the provision for credit losses.

Reported basis: Financial statements prepared under U.S. GAAP.

Results of operations that exclude certain impacts from gains or losses on sale, or one-time charges*: Represents GAAP items, excluding the impact of gains or losses on sales, or one-time charges (e.g., the loss on sale related to the sale of Citi's consumer banking business in Australia).

Results of operations that exclude the impact of FX translation*: Represents GAAP items, excluding the impact of FX translation, whereby the prior periods' foreign currency balances are translated into U.S. dollars at the current period's conversion rates (also known as Constant dollar).

Retail services: Citi's U.S. retail services cards business with a portfolio of co-brand and private label relationships (including, among others, The Home Depot, Sears, Best Buy and Macy's).

ROA*: Return on assets. Represents net income (annualized), divided by average assets for the period.

ROCE*: Return on Common Equity. Represents net income less preferred dividends (both annualized), divided by average common equity for the period.

ROE: Return on equity. Represents net income less preferred dividends (both annualized), divided by average Citigroup equity for the period.

RoTCE*: Return on tangible common equity. Represents net income less preferred dividends (both annualized), divided by average tangible common equity for the period.

RSU(s): Restricted stock units

RWA: Risk-weighted assets. Basel III establishes two comprehensive approaches for calculating RWA (the Standardized Approach and the Advanced Approaches), which include capital requirements for credit risk, market risk, and in the case of Basel III Advanced, also operational risk. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches that largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings, which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized and Basel III Advanced Approaches.

S&P: Standard and Poor's Global Ratings

SCB: Stress Capital Buffer

SCF: Subscription credit facility. SCFs are revolving credit facilities provided to private equity funds that are secured against the fund's investors' capital commitments.

SEC: The U.S. Securities and Exchange Commission

Securities financing agreements: Include resale, repurchase, securities borrowed and securities loaned agreements.

SLR: Supplementary Leverage ratio. Represents Tier 1 Capital divided by total leverage exposure.

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

Structured notes: Financial instruments whose cash flows are linked to the movement in one or more indexes, interest rates, foreign exchange rates, commodities prices, prepayment rates or other market variables. The notes typically contain embedded (but not separable or detachable) derivatives. Contractual cash flows for principal, interest or both can vary in amount and timing throughout the life of the note based on non-traditional indexes or non-traditional uses of traditional interest rates or indexes.

Tangible book value per share (TBVPS)*: Represents tangible common equity divided by EOP common shares outstanding.

Tangible common equity (TCE): Represents common stockholders' equity less goodwill and identifiable intangible assets, other than MSRs.

Taxable-equivalent basis: Represents the total revenue, net of interest expense for the business, adjusted for revenue from investments that receive tax credits and the impact of tax-exempt securities. This metric presents results on a level comparable to taxable investments and securities.

TDR: Troubled debt restructuring. TDR is deemed to occur when the Company modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty. Loans with short-term and other insignificant modifications that are not considered concessions are not TDRs.

TLAC: Total loss-absorbing capacity

Total payout ratio*: Represents total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders.

Transformation: Citi has embarked on a multiyear transformation, with the target outcome to change Citi's business and operating models such that they simultaneously strengthen risk and controls and improve Citi's value to customers, clients and shareholders.

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

U.S. government agencies: U.S. government agencies include, but are not limited to, agencies such as Ginnie Mae and FHA, and do not include Fannie Mae and Freddie Mac, which are U.S. government-sponsored enterprises (U.S. GSEs). In general, obligations of U.S. government agencies are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government in the event of a default.

U.S. Treasury: U.S. Department of the Treasury

VAR: Value at risk. A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

VIEs: Variable interest entities

Wallet: Proportion of fee revenue based on estimates of investment banking fees generated across the industry (i.e., the revenue wallet) from investment banking transactions in M&A, equity and debt underwriting, and loan syndications.

EXHIBIT INDEX

Exhibit Number		Description of Exhibit
3.01		Restated Certificate of Incorporation of Citigroup, as amended, as in effect on the date hereof, incorporated by reference to Exhibit 3.01 to Citigroup's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2021 filed November 8, 2021 (File No. 001-09924).
10.01*+		Form of Citigroup Inc. CAP/DCAP Agreement (for awards granted on February 10, 2022 and in future years).
31.01+		Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02+		Certification of principal financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01+		Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.01+		List of Securities Registered Pursuant to Section 12(b) of the Securities Exchange Act of 1934, formatted in Inline XBRL.
101.01+		Financial statements from the Quarterly Report on Form 10-Q of Citigroup for the quarterly period ended June 30, 2022, filed on August 3, 2022, formatted in Inline XBRL: (i) the Consolidated Statement of Income, (ii) the Consolidated Balance Sheet, (iii) the Consolidated Statement of Changes in Stockholders' Equity, (iv) the Consolidated Statement of Cash Flows and (v) the Notes to the Consolidated Financial Statements.
104		See the cover page of this Quarterly Report on Form 10-Q, formatted in Inline XBRL.

The total amount of securities authorized pursuant to any instrument defining rights of holders of long-term debt of the Company does not exceed 10% of the total assets of the Company and its consolidated subsidiaries. The Company will furnish copies of any such instrument to the SEC upon request.

* Denotes a management contract or compensatory plan or arrangement.
+ Filed herewith.

2021 ANNUAL REPORT

Citi is working with Gavi, the Vaccine Alliance, as the financial advisor for its COVAX Facility, which is supporting the fair and equitable distribution of COVID-19 vaccines around the world.

A Mission of Enabling Growth and Economic Progress

What You Can Expect From Us and What We Expect From Ourselves

Citi's mission is to serve as a trusted partner to our clients by responsibly providing financial services that enable growth and economic progress. Our core activities are safeguarding assets, lending money, making payments and accessing the capital markets on behalf of our clients. We have 200 years of experience helping our clients meet the world's toughest challenges and embrace its greatest opportunities. We are Citi, the global bank — an institution connecting millions of people across hundreds of countries and cities.

We protect people's savings and help them make the purchases — from everyday transactions to buying a home — that improve the quality of their lives. We advise people on how to invest for future needs, such as their children's education and their own retirement, and help them buy securities such as stocks and bonds.

We work with companies to optimize their daily operations, whether they need working capital, to make payroll or export their goods overseas. By lending to companies large and small, we help them grow, creating jobs and real economic value at home and in communities around the world. We provide financing and support to governments at all levels, so they can build sustainable infrastructure, such as housing, transportation, schools and other vital public works.

These capabilities create an obligation to act responsibly, do everything possible to create the best outcomes, and prudently manage risk. If we fall short, we will take decisive action and learn from our experience.

We strive to earn and maintain the public's trust by constantly adhering to the highest ethical standards. We ask our colleagues to ensure that their decisions pass three tests: they are in our clients' interests, create economic value, and are always systemically responsible. When we do these things well, we make a positive financial and social impact in the communities we serve and show what a global bank can do.

Jane Fraser
Chief Executive Officer

Letter to Shareholders

2021 was a year when Citi reaffirmed its vital place in the world. As COVID-19 barreled along an unpredictable path, Citi continued to help clients and customers navigate the impacts of economic lockdowns, inflationary pressures and supply chain disruptions and access the short- and long-term liquidity they've needed to manage through the pandemic.

At the same time, we have seen more permanent shifts across our industry. Companies are going global at a record pace. Digitization has made scale and agility a competitive necessity. The line dividing business and politics has all but disappeared, creating an entirely new paradigm for multinationals. And companies are responding to calls from all stakeholder groups to become more purpose driven and take a leading role in sustainable practices.

In my conversations with clients and world leaders, they tell me this is the most complex landscape they can remember – but this is precisely the kind of environment in which Citi shines. For over 200 years, our global network has demonstrated the flexibility and resilience to adapt to the times. And with our unique global perspective, our on-the-ground knowledge, and our empathy and expertise, we are able to develop solutions to the toughest of problems. I am so proud of how our people have continued to step up and deliver for our clients and customers despite the challenges they have faced at home and in their personal lives.

Stability in unstable times

From an economic perspective, 2021 was a less volatile year, with a normalization of many but not all of our key business drivers and the release of much of the loan-loss reserves that we had set aside during the pandemic. That enabled us to generate net income of $22 billion on revenues of $71.9 billion, with a Return on Tangible Common Equity (RoTCE) of 13.4%. Excluding those reserve releases, our net income was $14.9 billion, and we had an RoTCE of 8.9%[1].

We ended 2021 with a solid balance sheet and a liquidity coverage ratio of 115%. Our Common Equity Tier 1 capital ratio at year-end was 12.2% as we prepared to adopt a new capital rule, the Standardized Approach for Counterparty Credit Risk (SA-CCR). During the year, we were able to return nearly $12 billion of capital to common shareholders.

Principles Guiding Citi's Strategic Refresh

Being clinical in assessing which businesses Citi can retain or secure leading market positions.

Being focused by directing resources to higher-returning businesses and away from the others.

Ensuring Citi's businesses are connected and generate synergies.

Simplifying Citi to unlock value for shareholders.

"We are confident we have put Citi on the right path to improve returns over the long term and deliver the full benefits of our firm to all our stakeholders."

Our institutional franchise had a very active year, advising and underwriting many significant deals. That included the largest spin-off and second-largest M&A transaction of 2021 and successful capital raises for the IPOs of a number of high-growth companies, such as the dating app Bumble and the game developer Krafton. We also served as joint global coordinator on the largest overnight trade on record, and we were an active bookrunner for the year's biggest U.S. dollar corporate bond offering, which was also the sixth-largest U.S. dollar transaction of all time.

Despite the headwinds of the low rate environment, our Treasury & Trade Solutions business maintained strong momentum. We saw robust client engagement and digital adoption, including a 96% year-over-year increase in digital account openings and a 62% increase in user engagement through our CitiDirect mobile banking platform. As transaction flows across CitiConnect digital channels grew by 38% compared with the prior year, we expanded our instant payments capability to 28 markets, now the largest footprint in the industry.

We continued to build out our leading custody platform, winning key mandates to provide post-trade services for some of our financial institution clients such as BlackRock. Citi Velocity, our digital platform for institutional clients, attracted about 200,000 unique client users in 2021, a 64% increase over 2020 and a 138% increase compared with 2019, before the pandemic.

For our consumer franchise, the picture was more mixed. Our wealth businesses continued their momentum. In our U.S. Retail and Cards businesses, government stimulus programs helped consumers accumulate additional savings, which translated into elevated payment rates and, consequently, a 5% decrease in loans and a 9% decrease in revenues.

But other key drivers were more encouraging, including higher purchase sales across our cards products and a pickup in cards loans at the end of the year. Customers clearly were reaching for their Citi card over other options in their wallet, a testament to our dynamic portfolio of products, which we further strengthened with the launch of the Citi Custom Cash card and renewals of key retail partnerships such as AT&T, Macy's and Tractor Supply Company.

In 2021, we also benefited from double-digit growth in deposits across our consumer franchise in the U.S. Our strategy to complement the great service we provide in our U.S. retail branches with best-in-class digital tools continued to pay off: We've received $20 billion in digital deposits, and more than two-thirds have come from customers outside of our branch footprint, with about half of those deposits from our cardholders who did not previously have a retail relationship with us.

Realizing our full potential

In March 2022, one year after I assumed the role of CEO, we held our first Investor Day since 2017. It was an opportunity to update our investors after a year of refreshing our strategy to focus our resources and energies on a compelling mix of businesses that can drive growth and higher returns. Going forward, we will be a firm focused on five core units – Services, Markets, Banking, U.S. Personal Banking and Global Wealth Management – with strong connectivity among them to bring the full power of Citi to our clients.

[1] RoTCE represents annualized net income available to common shareholders as a percentage of average tangible common equity and is a non-GAAP financial measure. For a reconciliation to reported results, see page 44 of Citi's 2021 Annual Report on Form 10-K. In addition, net income excluding reserve releases is a non-GAAP financial measure.

BUILDING A BANK FOR THE DIGITAL WORLD

Jane Fraser became CEO
and set a path for Citi to win in the digital world

Created Global Wealth Management
to capitalize on the extraordinary rise in wealth creation

Launched Citi Self Invest,
a no-fee digital app that expands access to wealth management

Streamlined Citi's consumer presence
to focus on businesses with higher-return opportunities

Launched Citi Custom Cash card
to meet evolving needs of the digital consumer

Reached $20 billion in digital deposits
in the U.S. Retail bank

Submitted our Transformation plans to regulators
to create a best-in-class risk and controls environment

Established a new, hybrid model for the future of work
and welcomed nearly 47,000 new colleagues

Won two key custodial mandates
including the management of nearly $1 trillion in ETFs

Expanded the industry's largest instant payment network
now present in 28 markets

Facilitated landmark deals of 2021
including the largest merger of two Asian internet companies to date

Served as the active bookrunner for the largest USD transaction of 2021
which was also the sixth-largest USD transaction of all time

Grew Prime Finance balances by 23%
outperforming the market index by 3%

Our vision for Citi is to be the pre-eminent banking partner for institutions with cross-border needs, a global leader in wealth management and a valued personal bank in our home market. A key part of our strategy is investing in the Services businesses that are the heart of our global network and generate strong, fee-based returns. Through our Commercial Bank, we will expand our work with mid-sized companies who have aspirations to go global.

Another priority is our ambition in wealth management. By combining our Private Bank and consumer wealth businesses, we are creating a single, integrated platform to serve affluent consumers up through the ultra-high net worth segment. This also allows us to target clients in the middle of the wealth continuum, which to date has been largely untapped territory for us despite already having relationships with them in the Commercial Bank.

As we focus our resources in a more targeted way, we also have made some hard decisions about which businesses no longer fit into our vision for Citi. We have announced our intention to exit 14 of our consumer businesses in Asia, Europe and Mexico where there was not clear connectivity to the rest of our franchise. In every case, we are working to reach solutions that will provide optimal results for our people, clients and shareholders. Notwithstanding these decisions, Citi will continue to serve clients and invest in these markets through our institutional franchise and our Global Wealth Management business.

For our strategy to unlock the greatest possible value, we know we need an infrastructure that is scaled and agile and delivers a great user experience. The Consent Orders issued in 2020 by two of our U.S. regulators – the Federal Reserve Board (FRB) and Office of the Comptroller of the Currency (OCC) – underscored how we have underinvested in some of those areas for too long. In 2021, we launched an effort to address those deficiencies and simplify and modernize our operating model for the digital age. This work is so fundamental and consequential in nature that we call it our Transformation.

As part of our Transformation, we are enhancing our risk and controls environment to be more intuitive and automated. We are also improving how we organize and leverage the incredible amount of data we have as a global bank. Data can be a competitive advantage for us, helping us manage risk more efficiently, comply with regulations, deliver with excellence for our clients, identify revenue opportunities and achieve efficiencies.

Ensuring we have a culture characterized by excellence underpins the success of our Transformation. We have updated our leadership principles and adjusted our performance rating system, part of an effort to raise expectations and to increase accountability for how our people should approach their work. And by breaking down silos and deepening the sense of ownership that our people feel for the firm, we are building a culture that's focused on delivering the best outcomes for all our stakeholders.

A Snapshot of Citi's 2021

Key Financial Metrics

REVENUE $71.9 billion	**NET INCOME** $22 billion
EPS $10.14	**ROTCE** 13.4%[2]
CET1 CAPITAL RATIO 12.2%[3]	**LIQUIDITY COVERAGE RATIO** 115%

GREW OUR TANGIBLE BOOK VALUE PER SHARE BY
7%

RETURNED NEARLY
$12 billion
IN CAPITAL TO OUR COMMON SHAREHOLDERS

In 2021, we submitted our plan to the FRB and OCC. From the beginning of this work, we have been staying close to our regulators and keeping them updated on our progress. But it's also important to note that our Transformation goes far beyond remediation. This is about modernizing our systems and structures so that we can better manage the speeds and complexities of the digital world. This is about putting Citi in the position to compete and win.

Taking into account our growth plan, the investments we are making in our businesses and efficiencies that will come out of our work, we believe we can increase shareholder value and achieve an RoTCE of 11%-12% in the next three to five years. Over the longer term, I believe that our strategy will lead to a higher-quality earnings mix, and we'll further increase our returns as a result.

Financial Performance

Key Highlights across Our Businesses (YoY)

INVESTMENT BANKING REVENUES ↑30%	**SECURITIES SERVICES REVENUES** ↑6%
EQUITIES MARKETS REVENUES ↑25%	
TREASURY & TRADE SOLUTIONS AVERAGE TRADE LOANS ↑5%	
AVERAGE U.S. CONSUMER DEPOSITS ↑17%	**U.S. CREDIT CARD SPEND VOLUME** ↑21%
PRIVATE BANK REVENUES ↑6%[4]	**U.S. INVESTMENT ASSETS UNDER MANAGEMENT** ↑8%

A bank with a brain and a soul

Our environmental, social and governance (ESG) agenda builds on decades of leadership and is a reflection of the special responsibility we feel as a global bank to help solve many of society's toughest challenges, such as the impending climate crisis. On my first day as CEO, we committed Citi to achieving net zero greenhouse gas emissions by 2050. Over the past year, we have been hard at work mapping out how we are going to get there, rolling up our sleeves to partner with our clients and guide the industry forward. Earlier this year, we released our initial plan, setting 2030 targets for our energy and power loan portfolios.

Our commitment to societal progress has also led us to take on the challenge of economic inclusion. Since launching our Action for Racial Equity initiative in 2020, we have invested more than $1 billion to help close the racial wealth gap in the U.S. That includes investing in Black-founded companies through our Citi Impact Fund, investing in minority depository institutions and inviting them to participate in revenue-generation opportunities alongside Citi, and committing equity to Black real estate developers to preserve affordable and workforce housing.

Across the globe, we have continued maximizing the impact we can make through financial innovation, particularly in our most underserved communities. Since 2007, we have helped 3.7 million women around the world launch or grow their businesses. In 2021, we issued a first-of-its-kind $1 billion social finance bond to increase access to essential services in emerging markets – part of a goal we set last year to expand access to housing, education and healthcare for 15 million low-income households, including 10 million women. Our recently announced plan to eliminate overdraft fee charges in the U.S. will also increase financial inclusion.

All told, we have committed $1 trillion to sustainable financing by 2030, which includes $500 billion toward environmental activities and $500 billion toward social activities. And every day, we are seeing how our ESG agenda is such a strong selling point for Citi in the perennial battle for talent.

Ensuring we have the right talent is critically important to our firm's success. Over the past year, we have attracted some tremendous new leaders to Citi and promoted our highest-performing leaders within the firm to new roles. I'm also proud that we recently met and exceeded goals to increase the representation of women and Black colleagues in our senior ranks – and we did so by embedding these goals in our business strategy, strengthening our talent pipelines, evolving our recruitment and hiring, promoting internally and making Citi a more attractive place to work. In other words, we lifted everyone up.

As we look to the horizon, the stakes could not be higher – the world is only becoming more complex and more competitive. But at Citi, we are determined to seize this moment. We are excited about the work we have done over the past year to focus our strategy on where we can win. And we are confident we have put Citi on the right path to improve returns over the long term and deliver the full benefits of our firm to all our stakeholders.

Sincerely,

Jane Fraser
Chief Executive Officer, Citigroup Inc.

[2] See page 11 of Citi's 2021 Form 10-K.
[3] See page 11 of Citi's 2021 Form 10-K.
[4] See page 16 of Citi's 2021 Form 10-K.

Through Bridge Built by Citi, Citi aims to expand access to capital for small and medium-sized businesses in the U.S. while widening the customer base for lenders, helping to democratize the loan process.

EMBEDDING ESG ACROSS OUR BUSINESSES

Unveiled initial plans to achieve

NET 0 EMISSIONS BY 2050

Served as the financial advisor to Gavi's COVAX FACILITY, which is working on the equitable distribution of COVID-19 vaccines

Successfully met and exceeded 3-year goals to increase representation of Black and women talent at the firm

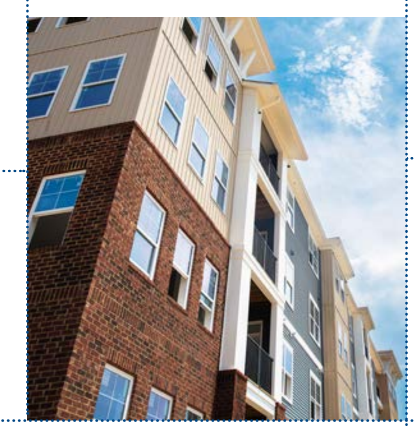
Committed $1 trillion to sustainable finance by 2030 ($500 billion for environmental activities and $500 billion for social activities)

Issued a first-of-its-kind $1 billion social finance bond to increase access to essential services in emerging markets

Invested over $1 billion in our Action for Racial Equity initiative to help close the racial wealth gap in the U.S.

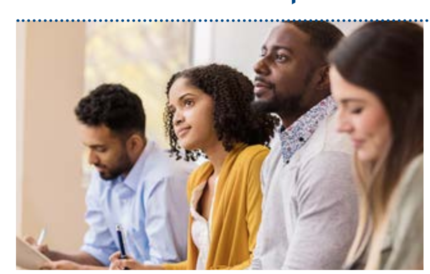
Expanded portfolio of the $200 million Citi Impact Fund to provide capital for "double-bottom-line" companies

Named **leading affordable housing lender in the U.S.** for 11th consecutive year and financed **$5.64 billion** for affordable housing units across the U.S. in 2021



Granted **$275 million** to date to support the Citi Foundation's **Pathways to Progress** initiative to improve economic opportunities for **underserved youth**

Named one of the top **15 most responsible and purpose-driven companies** by JUST Capital



Co-founded the **Net Zero Banking Alliance** to help guide the industry to net zero

Supported **3.7 million women entrepreneurs** globally to date in launching and growing their businesses

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 1-9924

Citigroup Inc.

(Exact name of registrant as specified in its charter)

Delaware	**52-1568099**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
388 Greenwich Street, New York NY	**10013**
(Address of principal executive offices)	(Zip code)

(212) 559-1000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 formatted in Inline XBRL: See Exhibit 99.01

Securities registered pursuant to Section 12(g) of the Act: none

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐
Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes ☐

Indicate by check mark whether the Registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of Citigroup Inc. common stock held by non-affiliates of Citigroup Inc. on June 30, 2021 was approximately $143.2 billion.

Number of shares of Citigroup Inc. common stock outstanding on January 31, 2022: 1,980,894,613

Documents Incorporated by Reference: Portions of the registrant's proxy statement for the annual meeting of stockholders scheduled to be held on April 26, 2022 are incorporated by reference in this Form 10-K in response to Items 10, 11, 12, 13 and 14 of Part III.

Available on the web at www.citigroup.com

FORM 10-K CROSS-REFERENCE INDEX

* For additional information regarding Citigroup's Directors, see "Corporate Governance" and "Proposal 1: Election of Directors" in the definitive Proxy Statement for Citigroup's Annual Meeting of Stockholders scheduled to be held on April 26, 2022, to be filed with the SEC (the Proxy Statement), incorporated herein by reference.

** See "Compensation Discussion and Analysis," "The Personnel and Compensation Committee Report," and "2021 Summary Compensation Table and Compensation Information" and "CEO Pay Ratio" in the Proxy Statement, incorporated herein by reference.

*** See "About the Annual Meeting," "Stock Ownership," and "Equity Compensation Plan Information" in the Proxy Statement, incorporated herein by reference.

**** See "Corporate Governance—Director Independence," "—Certain Transactions and Relationships, Compensation Committee Interlocks and Insider Participation" and "—Indebtedness" in the Proxy Statement, incorporated herein by reference.

***** See "Proposal 2: Ratification of Selection of Independent Registered Public Accountants" in the Proxy Statement, incorporated herein by reference.

CITIGROUP'S 2021 ANNUAL REPORT ON FORM 10-K

OVERVIEW

Citigroup's history dates back to the founding of the City Bank of New York in 1812.

Citigroup is a global diversified financial services holding company whose businesses provide consumers, corporations, governments and institutions with a broad, yet focused, range of financial products and services, including consumer banking and credit, corporate and investment banking, securities brokerage, trade and securities services and wealth management. Citi has approximately 200 million customer accounts and does business in more than 160 countries and jurisdictions.

At December 31, 2021, Citi had approximately 223,400 full-time employees, compared to approximately 210,000 full-time employees at December 31, 2020. For additional information, see "Human Capital Resources and Management" below.

Throughout this report, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries.

For a list of terms and acronyms used in this Annual Report on Form 10-K and other Citigroup presentations, see "Glossary of Terms and Acronyms" at the end of this report.

Additional Information

Additional information about Citigroup is available on Citi's website at www.citigroup.com. Citigroup's recent annual reports on Form 10-K, quarterly reports on Form 10-Q and proxy statements, as well as other filings with the U.S. Securities and Exchange Commission (SEC), are available free of charge through Citi's website by clicking on the "Investors" tab and selecting "SEC Filings," then "Citigroup Inc." The SEC's website also contains current reports on Form 8-K and other information regarding Citi at www.sec.gov.

For a discussion of 2020 versus 2019 results of operations of *ICG*, *GCB* in *North America*, *Latin America* and *Asia*, and *Corporate/Other*, see each respective business's results of operations in Citi's 2020 Annual Report on Form 10-K.

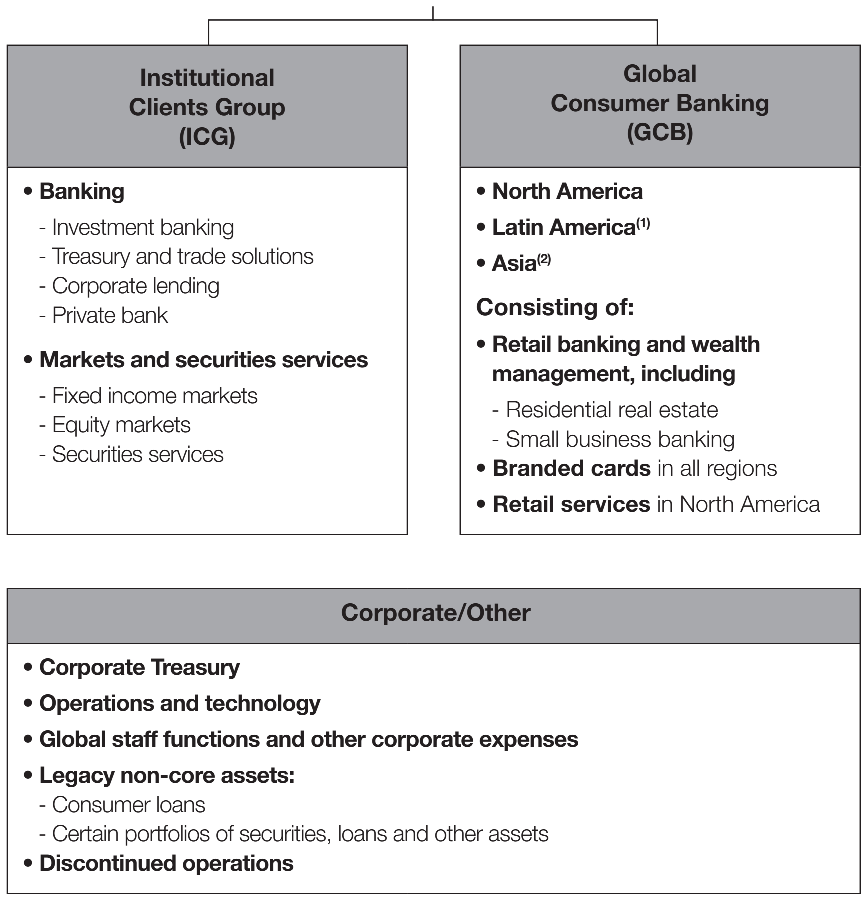
Certain reclassifications have been made to the prior periods' financial statements and disclosures to conform to the current period's presentation.

Please see "Risk Factors" below for a discussion of material risks and uncertainties that could impact Citi's businesses, results of operations and financial condition.

As of December 31, 2021, Citigroup was managed pursuant to two operating segments—*Institutional Clients Group* and *Global Consumer Banking*—with the remaining operations in *Corporate/Other*. (For information on Citi's planned revision to its reporting structure effective for the first quarter of 2022, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" below.)

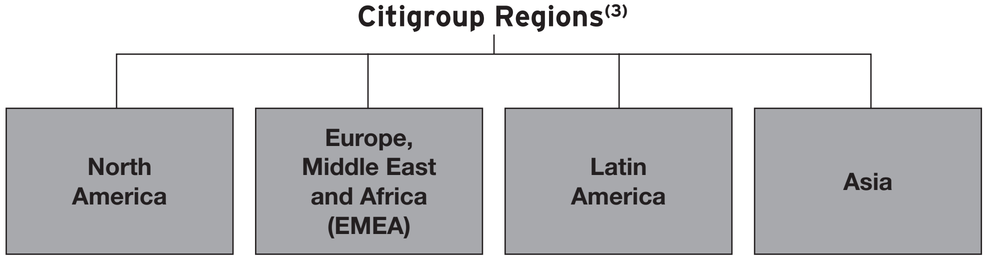
For a further description of the operating segments and the products and services they provide, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 3 to the Consolidated Financial Statements.

Citigroup Operating Segments



The following are the four regions in which Citigroup operates. The regional results are fully reflected in the segment and *Corporate/Other* results above.

Citigroup Regions[3]



(1) *Latin America GCB* consists of Citi's consumer banking business in Mexico.
(2) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries for all periods presented.
(3) *North America* includes the U.S., Canada and Puerto Rico, *Latin America* includes Mexico and *Asia* includes Japan.

Strategic Refresh—Market Exits and Planned Revision to Reporting Structure

As part of its strategic refresh, Citi is making management reporting changes to align with its vision and strategy, including to assist Citi in decisions about resources and capital allocation and to assess business performance. In the first quarter of 2022, Citi will revise its financial reporting structure to align with these management reporting changes to enable investors and others to better understand the performance of Citi's businesses (see the table below for additional information on the revised financial reporting structure):

- First, Citi is creating a *Personal Banking and Wealth Management* segment. It will consist of two distinct reporting units: *U.S. Personal Banking* businesses and a *Global Wealth Management* business, which will include the private bank.
- Second, with respect to *Institutional Clients Group (ICG)*, Citi will begin reporting under three reporting units: *Services*, *Banking* and *Markets*. *Services* will include treasury and trade solutions and securities services, reflecting the importance of these businesses to Citi's future.
- Finally, Citi is creating *Legacy Franchises*, a segment that will consist of all the businesses Citi intends to exit (see below), including its remaining Legacy Holdings assets.

In conjunction with the strategic refresh, in 2021 Citi announced that it will focus its consumer banking franchises in *Asia* and *EMEA* on four wealth centers: Singapore, Hong Kong, the United Arab Emirates (UAE) and London. As a result, Citi is pursuing exits of its consumer franchises in the remaining 13 markets across these two regions.

In 2021 and early 2022, Citi announced sale agreements for or exit of a majority of the 13 markets (for additional information, see "Executive Summary" and "*Asia GCB*" below). *ICG* will continue to serve clients, including its commercial banking clients, in all of these markets.

In addition, in January 2022, Citi announced that it intends to exit the consumer, small business and middle-market banking operations of Citibanamex. The businesses in the intended exit include the Mexico consumer and small business banking operations, reported as part of Citi's *GCB* segment, as well as the Mexico middle-market banking business, reported in Citi's *ICG* segment. These operations represent the entirety of the *Latin America GCB* unit. Citi will continue to operate a locally licensed banking business in Mexico through its global *ICG* (for additional information, see "Executive Summary" and "*Latin America GCB*" below).

For additional information regarding the exit markets, see Note 2 to the Consolidated Financial Statements. For information regarding risks related to the exit markets, see "Risk Factors" below.

The following table summarizes both Citi's reporting structure during 2021 and its planned 2022 financial reporting structure:

Current Reporting Structure as of 2021		
Institutional Clients Group	Markets	Equity Markets
		Fixed Income Markets
		Securities Services
	Banking	Treasury & Trade Solutions
		Investment Banking
		Corporate Lending
		Private Bank
Global Consumer Banking	North America	Branded Cards
		Retail Services
		Retail Banking
	Asia	Branded Cards
		Retail Banking
	Latin America	Branded Cards
		Retail Banking
Corporate/Other		

New Reporting Structure Effective in 2022		
Institutional Clients Group	Services	Treasury & Trade Solutions
		Securities Services
	Markets	Equity Markets
		Fixed Income Markets
	Banking	Investment Banking
		Corporate Lending
Personal Banking & Wealth Management	U.S. Personal Banking	Branded Cards
		Retail Services
		Retail Banking
	Global Wealth Management	Private Bank
		Wealth Management
Legacy Franchises	Asia Consumer	
	Mexico Consumer, Small Business & Middle-Market Banking	
	Legacy Holdings Assets	
Corporate/Other		

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

EXECUTIVE SUMMARY

As described further throughout this Executive Summary, Citi demonstrated continued progress across the franchise during 2021:

- Citi's earnings increased significantly versus the prior year, largely reflecting an allowance for credit loss (ACL) release of approximately $8.8 billion as a result of continued improvement in both the macroeconomic environment and portfolio credit quality.
- Citi's revenues declined 5% from the prior year. Excluding a pretax loss of approximately $0.7 billion (approximately $0.6 billion after-tax) related to Citi's agreement to sell its Australia consumer banking business in *Asia Global Consumer Banking (GCB)* (see "Citigroup" below), Citi's revenues declined 4%, as strength in investment banking, equity markets, the private bank and securities services in *Institutional Clients Group (ICG)* was more than offset by normalization in market activity in fixed income markets within *ICG*, as well as the impact of lower deposit spreads and card loans across *GCB*.
- Citi's expenses included pretax costs of approximately $1.2 billion ($1.1 billion after-tax) primarily related to charges incurred from the voluntary early retirement program (VERP) in connection with the wind-down of the Korea consumer banking business (for additional information, see "*Asia GCB*" below).
- Citi continued to invest in its transformation, including infrastructure supporting its risk and control environment, and make business-led investments.
- Citi had broad-based deposit growth across *ICG* and *GCB* (up 3% and 5%, respectively), reflecting continued engagement across both corporate and consumer clients.
- Citi returned approximately $11.8 billion of capital to its common shareholders in the form of $4.2 billion in dividends and $7.6 billion in common share repurchases, totaling approximately 105 million common shares, while maintaining robust regulatory capital ratios.
- In addition to the sale announcements related to *Asia GCB*, Citi also announced it intends to exit the consumer, small business and middle-market banking operations of Citibanamex in Mexico. Citi's planned divestitures of its consumer businesses across Mexico, *Asia* and *EMEA* are aligned with the repositioning of its consumer operations to focus on global wealth centers, as well as payments and lending and a targeted retail presence in the U.S. (For additional information on the exit markets and Citi's revised reporting structure effective for the first quarter of 2022, see "Strategic Refresh—Market Exits and Revised Reporting Strategy" above and "*Latin America GCB*" and "*Asia GCB*" below.)

Although economic growth and employment rates have continued to recover from pandemic-related lows, particularly in the U.S., various macroeconomic and other challenges and uncertainties related to, among other things, the duration and severity of the pandemic-related public health crisis, disruptions of global supply chains, inflationary pressures, increasing interest rates and geopolitical tensions involving Eastern Europe, will continue to create uncertainty around Citi's businesses and results.

For a discussion of trends, uncertainties and risks that will or could impact Citi's businesses, results of operations and financial condition during 2022, see "2021 Results Summary," "Risk Factors," each respective business's results of operations and "Managing Global Risk" below.

2021 Results Summary

Citigroup

Citigroup reported net income of $22.0 billion, or $10.14 per share, compared to net income of $11.0 billion, or $4.72 per share, in the prior year. The increase in net income was driven by lower cost of credit, partially offset by higher expenses and lower revenues. Citigroup's effective tax rate was 20%, up modestly from 19% in the prior year. Earnings per share increased significantly, primarily driven by net income.

Citigroup revenues of $71.9 billion decreased 5% from the prior year. Excluding the Australia loss on sale, Citigroup revenues decreased 4%, primarily driven by lower revenues in both *ICG* and *GCB*, partially offset by higher revenues in *Corporate/Other*.

As discussed above, Citi's 2021 results include the impacts of divestitures of Citi's consumer banking businesses in *Asia*. Reported revenues include the Australia loss on sale (approximately $0.7 billion pretax, $0.6 billion after-tax), primarily reflecting the impact of a currency translation adjustment (CTA) loss (net of hedges) already reflected in the *Accumulated other comprehensive income (AOCI)* component of equity. Upon closing, the CTA balance will be removed from the *AOCI* component of equity, resulting in a neutral impact to Citi's Common Equity Tier 1 Capital.

Reported expenses include the impact of the Korea VERP of approximately $1.1 billion (approximately $0.8 billion after-tax) and contract modification costs related to the *Asia* divestitures of approximately $119 million (approximately $98 million after-tax). (As used throughout this Form 10-K, Citi's results of operations and financial condition excluding the impact of the Australia loss on sale, Korea VERP and other *Asia* divestiture-related costs are non-GAAP financial measures. Citi believes the presentation of its results of operations and financial condition excluding the divestiture-related impacts described above provides a meaningful depiction of the underlying fundamentals of its broader results and *Asia GCB* businesses' results for investors, industry analysts and others.)

Citigroup's end-of-period loans decreased 1% from the prior year to $668 billion. Excluding the impact of foreign currency translation into U.S. dollars for reporting purposes (FX translation), Citigroup's end-of-period loans were largely unchanged, as growth in *ICG* was offset by lower loans in *GCB* and *Corporate/Other*. Citigroup's end-of-period deposits increased 3% to $1.3 trillion. Excluding the impact of FX translation, Citigroup's end-of-period deposits increased 4%, reflecting growth in both *GCB* and *ICG*. (As used throughout this Form 10-K, Citi's results of operations excluding the impact of FX translation are non-GAAP financial measures. Citi believes the presentation of its results of operations and financial condition excluding the impact of FX translation provides a meaningful depiction of the underlying fundamentals of its businesses for investors, industry analysts and others.)

Expenses

Citigroup operating expenses of $48.2 billion increased 9% versus the prior year. Excluding the impact of the *Asia* divestitures, expenses of $47.0 billion increased 6%, primarily reflecting investments in Citi's transformation, including infrastructure supporting its risk and control environment, business-led investments and revenue- and transaction-related expenses, partially offset by productivity savings. Citi expects expenses in 2022 to continue to be impacted by its transformation-related and business-led investments.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims were a benefit of $3.8 billion, compared to a cost of $17.5 billion in the prior year primarily related to the pandemic. The decreased cost of credit was driven by a net ACL reserve release of $8.8 billion (versus a build of $9.8 billion in the prior year) as well as lower net credit losses. Citi's net ACL release primarily reflected improvement in Citi's macroeconomic outlook and portfolio credit quality. Citi could experience higher credit costs in 2022, as the level of ACL releases from 2021 are unlikely to continue, and Citi expects to build ACL reserves for new lending volumes.

For further information on the drivers of Citi's ACL, see "Significant Accounting Policies and Significant Estimates—Citi's Allowance for Credit Losses (ACL)" below.

Net credit losses of $4.9 billion declined 36% from the prior year. Consumer net credit losses of $4.5 billion decreased 32%, primarily reflecting lower loan volumes and improved delinquencies in the *North America* cards portfolios. Corporate net credit losses of $395 million decreased 60%, primarily reflecting improvements in portfolio credit quality.

For additional information on Citi's consumer and corporate credit costs and ACL, see each respective business's results of operations and "Credit Risk" below.

Capital

Citigroup's Common Equity Tier 1 Capital ratio was 12.2% as of December 31, 2021, based on the Basel III Standardized Approach framework for determining risk-weighted assets, compared to 11.5% as of December 31, 2020, based on the Basel III Advanced Approaches for determining risk-weighted assets. The increase in the ratio primarily reflected actions to reduce risk-weighted assets (RWA) and a temporary pause in common share repurchases in the fourth quarter of 2021, in preparation for the implementation of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. Citi resumed common share repurchases in January 2022.

Citigroup's Supplementary Leverage ratio was 5.7% as of December 31, 2021, compared to 7.0% as of December 31, 2020. The decrease was primarily driven by the expiration of temporary relief granted by the Federal Reserve Board (FRB) as of the end of the first quarter of 2021. For additional information on SA-CCR and Citi's capital ratios, see "Capital Resources" below.

Institutional Clients Group

ICG net income of $15.7 billion increased 36%, reflecting lower cost of credit, partially offset by higher expenses and lower revenues. *ICG* operating expenses increased 8% to $26.5 billion, reflecting continued investments in Citi's transformation, business-led investments and revenue- and transaction-related expenses, partially offset by productivity savings.

ICG revenues of $43.9 billion decreased 3%, as a 7% increase in *Banking* revenues was more than offset by an 11% decline in *Markets and securities services* revenues. The increase in *Banking* revenues included the impact of $144 million of losses on loan hedges related to corporate lending and the private bank, compared to losses of $51 million in the prior year.

Banking revenues of $23.3 billion (excluding the impact of losses on loan hedges) increased 7%, as higher revenues in investment banking and the private bank were partially offset by lower revenues in treasury and trade solutions and corporate lending. Investment banking revenues of $7.5 billion increased 30%, reflecting growth across products, particularly in advisory and equity underwriting. Advisory revenues increased 78% to $1.8 billion, equity underwriting revenues increased 53% to $2.4 billion and debt underwriting revenues increased 3% to $3.3 billion.

Treasury and trade solutions revenues of $9.4 billion declined 4%, as higher fee revenues, including a recovery in commercial card revenues, as well as growth in trade were more than offset by the impact of lower deposit spreads. Private bank revenues increased 5%. Excluding the impact of gains on loan hedges, private bank revenues of $4.0 billion increased 6%, driven by higher loan volumes and spreads, as well as higher managed investments and deposits, partially offset by lower deposit spreads. Corporate lending revenues decreased 3%. Excluding the impact of losses on loan hedges, corporate lending revenues of $2.3 billion decreased 1%, as lower cost of funds was more than offset by lower loan volumes.

Markets and securities services revenues of $20.8 billion decreased 11%. Fixed income markets revenues of $13.7 billion decreased 22%, reflecting a normalization in market activity across rates and spread products. Equity markets revenues of $4.5 billion increased 25%, driven by growth across all products, reflecting solid client activity and favorable market conditions. Securities services revenues of $2.7 billion increased 6%, as strong fee revenues, driven by higher settlement volumes and higher assets under custody, were partially offset by lower deposit spreads. For additional information on the results of operations of *ICG* in 2021, see "*Institutional Clients Group*" below.

Global Consumer Banking

GCB net income was $6.1 billion, compared to net income of $667 million in the prior year, reflecting lower cost of credit, partially offset by lower revenues and higher expenses. *GCB* operating expenses of $20.0 billion increased 12%. Excluding the impact of FX translation and the *Asia* divestitures, expenses increased 5%, reflecting continued investments in Citi's transformation, as well as business-led investments and volume-related expenses, partially offset by productivity savings.

GCB revenues of $27.3 billion decreased 10% from the prior year. Excluding the impact of FX translation and the Australia loss on sale, revenues decreased 9%, as continued solid deposit growth and growth in assets under management were more than offset by lower card loans and lower deposit spreads. For additional information on *GCB*'s results of operations, including the impact of FX translation, see "*Global Consumer Banking*" below.

North America GCB revenues of $17.5 billion decreased 9%, with lower revenues across branded cards, retail services and retail banking. Branded cards revenues of $8.2 billion decreased 7%, reflecting continued higher payment rates. Retail services revenues of $5.1 billion decreased 15%, reflecting continued higher payment rates and lower average loans as well as higher partner payments. Retail banking revenues of $4.2 billion decreased 7%, as the benefit of stronger deposit volumes was more than offset by lower deposit spreads and lower mortgage revenues.

North America GCB average deposits of $206 billion increased 17% year-over-year and average retail banking loans of $50 billion decreased 4% year-over-year, while assets under management of $87 billion increased 8%. Average branded cards loans of $81 billion decreased 4% and average retail services loans decreased 7%, reflecting higher payment rates. Branded cards spend volume of $411 billion increased 21% and retail services spend volume of $92 billion increased 18%, reflecting a recovery in sales activity from the pandemic-driven low levels in the prior year. For additional information on the results of operations of *North America GCB* in 2021, see "*Global Consumer Banking—North America GCB*" below.

International *GCB* revenues (consisting of *Latin America GCB* and *Asia GCB* (which includes the results of operations in certain *EMEA* countries)) of $9.8 billion declined 11% versus the prior year. Excluding the impact of FX translation and the Australia loss on sale, international *GCB* revenues declined 7%. Excluding the impact of FX translation, *Latin America GCB* revenues decreased 9%, driven by lower average loans and lower deposit spreads. Excluding the impact of FX translation and the Australia loss on sale, *Asia GCB* revenues decreased 6%, reflecting lower spreads, partially offset by higher investment revenues. For additional information on the results of operations of *Latin America GCB* and *Asia GCB* in 2021, including the impacts of FX translation, see "*Global Consumer Banking—Latin America GCB*" and "*Global Consumer Banking—Asia GCB*" below. For additional information on Citi's consumer banking business in Australia, see "*Global Consumer Banking—Asia GCB*" below.

Year-over-year, excluding the impact of FX translation, international *GCB* average deposits of $146 billion increased 5%, average retail banking loans of $72 billion decreased 3% and assets under management of $145 billion increased 5%. On this basis, international GCB average card loans of $20 billion decreased 13%, while credit card spend volumes of $100 billion increased 9%, reflecting a continued recovery in credit card spend activity from the pandemic-related low levels in the prior year.

Corporate/Other

Corporate/Other net income was $215 million, compared to a net loss of $1.1 billion in the prior year, reflecting higher revenues, lower expenses, lower cost of credit, and the release of a foreign tax credit (FTC) valuation allowance. Operating expenses of $1.6 billion decreased 14%, reflecting the absence of the prior year's civil money penalty and the wind-down of legacy assets, partially offset by increases related to Citi's transformation.

Corporate/Other revenues of $667 million compared to $71 million in the prior year, primarily driven by higher net revenue from the investment portfolio. For additional information on the results of operations of *Corporate/Other* in 2021, see "*Corporate/Other*" below.

CITI'S CONSENT ORDER COMPLIANCE

Citi has embarked on a multiyear transformation, with the target outcome to change Citi's business and operating models such that they simultaneously strengthen risk and controls and improve Citi's value to customers, clients and shareholders.

This includes efforts to effectively implement the October 2020 FRB and Office of the Comptroller of the Currency (OCC) consent orders issued to Citigroup and Citibank, respectively. In the second quarter of 2021, Citi made an initial submission to the OCC, and submitted its plans to address the consent orders to both regulators during the third quarter of 2021. Citi continues to work constructively with the regulators, and will continue to reflect their feedback in its project plans and execution efforts.

As discussed above, Citi's efforts include continued investments in its transformation, including the remediation of its consent orders. Citi's CEO has made the strengthening of Citi's risk and control environment a strategic priority and has established a Chief Administrative Officer organization to centralize program management. In addition, the Citigroup and Citibank Boards of Directors each formed a Transformation Oversight Committee, an ad hoc committee of each Board, to provide oversight of management's remediation efforts under the consent orders.

For additional information about the consent orders, see "Risk Factors—Compliance Risks" below and Citi's Current Report on Form 8-K filed with the SEC on October 7, 2020.

RESULTS OF OPERATIONS

SUMMARY OF SELECTED FINANCIAL DATA

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts	**2021**	2020	2019	2018	2017
Net interest income[1]	**$42,494**	$44,751	$48,128	$46,562	$45,061
Non-interest revenue	**29,390**	30,750	26,939	27,474	28,632
Revenues, net of interest expense	**$71,884**	$75,501	$75,067	$74,036	$73,693
Operating expenses[1]	**48,193**	44,374	42,783	43,023	43,481
Provisions for credit losses and for benefits and claims	**(3,778)**	17,495	8,383	7,568	7,451
Income from continuing operations before income taxes	**$27,469**	$13,632	$23,901	$23,445	$22,761
Income taxes[2]	**5,451**	2,525	4,430	5,357	29,388
Income (loss) from continuing operations	**$22,018**	$11,107	$19,471	$18,088	$ (6,627)
Income (loss) from discontinued operations, net of taxes	**7**	(20)	(4)	(8)	(111)
Net income (loss) before attribution of noncontrolling interests	**$22,025**	$11,087	$19,467	$18,080	$ (6,738)
Net income attributable to noncontrolling interests	**73**	40	66	35	60
Citigroup's net income (loss)[2]	**$21,952**	$11,047	$19,401	$18,045	$ (6,798)
Earnings per share					
Basic					
Income (loss) from continuing operations	**$ 10.21**	$ 4.75	$ 8.08	$ 6.69	$ (2.94)
Net income (loss)	**10.21**	4.74	8.08	6.69	(2.98)
Diluted					
Income (loss) from continuing operations	**$ 10.14**	$ 4.73	$ 8.04	$ 6.69	$ (2.94)
Net income (loss)	**10.14**	4.72	8.04	6.68	(2.98)
Dividends declared per common share	**2.04**	2.04	1.92	1.54	0.96
Common dividends	**$ 4,196**	$ 4,299	$ 4,403	$ 3,865	$ 2,595
Preferred dividends	**1,040**	1,095	1,109	1,174	1,213
Common share repurchases	**7,600**	2,925	17,875	14,545	14,538

Table continues on the next page, including footnotes.

In millions of dollars, except per share amounts, ratios and direct staff	**2021**	2020	2019	2018	2017
At December 31:					
Total assets	**$2,291,413**	$2,260,090	$1,951,158	$1,917,383	$1,842,465
Total deposits	**1,317,230**	1,280,671	1,070,590	1,013,170	959,822
Long-term debt	**254,374**	271,686	248,760	231,999	236,709
Citigroup common stockholders' equity(2)	**182,977**	179,962	175,262	177,760	181,487
Total Citigroup stockholders' equity(2)	**201,972**	199,442	193,242	196,220	200,740
Average assets	**2,347,709**	2,226,454	1,978,805	1,920,242	1,875,438
Direct staff *(in thousands)*	**223**	210	200	204	209
Performance metrics					
Return on average assets	**0.94%**	0.50%	0.98%	0.94%	(0.36)%
Return on average common stockholders' equity(2)(3)	**11.5**	5.7	10.3	9.4	(3.9)
Return on average total stockholders' equity(2)(3)	**10.9**	5.7	9.9	9.1	(3.0)
Return on tangible common equity (RoTCE)(2)(4)	**13.4**	6.6	12.1	11.0	8.1
Efficiency ratio (total operating expenses/total revenues, net)	**67.0**	58.8	57.0	58.1	59.0
Basel III ratios(2)(5)					
Common Equity Tier 1 Capital(6)	**12.25%**	11.51%	11.79%	11.86%	12.36%
Tier 1 Capital(6)	**13.91**	13.06	13.33	13.43	14.06
Total Capital(6)	**16.04**	15.33	15.87	16.14	16.30
Supplementary Leverage ratio	**5.73**	6.99	6.20	6.40	6.68
Citigroup common stockholders' equity to assets(2)	**7.99%**	7.96%	8.98%	9.27%	9.85%
Total Citigroup stockholders' equity to assets(2)	**8.81**	8.82	9.90	10.23	10.90
Dividend payout ratio(7)	**20**	43	24	23	NM
Total payout ratio(8)	**56**	73	122	109	NM
Book value per common share(2)	**$ 92.21**	$ 86.43	$ 82.90	$ 75.05	$ 70.62
Tangible book value (TBV) per share(2)(4)	**79.16**	73.67	70.39	63.79	60.16

(1) Revenue previously referred to as net interest revenue is now referred to as net interest income. During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each year were $1,207 million for 2021, $1,203 million for 2020, $781 million for 2019, $1,182 million for 2018 and $1,249 million for 2017. See Note 1 to the Consolidated Financial Statements.

(2) 2017 includes the one-time impact related to enactment of the Tax Cuts and Jobs Act (Tax Reform). 2020, 2019 and 2018 reflect the tax rate structure post Tax Reform. RoTCE for 2017 excludes the one-time impact from Tax Reform and is a non-GAAP financial measure. For additional information, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below.

(3) The return on average common stockholders' equity is calculated using net income less preferred stock dividends divided by average common stockholders' equity. The return on average total Citigroup stockholders' equity is calculated using net income divided by average Citigroup stockholders' equity.

(4) RoTCE and TBV are non-GAAP financial measures. For information on RoTCE and TBV, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Returns on Equity" below.

(5) Citi's risk-based capital and leverage ratios for 2017 are non-GAAP financial measures, which reflect full implementation of regulatory capital adjustments and deductions prior to the effective date of January 1, 2018.

(6) Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach, and the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework as of December 31, 2021 and December 31, 2019 to 2017. Citi's reportable Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios were the lower derived under the Basel III Advanced Approaches framework as of December 31, 2020.

(7) Dividends declared per common share as a percentage of net income per diluted share.

(8) Total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders (*Net income*, less preferred dividends). See "Consolidated Statement of Changes in Stockholders' Equity," Note 10 to the Consolidated Financial Statements and "Equity Security Repurchases" below for the component details.

NM Not meaningful

SEGMENT AND BUSINESS—INCOME (LOSS) AND REVENUES

CITIGROUP INCOME

In millions of dollars	2021	2020	2019	% Change 2021 vs. 2020	% Change 2020 vs. 2019
Income (loss) from continuing operations					
Institutional Clients Group					
North America	**$ 5,781**	$ 3,310	$ 3,407	**75%**	(3)%
EMEA	**4,347**	3,280	3,836	**33**	(14)
Latin America	**2,429**	1,390	2,101	**75**	(34)
Asia	**3,206**	3,573	3,432	**(10)**	4
Total	**$15,763**	$11,553	$ 12,776	**36%**	(10)%
Global Consumer Banking					
North America	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM
Latin America	**798**	241	885	**NM**	(73)%
Asia[(1)]	**(686)**	468	1,537	**NM**	(70)
Total	**$ 6,046**	$ 663	$ 5,579	**NM**	(88)%
Corporate/Other	**209**	(1,109)	1,116	**NM**	NM
Income from continuing operations	**$22,018**	$11,107	$ 19,471	**98%**	(43)%
Discontinued operations	**$ 7**	$ (20)	$ (4)	**NM**	NM
Less: Net income attributable to noncontrolling interests	**73**	40	66	**83%**	(39)%
Citigroup's net income	**$21,952**	$11,047	$ 19,401	**99%**	(43)%

(1) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries.
NM Not meaningful

CITIGROUP REVENUES

In millions of dollars	2021	2020	2019	% Change 2021 vs. 2020	% Change 2020 vs. 2019
Institutional Clients Group					
North America	**$ 16,748**	$ 17,476	$ 13,603	**(4)%**	28%
EMEA	**13,094**	13,041	12,157	**—**	7
Latin America	**4,946**	4,981	5,275	**(1)**	(6)
Asia	**9,099**	9,590	8,789	**(5)**	9
Total	**$ 43,887**	$ 45,088	$ 39,824	**(3)%**	13%
Global Consumer Banking					
North America	**$ 17,481**	$ 19,284	$ 20,460	**(9)%**	(6)
Latin America	**4,250**	4,466	5,334	**(5)**	(16)
Asia[(1)]	**5,599**	6,592	7,427	**(15)**	(11)
Total	**$ 27,330**	$ 30,342	$ 33,221	**(10)%**	(9)%
Corporate/Other	**667**	71	2,022	**NM**	(96)
Total Citigroup net revenues	**$ 71,884**	$ 75,501	$ 75,067	**(5)%**	1%

(1) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries.
NM Not meaningful

SEGMENT BALANCE SHEET[1]—DECEMBER 31, 2021

In millions of dollars	Institutional Clients Group	Global Consumer Banking	Corporate/Other and consolidating eliminations[2]	Citigroup parent company-issued long-term debt and stockholders' equity[3]	Total Citigroup consolidated
Assets					
Cash and deposits with banks, net of allowance	$ 90,714	$ 7,953	$ 163,366	$ —	$ 262,033
Securities borrowed and purchased under agreements to resell, net of allowance	326,937	118	233	—	327,288
Trading account assets	318,495	1,186	12,264	—	331,945
Investments, net of allowance	132,357	1,218	379,247	—	512,822
Loans, net of unearned income and allowance for credit losses on loans	393,681	253,721	3,910	—	651,312
Other assets, net of allowance	112,901	51,480	41,632	—	206,013
Net inter-segment liquid assets[4]	386,448	116,728	(503,176)	—	—
Total assets	$1,761,533	$432,404	$ 97,476	$ —	$2,291,413
Liabilities and equity					
Total deposits	$ 949,522	$361,808	$ 5,900	$ —	$1,317,230
Securities loaned and sold under agreements to repurchase	188,784	2,498	3	—	191,285
Trading account liabilities	160,353	763	413	—	161,529
Short-term borrowings	27,309	109	555	—	27,973
Long-term debt[3]	89,720	482	(773)	164,945	254,374
Other liabilities, net of allowance	88,443	32,325	15,582	—	136,350
Net inter-segment funding (lending)[3]	257,402	34,419	75,096	(366,917)	—
Total liabilities	$1,761,533	$432,404	$ 96,776	$ (201,972)	$2,088,741
Total stockholders' equity[5]	—	—	700	201,972	202,672
Total liabilities and equity	$1,761,533	$432,404	$ 97,476	$ —	$2,291,413

(1) The supplemental information presented in the table above reflects Citigroup's consolidated GAAP balance sheet by reporting segment. The respective segment information depicts the assets and liabilities managed by each segment.
(2) Consolidating eliminations for total Citigroup and Citigroup parent company assets and liabilities are recorded within *Corporate/Other*.
(3) Total stockholders' equity and the majority of long-term debt of Citigroup are reflected on the Citigroup parent company balance sheet. Citigroup allocates stockholders' equity and long-term debt to its businesses through inter-segment allocations as shown above.
(4) Represents the attribution of Citigroup's liquid assets (primarily consisting of cash, marketable equity securities and available-for-sale debt securities) to the various businesses based on Liquidity Coverage Ratio (LCR) assumptions.
(5) *Corporate/Other* equity represents noncontrolling interests.

INSTITUTIONAL CLIENTS GROUP

As of December 31, 2021, *Institutional Clients Group (ICG)* included *Banking* and *Markets and securities services* (for additional information on these businesses, see "Citigroup Segments" above). *ICG* provided corporate, institutional, public sector and high-net-worth clients around the world with a full range of wholesale banking products and services, including fixed income and equity sales and trading, foreign exchange, prime brokerage, derivative services, equity and fixed income research, corporate lending, investment banking and advisory services, private banking, cash management, trade finance and securities services. *ICG* transacted with clients in both cash instruments and derivatives, including fixed income, foreign currency, equity and commodity products.

For information on Citi's planned revision to its reporting structure, including the reporting of the private bank as part of a new reporting segment, *Personal Banking and Wealth Management*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

ICG revenue is generated primarily from fees and spreads associated with these activities. *ICG* earns fee income for assisting clients with transactional services and clearing and providing brokerage and investment banking services and other such activities. Such fees are recognized at the point in time when Citigroup's performance under the terms of a contractual arrangement is completed, which is typically at the trade/execution date or closing of a transaction. Revenue generated from these activities is recorded in *Commissions and fees* and *Investment banking*. Revenue is also generated from assets under custody and administration, which is recognized as/when the associated promised service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi. Revenue generated from these activities is primarily recorded in *Administration and other fiduciary fees*. For additional information on these various types of revenues, see Note 5 to the Consolidated Financial Statements.

In addition, as a market maker, *ICG* facilitates transactions, including holding product inventory to meet client demand, and earns the differential between the price at which it buys and sells the products. These price differentials and the unrealized gains and losses on the inventory are recorded in *Principal transactions*. Mark-to-market gains and losses on certain credit derivatives (used to hedge the corporate loan portfolio) are also recorded in *Principal transactions* (for additional information on *Principal transactions* revenue, see Note 6 to the Consolidated Financial Statements). *Other* primarily includes realized gains and losses on available-for-sale (AFS) debt securities, gains and losses on equity securities not held in trading accounts and other non-recurring gains and losses. Interest income earned on assets held, less interest paid on long- and short-term debt and to customers on deposits, is recorded as *Net interest income*.

The amount and types of *Markets* revenues are impacted by a variety of interrelated factors, including market liquidity; changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities; investor confidence and other macroeconomic conditions. Assuming all other market conditions do not change, increases in client activity levels or bid/offer spreads generally result in increases in revenues. However, changes in market conditions can significantly impact client activity levels, bid/offer spreads and the fair value of product inventory. For example, a decrease in market liquidity may increase bid/offer spreads, decrease client activity levels and widen credit spreads on product inventory positions.

ICG's management of the *Markets* businesses involves daily monitoring and evaluation of the above factors at the trading desk as well as the country level.

In the *Markets* businesses, client revenues are those revenues directly attributable to client transactions at the time of inception, including commissions, interest or fees earned. Client revenues do not include the results of client facilitation activities (e.g., holding product inventory in anticipation of client demand) or the results of certain economic hedging activities.

ICG's international presence is supported by trading floors in approximately 80 countries and a proprietary network in 95 countries and jurisdictions. At December 31, 2021, *ICG* had $1.8 trillion in assets and $950 billion in deposits. Securities services and issuer services managed $24.0 trillion in assets under custody and administration at December 31, 2021, of which Citi provides both custody and administrative services to certain clients related to $1.9 trillion of such assets. Managed assets under trust were $3.8 trillion at December 31, 2021. For additional information on these operations, see "Administration and Other Fiduciary Fees" in Note 5 to the Consolidated Financial Statements.

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Commissions and fees	**$ 4,750**	$ 4,412	$ 4,462	**8%**	(1)%
Administration and other fiduciary fees	**3,351**	2,877	2,756	**16**	4
Investment banking	**6,741**	5,009	4,440	**35**	13
Principal transactions	**10,064**	13,308	8,562	**(24)**	55
Other[(1)]	**1,384**	1,149	1,829	**20**	(37)
Total non-interest revenue	**$26,290**	$26,755	$22,049	**(2)%**	21%
Net interest income (including dividends)	**17,597**	18,333	17,775	**(4)**	3
Total revenues, net of interest expense	**$43,887**	$45,088	$39,824	**(3)%**	13%
Total operating expenses[(2)]	**$26,513**	$24,617	$22,961	**8%**	7%
Net credit losses on loans	**$ 396**	$ 987	$ 394	**(60)%**	NM
Credit reserve build (release) for loans	**(2,533)**	3,172	71	**NM**	NM
Provision for credit losses on unfunded lending commitments	**(777)**	1,435	98	**NM**	NM
Provisions for credit losses on HTM debt securities and other assets	**1**	21	—	**(95)**	100%
Provisions for credit losses	**$ (2,913)**	$ 5,615	$ 563	**NM**	NM
Income from continuing operations before taxes	**$20,287**	$14,856	$16,300	**37%**	(9)%
Income taxes	**4,524**	3,303	3,524	**37**	(6)
Income from continuing operations	**$15,763**	$11,553	$12,776	**36%**	(10)%
Noncontrolling interests	**83**	50	40	**66**	25
Net income	**$15,680**	$11,503	$12,736	**36%**	(10)%
Balance Sheet data and ratios					
EOP assets *(in billions of dollars)*	**$ 1,762**	$ 1,730	$ 1,447	**2%**	20%
Average assets *(in billions of dollars)*	**1,812**	1,706	1,493	**6**	14
Return on average assets	**0.87%**	0.67%	0.85%		
Efficiency ratio	**60**	55	58		
Revenues by region					
North America	**$16,748**	$17,476	$13,603	**(4)%**	28%
EMEA	**13,094**	13,041	12,157	**—**	7
Latin America	**4,946**	4,981	5,275	**(1)**	(6)
Asia	**9,099**	9,590	8,789	**(5)**	9
Total	**$43,887**	$45,088	$39,824	**(3)%**	13%
Income from continuing operations by region					
North America	**$ 5,781**	$ 3,310	$ 3,407	**75%**	(3)%
EMEA	**4,347**	3,280	3,836	**33**	(14)
Latin America	**2,429**	1,390	2,101	**75**	(34)
Asia	**3,206**	3,573	3,432	**(10)**	4
Total	**$15,763**	$11,553	$12,776	**36%**	(10)%
Average loans by region *(in billions of dollars)*					
North America	**$ 202**	$ 201	$ 188	**—%**	7%
EMEA	**89**	88	87	**1**	1
Latin America	**32**	39	40	**(18)**	(3)
Asia	**73**	71	73	**3**	(3)
Total	**$ 396**	$ 399	$ 388	**(1)%**	3%
EOP deposits by business *(in billions of dollars)*					
Treasury and trade solutions	**$ 636**	$ 651	$ 536	**(2)%**	21%
All other *ICG* businesses	**314**	273	232	**15**	18
Total	**$ 950**	$ 924	$ 768	**3%**	20%

(1) 2019 includes an approximate $350 million gain on Citi's investment in Tradeweb.
(2) 2020 includes an approximate $390 million operational loss related to certain legal matters.
NM Not meaningful

ICG Revenue Details

In millions of dollars	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Investment banking revenue details					
Advisory	**$ 1,796**	$ 1,010	$ 1,259	**78%**	(20)%
Equity underwriting	**2,434**	1,593	973	**53**	64
Debt underwriting	**3,283**	3,184	2,984	**3**	7
Total investment banking	**$ 7,513**	$ 5,787	$ 5,216	**30%**	11%
Treasury and trade solutions	**9,444**	9,824	10,513	**(4)**	(7)
Corporate lending—excluding gains (losses) on loan hedges[1]	**2,291**	2,310	2,985	**(1)**	(23)
Private bank—excluding gains (losses) on loan hedges[1]	**4,005**	3,794	3,487	**6**	9
Total *Banking* revenues (ex-gains (losses) on loan hedges)[1]	**$ 23,253**	$ 21,715	$ 22,201	**7%**	(2)%
Losses on loan hedges[1]	**$ (144)**	$ (51)	$ (432)	**NM**	88%
Total *Banking* revenues (including gains (losses) on loan hedges), net of interest expense	**$ 23,109**	$ 21,664	$ 21,769	**7%**	—%
Fixed income markets[2]	**$ 13,720**	$ 17,588	$ 13,074	**(22)%**	35%
Equity markets	**4,545**	3,624	2,908	**25**	25
Securities services	**2,720**	2,562	2,642	**6**	(3)
Other	**(207)**	(352)	(569)	**41**	38
Total *Markets and securities services* revenues, net of interest expense	**$ 20,778**	$ 23,424	$ 18,055	**(11)%**	30%
Total revenues, net of interest expense	**$ 43,887**	$ 45,088	$ 39,824	**(3)%**	13%
Commissions and fees	**$ 793**	$ 677	$ 782	**17%**	(13)%
Principal transactions[3]	**7,692**	11,518	7,661	**(33)**	50
Other[2]	**831**	579	1,117	**44**	(48)
Total non-interest revenue	**$ 9,316**	$ 12,774	$ 9,560	**(27)%**	34%
Net interest income	**4,404**	4,814	3,514	**(9)**	37
Total fixed income markets[4]	**$ 13,720**	$ 17,588	$ 13,074	**(22)%**	35%
Rates and currencies	**$ 8,903**	$ 12,162	$ 9,242	**(27)%**	32%
Spread products/other fixed income	**4,817**	5,426	3,832	**(11)**	42
Total fixed income markets	**$ 13,720**	$ 17,588	$ 13,074	**(22)%**	35%
Commissions and fees	**$ 1,231**	$ 1,245	$ 1,121	**(1)%**	11%
Principal transactions[3]	**1,986**	1,281	775	**55**	65
Other	**191**	322	172	**(41)**	87
Total non-interest revenue	**$ 3,408**	$ 2,848	$ 2,068	**20%**	38%
Net interest income	**1,137**	776	840	**47**	(8)
Total equity markets[4]	**$ 4,545**	$ 3,624	$ 2,908	**25%**	25%

(1) Credit derivatives are used to economically hedge a portion of the private bank and corporate loan portfolio that includes both accrual loans and loans at fair value. Gains (losses) on loan hedges include the mark-to-market on the credit derivatives and the mark-to-market on the loans in the portfolio that are at fair value. The fixed premium costs of these hedges are netted against the private bank and corporate lending revenues to reflect the cost of credit protection. Gains (losses) on loan hedges include $(131) million and $(74) million related to the corporate loan portfolio and $(13) million and $23 million related to the private bank for the years ended December 31, 2021 and 2020, respectively. All of gains (losses) on loan hedges are related to the corporate loan portfolio for the year ended December 31, 2019. Citigroup's results of operations excluding the impact of gains (losses) on loan hedges are non-GAAP financial measures.

(2) 2019 includes an approximate $350 million gain on Citi's investment in Tradeweb.

(3) Excludes principal transactions revenues of *ICG* businesses other than *Markets*, primarily treasury and trade solutions and the private bank.

(4) Citi assesses its *Markets* business performance on a total revenue basis, as offsets may occur across revenue line items. For example, securities that generate *Net interest income* may be risk managed by derivatives that are recorded in *Principal transactions* revenue. For a description of the composition of these revenue line items, see Notes 4, 5 and 6 to the Consolidated Financial Statements.

NM Not meaningful

The discussion of the results of operations for ICG below excludes (where noted) the impact of gains (losses) on hedges of accrual loans, which are non-GAAP financial measures. For a reconciliation of these metrics to the reported results, see the table above.

2021 vs. 2020

Net income of $15.7 billion increased 36% versus the prior year, primarily driven by lower cost of credit, partially offset by higher expenses and lower revenues.

Revenues decreased 3%, reflecting lower *Markets and securities services* revenues, partially offset by higher *Banking* revenues. *Banking* revenues were up 7% (both including and excluding the impact of losses on loan hedges), driven by higher revenues in investment banking and the private bank, partially offset by lower revenues in treasury and trade solutions and corporate lending. *Markets and securities services* revenues were down 11%, primarily reflecting a normalization in fixed income markets revenues, partially offset by growth in equity markets and securities services.

Citi expects that revenues in its markets and investment banking businesses will continue to reflect the overall market environment during 2022.

Within *Banking:*

- *Investment banking* revenues were up 30%, reflecting growth in the overall market wallet. Advisory revenues increased 78%, reflecting strength in *North America* and *EMEA*, driven by growth in the market wallet as well as wallet share gains. Equity underwriting revenues increased 53%, reflecting strength in *North America* and *EMEA*, driven by growth in the market wallet, as well as wallet share gains. Debt underwriting revenues increased 3%, reflecting strength in *EMEA*, as growth in the market wallet was partially offset by a decline in wallet share.
- *Treasury and trade solutions* revenues decreased 4% (both including and excluding the impact of FX translation), reflecting a decline in revenues in the cash business, partially offset by an increase in trade revenues. Cash revenues decreased, driven by the ongoing impact of lower deposit spreads. The decrease was partially offset by strong growth in fee revenues reflecting solid client engagement and growth in transaction volumes, including growth in USD clearing, commercial cards and cross-border solutions. The increase in trade revenues was driven by improved trade spreads and growth in loans, reflecting an increase in trade flows and originations, primarily in *Asia* and *EMEA*. Average trade loans increased 5% (both including and excluding the impact of FX translation).
- *Corporate lending* revenues decreased 3%, including the impact of losses on loan hedges. Excluding the impact of losses on loan hedges, revenues decreased 1%, as lower cost of funds was more than offset by lower loan volumes, reflecting muted demand given strong client liquidity positions. Average loans decreased 20% during the current year.
- *Private bank* revenues increased 5%. Excluding the impact of gains (losses) on loan hedges, revenues increased 6%, driven by strong performance in *North America* and *EMEA*. The higher revenues reflected continued momentum with new and existing clients, resulting in higher loan volumes and spreads, higher managed investments revenues and higher deposit volumes. The increase in revenues was partially offset by lower deposit spreads due to the ongoing low interest rate environment and lower capital markets revenue.

Within *Markets and securities services:*

- *Fixed income markets* revenues decreased 22%, reflecting lower revenues across all regions, largely driven by a comparison to a strong prior year, as well as a normalization in market activity, particularly in rates and currencies, and spread products. Non-interest revenues decreased, reflecting lower investor client activity across rates and currencies and spread products. Net interest income also decreased, largely reflecting a change in the mix of trading positions.

  Rates and currencies revenues decreased 27%, driven by the normalization in market activity, and a comparison to a strong prior year that included elevated levels of volatility related to the pandemic. Spread products and other fixed income revenues decreased 11%, driven by a comparison to a strong prior year and the normalization in market activity, particularly in flow trading and structured products, reflecting lower volatility and spreads, partially offset by strong securitization activity.
- *Equity markets* revenues increased 25%, driven by growth across all products. Equity derivatives revenues increased reflecting higher client activity, particularly in *EMEA* and *North America*. Prime finance revenues increased due to favorable market conditions as well as growth in client balances. Cash equities revenues increased modestly, reflecting higher client activity. Non-interest revenues increased, primarily due to higher principal transactions revenues, reflecting higher client activity.
- *Securities services* revenues increased 6%. Excluding the impact of FX translation, revenues increased 7%, as an increase in fee revenues with both new and existing clients, driven by growth in assets under custody and settlement volumes, was partially offset by lower deposit spreads.

Expenses were up 8%, primarily driven by continued investments in Citi's transformation, business-led investments and higher incentive compensation, as well as transactional related expenses, partially offset by productivity savings.

Provisions reflected a benefit of $2.9 billion compared to costs of $5.6 billion in the prior year, driven by an ACL release and lower net credit losses.

Net credit losses declined to $396 million from $987 million in the prior year, driven by improvements in portfolio credit quality.

The ACL release was $3.3 billion compared to a build of $4.6 billion in the prior year. The release was primarily driven by improvements in portfolio credit quality as well as Citi's improved macroeconomic outlook. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on trends in *ICG*'s deposits and loans, see "Managing Global Risk—Liquidity Risk—Loans" and "—Deposits" below.

For additional information on *ICG*'s corporate credit portfolio, see "Managing Global Risk—Credit Risk—Corporate Credit" below.

For additional information about trends, uncertainties and risks related to *ICG*'s future results, see "Managing Global Risk—Other Risks—Country Risk—Argentina" and "Risk Factors" below.

GLOBAL CONSUMER BANKING

As of December 31, 2021, *Global Consumer Banking (GCB)* consisted of consumer banking businesses in *North America*, *Latin America* (consisting of Citi's consumer banking business in Mexico) and *Asia*. *GCB* provided traditional banking services to retail customers through retail banking, branded cards and, in the U.S., retail services (for information on consumer market exits related to *Latin America GCB* and *Asia GCB* as well as Citi's planned revision to its reporting structure, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above).

GCB's markets in the U.S., Mexico and *Asia* had a combined 2,154 branches in 19 countries and jurisdictions as of December 31, 2021. At December 31, 2021, *GCB* had $267 billion in loans and $362 billion in retail banking deposits (excluding approximately $10 billion of loans and $8 billion of deposits reclassified to held-for-sale as a result of Citi's agreements to sell its consumer banking businesses in Australia and the Philippines).

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$24,238**	$26,551	$28,455	**(9)%**	(7)%
Non-interest revenue	**3,092**	3,791	4,766	**(18)**	(20)
Total revenues, net of interest expense	**$27,330**	$30,342	$33,221	**(10)%**	(9)%
Total operating expenses	**$20,035**	$17,834	$18,039	**12%**	(1)%
Net credit losses on loans	**$ 4,582**	$ 6,646	$ 7,382	**(31)%**	(10)%
Credit reserve build (release) for loans	**(5,174)**	4,951	439	**NM**	NM
Provision for credit losses on unfunded lending commitments	**—**	—	1	**—**	100
Provisions for benefits and claims, and other assets	**96**	105	73	**(9)**	44
Provisions for credit losses and for benefits and claims (PBC)	**$ (496)**	$11,702	$ 7,895	**NM**	48%
Income from continuing operations before taxes	**$ 7,791**	$ 806	$ 7,287	**NM**	(89)%
Income taxes	**1,745**	143	1,708	**NM**	(92)
Income from continuing operations	**$ 6,046**	$ 663	$ 5,579	**NM**	(88)%
Noncontrolling interests	**(11)**	(4)	6	**NM**	NM
Net income	**$ 6,057**	$ 667	$ 5,573	**NM**	(88)%
Balance Sheet data and ratios					
EOP assets *(in billions of dollars)*	**$ 432**	$ 434	$ 407	**—%**	7%
Average assets *(in billions of dollars)*	**440**	426	389	**3**	10
Return on average assets	**1.38%**	0.16%	1.43%		
Efficiency ratio	**73**	59	54		
Average retail banking deposits *(in billions of dollars)*	**$ 352**	$ 311	$ 277	**13**	12
Net credit losses as a percentage of average loans	**1.72%**	2.39%	2.60%		
Revenue by business					
Retail banking	**$10,776**	$11,996	$12,758	**(10)%**	(6)%
Cards[1]	**16,554**	18,346	20,463	**(10)**	(10)
Total	**$27,330**	$30,342	$33,221	**(10)%**	(9)%
Income from continuing operations by business					
Retail banking	**$ (830)**	$ 557	$ 1,741	**NM**	(68)%
Cards[1]	**6,876**	106	3,838	**NM**	(97)
Total	**$ 6,046**	$ 663	$ 5,579	**NM**	(88)%

Table continues on the next page, including footnotes.

Foreign currency (FX) translation impact					
Total revenue—as reported	**$27,330**	$30,342	$33,221	**(10)%**	(9)%
Impact of FX translation[2]	**—**	323	(157)		
Total revenues—ex-FX[3]	**$27,330**	$30,665	$33,064	**(11)%**	(7)%
Total operating expenses—as reported	**$20,035**	$17,834	$18,039	**12%**	(1)%
Impact of FX translation[2]	**—**	212	(80)		
Total operating expenses—ex-FX[3]	**$20,035**	$18,046	$17,959	**11%**	—%
Total provisions for credit losses and PBC—as reported	**$ (496)**	$11,702	$ 7,895	**NM**	48%
Impact of FX translation[2]	**—**	87	(51)		
Total provisions for credit losses and PBC—ex-FX[3]	**$ (496)**	$11,789	$ 7,844	**NM**	50%
Net income—as reported	**$ 6,057**	$ 667	$ 5,573	**NM**	(88)%
Impact of FX translation[2]	**—**	12	(11)		
Net income—ex-FX[3]	**$ 6,057**	$ 679	$ 5,562	**NM**	(88)%

(1) Includes both branded cards and retail services.
(2) Reflects the impact of FX translation into U.S. dollars at the 2021 average exchange rates for all periods presented.
(3) Presentation of this metric excluding FX translation is a non-GAAP financial measure.
NM Not meaningful

NORTH AMERICA GCB

As of December 31, 2021, *North America GCB* provided traditional retail banking and branded and retail services card products to retail and small business customers in the U.S. *North America GCB*'s U.S. cards product portfolio included its proprietary portfolio (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco) within branded cards, as well as its co-brand and private label relationships (including, among others, The Home Depot, Sears, Best Buy and Macy's) within retail services. For information on Citi's planned revision to its reporting structure, including the reporting of *North America GCB*'s consumer banking businesses as part of a new reporting segment, *Personal Banking and Wealth Management*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

At December 31, 2021, *North America GCB* had 658 retail bank branches concentrated in the six key metropolitan areas of New York, Chicago, Miami, Washington, D.C., Los Angeles and San Francisco. Also, as of December 31, 2021, *North America GCB* had $48.1 billion in retail banking loans and $219.3 billion in retail banking deposits. In addition, *North America GCB* had $133.9 billion in outstanding card loan balances.

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$17,393**	$18,938	$19,931	**(8)%**	(5)%
Non-interest revenue	**88**	346	529	**(75)**	(35)
Total revenues, net of interest expense	**$17,481**	$19,284	$20,460	**(9)%**	(6)%
Total operating expenses	**$10,832**	$10,237	$10,305	**6%**	(1)%
Net credit losses on loans	**$ 2,937**	$ 4,990	$ 5,583	**(41)%**	(11)%
Credit reserve build for loans	**(3,974)**	4,115	469	**NM**	NM
Provision for credit losses on unfunded lending commitments	**—**	—	1	**—**	100
Provisions for benefits and claims, and other assets	**19**	17	19	**12**	(11)
Provisions for credit losses and for benefits and claims	**$ (1,018)**	$ 9,122	$ 6,072	**NM**	50%
Income from continuing operations before taxes	**$ 7,667**	$ (75)	$ 4,083	**NM**	NM
Income taxes	**1,733**	(29)	926	**NM**	NM
Income from continuing operations	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM
Noncontrolling interests	**—**	—	—	**—%**	—%
Net income	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM
Balance Sheet data and ratios					
Average assets *(in billions of dollars)*	**$ 266**	$ 266	$ 232	**—%**	15%
Return on average assets	**2.23%**	(0.02)%	1.36%		
Efficiency ratio	**62**	53	50		
Average retail banking deposits *(in billions of dollars)*	**$ 206**	$ 176	$ 153	**17**	15
Net credit losses as a percentage of average loans	**1.69%**	2.72%	2.97%		
Revenue by business					
Retail banking	**$ 4,211**	$ 4,519	$ 4,558	**(7)%**	(1)%
Branded cards	**8,189**	8,800	9,184	**(7)**	(4)
Retail services	**5,081**	5,965	6,718	**(15)**	(11)
Total	**$17,481**	$19,284	$20,460	**(9)%**	(6)%
Income (loss) from continuing operations by business					
Retail banking	**$ (453)**	$ (232)	$ 145	**(95)%**	NM
Branded cards	**3,903**	12	1,734	**NM**	(99)%
Retail services	**2,484**	174	1,278	**NM**	(86)
Total	**$ 5,934**	$ (46)	$ 3,157	**NM**	NM

NM Not meaningful

2021 vs. 2020

Net income was $5.9 billion, compared to a net loss of $46 million in the prior year, reflecting significantly lower cost of credit, partially offset by lower revenues and higher expenses.

Revenues decreased 9%, reflecting lower revenues in retail banking, branded cards and retail services.

Retail banking revenues decreased 7%, as the benefit of strong deposit growth and growth in assets under management (increase of 8%, reflecting favorable market conditions and strong client engagement) was more than offset by lower deposit spreads, as well as lower mortgage revenues. Average deposits increased 17%, driven by higher levels of consumer liquidity due to government stimulus, as well as continued strategic efforts to drive organic growth.

Cards revenues decreased 10%. Branded cards revenues decreased 7%, primarily driven by continued higher payment rates, reflecting increased customer liquidity from government stimulus and relief programs, partially offset by higher spending-related revenues. Credit card spend volume increased 21%, reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Retail services revenues decreased 15%, primarily driven by lower average loans (down 7%), reflecting higher payment rates from the increased customer liquidity from government stimulus and relief programs, as well as higher partner payments, reflecting higher income sharing as a result of lower net credit losses. For additional information on partner payments, see Note 5 to the Consolidated Financial Statements. Credit card spend volume increased 18%, reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Expenses increased 6%, primarily driven by continued investments in Citi's transformation, as well as business-led investments and higher volume-related expenses, partially offset by productivity savings.

Provisions reflected a benefit of $1.0 billion, compared to costs of $9.1 billion in the prior year, primarily driven by a net ACL release compared to a net ACL build in the prior year, as well as lower net credit losses. Net credit losses decreased 41%, consisting of lower net credit losses in both branded cards (down 39% to $1.7 billion) and retail services (down 46% to $1.2 billion), primarily driven by lower loan volumes and improved delinquencies, primarily as a result of the higher payment rates.

The net ACL release was $4.0 billion, compared to a net build of $4.1 billion in the prior year, reflecting improvement in portfolio credit quality and the continued improvement in the macroeconomic outlook. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *North America GCB*'s retail banking, and its branded cards and retail services portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *North America GCB*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" below.

LATIN AMERICA GCB

As of December 31, 2021, *Latin America GCB* provided traditional retail banking and branded card products to consumer and small business customers in Mexico through Citibanamex.

As discussed above, Citi intends to exit its consumer, small business and middle-market banking operations in Mexico. For additional information, see Citi's Current Report on Form 8-K filed with the SEC on January 11, 2022. For information on Citi's planned revision to its reporting structure, including the reporting of the Mexico consumer, small business and middle-market banking operations as part of a new reporting segment, *Legacy Franchises*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

At December 31, 2021, *Latin America GCB* had 1,276 retail branches in Mexico, with $8.6 billion in retail banking loans and $24.8 billion in deposits. In addition, the business had $4.7 billion in outstanding card loan balances.

In millions of dollars, except as otherwise noted	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$2,874**	$3,172	$3,735	**(9)%**	(15)%
Non-interest revenue	**1,376**	1,294	1,599	**6**	(19)
Total revenues, net of interest expense	**$4,250**	$4,466	$5,334	**(5)%**	(16)%
Total operating expenses	**$2,949**	$2,871	$3,001	**3%**	(4)%
Net credit losses on loans	**$ 920**	$ 866	$1,109	**6%**	(22)%
Credit reserve build (release) for loans	**(825)**	316	(38)	**NM**	NM
Provision for credit losses on unfunded lending commitments	**—**	—	—	**—**	—
Provisions for benefits and claims, and other assets	**80**	87	54	**(8)**	61
Provisions for credit losses and for benefits and claims (PBC)	**$ 175**	$1,269	$1,125	**(86)%**	13%
Income from continuing operations before taxes	**$1,126**	$ 326	$1,208	**NM**	(73)%
Income taxes	**328**	85	323	**NM**	(74)
Income from continuing operations	**$ 798**	$ 241	$ 885	**NM**	(73)%
Noncontrolling interests	**—**	—	—	**— %**	—
Net income	**$ 798**	$ 241	$ 885	**NM**	(73)%
Balance Sheet data and ratios					
Average assets *(in billions of dollars)*	**$ 35**	$ 32	$ 35	**9 %**	(9)%
Return on average assets	**2.28%**	0.75%	2.53%		
Efficiency ratio	**69**	64	56		
Average deposits *(in billions of dollars)*	**$ 24**	$ 23	$ 23	**4**	—
Net credit losses as a percentage of average loans	**6.87%**	5.97%	6.45%		
Revenue by business					
Retail banking	**$3,119**	$3,103	$3,681	**1%**	(16)%
Branded cards	**1,131**	1,363	1,653	**(17)**	(18)
Total	**$4,250**	$4,466	$5,334	**(5)%**	(16)%
Income from continuing operations by business					
Retail banking	**$ 435**	$ 120	$ 586	**NM**	(80)%
Branded cards	**363**	121	299	**NM**	(60)
Total	**$ 798**	$ 241	$ 885	**NM**	(73)%
FX translation impact					
Total revenues—as reported	**$4,250**	$4,466	$5,334	**(5)%**	(16)%
Impact of FX translation[1]	**—**	211	(246)		
Total revenues—ex-FX[2]	**$4,250**	$4,677	$5,088	**(9)%**	(8)%
Total operating expenses—as reported	**$2,949**	$2,871	$3,001	**3%**	(4)%
Impact of FX translation[1]	**—**	129	(132)		
Total operating expenses—ex-FX[2]	**$2,949**	$3,000	$2,869	**(2)%**	5%
Provisions for credit losses and PBC—as reported	**$ 175**	$1,269	$1,125	**(86)%**	13%
Impact of FX translation[1]	**—**	66	(58)		
Provisions for credit losses and PBC—ex-FX[2]	**$ 175**	$1,335	$1,067	**(87)%**	25%
Net income—as reported	**$ 798**	$ 241	$ 885	**NM**	(73)%
Impact of FX translation[1]	**—**	9	(37)		
Net income—ex-FX[2]	**$ 798**	$ 250	$ 848	**NM**	(71)%

(1) Reflects the impact of FX translation into U.S. dollars at the 2021 average exchange rates for all periods presented.
(2) Presentation of this metric excluding FX translation is a non-GAAP financial measure.
NM Not meaningful

The discussion of the results of operations for Latin America GCB below excludes the impact of FX translation for all periods presented. Presentations of the results of operations, excluding the impact of FX translation, are non-GAAP financial measures. For a reconciliation of certain of these metrics to the reported results, see the table above.

2021 vs. 2020

Net income was $798 million, compared to $250 million in the prior year, reflecting significantly lower cost of credit and modestly lower expenses, partially offset by lower revenues.

Revenues decreased 9%, reflecting lower cards and retail banking revenues, largely due to the continued impact of the pandemic.

Retail banking revenues decreased 4%, primarily driven by lower loan volumes and deposit spreads, partially offset by growth in assets under management. Average loans decreased 13%, reflecting the impact of the pandemic on customer activity. Assets under management increased 8%, reflecting favorable market conditions, as well as strong client engagement.

Cards revenues decreased 21%, primarily driven by lower average loans (down 11%), reflecting higher payment rates. Credit card spend volume increased 16%, reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Expenses decreased 2%, as productivity savings more than offset continued investments in Citi's transformation.

Provisions of $174 million decreased 87%, primarily driven by a net ACL release compared to a net ACL build in the prior year, partially offset by higher net credit losses resulting from pandemic-related charge-offs.

The net ACL release was $826 million, compared to a build of $329 million in the prior year. The release reflected an improvement in portfolio credit quality, as well as continued improvement in the macroeconomic outlook and lower loan volumes. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Latin America GCB*'s retail banking and its branded cards portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *Latin America GCB*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" below.

ASIA GCB

As of December 31, 2021, *Asia GCB* provided traditional retail banking and branded card products to retail and small business customers. Included within *Asia GCB* were traditional retail banking and branded card products provided to retail customers in certain *EMEA* countries, primarily the UAE, Poland and Russia.

As discussed above, Citi is pursuing exits of its consumer franchises in 13 markets across *Asia* and *EMEA* and will focus its consumer banking franchise in the two regions on four wealth centers: Singapore, Hong Kong, the UAE and London. In 2021, Citi entered into agreements to sell its consumer banking businesses in Australia and the Philippines, and made a decision to wind down and close its Korea consumer banking business (for additional information, see Note 2 to the Consolidated Financial Statements).

In addition, in January 2022, Citi entered into agreements to sell its consumer banking businesses in Indonesia, Malaysia, Taiwan, Thailand and Vietnam. For information on Citi's planned revision to its reporting structure, including the reporting of the 13 exit markets as part of a new reporting segment, *Legacy Franchises*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

At December 31, 2021, on a combined basis, the businesses had 220 retail branches, $58.9 billion in retail banking loans and $117.7 billion in deposits. In addition, the businesses had $13.1 billion in outstanding card loan balances. These amounts exclude approximately $10 billion of loans ($7 billion of retail banking loans and $3 billion of credit card loan balances) and $8 billion of deposits reclassified to held-for-sale (HFS) as a result of Citi's agreements to sell its consumer banking businesses in Australia and the Philippines. Australia and the Philippines are the only consumer businesses reclassified as HFS at December 31, 2021. For additional information, see Note 2 to the Consolidated Financial Statements.

In millions of dollars, except as otherwise noted[1]	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 3,971**	$4,441	$4,789	**(11)%**	(7)%
Non-interest revenue	**1,628**	2,151	2,638	**(24)**	(18)
Total revenues, net of interest expense	**$ 5,599**	$6,592	$7,427	**(15)%**	(11)%
Total operating expenses	**$ 6,254**	$4,726	$4,733	**32%**	—%
Net credit losses on loans	**$ 725**	$ 790	$ 690	**(8)%**	14%
Credit reserve build for loans	**(375)**	520	8	**NM**	NM
Provisions for other assets	**(3)**	1	—	**NM**	—
Provisions for credit losses	**$ 347**	$1,311	$ 698	**(74)%**	88%
Income (loss) from continuing operations before taxes	**$(1,002)**	$ 555	$1,996	**NM**	(72)%
Income taxes (benefits)	**(316)**	87	459	**NM**	(81)
Income (loss) from continuing operations	**$ (686)**	$ 468	$1,537	**NM**	(70)%
Noncontrolling interests	**(11)**	(4)	6	**NM**	NM
Net income (loss)	**$ (675)**	$ 472	$1,531	**NM**	(69)%
Balance Sheet data and ratios					
Average assets *(in billions of dollars)*	**$ 139**	$ 129	$ 122	**8%**	6%
Return on average assets	**(0.49)%**	0.37%	1.25%		
Efficiency ratio	**112**	72	64		
Average deposits *(in billions of dollars)*	**$ 122**	$ 113	$ 101	**8**	12
Net credit losses as a percentage of average loans	**0.92%**	0.99%	0.88%		
Revenue by business					
Retail banking	**$ 3,446**	$4,374	$4,519	**(21)%**	(3)%
Branded cards	**2,153**	2,218	2,908	**(3)**	(24)
Total	**$ 5,599**	$6,592	$7,427	**(15)%**	(11)%
Income (loss) from continuing operations by business					
Retail banking	**$ (812)**	$ 669	$1,010	**NM**	(34)%
Branded cards	**126**	(201)	527	**NM**	NM
Total	**$ (686)**	$ 468	$1,537	**NM**	(70)%

Table continues on the next page including footnotes.

FX translation impact					
Total revenues—as reported	**$ 5,599**	$6,592	$7,427	**(15)%**	(11)%
Impact of FX translation[2]	**—**	112	89		
Total revenues—ex-FX[3]	**$ 5,599**	$6,704	$7,516	**(16)%**	(11)%
Total operating expenses—as reported	**$ 6,254**	$4,726	$4,733	**32%**	—%
Impact of FX translation[2]	**—**	83	52		
Total operating expenses—ex-FX[3]	**$ 6,254**	$4,809	$4,785	**30%**	1%
Provisions for credit losses—as reported	**$ 347**	$1,311	$ 698	**(74)%**	88%
Impact of FX translation[2]	**—**	21	7		
Provisions for credit losses—ex-FX[3]	**$ 347**	$1,332	$ 705	**(74)%**	89%
Net income (loss)—as reported	**$ (675)**	$ 472	$1,531	**NM**	(69)%
Impact of FX translation[2]	**—**	3	26		
Net income (loss)—ex-FX[3]	**$ (675)**	$ 475	$1,557	**NM**	(69)%

(1) *Asia GCB* includes the results of operations of *GCB* activities in certain *EMEA* countries for all periods presented.
(2) Reflects the impact of FX translation into U.S. dollars at the 2021 average exchange rates for all periods presented.
(3) Presentation of this metric excluding FX translation is a non-GAAP financial measure.
NM Not meaningful

The discussion of the results of operations for Asia GCB below excludes the impact of FX translation for all periods presented. Presentations of the results of operations, excluding the impact of FX translation, are non-GAAP financial measures. For a reconciliation of certain of these metrics to the reported results, see the table above.

2021 vs. 2020

Net loss was $675 million, compared to net income of $475 million in the prior year. The net loss included the following items related to the 13 exit markets: (i) approximately $1.1 billion (approximately $0.8 billion after-tax) related to charges incurred from the voluntary early retirement program (VERP) in connection with the wind-down of the Korea consumer banking business; (ii) an approximate $0.7 billion pretax loss ($0.6 billion after-tax) related to the agreement to sell the Australia consumer banking business, largely reflecting the impact of a CTA loss (net of hedges); and (iii) contract modification costs related to the *Asia* divestitures of $119 million ($98 million after-tax).

Excluding the above items, *net income* was $807 million compared to net income of $475 million in the prior year, reflecting significantly lower cost of credit, partially offset by higher expenses and lower revenues.

Revenues decreased 16%, including the Australia loss on sale. Excluding the Australia loss on sale, revenues declined 6%, reflecting lower retail banking and cards revenues, largely due to the continued impact of the pandemic, including lower interest rates.

Retail banking revenues decreased 22%, including the Australia loss on sale. Excluding the Australia loss on sale, revenues decreased 7%, as growth in both investment revenues and deposits was more than offset by lower deposit spreads due to lower interest rates and lower FX and insurance revenues. Assets under management increased 3%, reflecting the impact of improved market conditions, as well as client engagement. Average deposits increased 6% and average loans decreased 2%. The decline in retail banking revenues was also impacted by a 3% decrease in retail lending revenues, reflecting a decline in personal loans driven by spread compression.

Cards revenues decreased 5%, as lower average loans (down 14%, including the reclassification to held-for-sale related to Australia and the Philippines and higher payment rates) were partially offset by higher spending-related revenues (credit card spend volume up 8%), reflecting a continued recovery in sales activity from the pandemic-driven low levels in the prior year.

Expenses increased 30%, including approximately $1.2 billion of costs related to the *Asia* divestitures. Excluding the costs related to the *Asia* divestitures, expenses increased 6%, primarily driven by continued investments in Citi's transformation, as well as business-led investments, partially offset by productivity savings.

Provisions decreased 74%, primarily driven by a net ACL release compared to a net ACL build in the prior year, as well as lower net credit losses. Net credit losses decreased 10%, primarily reflecting lower cards loan volumes and improved delinquencies.

The net ACL release was $376 million, compared to a build of $528 million in the prior year. The release reflected an improvement in portfolio credit quality. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Asia GCB*'s retail banking portfolios and its branded cards portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *Asia GCB*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" and "Significant Accounting Policies and Significant Estimates" below.

CORPORATE/OTHER

Activities not assigned to the operating segments (*ICG* and *GCB*) are included in *Corporate/Other*. As of December 31, 2021, *Corporate/Other* included certain unallocated costs of global staff functions (including certain finance, risk, human resources, legal and compliance), other corporate expenses and unallocated global operations and technology expenses and income taxes, as well as results of Corporate Treasury, certain *North America* legacy consumer loan portfolios, discontinued operations and other legacy assets. For information on Citi's planned revision to its reporting structure, including the reporting of the *North America* legacy consumer loan portfolios, discontinued operations and other legacy assets as part of a new reporting segment, *Legacy Franchises*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above. At December 31, 2021, *Corporate/Other* had $97 billion in assets.

In millions of dollars	**2021**	2020	2019	**% Change 2021 vs. 2020**	% Change 2020 vs. 2019
Net interest income	**$ 659**	$ (133)	$1,898	**NM**	NM
Non-interest revenue	**8**	204	124	**(96)%**	65%
Total revenues, net of interest expense	**$ 667**	$ 71	$2,022	**NM**	(96)%
Total operating expenses	**$1,645**	$ 1,923	$1,783	**(14)%**	8%
Net credit losses (recoveries) on loans	**$ (83)**	$ (22)	$ (8)	**NM**	NM
Credit reserve build (release) for loans	**(291)**	188	(60)	**NM**	NM
Provision (release) for credit losses on unfunded lending commitments	**(11)**	11	(7)	**NM**	NM
Provisions (releases) for benefits and claims, HTM debt securities and other assets	**16**	1	—	**100%**	—%
Provisions (releases) for credit losses and for benefits and claims	**$ (369)**	$ 178	$ (75)	**NM**	NM
Income (loss) from continuing operations before taxes	**$ (609)**	$(2,030)	$ 314	**70%**	NM
Income taxes (benefits)	**(818)**	(921)	(802)	**11**	(15)%
Income (loss) from continuing operations	**$ 209**	$(1,109)	$1,116	**NM**	NM
(Loss) from discontinued operations, net of taxes	**7**	(20)	(4)	**NM**	NM
Net income (loss) before attribution of noncontrolling interests	**$ 216**	$(1,129)	$1,112	**NM**	NM
Noncontrolling interests	**1**	(6)	20	**NM**	NM
Net income (loss)	**$ 215**	$(1,123)	$1,092	**NM**	NM

NM Not meaningful

2021 vs. 2020

Net income was $215 million, compared to a net loss of $1.1 billion in the prior year, reflecting higher revenues, lower expenses and lower cost of credit.

Revenues of $667 million compared to $71 million in the prior year, primarily driven by higher net revenue from the investment portfolio.

Expenses decreased 14%, reflecting the absence of a civil money penalty in the prior year and the wind-down of legacy assets, partially offset by increases related to Citi's transformation.

Provisions reflected a net benefit of $369 million, compared to costs of $178 million in the prior year, primarily driven by a net ACL release in the current year ($286 million compared to a net build of $200 million in the prior year). The release reflected the continued improvement in the macroeconomic outlook.

For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information about trends, uncertainties and risks related to *Corporate/Other*'s future results, see "Executive Summary" above and "Risk Factors—Strategic Risks" below.

CAPITAL RESOURCES

Overview

Capital is used principally to support assets in Citi's businesses and to absorb credit, market and operational losses. Citi primarily generates capital through earnings from its operating businesses. Citi may augment its capital through issuances of common stock and noncumulative perpetual preferred stock, among other issuances. Further, Citi's capital levels may also be affected by changes in accounting and regulatory standards, as well as U.S. corporate tax laws and the impact of future events on Citi's business results, such as changes in interest and foreign exchange rates, as well as business and asset dispositions. For additional information on capital-related trends, uncertainties and risks related to Citi's legacy and exit businesses, including the impact of CTA losses, see "Executive Summary" above and "Risk Factors—Strategic Risks" and "—Operational Risks" below.

During 2021, Citi returned a total of $11.8 billion of capital to common shareholders in the form of $4.2 billion in dividends and $7.6 billion in share repurchases totaling approximately 105 million common shares.

Capital Management

Citi's capital management framework is designed to ensure that Citigroup and its principal subsidiaries maintain sufficient capital consistent with each entity's respective risk profile, management targets and all applicable regulatory standards and guidelines. Citi assesses its capital adequacy against a series of internal quantitative capital goals, designed to evaluate its capital levels in expected and stressed economic environments. Underlying these internal quantitative capital goals are strategic capital considerations, centered on preserving and building financial strength.

The Citigroup Capital Committee, with oversight from the Risk Management Committee of Citigroup's Board of Directors, has responsibility for Citi's aggregate capital structure, including the capital assessment and planning process, which is integrated into Citi's capital plan. Balance sheet management, including oversight of capital adequacy, for Citigroup's subsidiaries is governed by each entity's Asset and Liability Committee, where applicable.

For additional information regarding Citi's capital planning and stress testing exercises, see "Stress Testing Component of Capital Planning" below.

Current Regulatory Capital Standards

Citi is subject to regulatory capital standards issued by the Federal Reserve Board, which constitute the U.S. Basel III rules. These rules establish an integrated capital adequacy framework, encompassing both risk-based capital ratios and leverage ratios.

Risk-Based Capital Ratios

The U.S. Basel III rules set forth the composition of regulatory capital (including the application of regulatory capital adjustments and deductions), as well as two comprehensive methodologies (a Standardized Approach and Advanced Approaches) for measuring total risk-weighted assets.

Total risk-weighted assets under the Advanced Approaches, which are primarily models based, include credit, market and operational risk-weighted assets. The Standardized Approach generally applies prescribed supervisory risk weights to broad categories of credit risk exposures. As a result, credit risk-weighted assets calculated under the Advanced Approaches are more risk sensitive than those calculated under the Standardized Approach. Market risk-weighted assets are currently calculated on a generally consistent basis under both approaches. The Standardized Approach excludes operational risk-weighted assets.

Under the U.S. Basel III rules, both Citi and Citibank, N.A. (Citibank) are required to maintain stated minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios of 4.5%, 6.0% and 8.0%, respectively. Further, the U.S. Basel III rules implement the "capital floor provision" of the so-called "Collins Amendment" of the Dodd-Frank Act, which requires Advanced Approaches banking organizations to calculate each of the three risk-based capital ratios (Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital) under both the U.S. Basel III Standardized Approach and the Advanced Approaches and comply with the more binding of each of the resulting risk-based capital ratios.

Tier 1 Leverage Ratio

Under the U.S. Basel III rules, Citi is also required to maintain a minimum Tier 1 Leverage ratio of 4.0%. The Tier 1 Leverage ratio, a non-risk-based measure of capital adequacy, is defined as Tier 1 Capital as a percentage of quarterly adjusted average total assets less amounts deducted from Tier 1 Capital.

Supplementary Leverage Ratio
Citi is also required to calculate a Supplementary Leverage ratio, which differs from the Tier 1 Leverage ratio by also including certain off-balance sheet exposures within the denominator of the ratio (Total Leverage Exposure). The Supplementary Leverage ratio represents end-of-period Tier 1 Capital to Total Leverage Exposure, with the latter defined as the sum of the daily average of on-balance sheet assets for the quarter and the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter, less applicable Tier 1 Capital deductions. Advanced Approaches banking organizations are required to maintain a stated minimum Supplementary Leverage ratio of 3.0%.

Further, U.S. GSIBs, including Citi, are subject to enhanced Supplementary Leverage ratio standards. These enhanced standards establish a 2.0% leverage buffer in addition to the stated 3.0% minimum Supplementary Leverage ratio requirement, for a total effective minimum Supplementary Leverage ratio requirement of 5.0%. If a U.S. GSIB fails to exceed this requirement, it will be subject to increasingly onerous restrictions (depending upon the extent of the shortfall) regarding capital distributions and discretionary executive bonus payments.

Temporary Supplementary Leverage Ratio Relief
In April 2020, the Federal Reserve Board issued an interim final rule that temporarily changed the calculation of the Supplementary Leverage ratio for bank holding companies, including Citigroup, by excluding U.S. Treasuries and deposits at Federal Reserve Banks from Total Leverage Exposure.

The interim final rule was effective for Citigroup's Supplementary Leverage ratio, as well as for Citigroup's leverage-based total loss absorbing capacity (TLAC) and long-term debt (LTD) requirements, and expired as scheduled on March 31, 2021. Citigroup's reported Supplementary Leverage ratio of 7.0% during the fourth quarter of 2020 benefited 109 basis points, as a result of the temporary relief.

Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology
In September 2020, the U.S. banking agencies issued a final rule (substantially unchanged from a March 2020 interim final rule) that modified the regulatory capital transition provision related to the current expected credit losses (CECL) methodology. The September 2020 final rule does not have any impact on U.S. GAAP accounting.

The final rule permitted banks to delay for two years the "Day One" adverse regulatory capital effects resulting from adoption of the CECL methodology on January 1, 2020 until January 1, 2022, followed by a three-year transition to phase out the regulatory capital benefit provided by the delay.

In addition, for the ongoing impact of CECL, the agencies utilized a 25% scaling factor as an approximation of the increased reserve build under CECL compared to the previous incurred loss model and, therefore, allowed banks to add back to Common Equity Tier 1 Capital an amount equal to 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021. Beginning January 1, 2022, the cumulative 25% change in CECL-based allowances between January 1, 2020 and December 31, 2021 will be phased in to regulatory capital (i) at 25% per year on January 1 of each year over the three-year transition period, and (ii) along with the delayed "Day One" impact.

Citigroup and Citibank elected the modified CECL transition provision provided by the rule beginning with the quarter ended March 31, 2020. Accordingly, the Day One regulatory capital effects resulting from adoption of the CECL methodology, as well as the ongoing adjustments for 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021, started to be phased in on January 1, 2022 and will be fully reflected in Citi's regulatory capital as of January 1, 2025.

As of December 31, 2021, Citigroup's reported Common Equity Tier 1 Capital ratio of 12.2% benefited from the deferrals of the CECL transition provision by 24 basis points (bps), which resulted in an approximate 6 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio upon commencement of the phase-in on January 1, 2022. In addition, this phase-in is expected to result in an additional 6 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio on January 1 of each year through January 1, 2025. For additional information on Citigroup's and Citibank's regulatory capital ratios excluding the impact of the CECL transition provision, see "Capital Resources (Full Adoption of CECL)" below.

TLAC Holdings
As previously disclosed, in January 2021, the U.S. banking agencies issued a final rule that created a new regulatory capital deduction applicable to Advanced Approaches banking organizations for certain investments in covered debt instruments issued by GSIBs. The final rule became effective for Citigroup and Citibank on April 1, 2021, and did not have a significant impact on either Citigroup's or Citibank's regulatory capital.

Regulatory Capital Buffers
Citi and Citibank are required to maintain several regulatory capital buffers above stated minimum capital requirements. These capital buffers would be available to absorb losses in advance of any potential impairment of regulatory capital below the stated minimum regulatory capital ratio requirements.

Banking organizations that fall below their regulatory capital buffers are subject to limitations on capital distributions and discretionary bonus payments to executive officers based on a percentage of "Eligible Retained Income" (ERI), with increasing restrictions based upon the severity of the breach. ERI is equal to the greater of (i) the bank's net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and tax effects not already reflected in net income, and (ii) the average of the bank's net income for the four calendar quarters preceding the current calendar quarter.

As of December 31, 2021, Citi's regulatory capital ratios exceeded effective regulatory minimum requirements. Accordingly, Citi is not subject to payout limitations as a result of Basel III requirements.

Stress Capital Buffer

Citigroup is subject to the Federal Reserve Board's Stress Capital Buffer (SCB) rule, which integrates the annual stress testing requirements with ongoing regulatory capital requirements. The SCB equals the peak-to-trough Common Equity Tier 1 Capital ratio decline under the Supervisory Severely Adverse scenario used in the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST), plus four quarters of planned common stock dividends, subject to a floor of 2.5%. SCB-based minimum capital requirements will be reviewed and updated annually by the Federal Reserve Board as part of the CCAR process. For additional information regarding CCAR and DFAST, see "Stress Testing Component of Capital Planning" below. The fixed 2.5% Capital Conservation Buffer (for additional information, see below) will continue to apply under the Advanced Approaches.

In August 2021, the Federal Reserve Board finalized and announced Citi's SCB requirement of 3.0%. Accordingly, effective October 1, 2021, Citigroup is required to maintain a 10.5% effective minimum Common Equity Tier 1 Capital ratio under the Standardized Approach. Previously, from October 1, 2020 through September 30, 2021, Citi had been subject to a 2.5% SCB, and a 10.0% effective minimum Common Equity Tier 1 Capital ratio under the Standardized Approach.

Capital Conservation Buffer and Countercyclical Capital Buffer

Citigroup is subject to a fixed 2.5% Capital Conservation Buffer under the Advanced Approaches. Citibank is subject to the fixed 2.5% Capital Conservation Buffer under both the Advanced Approaches and the Standardized Approach.

In addition, Advanced Approaches banking organizations, such as Citigroup and Citibank, are subject to a discretionary Countercyclical Capital Buffer. The Federal Reserve Board last voted to affirm the Countercyclical Capital Buffer amount at the current level of 0% in December 2020.

GSIB Surcharge

The Federal Reserve Board imposes a risk-based capital surcharge upon U.S. bank holding companies that are identified as global systemically important bank holding companies (GSIBs), including Citi. The GSIB surcharge augments the SCB, Capital Conservation Buffer and, if invoked, any Countercyclical Capital Buffer.

A U.S. bank holding company that is designated a GSIB is required, on an annual basis, to calculate a surcharge using two methods and is subject to the higher of the resulting two surcharges. The first method ("method 1") is based on the Basel Committee's GSIB methodology. Under the second method ("method 2"), the substitutability category under the Basel Committee's GSIB methodology is replaced with a quantitative measure intended to assess a GSIB's reliance on short-term wholesale funding. In addition, method 1 incorporates relative measures of systemic importance across certain global banking organizations and a year-end spot foreign exchange rate, whereas method 2 uses fixed measures of systemic importance and application of an average foreign exchange rate over a three-year period. The GSIB surcharges calculated under both method 1 and method 2 are based on measures of systemic importance from the year immediately preceding that in which the GSIB surcharge calculations are being performed (e.g., the method 1 and method 2 GSIB surcharges calculated during 2021 will be based on 2020 systemic indicator data). Generally, Citi's surcharge determined under method 2 will result in a higher surcharge than its surcharge determined under method 1.

Should a GSIB's systemic importance increase for more than one year, such that it becomes subject to a higher GSIB surcharge, the higher surcharge would not become effective for a full year after the second consecutive higher score (e.g., a higher surcharge calculated using data as of December 31, 2020 and December 30, 2021 would not become effective until January 1, 2023). However, if after two consecutive years of a higher score, a GSIB's systemic importance changes such that the GSIB would be subject to a lower surcharge, the GSIB would be subject to the lower surcharge in the calendar year commencing one year later (e.g., a lower surcharge calculated using data as of December 31, 2022 would become effective January 1, 2024).

The following table sets forth Citi's effective GSIB surcharge as determined under method 1 and method 2 during 2021 and 2020:

	2021	2020
Method 1	**2.0%**	2.0%
Method 2	**3.0**	3.0

Citi's GSIB surcharge effective during both 2021 and 2020 was 3.0%, as derived under the higher method 2 result. Citi's GSIB surcharge effective for 2022 will remain unchanged at 3.0%, as derived under the higher method 2 result.

Citi expects that its method 2 GSIB surcharge will continue to remain higher than its method 1 GSIB surcharge. Accordingly, based on Citi's method 2 result as of December 31, 2020, and its estimated method 2 result as of December 31, 2021, Citi's GSIB surcharge is expected to increase to 3.5% effective January 1, 2023. Citi's GSIB surcharge effective for 2024 will likely be based on the lower of its method 2 scores for year-end 2021 and 2022, and therefore is not expected to exceed 3.5%.

Prompt Corrective Action Framework

In general, the Prompt Corrective Action (PCA) regulations direct the U.S. banking agencies to enforce increasingly strict limitations on the activities of insured depository institutions that fail to meet certain regulatory capital thresholds. The PCA framework contains five categories of capital adequacy as measured by risk-based capital and leverage ratios: (i) "well capitalized," (ii) "adequately capitalized," (iii) "undercapitalized," (iv) "significantly undercapitalized" and (v) "critically undercapitalized."

Accordingly, an insured depository institution, such as Citibank, must maintain minimum Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital and Tier 1 Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized." In addition, insured depository institution subsidiaries of U.S. GSIBs, including Citibank, must maintain a minimum

Supplementary Leverage ratio of 6.0% to be considered "well capitalized." Citibank was "well capitalized" as of December 31, 2021.

Furthermore, to be "well capitalized" under current federal bank regulatory agency definitions, a bank holding company must have a Tier 1 Capital ratio of at least 6.0%, a Total Capital ratio of at least 10.0% and not be subject to a Federal Reserve Board directive to maintain higher capital levels.

Stress Testing Component of Capital Planning

Citi is subject to an annual assessment by the Federal Reserve Board as to whether Citigroup has effective capital planning processes as well as sufficient regulatory capital to absorb losses during stressful economic and financial conditions, while also meeting obligations to creditors and counterparties and continuing to serve as a credit intermediary. This annual assessment includes two related programs: the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST).

For the largest and most complex firms, such as Citi, CCAR includes a qualitative evaluation of a firm's abilities to determine its capital needs on a forward-looking basis. In conducting the qualitative assessment, the Federal Reserve Board evaluates firms' capital planning practices, focusing on six areas of capital planning—namely, governance, risk management, internal controls, capital policies, incorporating stressful conditions and events, and estimating impact on capital positions. As part of the CCAR process, the Federal Reserve Board evaluates Citi's capital adequacy, capital adequacy process and its planned capital distributions, such as dividend payments and common share repurchases. The Federal Reserve Board assesses whether Citi has sufficient capital to continue operations throughout times of economic and financial market stress and whether Citi has robust, forward-looking capital planning processes that account for its unique risks.

All CCAR firms, including Citi, are subject to a rigorous evaluation of their capital planning process. Firms with weak practices may be subject to a deficient supervisory rating, and potentially an enforcement action, for failing to meet supervisory expectations. For additional information regarding CCAR, see "Risk Factors—Strategic Risks" below.

DFAST is a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions on Citi's regulatory capital. This program serves to inform the Federal Reserve Board and the general public as to how Citi's regulatory capital ratios might change using a hypothetical set of adverse economic conditions as designed by the Federal Reserve Board. In addition to the annual supervisory stress test conducted by the Federal Reserve Board, Citi is required to conduct annual company-run stress tests under the same adverse economic conditions designed by the Federal Reserve Board.

Both CCAR and DFAST include an estimate of projected revenues, losses, reserves, pro forma regulatory capital ratios, and any other additional capital measures deemed relevant by Citi. Projections are required over a nine-quarter planning horizon under two supervisory scenarios (baseline and severely adverse conditions). All risk-based capital ratios reflect application of the Standardized Approach framework under the U.S. Basel III rules.

In addition, Citibank is required to conduct the annual Dodd-Frank Act Stress Test. The annual stress test consists of a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions under several scenarios on Citibank's regulatory capital. This program serves to inform the Office of the Comptroller of the Currency as to how Citibank's regulatory capital ratios might change during a hypothetical set of adverse economic conditions and to ultimately evaluate the reliability of Citibank's capital planning process.

Citigroup and Citibank are required to disclose the results of their company-run stress tests.

Temporary Federal Reserve Board Limitations on Capital Distributions

From the third quarter of 2020 to the second quarter of 2021, the Federal Reserve Board placed temporary limitations on capital distributions for Citi and other large banking organizations, to ensure that large banks maintained a high level of capital resilience throughout the COVID-19 pandemic. Commencing July 1, 2021, Citi's common stock dividends and share repurchases were no longer subject to limitations based on the average of Citi's net income for the four preceding calendar quarters.

All large banks, including Citi, remain subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see "Regulatory Capital Buffers" above, and "Risk Factors—Strategic Risks" below.

Citigroup's Capital Resources

The following table sets forth Citi's effective minimum risk-based capital requirements as of December 31, 2021, September 30, 2021 and December 31, 2020:

	Advanced Approaches			Standardized Approach		
	Dec. 31, 2021	Sept. 30, 2021	Dec. 31, 2020	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Common Equity Tier 1 Capital ratio(1)	**10.0%**	10.0%	10.0%	**10.5%**	10.0%	10.0%
Tier 1 Capital ratio(1)	**11.5**	11.5	11.5	**12.0**	11.5	11.5
Total Capital ratio(1)	**13.5**	13.5	13.5	**14.0**	13.5	13.5

(1) Beginning October 1, 2021, Citi's effective minimum risk-based capital requirements include the 3.0% SCB and 3.0% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.0% GSIB surcharge under the Advanced Approaches (all of which must be composed of Common Equity Tier 1 Capital). For prior periods presented, Citi's effective minimum risk-based capital requirements included a 2.5% SCB and 3.0% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.0% GSIB surcharge under the Advanced Approaches.

The following tables set forth Citi's capital components and ratios as of December 31, 2021, September 30, 2021 and December 31, 2020:

	Advanced Approaches(5)			Standardized Approach(5)		
In millions of dollars, except ratios	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Common Equity Tier 1 Capital(1)	**$ 149,305**	$ 149,631	$ 147,274	**$ 149,305**	$ 149,631	$ 147,274
Tier 1 Capital	**169,568**	168,902	167,053	**169,568**	168,902	167,053
Total Capital (Tier 1 Capital + Tier 2 Capital)(1)	**194,006**	194,423	196,051	**203,838**	204,288	205,002
Total Risk-Weighted Assets	**1,209,374**	1,265,297	1,278,977	**1,219,175**	1,284,316	1,242,381
Credit Risk(1)	**$ 840,483**	$ 871,668	$ 859,698	**$1,135,906**	$1,187,516	$1,121,871
Market Risk	**78,634**	93,376	116,181	**83,269**	96,800	120,510
Operational Risk	**290,257**	300,253	303,098	**—**	—	—
Common Equity Tier 1 Capital ratio(2)	**12.35%**	11.83%	11.51%	**12.25%**	11.65%	11.85%
Tier 1 Capital ratio(2)	**14.02**	13.35	13.06	**13.91**	13.15	13.45
Total Capital ratio(2)	**16.04**	15.37	15.33	**16.72**	15.91	16.50

In millions of dollars, except ratios	Effective Minimum Requirement	Dec. 31, 2021	Sept. 30, 2021	Dec. 31, 2020
Quarterly Adjusted Average Total Assets(1)(3)		**$2,351,434**	$2,311,830	$2,265,615
Total Leverage Exposure(1)(4)		**2,957,764**	2,911,050	2,391,033
Tier 1 Leverage ratio	**4.0%**	**7.21%**	7.31%	7.37%
Supplementary Leverage ratio	**5.0**	**5.73**	5.80	6.99

(1) Citi has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in retained earnings (after-tax), deferred tax assets (DTAs) arising from temporary differences, and the ACL upon the January 1, 2020 CECL adoption date were deferred and have commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022. For the ongoing impact of CECL, Citigroup was allowed to adjust retained earnings and the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to retained earnings and the ACL between January 1, 2020 and December 31, 2021 commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date. Corresponding adjustments to average on-balance sheet assets are reflected in quarterly adjusted average total assets and Total Leverage Exposure. Additionally, the increase in DTAs arising from temporary differences upon the January 1, 2020 adoption date were deducted from risk-weighted assets (RWA) and commenced phase-in to RWA at 25% per year beginning January 1, 2022.

(2) Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach as of December 31, 2021 and September 30, 2021, and under the Basel III Advanced Approaches framework as of December 31, 2020, whereas Citi's reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework for all periods presented.

(3) Tier 1 Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.

(4) Supplementary Leverage ratio denominator. Commencing with the second quarter of 2020 and continuing through the first quarter of 2021, Citigroup's Total Leverage Exposure temporarily excluded U.S. Treasuries and deposits at Federal Reserve Banks. For additional information, see "Temporary Supplementary Leverage Ratio Relief" above.

(5) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.

Common Equity Tier 1 Capital Ratio

As set forth in the table above, Citi's Common Equity Tier 1 Capital ratio at December 31, 2021 increased from September 30, 2021, primarily due to a decrease in risk-weighted assets and a temporary pause in common share repurchases in the fourth quarter of 2021 in preparation for the implementation of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. Citi's Common Equity Tier 1 Capital ratio increased from year-end 2020, largely driven by net income of $22.0 billion, a net decrease in risk-weighted assets and a temporary pause in common share repurchases in the fourth quarter of 2021 in preparation for the implementation of SA-CCR, partially offset by the return of $11.8 billion of capital to common shareholders in the form of share repurchases and dividends, as well as adverse net movements in *AOCI*.

Components of Citigroup Capital

In millions of dollars	**December 31, 2021**	December 31, 2020
Common Equity Tier 1 Capital		
Citigroup common stockholders' equity[1]	**$183,108**	$180,118
Add: Qualifying noncontrolling interests	**143**	141
Regulatory capital adjustments and deductions:		
Add: CECL transition and 25% provision deferral[2]	**3,028**	5,348
Less: Accumulated net unrealized gains (losses) on cash flow hedges, net of tax	**101**	1,593
Less: Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax	**(896)**	(1,109)
Less: Intangible assets:		
Goodwill, net of related DTLs[3]	**20,619**	21,124
Identifiable intangible assets other than MSRs, net of related DTLs	**3,800**	4,166
Less: Defined benefit pension plan net assets; other	**2,080**	921
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[4]	**11,270**	11,638
Total Common Equity Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$149,305**	$147,274
Additional Tier 1 Capital		
Qualifying noncumulative perpetual preferred stock[1]	**$ 18,864**	$ 19,324
Qualifying trust preferred securities[5]	**1,399**	1,393
Qualifying noncontrolling interests	**34**	35
Regulatory capital deductions:		
Less: Permitted ownership interests in covered funds[6]	**—**	917
Less: Other	**34**	56
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$ 20,263**	$ 19,779
Total Tier 1 Capital (Common Equity Tier 1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	**$169,568**	$167,053
Tier 2 Capital		
Qualifying subordinated debt	**$ 20,064**	$ 23,481
Qualifying trust preferred securities[7]	**248**	331
Qualifying noncontrolling interests	**42**	41
Eligible allowance for credit losses[2][8]	**14,209**	14,127
Regulatory capital deduction:		
Less: Other	**293**	31
Total Tier 2 Capital (Standardized Approach)	**$ 34,270**	$ 37,949
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	**$203,838**	$205,002
Adjustment for excess of eligible credit reserves over expected credit losses[2][8]	**$ (9,832)**	$ (8,951)
Total Tier 2 Capital (Advanced Approaches)	**$ 24,438**	$ 28,998
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	**$194,006**	$196,051

Footnotes continue on the following page.

(1) Issuance costs of $131 million and $156 million related to noncumulative perpetual preferred stock outstanding at December 31, 2021 and 2020, respectively, are excluded from common stockholders' equity and netted against such preferred stock in accordance with Federal Reserve Board regulatory reporting requirements, which differ from those under U.S. GAAP.
(2) Citi has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in retained earnings (after-tax) and the ACL upon the January 1, 2020 CECL adoption date were deferred and commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022. For the ongoing impact of CECL, Citigroup was allowed to adjust retained earnings and the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to retained earnings and the ACL between January 1, 2020 and December 31, 2021 have also commenced phase in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date.
(3) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.
(4) Of Citi's $24.8 billion of net DTAs at December 31, 2021, $15.3 billion was included in Common Equity Tier 1 Capital pursuant to the U.S. Basel III rules, while $9.5 billion was excluded. Excluded from Citi's Common Equity Tier 1 Capital as of December 31, 2021 was $11.3 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards. The amount excluded was reduced by $1.8 billion of net DTLs primarily associated with goodwill and certain other intangible assets that are separately deducted from capital. DTAs arising from tax carry-forwards are required to be entirely deducted from Common Equity Tier 1 Capital under the U.S. Basel III rules. DTAs arising from temporary differences are required to be deducted from capital only if these DTAs exceed 10%/15% limitation under the U.S. Basel III rules. Citi's DTAs do not currently exceed this limitation and, therefore, are not subject to deduction from Common Equity Tier 1 Capital, but are subject to risk weighting at 250%.
(5) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.
(6) Banking entities are required to be in compliance with the Volcker Rule of the Dodd-Frank Act, which prohibits conducting certain proprietary investment activities and limits their ownership of, and relationships with, covered funds. Commencing January 1, 2021, Citi no longer deducts permitted market-making positions in third-party covered funds from Tier 1 Capital, in accordance with the revised Volcker Rule 2.0 issued by the U.S. agencies in November 2019. Upon the removal of the capital deduction, permitted market-making positions in third-party covered funds are included in risk-weighted assets.
(7) Represents the amount of non-grandfathered trust preferred securities that were previously eligible for inclusion in Tier 2 Capital under the U.S. Basel III rules. Commencing January 1, 2022, non-grandfathered trust preferred securities have been fully phased out of Tier 2 Capital.
(8) Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets. The total amount of eligible credit reserves in excess of expected credit losses that were eligible for inclusion in Tier 2 Capital, subject to limitation, under the Advanced Approaches framework was $4.4 billion and $5.2 billion at December 30, 2021 and December 31, 2020, respectively.

Citigroup Capital Rollforward

In millions of dollars	Three months ended December 31, 2021	Twelve months ended December 31, 2021
Common Equity Tier 1 Capital, beginning of period	**$149,631**	**$147,274**
Net income	**3,173**	**21,952**
Common and preferred dividends declared	**(1,249)**	**(5,236)**
Net change in treasury stock	**6**	**(7,111)**
Net increase in common stock and additional paid-in capital	**87**	**132**
Net change in foreign currency translation adjustment net of hedges, net of tax	**(462)**	**(2,525)**
Net change in unrealized gains (losses) on debt securities AFS, net of tax	**(1,396)**	**(3,934)**
Net decrease in defined benefit plans liability adjustment, net of tax	**76**	**1,012**
Net change in adjustment related to change in fair value of financial liabilities attributable to own creditworthiness, net of tax	**(3)**	**19**
Net decrease in excluded component of fair value hedges	**12**	**—**
Net decrease in goodwill, net of related DTLs	**70**	**505**
Net decrease in identifiable intangible assets other than MSRs, net of related DTLs	**99**	**366**
Net increase in defined benefit pension plan net assets	**(133)**	**(936)**
Net change in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	**(373)**	**368**
Net decrease in CECL 25% provision deferral	**(361)**	**(2,320)**
Other	**128**	**(261)**
Net change in Common Equity Tier 1 Capital	**$ (326)**	**$ 2,031**
Common Equity Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$149,305**	**$149,305**
Additional Tier 1 Capital, beginning of period	**$ 19,271**	**$ 19,779**
Net change in qualifying perpetual preferred stock	**994**	**(460)**
Net increase in qualifying trust preferred securities	**1**	**6**
Net decrease in permitted ownership interests in covered funds	**—**	**917**
Other	**(3)**	**21**
Net increase in Additional Tier 1 Capital	**$ 992**	**$ 484**
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$169,568**	**$169,568**
Tier 2 Capital, beginning of period (Standardized Approach)	**$ 35,386**	**$ 37,949**
Net decrease in qualifying subordinated debt	**(392)**	**(3,417)**
Net change in eligible allowance for credit losses	**(651)**	**82**
Other	**(73)**	**(344)**
Net decrease in Tier 2 Capital (Standardized Approach)	**$ (1,116)**	**$ (3,679)**
Tier 2 Capital, end of period (Standardized Approach)	**$ 34,270**	**$ 34,270**
Total Capital, end of period (Standardized Approach)	**$203,838**	**$203,838**
Tier 2 Capital, beginning of period (Advanced Approaches)	**$ 25,521**	**$ 28,998**
Net decrease in qualifying subordinated debt	**(392)**	**(3,417)**
Net decrease in excess of eligible credit reserves over expected credit losses	**(618)**	**(799)**
Other	**(73)**	**(344)**
Net decrease in Tier 2 Capital (Advanced Approaches)	**$ (1,083)**	**$ (4,560)**
Tier 2 Capital, end of period (Advanced Approaches)	**$ 24,438**	**$ 24,438**
Total Capital, end of period (Advanced Approaches)	**$194,006**	**$194,006**

Citigroup Risk-Weighted Assets Rollforward (Basel III Standardized Approach)

In millions of dollars	Three months ended December 31, 2021	Twelve months ended December 31, 2021
Total Risk-Weighted Assets, beginning of period	**$1,284,316**	**$1,242,381**
Changes in Credit Risk-Weighted Assets		
General credit risk exposures	**(1,475)**	**(1,775)**
Repo-style transactions(1)	**(15,160)**	**(9,737)**
Securitization exposures(2)	**(1,306)**	**3,593**
Equity exposures	**(340)**	**494**
Over-the-counter (OTC) derivatives(3)	**(22,954)**	**3,224**
Other exposures(4)	**(7,167)**	**15,112**
Off-balance sheet exposures	**(3,208)**	**3,124**
Net change in Credit Risk-Weighted Assets	**$ (51,610)**	**$ 14,035**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (4,108)**	**$ (21,499)**
Model and methodology updates	**(9,423)**	**(15,742)**
Net decrease in Market Risk-Weighted Assets(5)	**$ (13,531)**	**$ (37,241)**
Total Risk-Weighted Assets, end of period	**$1,219,175**	**$1,219,175**

(1) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing and securities lending transactions. Repo-style transactions decreased during the three months and 12 months ended December 31, 2021, primarily due to exposure-driven decreases.
(2) Securitization exposures increased during the 12 months ended December 31, 2021, primarily due to increases in new deals.
(3) OTC derivatives decreased during the three months ended December 31, 2021, primarily due to decreases in mark-to-market and notional movement. OTC derivatives increased during the 12 months ended December 31, 2021, primarily due to increases in mark-to-market for bilateral derivatives.
(4) Other exposures include cleared transactions, unsettled transactions, and other assets. Other exposures decreased during the three months ended December 31, 2021 primarily due to decreases in cleared transactions. Other exposures increased during the 12 months ended December 31, 2021 primarily due to increases in various other assets.
(5) Market risk-weighted assets decreased during the three months and 12 months ended December 31, 2021, primarily due to exposure changes.

Citigroup Risk-Weighted Assets Rollforward (Basel III Advanced Approaches)

In millions of dollars	Three months ended December 31, 2021	Twelve months ended December 31, 2021
Total Risk-Weighted Assets, beginning of period	**$1,265,297**	**$1,278,977**
Changes in Credit Risk-Weighted Assets		
Retail exposures[1]	**(8,043)**	**(13,426)**
Wholesale exposures[2]	**(8,408)**	**(10,630)**
Repo-style transactions	**2,516**	**(3,861)**
Securitization exposures[3]	**528**	**5,816**
Equity exposures	**(253)**	**206**
Over-the-counter (OTC) derivatives[4]	**(8,465)**	**(510)**
Derivatives CVA[5]	**(5,988)**	**(2,715)**
Other exposures[6]	**(1,646)**	**7,003**
Supervisory 6% multiplier	**(1,426)**	**(1,098)**
Net decrease in Credit Risk-Weighted Assets	**$ (31,185)**	**$ (19,215)**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (5,320)**	**$ (21,805)**
Model and methodology updates	**(9,422)**	**(15,742)**
Net decrease in Market Risk-Weighted Assets[7]	**$ (14,742)**	**$ (37,547)**
Net decrease in Operational Risk-Weighted Assets[8]	**$ (9,996)**	**$ (12,841)**
Total Risk-Weighted Assets, end of period	**$1,209,374**	**$1,209,374**

(1) Retail exposures decreased during the three months ended December 31, 2021, primarily driven by model recalibrations. Retail exposures decreased during the 12 months ended December 31, 2021, primarily driven by seasonal holiday spending repayments, less spending on qualifying revolving (card) exposures and model recalibrations.
(2) Wholesale exposures decreased during the three months and 12 months ended December 31, 2021, primarily due to reductions in commercial loans and wholesale loan commitments.
(3) Securitization exposures increased during the 12 months ended December 31, 2021, primarily due to increases in new deals.
(4) OTC derivatives decreased during the three months ended December 31,2021, primarily due to decreases in mark-to-market and notional movement.
(5) Derivatives CVA decreased during the three months ended December 31, 2021, primarily due to decreases in exposure and volatility, as well as lower credit spreads and sensitivity.
(6) Other exposures increased during the 12 months ended December 31, 2021, primarily due to increases in various other assets.
(7) Market risk-weighted assets decreased during the three months and 12 months ended December 31, 2021, primarily due to exposure changes.
(8) Operational risk-weighted assets decreased during the three months and 12 months ended December 31, 2021, primarily due to changes in operational loss severity and frequency.

Supplementary Leverage Ratio

The following table sets forth Citi's Supplementary Leverage ratio and related components as of December 31, 2021, September 30, 2021 and December 31, 2020:

In millions of dollars, except ratios	**December 31, 2021**	September 30, 2021	December 31, 2020
Tier 1 Capital	**$ 169,568**	$ 168,902	$ 167,053
Total Leverage Exposure			
On-balance sheet assets(1)(2)(3)	**$2,389,237**	$2,349,414	$1,864,374
Certain off-balance sheet exposures:(4)			
Potential future exposure on derivative contracts	**222,241**	222,157	186,959
Effective notional of sold credit derivatives, net(5)	**23,788**	21,987	32,640
Counterparty credit risk for repo-style transactions(6)	**25,775**	21,174	20,965
Unconditionally cancelable commitments	**70,196**	70,541	71,163
Other off-balance sheet exposures	**264,330**	263,361	253,754
Total of certain off-balance sheet exposures	**$ 606,330**	$ 599,220	$ 565,481
Less: Tier 1 Capital deductions	**37,803**	37,584	38,822
Total Leverage Exposure(3)	**$2,957,764**	$2,911,050	$2,391,033
Supplementary Leverage ratio	**5.73%**	5.80%	6.99%

(1) Represents the daily average of on-balance sheet assets for the quarter.
(2) Citi has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in DTAs arising from temporary differences and the ACL upon the January 1, 2020 CECL adoption date were deferred and commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022. For the ongoing impact of CECL, Citigroup was allowed to adjust the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to the ACL between January 1, 2020 and December 31, 2021 have also commenced phase in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date. Corresponding adjustments to average on-balance sheet assets are reflected in Total Leverage Exposure.
(3) Commencing with the second quarter of 2020 and continuing through the first quarter of 2021, Citigroup's Total Leverage Exposure temporarily excluded U.S. Treasuries and deposits at Federal Reserve Banks. For additional information, see "Temporary Supplementary Leverage Ratio Relief" above.
(4) Represents the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter.
(5) Under the U.S. Basel III rules, banking organizations are required to include in Total Leverage Exposure the effective notional amount of sold credit derivatives, with netting of exposures permitted if certain conditions are met.
(6) Repo-style transactions include repurchase or reverse repurchase transactions as well as securities borrowing or securities lending transactions.

As set forth in the table above, Citigroup's Supplementary Leverage ratio was 5.7% at December 31, 2021, compared to 5.8% at September 30, 2021 and 7.0% at December 31, 2020. The quarter-over-quarter decrease was primarily driven by an increase in Total Leverage Exposure, primarily driven by an increase in average on-balance sheet assets, as well as adverse net movements in AOCI, partially offset by net income in the quarter. The year-over-year decrease was primarily driven by an increase in Total Leverage Exposure, largely due to an approximate 100 basis point impact from the expiration of the Federal Reserve Board's temporary Supplementary Leverage ratio relief. For additional information, see "Temporary Supplementary Leverage Ratio Relief" above.

Capital Resources of Citigroup's Subsidiary U.S. Depository Institutions

Citigroup's subsidiary U.S. depository institutions are also subject to regulatory capital standards issued by their respective primary bank regulatory agencies, which are similar to the standards of the Federal Reserve Board.

The following tables set forth the capital components and ratios for Citibank, Citi's primary subsidiary U.S. depository institution, as of December 31, 2021, September 30, 2021 and December 31, 2020:

In millions of dollars, except ratios	Effective Minimum Requirement(1)	Advanced Approaches(8) December 31, 2021	September 30, 2021	December 31, 2020	Standardized Approach(8) December 31, 2021	September 30, 2021	December 31, 2020
Common Equity Tier 1 Capital(2)		**$ 148,548**	$ 147,459	$ 142,854	**$ 148,548**	$ 147,459	$ 142,854
Tier 1 Capital		**150,679**	149,588	144,962	**150,679**	149,588	144,962
Total Capital (Tier 1 Capital + Tier 2 Capital)(2)(3)		**166,921**	166,196	161,447	**175,427**	174,745	169,449
Total Risk-Weighted Assets		**1,017,774**	1,067,406	1,047,088	**1,066,015**	1,107,021	1,054,056
Credit Risk(2)		**$ 737,802**	$ 761,259	$ 737,953	**$1,016,293**	$1,048,581	$ 989,222
Market Risk		**48,089**	55,566	63,984	**49,722**	58,440	64,834
Operational Risk		**231,883**	250,581	245,151	**—**	—	—
Common Equity Tier 1 Capital ratio(4)(5)	**7.0%**	**14.60%**	13.81%	13.64%	**13.93%**	13.32%	13.55%
Tier 1 Capital ratio(4)(5)	**8.5**	**14.80**	14.01	13.84	**14.13**	13.51	13.75
Total Capital ratio(4)(5)	**10.5**	**16.40**	15.57	15.42	**16.46**	15.79	16.08

In millions of dollars, except ratios	Effective Minimum Requirement	December 31, 2021	September 30, 2021	December 31, 2020
Quarterly Adjusted Average Total Assets(2)(6)		**$1,716,596**	$1,682,993	$1,667,105
Total Leverage Exposure(2)(7)		**2,236,839**	2,205,471	2,172,052
Tier 1 Leverage ratio(5)	**5.0%**	**8.78%**	8.89%	8.70%
Supplementary Leverage ratio(5)	**6.0**	**6.74**	6.78	6.67

(1) For all periods presented, Citibank's effective minimum risk-based capital requirements are inclusive of the 2.5% Capital Conservation Buffer (all of which must be composed of Common Equity Tier 1 Capital).
(2) Citibank has elected to apply the modified transition provision related to the impact of the CECL accounting standard on regulatory capital, as provided by the U.S. banking agencies' September 2020 final rule. Under the modified CECL transition provision, the changes in retained earnings (after-tax), deferred tax assets (DTAs) arising from temporary differences, and the ACL upon the January 1, 2020 CECL adoption date were deferred and have commenced phase-in to regulatory capital at 25% per year beginning on January 1, 2022. For the ongoing impact of CECL, Citibank was allowed to adjust retained earnings and the ACL in an amount equal to 25% of the change in the ACL (pretax) for each period between January 1, 2020 and December 31, 2021. The cumulative adjustments to retained earnings and the ACL between January 1, 2020 and December 31, 2021 have also commenced phase-in to regulatory capital at 25% per year beginning January 1, 2022, along with the deferred impacts related to the January 1, 2020 CECL adoption date. Corresponding adjustments to average on-balance sheet assets are reflected in quarterly adjusted average total assets and Total Leverage Exposure. Additionally, the increase in DTAs arising from temporary differences upon the January 1, 2020 adoption date were deducted from risk-weighted assets (RWA) and commenced phase-in to RWA at 25% per year beginning January 1, 2022.
(3) Under the Advanced Approaches framework, eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets, which differs from the Standardized Approach in which the ACL is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess ACL being deducted in arriving at credit risk-weighted assets.
(4) Citibank's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.
(5) Citibank must maintain minimum Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital and Tier 1 Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized" under the revised Prompt Corrective Action (PCA) regulations applicable to insured depository institutions as established by the U.S. Basel III rules. Citibank must also maintain a minimum Supplementary Leverage ratio of 6.0% to be considered "well capitalized."
(6) Tier 1 Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.
(7) Supplementary Leverage ratio denominator.
(8) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.

As indicated in the table above, Citibank's capital ratios at December 31, 2021 were in excess of the stated and effective minimum requirements under the U.S. Basel III rules. In addition, Citibank was also "well capitalized" as of December 31, 2021.

Impact of Changes on Citigroup and Citibank Capital Ratios

The following tables present the estimated sensitivity of Citigroup's and Citibank's capital ratios to changes of $100 million in Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital (numerator), and changes of $1 billion in Advanced Approaches and Standardized Approach risk-weighted assets and quarterly adjusted average total assets, as well as Total Leverage Exposure (denominator), as of December 31, 2021. This information is provided for the purpose of analyzing the impact that a change in Citigroup's or Citibank's financial position or results of operations could have on these ratios. These sensitivities only consider a single change to either a component of capital, risk-weighted assets, quarterly adjusted average total assets or Total Leverage Exposure. Accordingly, an event that affects more than one factor may have a larger basis point impact than is reflected in these tables.

	Common Equity Tier 1 Capital ratio		Tier 1 Capital ratio		Total Capital ratio	
In basis points	Impact of $100 million change in Common Equity Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Total Capital	Impact of $1 billion change in risk-weighted assets
Citigroup						
Advanced Approaches	0.8	1.0	0.8	1.2	0.8	1.3
Standardized Approach	0.8	1.0	0.8	1.1	0.8	1.4
Citibank						
Advanced Approaches	1.0	1.4	1.0	1.5	1.0	1.6
Standardized Approach	0.9	1.3	0.9	1.3	0.9	1.5

	Tier 1 Leverage ratio		Supplementary Leverage ratio	
In basis points	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in quarterly adjusted average total assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in Total Leverage Exposure
Citigroup	0.4	0.3	0.3	0.2
Citibank	0.6	0.5	0.4	0.3

Citigroup Broker-Dealer Subsidiaries

At December 31, 2021, Citigroup Global Markets Inc., a U.S. broker-dealer registered with the SEC that is an indirect wholly owned subsidiary of Citigroup, had net capital, computed in accordance with the SEC's net capital rule, of $13 billion, which exceeded the minimum requirement by $8 billion.

Moreover, Citigroup Global Markets Limited, a broker-dealer registered with the United Kingdom's Prudential Regulation Authority (PRA) that is also an indirect wholly owned subsidiary of Citigroup, had total capital of $28 billion at December 31, 2021, which exceeded the PRA's minimum regulatory capital requirements.

In addition, certain of Citi's other broker-dealer subsidiaries are subject to regulation in the countries in which they operate, including requirements to maintain specified levels of net capital or its equivalent. Citigroup's other principal broker-dealer subsidiaries were in compliance with their regulatory capital requirements at December 31, 2021.

Total Loss-Absorbing Capacity (TLAC)

U.S. GSIBs, including Citi, are required to maintain minimum levels of TLAC and eligible long-term debt (LTD), each set by reference to the GSIB's consolidated risk-weighted assets (RWA) and total leverage exposure.

Minimum External TLAC Requirement

The minimum external TLAC requirement is the greater of (i) 18% of the GSIB's RWA plus the then-applicable RWA-based TLAC buffer (see below) and (ii) 7.5% of the GSIB's total leverage exposure plus a leverage-based TLAC buffer of 2% (i.e., 9.5%).

The RWA-based TLAC buffer equals the 2.5% capital conservation buffer, plus any applicable countercyclical capital buffer (currently 0%), plus the GSIB's capital surcharge as determined under method 1 of the GSIB surcharge rule (2.0% for Citi for 2021). Accordingly, Citi's total current minimum TLAC requirement was 22.5% of RWA for 2021.

Minimum LTD Requirement

The minimum LTD requirement is the greater of (i) 6% of the GSIB's RWA plus its capital surcharge as determined under method 2 of the GSIB surcharge rule (3.0% for Citi for 2021), for a total current requirement of 9% of RWA for Citi, and (ii) 4.5% of the GSIB's total leverage exposure.

The table below details Citi's eligible external TLAC and LTD amounts and ratios, and each effective minimum TLAC and LTD ratio requirement, as well as the surplus amount in dollars in excess of each requirement.

	December 31, 2021	
In billions of dollars, except ratios	External TLAC	LTD
Total eligible amount	$ 318	$ 143
% of Standardized Approach risk-weighted assets	26.1%	11.7%
Effective minimum requirement(1)(2)	22.5	9.0
Surplus amount	$ 44	$ 33
% of Total Leverage Exposure	10.8%	4.8%
Effective minimum requirement	9.5	4.5
Surplus amount	$ 37	$ 10

(1) External TLAC includes Method 1 GSIB surcharge of 2.0%.
(2) LTD includes Method 2 GSIB surcharge of 3.0%.

As of December 31, 2021, Citi exceeded each of the minimum TLAC and LTD requirements, resulting in a $10 billion surplus above its binding TLAC requirement of LTD as a percentage of Total Leverage Exposure.

For additional information on Citi's TLAC-related requirements, see "Risk Factors—Compliance Risks" and "Liquidity Risk—Total Loss-Absorbing Capacity (TLAC)" below.

Capital Resources (Full Adoption of CECL)(1)

The following tables set forth Citigroup's and Citibank's capital components and ratios had the full impact of CECL been adopted as of December 31, 2021:

	Citigroup				Citibank		
	Effective Minimum Requirement, Advanced Approaches	Effective Minimum Requirement, Standardized Approach(2)	Advanced Approaches	Standardized Approach	Effective Minimum Requirement(3)	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital ratio	10.0%	10.5%	12.10%	12.01%	7.0%	14.32%	13.68%
Tier 1 Capital ratio	11.5	12.0	13.78	13.68	8.5	14.53	13.88
Total Capital ratio	13.5	14.0	15.86	16.49	10.5	16.15	16.21

	Effective Minimum Requirement	Citigroup	Effective Minimum Requirement	Citibank
Tier 1 Leverage ratio	4.0%	7.09%	5.0%	8.62%
Supplementary Leverage ratio	5.0	5.64	6.0	6.61

(1) See footnote 2 on the "Components of Citigroup Capital" table above.
(2) The effective minimum requirements were applicable as of December 31, 2021. See "Stress Capital Buffer" above for additional information.
(3) Citibank's effective minimum requirements were the same under the Standardized Approach and the Advanced Approaches Framework.

Adoption of the Standardized Approach for Counterparty Credit Risk

In January 2020, the U.S. banking agencies issued a final rule to introduce the Standardized Approach for Counterparty Credit Risk (SA-CCR). SA-CCR replaced the Current Exposure Method (CEM), which was the previous methodology used to calculate exposure for all derivative contracts under the Standardized Approach, as well as RWA for derivative contracts under the Advanced Approaches in cases where internal models are not used. In addition, SA-CCR replaced CEM in numerous other instances throughout the regulatory framework, including but not limited to the Supplementary Leverage Ratio, certain components of the GSIB score, single counterparty credit limits and legal lending limits.

Under SA-CCR, a banking organization calculates the exposure amount of its derivative contracts at the netting set level. Multiple derivative contracts are generally considered to be under the same netting set as long as each derivative contract is subject to the same qualifying master netting agreement. SA-CCR also introduced the concept of hedging sets, which allows a banking organization to fully or partially net derivative contracts within the same netting set that share similar risk factors. Moreover, SA-CCR incorporated updated supervisory and maturity factors to calculate the potential future exposure of a derivative contract, and provides for improved recognition of collateral. Under the final rule, the exposure amount of a netting set is equal to an alpha factor of 1.4 multiplied by the sum of the replacement cost and potential future exposure of the netting set.

Citi adopted SA-CCR as of the mandatory compliance date of January 1, 2022. Adoption of SA-CCR increased Citigroup's Standardized RWA by approximately $51 billion, which resulted in a 49 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio under the Standardized Approaches on January 1, 2022. Citigroup's reported CET1 Capital ratio under the Standardized Approach as of December 31, 2021 was 12.25%, 75 bps above its 11.5% CET1 Capital target, and 175 bps above its 10.5% effective regulatory minimum CET1 Capital requirement under the Standardized Approach.

Adoption of SA-CCR also increased Citigroup's Advanced RWA by approximately $29 billion, which resulted in a 29 bps decrease to Citigroup's Common Equity Tier 1 Capital ratio under the Advanced Approaches on January 1, 2022. Citigroup's reported CET1 Capital ratio under the Advanced Approaches as of December 31, 2021 was 12.35%, 85 bps above its 11.5% CET1 Capital target, and 235 bps above its 10.0% effective regulatory minimum CET1 Capital requirement under the Advanced Approaches.

Citigroup voluntarily suspended share repurchases during the fourth quarter of 2021, in anticipation of the adverse impact resulting from SA-CCR adoption. Citi resumed common share repurchases in January 2022.

Regulatory Capital Standards Developments

Basel III Revisions

As previously disclosed, the Basel Committee on Banking Supervision (Basel Committee) has finalized certain Basel III post-crisis regulatory reforms. The reforms relate to the methodologies in deriving credit, market and operational risk-weighted assets, the imposition of a new aggregate output floor for risk-weighted assets, and revisions to the leverage ratio framework.

The U.S. banking agencies may revise the U.S. Basel III rules in the future, in response to the Basel Committee's Basel III post-crisis regulatory reforms. For information about risks related to changes in regulatory capital requirements, see "Risk Factors—Strategic Risks." below.

Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity

Tangible common equity (TCE) represents common stockholders' equity less goodwill and identifiable intangible assets (other than mortgage servicing rights (MSRs)). RoTCE represents net income available to common shareholders as a percentage of average TCE. Tangible book value (TBV) per share represents TCE divided by common shares outstanding. These measures are non-GAAP financial measures. Other companies may calculate these measures in a different manner. Citi believes TCE, TBV and RoTCE provide alternate measures of capital strength and performance for investors, industry analysts and others.

	At December 31,				
In millions of dollars or shares, except per share amounts	**2021**	2020	2019	2018	2017
Total Citigroup stockholders' equity	**$201,972**	$199,442	$193,242	$196,220	$200,740
Less: Preferred stock	**18,995**	19,480	17,980	18,460	19,253
Common stockholders' equity	**$182,977**	$179,962	$175,262	$177,760	$181,487
Less:					
Goodwill	**21,299**	22,162	22,126	22,046	22,256
Identifiable intangible assets (other than MSRs)	**4,091**	4,411	4,327	4,636	4,588
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale (HFS)	**510**	—	—	—	32
Tangible common equity (TCE)	**$157,077**	$153,389	$148,809	$151,078	$154,611
Common shares outstanding (CSO)	**1,984.4**	2,082.1	2,114.1	2,368.5	2,569.9
Book value per share (common stockholders' equity/CSO)	**$ 92.21**	$ 86.43	$ 82.90	$ 75.05	$ 70.62
Tangible book value per share (TCE/CSO)	**79.16**	73.67	70.39	63.79	60.16

	For the year ended December 31,				
In millions of dollars	**2021**	2020	2019	2018	2017(1)
Net income available to common shareholders	**$ 20,912**	$ 9,952	$ 18,292	$ 16,871	$ 14,583
Average common stockholders' equity	**182,421**	175,508	177,363	179,497	207,747
Average TCE	**156,253**	149,892	150,994	153,343	180,458
Return on average common stockholders' equity	**11.5%**	5.7%	10.3%	9.4%	7.0%
Return on average TCE (RoTCE)	**13.4**	6.6	12.1	11.0	8.1

(1) Year ended December 31, 2017 excludes the one-time impact of Tax Reform. For a reconciliation of these amounts, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below.

RISK FACTORS

The following discussion sets forth what management currently believes could be the material risks and uncertainties that could impact Citi's businesses, results of operations and financial condition. Other risks and uncertainties, including those not currently known to Citi or its management, could also negatively impact Citi's businesses, results of operations and financial condition. Thus, the following should not be considered a complete discussion of all of the risks and uncertainties that Citi may face. For additional information about risks and uncertainties that could impact Citi, see "Executive Summary" and each respective business' results of operations above and "Managing Global Risk" below. The following risk factors are categorized to improve the readability and usefulness of the risk factor disclosure, and, while the headings and risk factors generally align with Citi's risk categorization, in certain instances the risk factors may not directly correspond with how Citi categorizes or manages its risks.

MARKET-RELATED RISKS

Macroeconomic, Geopolitical and Other Challenges and Uncertainties Globally Could Have a Negative Impact on Citi's Businesses and Results of Operations.

In addition to the significant macroeconomic challenges posed by the pandemic (see the pandemic-related risk factor below), Citi has experienced, and could experience in the future, negative impacts to its businesses and results of operations as a result of other macroeconomic, geopolitical and other challenges, uncertainties and volatility.

For example, the recent action of Russian military forces and support personnel in Ukraine has escalated tensions between Russia and the U.S., NATO, the EU and the U.K. The U.S. has imposed, and is likely to impose material additional, financial and economic sanctions and export controls against certain Russian organizations and/or individuals, with similar actions either implemented or planned by the EU and the U.K. and other jurisdictions. During the week of February 21, 2022, the U.S., the U.K., and the EU each imposed packages of financial and economic sanctions that, in various ways, constrain transactions with numerous Russian entities and individuals; transactions in Russian sovereign debt; and investment, trade, and financing to, from, or in certain regions of Ukraine. Citi's ability to engage in activity with certain consumer and institutional businesses in Russia and Ukraine or involving certain Russian or Ukrainian businesses and customers is dependent in part upon whether such engagement is restricted under any current or expected U.S., EU and other countries or U.K. sanctions and laws. Sanctions and export controls, as well as any actions by Russia, could adversely affect Citi's business activities and customers in and from Russia and Ukraine. Moreover, actions by Russia, and any further measures taken by the U.S. or its allies, could have negative impacts on regional and global financial markets and economic conditions. For additional information about these and other related risks, see the operational processes and systems, cybersecurity and emerging markets risk factors below. For additional information about Citi's exposures in Russia, see "Managing Global Risk—Other Risks—Country Risk—Russia" below.

Additionally, governmental fiscal and monetary actions, or expected actions, such as changes in interest rate policies and any program implemented by a central bank to change the size of its balance sheet, could significantly impact interest rates, economic growth rates, the volatility of global financial markets, foreign exchange rates and global capital flows. Further, it remains uncertain to what extent central banks may keep interest rates low or whether central banks might raise interest rates or reduce the size of their balance sheets, particularly as inflationary pressures continue and the U.S. and global economies continue to improve. While earlier in the pandemic the Federal Reserve Board (FRB) and other central banks took actions to support the global economy, including by further reducing their benchmark interest rates, mismatches between supply and demand of goods and services contributed to a rise in inflation in 2021, prompting the FRB to announce the approaching end of the period of extraordinarily low interest rates.

Interest rates on loans Citi makes are typically based off or set at a spread over a benchmark interest rate, and would likely decline or rise as benchmark rates decline or rise, respectively. While the interest rates at which Citi pays depositors are already low and unlikely to decline much further, declining or continued low interest rates for loans could further compress Citi's net interest income. Citi's net interest income could also be adversely affected due to a flattening of the interest rate yield curve (e.g., a lower spread between shorter-term versus longer-term interest rates), as Citi, similar to other banks, typically pays interest on deposits based on shorter-term interest rates and earns money on loans based on longer-term interest rates.

In contrast, an abrupt and sustained increase in interest rates could interfere with the global macroeconomic recovery, whether due to continued or increased inflationary pressures or otherwise. And while Citi estimates its overall net interest income would generally increase due to higher interest rates, higher rates could adversely affect Citi's funding costs, levels of deposits in its consumer and institutional businesses and certain business or product revenues. For additional information on Citi's interest rate risk, see "Managing Global Risk—Market Risk—Net Interest Income at Risk" below.

Additional areas of uncertainty include, among others, an elevated level of inflation resulting in adverse spill-over effects; the ability of Congress to raise the federal debt ceiling; slowing of the Chinese economy, including negative economic impacts associated with such slowdown or any policy actions; significant disruptions and volatility in financial markets; other geopolitical tensions and conflicts; protracted or widespread trade tensions; financial market, other economic and political disruption driven by anti-establishment movements; natural disasters; other pandemics; and election outcomes. For example, Citi's market-making businesses can suffer losses resulting from the widening of credit spreads due to unanticipated changes in financial markets. In addition, adverse developments or downturns in one or more of the world's larger economies would likely have a significant impact on the global economy or the economies of other countries because of global financial and economic linkages.

These and additional global macroeconomic, geopolitical and other challenges, uncertainties and volatilities have negatively impacted, and could continue to negatively impact, Citi's businesses, results of operations and financial condition, including its credit costs, revenues across *ICG* and *GCB* and *AOCI* (which would in turn negatively impact Citi's book and tangible book value).

STRATEGIC RISKS

Rapidly Evolving Challenges and Uncertainties Related to the COVID-19 Pandemic in the U.S. and Globally Will Likely Continue to Have Negative Impacts on Citi's Businesses and Results of Operations and Financial Condition.

The COVID-19 pandemic has affected all of the countries and jurisdictions in which Citi operates, including severely impacting global health, financial markets, consumer and business spending and economic conditions. The extent of the future pandemic impacts remain uncertain and will likely evolve by region, country or state, largely depending on the duration and severity of the public health consequences, including the duration and further spread of the coronavirus as well as any variants becoming more prevalent and impactful; further production, distribution, acceptance and effectiveness of vaccines; availability and efficiency of testing; the public response; and government actions. The future impacts to global economic conditions may include, among others:

- further disruption of global supply chains;
- higher inflation;
- higher interest rates;
- significant disruption and volatility in financial markets;
- additional closures, reduced activity and failures of many businesses, leading to loss of revenues and net losses;
- further institution of social distancing and restrictions on businesses and the movement of the public in and among the U.S. and other countries; and
- reduced U.S. and global economic output.

The pandemic has had, and may continue to have, negative impacts on Citi's businesses and overall results of operations and financial condition, which could be material. The extent of the impact on Citi's operations and financial performance, including its ability to execute its business strategies and initiatives, will continue to depend significantly on future developments in the U.S. and globally. Such developments are uncertain and cannot be predicted, including the course of the coronavirus, as well as any weakness or slowing in the economic recovery or a further economic downturn, whether due to further supply chain disruptions, inflation trends, higher interest rates or otherwise.

The pandemic may not be sufficiently contained for an extended period of time. A prolonged health crisis could reduce economic activity in the U.S. and other countries, resulting in additional declines or weakness in employment trends and business and consumer confidence. These factors could negatively impact global economic activity and markets; cause a continued decline in the demand for Citi's products and services and in its revenues; further increase Citi's credit and other costs; and may result in impairment of long-lived assets or goodwill. These factors could also cause an increase in Citi's balance sheet, risk-weighted assets and ACL, resulting in a decline in regulatory capital ratios or liquidity measures, as well as regulatory demands for higher capital levels and/or limitations or reductions in capital distributions (such as common share repurchases and dividends). Moreover, any disruption or failure of Citi's performance of, or its ability to perform, key business functions, as a result of the continued spread of COVID-19 or otherwise, could adversely affect Citi's operations.

The impact of the pandemic on Citi's consumer and corporate borrowers will vary by sector or industry, with some borrowers experiencing greater stress levels, particularly as credit and customer assistance support further winds down, which could lead to increased pressure on their results of operations and financial condition, increased borrowings or credit ratings downgrades, thus likely leading to higher credit costs for Citi. These borrowers include, among others, businesses that are more directly impacted by the institution of social distancing, the movement of the public and store closures. In addition, stress levels ultimately experienced by Citi's borrowers may be different from and more intense than assumptions made in prior estimates or models used by Citi, resulting in an increase in Citi's ACL or net credit losses, particularly as the benefits of fiscal stimulus and government support programs diminish.

Ongoing legislative and regulatory changes in the U.S. and globally to address the economic impact from the pandemic could further affect Citi's businesses, operations and financial performance. Citi could also face challenges, including legal and reputational, and scrutiny in its efforts to provide relief measures. Such efforts have resulted in, and may continue to result in, litigation, including class actions, and regulatory and government actions and proceedings. Such actions may result in judgments, settlements, penalties and fines adverse to Citi. In addition, the different types of government actions could vary in scale and duration across jurisdictions and regions with varying degrees of effectiveness.

Citi has taken measures to maintain the health and safety of its colleagues; however, these measures could result in additional expenses, and illness of employees could negatively affect staffing for a period of time. In addition, Citi's ability to recruit, hire and onboard colleagues in key areas could be negatively impacted by pandemic restrictions as well as Citi's COVID-19 vaccination requirement (see the qualified colleagues risk factor below).

Further, it is unclear how the macroeconomic or business environment or societal norms may be impacted after the pandemic. The post-pandemic environment may undergo unexpected developments or changes in financial markets, fiscal, monetary, tax and regulatory environments and consumer customer and corporate client behavior. These developments and changes could have an adverse impact on Citi's results of operations and financial condition. Ongoing business and regulatory uncertainties and changes may make Citi's longer-term business, balance sheet and strategic and budget planning more difficult or costly. Citi and its management and businesses may also experience increased or different competitive and other challenges in this environment. To the extent that it is not able to adapt or compete effectively, Citi could experience loss of business and its results of operations and financial condition could suffer (see the competitive challenges risk factor below).

Citi's Ability to Return Capital to Common Shareholders Consistent with Its Capital Planning Efforts and Targets Substantially Depends on Regulatory Capital Requirements, Including the Results of the CCAR Process and Regulatory Stress Tests.

Citi's ability to return capital to its common shareholders consistent with its capital planning efforts and targets, whether through its common stock dividend or through a share repurchase program, substantially depends, among other things, on regulatory capital requirements, including the Stress Capital Buffer (SCB), which is based upon the results of the CCAR process required by the FRB as well as the supervisory stress tests required under the Dodd- Frank Act (as described in more detail below).

Citi's ability to return capital also depends on its results of operations and financial condition, the capital impact related to divestitures, forecasts of macroeconomic conditions, its implementation and maintenance of an effective capital planning process and management framework, and effectiveness in planning, managing and calculating its level of risk-weighted assets under both the Advanced Approaches and the Standardized Approach, Supplementary Leverage Ratio (SLR) and global systemically important bank holding company (GSIB) surcharge, which has been made more challenging due to elevated levels of liquidity in the financial system related to the pandemic (see the macroeconomic challenges and uncertainties risk factor above).

Changes in regulatory capital rules, requirements or interpretations could have a material impact on Citi's regulatory capital, both as a result of changes in Citi's reported regulatory capital and integration into the CCAR process and regulatory stress tests. For example, Citi was required to adopt the Standardized Approach for Counterparty Credit Risk (SA-CCR) as of January 1, 2022, which resulted in an approximate $51 billion increase in Citi's risk-weighted assets under the Standardized Approach. Citi voluntarily suspended common share repurchases during the fourth quarter of 2021, in anticipation of the adverse impact resulting from the adoption of SA-CCR. Citi will be required to adopt SA-CCR for purposes of the supervisory stress test during the 2023 cycle and SA-CCR may be considered by management during the 2022 cycle for purposes of management's own capital adequacy assessment. In addition, the U.S. banking agencies may potentially consider a number of changes to the U.S. regulatory capital framework in the future, including, but not limited to, revisions to the U.S. Basel III rules, recalibration of the GSIB surcharge and SLR, and enactment of the discretionary Countercyclical Capital Buffer. All of these potential changes could negatively impact Citi's regulatory capital position or increase Citi's regulatory capital requirements.

All CCAR firms, including Citi, will continue to be subject to a rigorous regulatory evaluation of capital planning practices, including, but not limited to, governance, risk management and internal controls. Citi's ability to return capital may be adversely impacted if such an evaluation of Citi resulted in negative findings. In addition, Citi's ability to accurately predict, interpret or explain to stakeholders the results of the CCAR process, and thus to address any market or investor perceptions, may be limited as the FRB's assessment of Citi's capital adequacy is conducted using the FRB's proprietary stress test models. For additional information on limitations on Citi's ability to return capital to common shareholders, as well as the CCAR process, supervisory stress test requirements and GSIB surcharge, see "Capital Resources—Overview" and "Capital Resources—Stress Testing Component of Capital Planning" above and the risk management risk factor below.

The FRB has stated that it expects leading capital adequacy practices to continue to evolve and to likely be determined by the FRB each year as a result of its cross-firm review of capital plan submissions. Similarly, the FRB has indicated that, as part of its stated goal to continually evolve its annual stress testing requirements, several parameters of the annual stress testing process may continue to be altered, including the severity of the stress test scenario, the FRB modeling of Citi's balance sheet, pre-provision net revenue (PPNR) and stress losses, and the addition of components deemed important by the FRB.

Beginning January 1, 2022, Citi was required to phase into regulatory capital at 25% per year the changes in retained earnings, deferred tax assets and ACL determined upon the January 1, 2020 CECL adoption date, as well as subsequent changes in the ACL between January 1, 2020 and December 31, 2021. The FRB has stated that it plans to maintain its current framework for calculating allowances on loans in the supervisory stress test through the 2023 supervisory stress test cycle, while continuing to evaluate appropriate future enhancements to this framework. The impacts on Citi's capital adequacy of the FRB's incorporation of CECL in its supervisory stress tests on an ongoing basis, and of other potential regulatory changes in the FRB's stress testing methodologies, remain unclear. For additional information regarding the CECL methodology, including the transition provisions related to the adverse regulatory capital effects resulting from adoption of the CECL methodology, see "Capital Resources—Current Regulatory Capital Standards—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above and Note 1 to the Consolidated Financial Statements.

In addition, the FRB has integrated the annual stress testing requirements with ongoing regulatory capital requirements. For Citigroup, the SCB equals the maximum decline in Citi's Common Equity Tier 1 Capital ratio under the supervisory severely adverse scenario over a nine-quarter CCAR measurement period, plus four quarters of planned common stock dividends, subject to a minimum requirement of 2.5%. Effective October 1, 2021, Citi's SCB was 3.0%. The SCB is calculated by the FRB using its proprietary data and modeling of each firm's results. Accordingly, Citi's SCB may change annually, or possibly more frequently, based on the supervisory stress test results, thus potentially resulting in volatility in the calculation of the SCB. Similar to the other regulatory capital buffers, a breach of the SCB would result in graduated limitations on capital distributions. For additional information on the SCB, including its calculation, see "Capital Resources—Regulatory Capital Buffers" above.

Although various uncertainties exist regarding the extent of, and the ultimate impact to Citi from, these changes to the FRB's regulatory capital, stress testing and CCAR regimes, these changes could increase the level of capital Citi is required or elects to hold, including as part of Citi's management buffer, thus potentially impacting the extent to which Citi is able to return capital to shareholders.

Citi, Its Management and Its Businesses Must Continually Review, Analyze and Successfully Adapt to Ongoing Regulatory and Legislative Uncertainties and Changes in the U.S. and Globally.

Despite the adoption of final regulations and laws in numerous areas impacting Citi and its businesses over the past several years, Citi, its management and its businesses continually face ongoing regulatory and legislative uncertainties and changes, both in the U.S. and globally. While the areas of ongoing regulatory and legislative uncertainties and changes facing Citi are too numerous to list completely, various examples include, but are not limited to (i) potential fiscal, monetary, regulatory, tax and other changes arising from the U.S. federal government and other governments, including as a result of the differing priorities of the current U.S. presidential administration, changes in regulatory leadership or focus and actions of Congress or in response to the pandemic; (ii) potential changes to various aspects of the regulatory capital framework and requirements applicable to Citi (see the capital return risk factor and "Capital Resources—Regulatory Capital Standards Developments" above); and (iii) future legislative and regulatory requirements in the U.S. and globally related to climate change, including any new disclosure requirements (see the climate change risk factor below). When referring to "regulatory," Citi is including both formal regulation and the views and expectations of its regulators in their supervisory roles.

U.S. and international regulatory and legislative initiatives have not always been undertaken or implemented on a coordinated basis, and areas of divergence have developed and continue to develop with respect to the scope, interpretation, timing, structure or approach, leading to inconsistent or even conflicting requirements, including within a single jurisdiction. For example, in May 2019, the European Commission adopted, as part of Capital Requirements Directive V (CRD V), a new requirement for major banking groups headquartered outside the EU (which would include Citi) to establish an intermediate EU holding company where the foreign bank has two or more institutions (broadly meaning banks, broker-dealers and similar financial firms) established in the EU. While in some respects the requirement mirrors an existing U.S. requirement for non-U.S. banking organizations to form U.S. intermediate holding companies, the implementation of the EU holding company requirement could lead to additional complexity with respect to Citi's resolution planning, capital and liquidity allocation and efficiency in various jurisdictions.

Moreover, ongoing regulatory and legislative uncertainties and changes make Citi's and its management's long-term business, balance sheet and strategic budget planning difficult, subject to change and potentially more costly. U.S. and other regulators globally have implemented and continue to discuss various changes to certain regulatory requirements, which would require ongoing assessment by management as to the impact to Citi, its businesses and business planning. For example, while the Basel III post-crisis regulatory reforms and revised market risk framework have been finalized at the international level, there remain significant uncertainties with respect to the integration of these revisions into the U.S. regulatory capital framework. Business planning is required to be based on possible or proposed rules or outcomes, which can change dramatically upon finalization, or upon implementation or interpretive guidance from numerous regulatory bodies worldwide, and such guidance can change.

Regulatory and legislative changes have also significantly increased Citi's compliance risks and costs (see the implementation and interpretation of regulatory changes risk factor below) and can adversely affect Citi's businesses, results of operations and financial condition.

Citi's Continued Investment and Other Initiatives as Part of Its Transformation and Strategic Refresh May Not Be as Successful as It Projects or Expects.

As part of its transformation initiatives, Citi continues to make significant investments to improve its infrastructure, risk management and controls and further enhance safety and soundness (for additional information, see the legal and regulatory proceedings risk factor below). Citi also continues to execute on its strategic refresh that includes, among other things, its exit of certain consumer banking businesses (see below) and its investments to deepen client relationships and enhance client offerings and capabilities in order to simplify the Company and enhance its allocation of resources.

For example, Citi continues to invest in its technology and digital capabilities across the franchise, including digital platforms and mobile and cloud-based solutions. In addition, Citi has been making other investments across the Company, such as in Citi's wealth management business, commercial banking business, treasury and trade solutions, securities services and other businesses, including implementing new capabilities and partnerships. Citi has also been pursuing productivity improvements through various technology and digital initiatives, organizational simplification and location strategies. Failure to properly invest in and upgrade Citi's technology and processes could result in an inability to be sufficiently competitive, serve clients effectively and avoid operational errors (for additional information, see the operational processes and systems risk factor below). There is no guarantee that these or other initiatives Citi may pursue will be as productive or effective as Citi expects, or at all.

Furthermore, Citi's strategic refresh necessitates further changes in and exits of certain businesses, which involve significant execution complexity, and could result in additional losses, charges or other negative financial impacts. For example, Citi may not be able to achieve its objectives related to its exits of 13 consumer markets in *Asia* and *EMEA* or exit of the consumer, small business and middle-market banking operations in Mexico. These exits may not be as productive, effective or timely as Citi expects and may result in additional foreign currency translation adjustments (CTA) or other losses, charges or other negative financial or strategic impacts, which could be material. For additional information on CTA losses, see the incorrect assumptions or estimates risk factor below.

Citi's investment and other initiatives may continue to evolve as its business strategies, the market environment and regulatory expectations change, which could make the initiatives more costly and more challenging to implement, and limit their effectiveness. Moreover, Citi's ability to achieve expected returns on its investments and costs savings depends, in part, on factors that it cannot control, including, among others, interest rates; inflation; impacts related to the pandemic; customer, client and competitor actions; and ongoing regulatory changes.

Citi's Ability to Utilize Its DTAs, and Thus Reduce the Negative Impact of the DTAs on Citi's Regulatory Capital, Will Be Driven by Its Ability to Generate U.S. Taxable Income.

At December 31, 2021, Citi's net DTAs were $24.8 billion, net of a valuation allowance of $4.2 billion, of which $9.5 billion was deducted from Citi's Common Equity Tier 1 Capital under the U.S. Basel III rules, primarily relating to net operating losses, foreign tax credit and general business credit carry-forwards (for additional information, see "Capital Resources—Components of Citigroup Capital" above).

Of the net DTAs at December 31, 2021, $2.8 billion related to foreign tax credit (FTC) carry-forwards, net of a valuation allowance. The carry-forward utilization period for FTCs is 10 years and represents the most time-sensitive component of Citi's DTAs. The FTC carry-forwards at December 31, 2021 expire over the period of 2022–2029. Citi must utilize any FTCs generated in the then-current-year tax return prior to utilizing any carry-forward FTCs.

The accounting treatment for realization of DTAs, including FTCs, is complex and requires significant judgment and estimates regarding future taxable earnings in the jurisdictions in which the DTAs arise and available tax planning strategies. Forecasts of future taxable earnings will depend upon various factors, including, among others, the continued impact of the pandemic and other macroeconomic conditions. In addition, any future increase in U.S. corporate tax rates could result in an increase in Citi's DTA, which may subject more of Citi's existing DTA to exclusion from regulatory capital while improving Citi's ability to utilize its FTC carry-forwards.

Citi's overall ability to realize its DTAs will primarily be dependent upon its ability to generate U.S. taxable income in the relevant tax carry-forward periods. Although utilization of FTCs in any year is generally limited to 21% of foreign source taxable income in that year, overall domestic losses (ODL) that Citi has incurred in the past allow it to reclassify domestic source income as foreign source. Failure to realize any portion of the net DTAs would have a corresponding negative impact on Citi's net income and financial returns.

Citi has not been and does not expect to be subject to the Base Erosion Anti-Abuse Tax (BEAT), which, if applicable to Citi in any given year, would have a significantly adverse effect on both Citi's net income and regulatory capital.

For additional information on Citi's DTAs, including FTCs, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below and Notes 1 and 9 to the Consolidated Financial Statements.

Citi's Interpretation or Application of the Complex Tax Laws to Which It Is Subject Could Differ from Those of the Relevant Governmental Authorities, Which Could Result in Litigation or Examinations and the Payment of Additional Taxes, Penalties or Interest.

Citi is subject to various income-based tax laws of the U.S. and its states and municipalities, as well as the numerous non-U.S. jurisdictions in which it operates. These tax laws are inherently complex and Citi must make judgments and interpretations about the application of these laws, including the Tax Cuts and Jobs Act (Tax Reform), to its entities, operations and businesses. In addition, Citi is subject to litigation or examinations with U.S. and non-U.S. tax authorities regarding non-income-based tax matters. Citi's interpretations or application of the tax laws, including with respect to Tax Reform, withholding, stamp, service and other non-income taxes, could differ from that of the relevant governmental taxing authority, which could result in the requirement to pay additional taxes, penalties or interest, which could be material. For additional information on the litigation and examinations involving non-U.S. tax authorities, see Note 27 to the Consolidated Financial Statements.

A Deterioration in or Failure to Maintain Citi's Co-Branding or Private Label Credit Card Relationships, Including as a Result of Early Termination, Bankruptcy or Liquidation, Could Have a Negative Impact on Citi's Results of Operations or Financial Condition.

Citi has co-branding and private label relationships through its branded cards and retail services credit card businesses with various retailers and merchants globally, whereby in the ordinary course of business Citi issues credit cards to customers of the retailers or merchants. The five largest relationships across both businesses in *North America GCB* constituted an aggregate of approximately 9% of Citi's revenues in 2021 (for additional information, see "*Global Consumer Banking—North America GCB*" above). Citi's co-branding and private label agreements provide for shared economics between the parties and generally have a fixed term.

Over the last several years, a number of U.S. retailers have continued to experience declining sales due to the pandemic or otherwise, which has resulted in significant numbers of store closures and, in a number of cases, bankruptcies, as retailers attempt to cut costs and reorganize. In addition, as has been widely reported, competition among card issuers, including Citi, for these relationships is significant, and it has become increasingly difficult in recent years to maintain such relationships on the same terms or at all.

Citi's co-branding and private label relationships could be negatively impacted by, among other things, the general economic environment; changes in consumer sentiment, spending patterns and credit card usage behaviors; a decline in sales and revenues, partner store closures, government imposed restrictions, reduced air and business travel, or other operational difficulties of the retailer or merchant; early termination due to a contractual breach or exercise of other early termination right; or other factors, including bankruptcies, liquidations, restructurings, consolidations or other similar events, whether due to the ongoing impact of the pandemic or otherwise (see the pandemic-related risk factor above).

While various mitigating factors could be available to Citi if any of the above events were to occur—such as by replacing the retailer or merchant or offering other card products—these events, particularly early termination and bankruptcies or liquidations, could negatively impact the results of operations or financial condition of branded cards, retail services or Citi as a whole, including as a result of loss of revenues, increased expenses, higher cost of credit, impairment of purchased credit card relationships and contract-related intangibles or other losses (for information on Citi's credit card related intangibles generally, see Note 16 to the Consolidated Financial Statements).

Citi's Inability in Its Resolution Plan Submissions to Address Any Shortcomings or Deficiencies Identified or Guidance Provided by the FRB and FDIC Could Subject Citi to More Stringent Capital, Leverage or Liquidity Requirements, or Restrictions on Its Growth, Activities or Operations, and Could Eventually Require Citi to Divest Assets or Operations.

Title I of the Dodd-Frank Act requires Citi to prepare and submit a plan to the FRB and the FDIC for the orderly resolution of Citigroup (the bank holding company) and its significant legal entities under the U.S. Bankruptcy Code in the event of future material financial distress or failure. The eight U.S. GSIBs, including Citi, filed their most recent resolution plans with the FRB and FDIC on July 1, 2021. For additional information on Citi's resolution plan submissions, see "Managing Global Risk—Liquidity Risk" below.

Under Title I, if the FRB and the FDIC jointly determine that Citi's resolution plan is not "credible" (which, although not defined, is generally believed to mean the regulators do not believe the plan is feasible or would otherwise allow Citi to be resolved in a way that protects systemically important functions without severe systemic disruption), or would not facilitate an orderly resolution of Citi under the U.S. Bankruptcy Code, and Citi fails to resubmit a resolution plan that remedies any identified deficiencies, Citi could be subjected to more stringent capital, leverage or liquidity requirements, or restrictions on its growth, activities or operations. If within two years from the imposition of any such requirements or restrictions Citi has still not remediated any identified deficiencies, then Citi could eventually be required to divest certain assets or operations. Any such restrictions or actions would negatively impact Citi's reputation, market and investor perception, operations and strategy.

Citi's Performance and the Performance of Its Individual Businesses Could Be Negatively Impacted if Citi Is Not Able to Effectively Compete for, Retain and Motivate Highly Qualified Colleagues.

Recent employment conditions have made the competition to hire and retain qualified employees significantly more challenging. Citi's performance and the performance of its individual businesses largely depend on the talents and efforts of its diverse and highly qualified colleagues. Specifically, Citi's continued ability to compete in each of its lines of business, to manage its businesses effectively and to execute its global strategy depends on its ability to attract new colleagues and to retain and motivate its existing colleagues. If Citi is unable to continue to attract, retain and motivate the most highly qualified colleagues, Citi's performance, including its competitive position, the execution of its strategy and its results of operations could be negatively impacted.

Citi's ability to attract, retain and motivate colleagues depends on numerous factors, some of which are outside of its control. For example, the competition for talent recently has been particularly intense because of economic conditions associated with the pandemic. Also, the banking industry generally is subject to more comprehensive regulation of employee compensation than other industries, including deferral and clawback requirements for incentive compensation, which can make it unusually challenging for Citi to compete in labor markets against businesses that are not subject to such regulation. Citi often competes for talent with such businesses, including, among others, technology companies. Further, Citi's vaccination requirement for its U.S.-based employees could make it more difficult to compete for or retain colleagues. Other factors that could impact its ability to attract, retain and motivate colleagues include, among other things, Citi's presence in a particular market or region, the professional opportunities it offers and its reputation. For information on Citi's colleagues and workforce management, see "Human Capital Resources and Management" below.

Financial Services Companies and Others as well as Emerging Technologies Pose Increasingly Competitive Challenges to Citi.

Citi operates in an increasingly evolving and competitive business environment, which includes both financial and non-financial services firms, such as traditional banks, online banks, financial technology companies and others. These companies compete on the basis of, among other factors, size, reach, quality and type of products and services offered, price, technology and reputation. Certain competitors may be subject to different and, in some cases, less stringent legal and regulatory requirements, placing Citi at a competitive disadvantage.

Citi competes with financial services companies in the U.S. and globally that continue to develop and introduce new products and services. In recent years, non-financial services firms, such as financial technology companies, have begun to offer services traditionally provided by financial institutions, such as Citi, and have sought bank charters to provide these services. These firms attempt to use technology and mobile platforms to enhance the ability of companies and individuals to borrow, save and invest money.

Moreover, emerging technologies have the potential to intensify competition and accelerate disruption in the financial services industry. For example, there is increasing interest from clients and investors in digital assets such as cryptocurrencies. Financial services firms and other market participants have begun to offer services related to those assets such as custody and trading. However, Citi may not be able to provide the same or similar services for legal or regulatory reasons and such services increase compliance risk. In addition, changes in the payments space (e.g., instant and 24x7 payments) are accelerating, and, as a result, certain of Citi's products and services could become less competitive.

In addition, as discussed above, it is unclear how the macroeconomic business environment or societal norms may be impacted as a result of the pandemic. Citi may experience increased or different competitive and other challenges in a post-pandemic environment. Increased competition and emerging technologies have required and could require Citi to change or adapt its products and services to attract and retain customers or clients or to compete more effectively with competitors, including new market entrants. Simultaneously, as Citi develops new products and services leveraging emerging technologies, new risks may emerge that, if not designed and governed adequately, may result in control gaps and in Citi operating outside of its risk appetite. For example, instant and 24x7 payments products could be accompanied by challenges to forecasting and managing liquidity, as well as increased operational and compliance risks.

To the extent that Citi is not able to compete effectively with financial technology companies and other firms, Citi could be placed at a competitive disadvantage, which could result in loss of customers and market share, and its businesses, results of operations and financial condition could suffer. For additional information on Citi's competitors, see the co-brand and private label cards and qualified colleagues risk factors above and "Supervision, Regulation and Other—Competition" below.

OPERATIONAL RISKS

A Failure or Disruption of Citi's Operational Processes or Systems Could Negatively Impact Citi's Reputation, Customers, Clients, Businesses or Results of Operations and Financial Condition.

Citi's global operations rely heavily on its technology, including the accurate, timely and secure processing, management, storage and transmission of confidential transactions, data and other information as well as the monitoring of a substantial amount of data and complex transactions in real time. For example, Citi obtains and stores an extensive amount of personal and client-specific information for its consumer and institutional customers and clients, and must accurately record and reflect their extensive account transactions. Citi's operations must also comply with complex and evolving laws and regulations in the countries in which it operates.

With the evolving proliferation of new technologies and the increasing use of the internet, mobile devices and cloud technologies to conduct financial transactions, large global financial institutions such as Citi have been, and will continue to be, subject to an ever-increasing risk of operational loss, failure or disruption, including as a result of cyber or information security incidents. These risks have been exacerbated during the pandemic, when a substantial portion of Citi's colleagues have worked remotely and customers and clients have increased their use of online banking and other platforms (for additional information, see the pandemic-related risk factor above and the cybersecurity risk factor below).

Although Citi has continued to upgrade its technology, including systems to automate processes and enhance efficiencies, operational incidents are unpredictable and can arise from numerous sources, not all of which are fully within Citi's control. These include, among others, human error, such as manual transaction processing errors; fraud or malice on the part of employees or third parties; accidental system or technological failure; electrical or telecommunication outages; failures of or cyber incidents involving computer servers or infrastructure; or other similar losses or damage to Citi's property or assets (see also the climate change risk factor below). For example, Citi has experienced and could experience further losses associated with manual transaction processing errors (for additional information, see "Revlon-Related Wire Transfer Litigation" in Note 27 to the Consolidated Financial Statements).

Irrespective of the sophistication of the technology utilized by Citi, there will always be some room for human error. In view of the large transactions in which Citi engages, such errors could result in significant loss.

Operational incidents can also arise as a result of failures by third parties with which Citi does business, such as failures by internet, mobile technology and cloud service providers or other vendors to adequately follow procedures or processes, safeguard their systems or prevent system disruptions or cyber attacks.

Incidents that impact information security and/or technology operations may cause disruptions and/or malfunctions within Citi's businesses (e.g., the temporary loss of availability of Citi's online banking system or mobile banking platform), as well as the operations of its clients, customers or other third parties. In addition, operational incidents could involve the failure or ineffectiveness of internal processes or controls.

Given Citi's global footprint and the high volume of transactions processed by Citi, certain failures, errors or actions may be repeated or compounded before they are discovered and rectified, which would further increase the consequences and costs. Operational incidents could result in financial losses as well as misappropriation, corruption or loss of confidential and other information or assets, which could significantly negatively impact Citi's reputation, customers, clients, businesses or results of operations and financial condition. Cyber-related and other operational incidents can also result in legal and regulatory proceedings, fines and other costs (see the legal and regulatory proceedings risk factor below).

For information on Citi's management of operational risk, see "Managing Global Risk—Operational Risk" below.

Citi's and Third Parties' Computer Systems and Networks Have Been, and Will Continue to Be, Susceptible to an Increasing Risk of Continually Evolving, Sophisticated Cybersecurity Activities That Could Result in the Theft, Loss, Misuse or Disclosure of Confidential Client or Customer Information, Damage to Citi's Reputation, Additional Costs to Citi, Regulatory Penalties, Legal Exposure and Financial Losses.

Citi's computer systems, software and networks are subject to ongoing cyber incidents such as unauthorized access, loss or destruction of data (including confidential client information), account takeovers, unavailability of service, computer viruses or other malicious code, cyber attacks and other similar events. These threats can arise from external parties, including cyber criminals, cyber terrorists, hacktivists and nation-state actors, as well as insiders who knowingly or unknowingly engage in or enable malicious cyber activities.

Third parties with which Citi does business, as well as retailers and other third parties with which Citi's customers do business, may also be sources of cybersecurity risks, particularly where activities of customers are beyond Citi's security and control systems. For example, Citi outsources certain functions, such as processing customer credit card transactions, uploading content on customer-facing websites and developing software for new products and services. These relationships allow for the storage and processing of customer information by third-party hosting of or access to Citi websites, which could lead to compromise or the potential to introduce vulnerable or malicious code, resulting in security breaches impacting Citi customers. Furthermore, because financial institutions are becoming increasingly interconnected with central agents, exchanges and clearing houses, including as a result of derivatives reforms over the last few years, Citi has increased exposure to cyber attacks through third parties. While many of Citi's agreements with third parties include indemnification provisions, Citi may not be able to recover sufficiently, or at all, under the provisions to adequately offset any losses Citi may incur from third-party cyber incidents.

Citi has been subject to attempted and sometimes successful cyber attacks from external sources over the last several years, including (i) denial of service attacks, which attempt to interrupt service to clients and customers, (ii) hacking and malicious software installations, intended to gain unauthorized access to information systems or to disrupt those systems, (iii) data breaches due to unauthorized access to customer account data and (iv) malicious software attacks on client systems, in an attempt to gain unauthorized access to Citi systems or client data under the guise of normal client transactions. While Citi's monitoring and protection services were able to detect and respond to the incidents targeting its systems before they became significant, they still resulted in limited losses in some instances as well as increases in expenditures to monitor against the threat of similar future cyber incidents. There can be no assurance that such cyber incidents will not occur again, and they could occur more frequently and on a more significant scale.

Further, although Citi devotes significant resources to implement, maintain, monitor and regularly upgrade its systems and networks with measures such as intrusion detection and prevention and firewalls to safeguard critical business applications, there is no guarantee that these measures or any other measures can provide absolute security. Because the methods used to cause cyber attacks change frequently or, in some cases, are not recognized until launched or even later, Citi may be unable to implement effective preventive measures or proactively address these methods until they are discovered. In addition, given the evolving nature of cyber threat actors and the frequency and sophistication of the cyber activities they carry out, the determination of the severity and potential impact of a cyber incident may not become apparent for a substantial period of time following discovery of the incident. Also, while Citi engages in certain actions to reduce the exposure resulting from outsourcing, such as performing security control assessments of third-party vendors and limiting third-party access to the least privileged level necessary to perform job functions, these actions cannot prevent all third-party-related cyber attacks or data breaches.

Cyber incidents can result in the disclosure of personal, confidential or proprietary customer or client information, damage to Citi's reputation with its clients and the market, customer dissatisfaction and additional costs to Citi, including expenses such as repairing systems, replacing customer payment cards, credit monitoring or adding new personnel or protection technologies. Regulatory penalties, loss of revenues, exposure to litigation and other financial losses, including loss of funds, to both Citi and its clients and customers and disruption to Citi's operational systems could also result from cyber incidents (for additional information on the potential impact of operational disruptions, see the operational processes and systems risk factor above). Moreover, the increasing risk of cyber incidents has resulted in increased legislative and regulatory scrutiny of firms' cybersecurity protection services and calls for additional laws and regulations to further enhance protection of consumers' personal data.

While Citi maintains insurance coverage that may, subject to policy terms and conditions including significant self- insured deductibles, cover certain aspects of cyber risks, such insurance coverage may be insufficient to cover all losses and may not take into account reputational harm, the cost of which could be immeasurable.

For additional information about Citi's management of cybersecurity risk, see "Managing Global Risk—Operational Risk—Cybersecurity Risk" below.

Changes to or the Application of Incorrect Assumptions, Judgments or Estimates in Citi's Financial Statements Could Cause Significant Unexpected Losses or Impacts in the Future.

U.S. GAAP requires Citi to use certain assumptions, judgments and estimates in preparing its financial statements, including, among other items, the estimate of the ACL; reserves related to litigation, regulatory and tax matters exposures; valuation of DTAs; the fair values of certain assets and liabilities; and the assessment of goodwill or other assets for impairment. If Citi's assumptions, judgments or estimates underlying its financial statements are incorrect or differ from actual or subsequent events, Citi could experience unexpected losses or other adverse impacts, some of which could be significant.

For example, the CECL methodology requires that Citi provide reserves for a current estimate of lifetime expected credit losses for its loan portfolios and other financial assets, as applicable, at the time those assets are originated or acquired. This estimate is adjusted each period for changes in expected lifetime credit losses. Citi's ACL estimate depends upon its CECL models and assumptions, forecasted macroeconomic conditions, including, among other things, U.S. unemployment rate and U.S. Real GDP, and the credit indicators, composition and other characteristics of Citi's loan and other applicable financial assets. These model assumptions and forecasted macroeconomic conditions will change over time, whether due to the pandemic or otherwise, resulting in greater variability in Citi's ACL compared to its provision for loan losses under the previous GAAP methodology, and, thus, impact its results of operations and financial condition, as well as regulatory capital due to the CECL phase-in beginning January 1, 2022.

Moreover, Citi has incurred losses related to its foreign operations that are reported in the CTA components of *Accumulated other comprehensive income (loss) (AOCI)*. In accordance with U.S. GAAP, a sale, substantial liquidation or any other deconsolidation event of any foreign operations, such as those related to Citi's legacy or exit businesses, would result in reclassification of any foreign CTA component of *AOCI* related to that foreign operation, including related hedges and taxes, into Citi's earnings. For example, Citi incurred a pretax loss of approximately $680 million ($580 million after-tax) in the third quarter of 2021 related to the sale of Citi's Australia consumer banking business in *Asia GCB*, primarily reflecting the impact of a CTA loss. For additional information on Citi's accounting policy for foreign currency translation and its foreign CTA components of *AOCI*, see Notes 1 and 19 to the Consolidated Financial Statements. For additional information on the key areas for which assumptions and estimates are used in preparing Citi's financial statements, including those related to Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below and Notes 1 and 27 to the Consolidated Financial Statements.

Changes to Financial Accounting and Reporting Standards or Interpretations Could Have a Material Impact on How Citi Records and Reports Its Financial Condition and Results of Operations.

Periodically, the Financial Accounting Standards Board (FASB) issues financial accounting and reporting standards that govern key aspects of Citi's financial statements or interpretations thereof when those standards become effective, including those areas where Citi is required to make assumptions or estimates. Changes to financial accounting or reporting standards or interpretations, whether promulgated or required by the FASB or other regulators, could present operational challenges and could also require Citi to change certain of the assumptions or estimates it previously used in preparing its financial statements, which could negatively impact how it records and reports its financial condition and results of operations generally and/or with respect to particular businesses. For additional information on Citi's accounting policies and changes in accounting, including the expected impacts on Citi's results of operations and financial condition, see Note 1 to the Consolidated Financial Statements.

If Citi's Risk Management Processes, Strategies or Models Are Deficient or Ineffective, Citi May Incur Significant Losses and Its Regulatory Capital and Capital Ratios Could Be Negatively Impacted.

Citi utilizes a broad and diversified set of risk management and mitigation processes and strategies, including use of models in enacting processes and strategies as well as in analyzing and monitoring the various risks Citi assumes in conducting its activities. For example, Citi uses models as part of its comprehensive stress testing initiatives across the Company. Citi also relies on data to aggregate, assess and manage various risk exposures. Management of these risks is made even more challenging within a global financial institution such as Citi, particularly given the complex, diverse and rapidly changing financial markets and conditions in which Citi operates as well as that losses can occur unintentionally from untimely, inaccurate or incomplete processes.

In addition, in October 2020, Citigroup and Citibank entered into consent orders with the FRB and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls (see "Citi's Consent Order Compliance" above and the legal and regulatory proceedings risk factor below).

Citi's risk management processes, strategies and models are inherently limited because they involve techniques, including the use of historical data in many circumstances, assumptions and judgments that cannot anticipate every economic and financial outcome in the markets in which Citi operates, nor can they anticipate the specifics and timing of such outcomes. Citi could incur significant losses, and its regulatory capital and capital ratios could be negatively impacted, if Citi's risk management processes, including its ability to manage and aggregate data in a timely and accurate manner, strategies or models are deficient or ineffective. Such deficiencies or ineffectiveness could also result in inaccurate financial, regulatory or risk reporting.

Moreover, Citi's Basel III regulatory capital models, including its credit, market and operational risk models, currently remain subject to ongoing regulatory review and approval, which may result in refinements, modifications or enhancements (required or otherwise) to these models. Modifications or requirements resulting from these ongoing reviews, as well as any future changes or guidance provided by the U.S. banking agencies regarding the regulatory capital framework applicable to Citi, have resulted in, and could continue to result in, significant changes to Citi's risk-weighted assets. These changes can negatively impact Citi's capital ratios and its ability to achieve its regulatory capital requirements.

CREDIT RISKS

Credit Risk and Concentrations of Risk Can Increase the Potential for Citi to Incur Significant Losses.

Credit risk primarily arises from Citi's lending and other businesses in both *ICG* and *GCB*. Citi has credit exposures to consumer, corporate and public sector borrowers and other counterparties in the U.S. and various countries and jurisdictions globally, including end-of-period consumer loans of $271 billion and end-of-period corporate loans of $397 billion at year-end 2021.

A default by a borrower or other counterparty, or a decline in the credit quality or value of any underlying collateral, exposes Citi to credit risk. Despite Citi's target client strategy, various macroeconomic, geopolitical and other factors, among other things, can increase Citi's credit risk and credit costs, particularly for certain sectors, industries or countries (for additional information, see the pandemic-related, co-branding and private label credit card and macroeconomic challenges and uncertainties risk factors above and the emerging markets risk factor below). For example, a weakening of economic conditions, including higher unemployment levels, can adversely affect borrowers' ability to repay their obligations. In addition, weakening economic conditions may result in Citi being unable to liquidate its collateral, as well as disputes with counterparties regarding the valuation of collateral Citi holds and Citi being unable to realize the fair value of such collateral.

While Citi provides reserves for expected losses for its credit exposures, as applicable, such reserves are subject to judgments and estimates that could be incorrect or differ from actual future events. Under the CECL accounting standard, the ACL reflects expected losses, rather than incurred losses, which has resulted in and could lead to additional volatility in the allowance and the provision for credit losses as forecasts of economic conditions change. In addition, Citi's future allowance may be affected by seasonality of its cards portfolio balances based on historical evidence showing that (i) credit card balances typically decrease during the first and second quarters, as borrowers use tax refunds to pay down balances; and (ii) balances increase during the third and fourth quarters each year as payments are no longer impacted by tax refunds and the holiday season approaches. However, these seasonal trends could be affected in 2022 due to the impacts of the pandemic, government stimulus and expiration of consumer and small business relief programs. For additional information, see the incorrect assumptions or estimates and changes to financial accounting and reporting standards risk factors above. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below and Notes 1 and 15 to the Consolidated Financial Statements. For additional information on Citi's credit and country risk, see each respective business's results of operations above and "Managing Global Risk—Credit Risk" and "Managing Global Risk—Other Risks—Country Risk" below and Notes 14 and 15 to the Consolidated Financial Statements.

Concentrations of risk to clients or counterparties engaged in the same or related industries or doing business in a particular geography, especially credit and market risks, can also increase Citi's risk of significant losses. As of year-end 2021, Citi's most significant concentration of credit risk was with the U.S. government and its agencies, which primarily results from trading assets and investments issued by the U.S. government and its agencies (for additional information, including concentrations of credit risk to other public sector entities, see Note 23 to the Consolidated Financial Statements). In addition, Citi routinely executes a high volume of securities, trading, derivative and foreign exchange transactions with non-U.S. sovereigns and with counterparties in the financial services industry, including banks, insurance companies, investment banks, governments, central banks and other financial institutions. Moreover, Citi has indemnification obligations in connection with various transactions that expose it to concentrations of risk, including credit risk from hedging or reinsurance arrangements related to those obligations (for additional information about these exposures, see Note 26 to the Consolidated Financial Statements). A rapid deterioration of a large borrower or other counterparty or within a sector or country in which Citi has large exposures or indemnifications or unexpected market dislocations could cause Citi to incur significant losses.

LIQUIDITY RISKS

The Maintenance of Adequate Liquidity and Funding Depends on Numerous Factors, Including Those Outside of Citi's Control, Such as Market Disruptions and Increases in Citi's Credit Spreads.

As a large, global financial institution, adequate liquidity and sources of funding are essential to Citi's businesses. Citi's liquidity and sources of funding can be significantly and negatively impacted by factors it cannot control, such as general disruptions in the financial markets, governmental fiscal and monetary policies, regulatory changes or negative investor perceptions of Citi's creditworthiness, unexpected increases in cash or collateral requirements and the inability to monetize available liquidity resources, whether due to the pandemic or otherwise. Citi competes with other banks and financial institutions for both institutional and consumer deposits, which represent Citi's most stable and lowest cost source of long-term funding. The competition for deposits has continued to increase in recent years, including, among others, as a result of online banks and digital banking. Furthermore, although Citi has had robust deposit growth since the onset of the pandemic, it remains unclear how "sticky" (likely to remain at Citi) those deposits may be, particularly in a less monetarily accommodative environment.

Moreover, Citi's costs to obtain and access secured funding and long-term unsecured funding are directly related to its credit spreads and changes in interest and currency exchange rates. Changes in credit spreads are driven by both external market factors and factors specific to Citi, such as negative views by investors of the financial services industry or Citi's financial prospects, and can be highly volatile. For additional information on Citi's primary sources of funding, see "Managing Global Risk—Liquidity Risk" below.

Citi's ability to obtain funding may be impaired and its cost of funding could increase if other market participants are seeking to access the markets at the same time, or if market appetite declines, as is likely to occur in a liquidity stress event or other market crisis. A sudden drop in market liquidity could also cause a temporary or lengthier dislocation of underwriting and capital markets activity. In addition, clearing organizations, central banks, clients and financial institutions with which Citi interacts may exercise the right to require additional collateral based on their perceptions or the market conditions, which could further impair Citi's access to and cost of funding.

In addition, as a holding company, Citi relies on interest, dividends, distributions and other payments from its subsidiaries to fund dividends as well as to satisfy its debt and other obligations. Several of Citi's U.S. and non-U.S. subsidiaries are or may be subject to capital adequacy or other liquidity, regulatory or contractual restrictions on their ability to provide such payments, including any local regulatory stress test requirements. Citi's broker-dealer and bank subsidiaries are subject to restrictions on their ability to lend or transact with affiliates, as well as restrictions on their ability to use funds deposited with them in brokerage or bank accounts to fund their businesses. Limitations on the payments that Citi receives from its subsidiaries could also impact its liquidity. A bank holding company is required by law to act as a source of financial and managerial strength for its subsidiary banks. As a result, the FRB may require Citi to commit resources to its subsidiary banks even if doing so is not otherwise in the interests of Citi or its shareholders or creditors, reducing the amount of funds available to meet its obligations. In addition, in the event of a subsidiary's liquidation or reorganization, Citi's right to participate in a distribution of such subsidiary's assets is subject to the prior claims of the subsidiary's creditors.

The Credit Rating Agencies Continuously Review the Credit Ratings of Citi and Certain of Its Subsidiaries, and a Ratings Downgrade Could Have a Negative Impact on Citi's Funding and Liquidity Due to Reduced Funding Capacity and Increased Funding Costs, Including Derivatives Triggers That Could Require Cash Obligations or Collateral Requirements.

The credit rating agencies, such as Fitch, Moody's and S&P Global Ratings, continuously evaluate Citi and certain of its subsidiaries. Their ratings of Citi and its more significant subsidiaries' long-term/ senior debt and short-term/ commercial paper are based on a number of factors, including standalone financial strength, as well as factors that are not entirely within the control of Citi and its subsidiaries, such as the agencies' proprietary rating methodologies and assumptions, and conditions affecting the financial services industry and markets generally.

Citi and its subsidiaries may not be able to maintain their current respective ratings. A ratings downgrade could negatively impact Citi's ability to access the capital markets and other sources of funds as well as the costs of those funds, and its ability to maintain certain deposits. A ratings downgrade could also have a negative impact on Citi's funding and liquidity due to reduced funding capacity and the impact from derivative triggers, which could require Citi to meet cash obligations and collateral requirements. In addition, a ratings downgrade could have a negative impact on other funding sources such as secured financing and other margined transactions for which there may be no explicit triggers, and on contractual provisions and other credit requirements of Citi's counterparties and clients that may contain minimum ratings thresholds in order for Citi to hold third-party funds. Some entities could have ratings limitations on their permissible counterparties, of which Citi may or may not be aware.

Furthermore, a credit ratings downgrade could have impacts that may not be currently known to Citi or are not possible to quantify. Certain of Citi's corporate customers and trading counterparties, among other clients, could re-evaluate their business relationships with Citi and limit the trading of certain contracts or market instruments with Citi in response to ratings downgrades. Changes in customer and counterparty behavior could impact not only Citi's funding and liquidity but also the results of operations of certain Citi businesses. For additional information on the potential impact of a reduction in Citi's or Citibank's credit ratings, see "Managing Global Risk—Liquidity Risk" below.

COMPLIANCE RISKS

Ongoing Interpretation and Implementation of Regulatory and Legislative Requirements and Changes and Heightened Regulatory Scrutiny and Expectations in the U.S. and Globally Have Increased Citi's Compliance, Regulatory and Other Risks and Costs.

Citi is continually required to interpret and implement extensive and frequently changing regulatory and legislative requirements in the U.S. and other jurisdictions in which it does business, resulting in substantial compliance, regulatory and other risks and costs. In addition, there are heightened regulatory scrutiny and expectations in the U.S. and globally for large financial institutions, as well as their employees and agents, with respect to governance, infrastructure, data and risk management practices and controls. These requirements and expectations also include, among other things, those related to customer and client protection, market practices, anti-money laundering and sanctions. A failure to comply with these requirements and expectations or resolve any identified deficiencies could result in increased regulatory oversight and restrictions, enforcement proceedings, penalties and fines (for additional information, see the legal and regulatory proceedings risk factor below).

Over the past several years, Citi has been required to implement a significant number of regulatory and legislative changes across all of its businesses and functions, and these changes continue. The changes themselves may be complex and subject to interpretation, and will require continued investments in Citi's global operations and technology solutions. In some cases, Citi's implementation of a regulatory or legislative requirement is occurring simultaneously with changing or conflicting regulatory guidance, legal challenges or legislative action to modify or repeal existing rules or enact new rules. Moreover, in some cases, there have been entirely new regulatory or legislative requirements or regimes, resulting in large volumes of regulation and potential uncertainty regarding regulatory expectations for compliance.

Examples of regulatory or legislative changes that have resulted in increased compliance risks and costs include (i) various laws relating to the limitation of cross-border data movement and/or collection and use of customer information, including data localization and protection and privacy laws, which also can conflict with or increase compliance complexity with respect to other laws, including anti-money laundering laws; (ii) the FRB's "total loss absorbing capacity" (TLAC) requirements; and (iii) the U.S. banking agencies' regulatory capital rules and requirements, which have continued to evolve (for additional information, see the capital return risk factor and "Capital Resources" above). In addition, the U.S. banking agencies have prioritized issues of social, economic and racial justice, and are in the process of considering ways in which these issues can be mitigated, including through rulemaking, supervision and other means.

Increased and ongoing compliance and regulatory requirements, uncertainties, scrutiny and expectations have resulted in higher compliance costs for Citi, in part due to an increase in risk, regulatory and compliance staff over the last several years. Extensive and changing compliance requirements can also result in increased reputational and legal risks for Citi, as failure to comply with regulations and requirements, or failure to comply with regulatory expectations, can result in enforcement and/or regulatory proceedings, penalties and fines.

Citi Is Subject to Extensive Legal and Regulatory Proceedings, Examinations, Investigations, Consent Orders and Related Compliance Efforts and Other Inquiries That Could Result in Significant Monetary Penalties, Supervisory or Enforcement Orders, Business Restrictions, Limitations on Dividends, Changes to Directors and/or Officers and Collateral Consequences Arising from Such Outcomes.

At any given time, Citi is a party to a significant number of legal and regulatory proceedings and is subject to numerous governmental and regulatory examinations, investigations, consent orders and related compliance efforts, and other inquiries. Citi can also be subject to enforcement proceedings not only because of violations of laws and regulations, but also due to failures, as determined by its regulators, to have adequate policies and procedures, or to remedy deficiencies on a timely basis.

The October 2020 FRB and OCC consent orders require Citigroup and Citibank to implement targeted action plans and quarterly progress reports detailing the results and status of improvements relating principally to various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls. These improvements will result in continued significant investments by Citi during 2022 and beyond, as an essential part of Citi's broader transformation efforts to enhance its infrastructure, governance, processes and risk and controls.

Although there are no restrictions on Citi's ability to serve its clients, the OCC consent order requires Citibank to obtain prior approval of any significant new acquisition, including any portfolio or business acquisition, excluding ordinary course transactions. Moreover, the OCC consent order provides that the OCC has the right to assess future civil money penalties or take other supervisory and/or enforcement actions, including where the OCC determines Citibank has not made sufficient and sustainable progress to address the required improvements. Such actions by the OCC could include imposing business restrictions, including possible limitations on the declaration or payment of dividends and changes in directors and/or senior executive officers. More generally, the OCC and/or the FRB could take additional enforcement or other actions if the regulatory agency believes that Citi has not met regulatory expectations regarding compliance with the consent orders. For additional information regarding the consent orders, see "Citi's Consent Order Compliance" above.

The global judicial, regulatory and political environment has generally been challenging for large financial institutions. The complexity of the federal and state regulatory and enforcement regimes in the U.S., coupled with the global scope of Citi's operations, also means that a single event or issue may give rise to a large number of overlapping investigations and regulatory proceedings, either by multiple federal and state agencies and authorities in the U.S. or by multiple regulators and other governmental entities in different jurisdictions, as well as multiple civil litigation claims in multiple jurisdictions.

U.S. and non-U.S. regulators have been increasingly focused on "conduct risk," a term used to describe the risks associated with behavior by employees and agents, including third parties, that could harm clients, customers, employees or the integrity of the markets, such as improperly creating, selling, marketing or managing products and services or improper incentive compensation programs with respect thereto, failures to safeguard a party's personal information, or failures to identify and manage conflicts of interest. In addition to the greater focus on conduct risk, the general heightened scrutiny and expectations from regulators could lead to investigations and other inquiries, as well as remediation requirements, more regulatory or other enforcement proceedings, civil litigation and higher compliance and other risks and costs.

Further, while Citi takes numerous steps to prevent and detect conduct by employees and agents that could potentially harm clients, customers, employees or the integrity of the markets, such behavior may not always be deterred or prevented. Banking regulators have also focused on the overall culture of financial services firms, including Citi.

In addition to regulatory restrictions or structural changes that could result from perceived deficiencies in Citi's culture, such focus could also lead to additional regulatory proceedings. Furthermore, the severity of the remedies sought in legal and regulatory proceedings to which Citi is subject has remained elevated. U.S. and certain non-U.S. governmental entities have increasingly brought criminal actions against, or have sought criminal convictions from, financial institutions and individual employees, and criminal prosecutors in the U.S. have increasingly sought and obtained criminal guilty pleas or deferred prosecution agreements against corporate entities and individuals and other criminal sanctions for those institutions and individuals. These types of actions by U.S. and international governmental entities may, in the future, have significant collateral consequences for a financial institution, including loss of customers and business, and the inability to offer certain products or services and/or operate certain businesses. Citi may be required to accept or be subject to similar types of criminal remedies, consent orders, sanctions, substantial fines and penalties, remediation and other financial costs or other requirements in the future, including for matters or practices not yet known to Citi, any of which could materially and negatively affect Citi's businesses, business practices, financial condition or results of operations, require material changes in Citi's operations or cause Citi reputational harm.

Further, many large claims—both private civil and regulatory—asserted against Citi are highly complex, slow to develop and may involve novel or untested legal theories. The outcome of such proceedings is difficult to predict or estimate until late in the proceedings. Although Citi establishes accruals for its legal and regulatory matters according to accounting requirements, Citi's estimates of, and changes to, these accruals involve significant judgment and may be subject to significant uncertainty, and the amount of loss ultimately incurred in relation to those matters may be substantially higher than the amounts accrued (see the incorrect assumptions or estimates risk factor above). In addition, certain settlements are subject to court approval and may not be approved.

OTHER RISKS

Citi's Presence in the Emerging Markets Subjects It to Various Risks as well as Increased Compliance and Regulatory Risks and Costs.

During 2021, emerging markets revenues accounted for approximately 35% of Citi's total revenues (Citi generally defines emerging markets as countries in *Latin America*, *Asia* (other than Japan, Australia and New Zealand), and central and Eastern Europe, the Middle East and Africa in *EMEA*).

Although Citi continues to pursue its target client strategy, Citi's presence in the emerging markets subjects it to various risks, such as limitations or unavailability of hedges on foreign investments; foreign currency volatility, including devaluations, sovereign volatility, election outcomes, regulatory changes and political events; foreign exchange controls, including inability to access indirect foreign exchange mechanisms; macroeconomic volatility and disruptions, including with respect to commodity prices; limitations on foreign investment; sociopolitical instability (including from hyperinflation); fraud; nationalization or loss of licenses; business restrictions; sanctions or asset freezes; potential criminal charges; closure of branches or subsidiaries; and confiscation of assets, whether related to geopolitical conflicts or otherwise; and these risks can be exacerbated in the event of a deterioration in relationships between the U.S. and an emerging market country. For example, Citi operates in several countries that have, or have had in the past, strict capital and currency controls, such as Argentina, that limit its ability to convert local currency into U.S. dollars and/or transfer funds outside of those countries. Among other things, Citi faces a risk of devaluation on its unhedged Argentine peso-denominated assets, which continue to increase (for further information on this and other risks, see "Managing Global Risk—Other Risks—Country Risk—Argentina" below).

Moreover, if the economic situation in an emerging markets country in which Citi operates were to deteriorate below a certain level, U.S. regulators may impose mandatory loan loss or other reserve requirements on Citi, which would increase its credit costs and decrease its earnings (for further information, see "Managing Global Risk—Other Risks—Country Risk—Argentina" below).

In addition, political turmoil and instability have occurred in various regions and emerging market countries across the globe which have required, and may continue to require, management time and attention and other resources (such as monitoring the impact of sanctions on certain emerging markets economies as well as impacting Citi's businesses and results of operations in affected countries).

Climate Change Could Have a Negative Impact on Citi's Results of Operations and Financial Condition.

Citi operates in countries, states and regions in which many of its businesses, and the activities of many of its customers and clients, are exposed to the adverse impacts of climate change, as well as uncertainties related to the transition to a low-carbon economy. Climate change presents both immediate and long-term risks to Citi and its customers and clients, with the risks expected to increase over time.

Climate risks can arise from both physical risks (those risks related to the physical effects of climate change) and transition risks (risks related to regulatory, compliance, technological, stakeholder and legal changes from a transition to a low-carbon economy). The physical and transition risks can manifest themselves differently across Citi's risk categories in the short, medium and long terms.

The physical risk from climate change could result from increased frequency and/or severity of adverse weather events. For example, adverse weather events could damage or destroy Citi's or its counterparties' properties and other assets and disrupt operations, making it more difficult for counterparties to repay their obligations, whether due to reduced profitability, asset devaluations or otherwise. These events could also increase the volatility in financial markets affecting Citi's trading businesses and increase its counterparty exposures and other financial risks, which may result in lower revenues and higher cost of credit.

Transition risks may arise from changes in regulations or market preferences toward a low-carbon economy, which in turn could have negative impacts on asset values, results of operations or the reputations of Citi and its customers and clients. For example, Citi's corporate credit exposures include oil and gas, power and other industries that may experience reduced demand for carbon-intensive products due to the transition to a low-carbon economy. Moreover, U.S. and non-U.S. banking regulators and others are increasingly focusing on the issue of climate risk at financial institutions, both directly and with respect to their clients. As an example, on December 16, 2021, the OCC requested feedback on draft principles designed to support the identification and management of climate-related financial risks at institutions with more than $100 billion in total consolidated assets.

Even as regulators begin to mandate additional disclosure of climate-related information by companies across sectors, there may continue to be a lack of information for more robust climate-related risk analyses. Third party exposures to climate-related risks and other data generally are limited in availability and variable in quality. Modeling capabilities to analyze climate-related risks and interconnections are improving but remain incomplete. Legislative or regulatory uncertainties and changes regarding climate-related risk management and disclosures are likely to result in higher regulatory, compliance, credit, reputational and other risks and costs (for additional information, see the ongoing regulatory and legislative uncertainties and changes risk factor above). In addition, Citi could face increased regulatory, reputational and legal scrutiny as a result of its climate risk, sustainability and other ESG related commitments.

For information on Citi's climate and other sustainability initiatives, see "Sustainability and Other ESG Matters" below. For additional information on Citi's management of climate risk, see "Managing Global Risk—Other Risks—Climate Risk" below.

The Transition Away from and Discontinuance of the London Inter-Bank Offered Rate (LIBOR) and Any Other Interest Rate Benchmark Could Have Adverse Consequences for Market Participants, Including Citi.

For decades, LIBOR and other rates or indices deemed to be benchmarks have been widely used across financial products and markets globally. These benchmarks have been the subject of ongoing national and international regulatory scrutiny and reform, resulting in regulators generally expecting or requiring banks, including Citi, to cease entering into new contracts that reference USD LIBOR as a benchmark by December 31, 2021. The LIBOR administrator ceased publication of non-USD LIBOR and one-week and two-month USD LIBOR on a representative basis on December 31, 2021, with plans to cease publication of all other USD LIBOR tenors on June 30, 2023. As a result, Citi ceased entering into new contracts referencing USD LIBOR as of January 1, 2022, other than for limited purposes as permitted by regulatory guidance.

LIBOR and other benchmarks have been used in a substantial number of Citi's outstanding securities and products, including, among others, derivatives, corporate loans, commercial and residential mortgages, credit cards, securitized products and other structured securities. Despite ongoing actions to prepare for the transition away from LIBOR (see "Managing Global Risk—Other Risks—LIBOR Transition Risk" below), market participants, including Citi, may not be adequately prepared for uncertainties associated with these benchmarks' discontinuance or, as necessary, be able to successfully modify their outstanding contracts or products that reference these benchmarks. For example, the transition away from and discontinuance of LIBOR or any other benchmark rate presents various uncertainties and operational, legal, reputational or compliance, financial and other risks and challenges to holders of these contracts and products, as well as financial markets and institutions, including Citi. These include, among others, the pricing, liquidity, observability, value of, return on and market for financial instruments and contracts that reference LIBOR or any other benchmark rate.

While Citi has adopted alternative reference rates for new contracts to replace these outgoing benchmarks, in some instances, it is possible that the characteristics of these new rates may not be sufficiently similar to, or produce the economic equivalent of, the benchmark rates that they are intended to replace. Alternative reference rates, such as the Secured Overnight Financing Rate (SOFR), are calculated using components different from those used in the calculation of LIBOR and may fluctuate differently than, and not be representative of, LIBOR. In order to compensate for these differences, certain of Citi's financial instruments and commercial agreements allow for a benchmark replacement adjustment. However, there can be no assurance that any benchmark replacement adjustment will be sufficient to produce the economic equivalent of LIBOR, either at the benchmark replacement date or over the life of such instruments and agreements.

Further, investors, counterparties and other market participants may not consider the new alternative rates to be a suitable substitute or successor for all of the purposes for which these benchmarks have historically been used (including, without limitation, as a representation of the unsecured short-term funding costs of banks), which may, in turn, reduce their market acceptance. Any failure of the alternative rates to gain broad market acceptance could adversely affect market demand for Citi's products or securities linked to such alternative rates and thus market prices of such instruments. As part of its transition, Citi is relying or has relied on guidance provided by the accounting standard setters related to the transition away from LIBOR. In the event that such guidance is insufficient or otherwise unable to be implemented as intended, LIBOR transition could disrupt Citi's hedge accounting relationships and/or lead to increased costs in connection with determining whether contract amendments result in a modification or an extinguishment from an accounting perspective. Changes in observability of the alternative reference rates could impact the fair value hierarchy classification of financial instruments and contracts.

Moreover, the LIBOR transition presents challenges related to contractual mechanics of existing financial instruments and contracts that reference such benchmarks that mature after discontinuance of the relevant benchmark. Certain of these legacy instruments and contracts do not provide for fallbacks to alternative reference rates, which makes it unclear what the applicable future replacement benchmark rates and associated payments might be after the current benchmark's cessation. Citi may not be able to amend certain instruments and contracts due to an inability to obtain sufficient levels of consent from counterparties or security holders. Although this will depend on the precise contractual terms of the instrument, such consent requirements are often conditions of securities, such as floating rate notes.

Even if the instruments and contracts provide for a transition to an alternative reference rate, the new rate may, particularly in times of financial stress, significantly differ from the prior rates. As a result, Citi may need to consider proactively addressing any contractual uncertainties or rate differences in such instruments and contracts, which would likely be both time consuming and costly, and may not ultimately be successful. While statutory solutions have been enacted in certain jurisdictions to address these contractual concerns (for example, the State of New York and the EU), the availability and effectiveness of these statutory mechanisms to cover all impacted financial instruments and products to which Citi is a party is uncertain.

In addition, the transition away from and discontinuance of LIBOR and other benchmark rates have subjected financial institutions, including Citi, to heightened scrutiny from regulators. Failure to successfully transition away from LIBOR and other benchmark rates could result in adverse regulatory actions, disputes, including potential litigation involving holders of outstanding products and contracts that reference LIBOR, and other benchmark rates and reputational harm to Citi. Citi may also need to further invest in and develop internal systems and infrastructure to transition to alternative benchmark rates to manage its businesses and support its clients.

SUSTAINABILITY AND OTHER ESG MATTERS

Introduction

Citi has progressively developed its understanding of environmental, social and governance (ESG) issues for more than 20 years and has a demonstrated record of ESG progress, including participating in the creation and adoption of ESG-related principles and standards. This section summarizes some of Citi's key ESG initiatives, including its Sustainable Progress Strategy and net zero and Action for Racial Equity commitments.

In January 2022, Citi published its 2021 Task Force on Climate-Related Financial Disclosures (TCFD) Report to provide its stakeholders with information on Citi's continued progress to address climate risk and to fulfill its commitment to publish an initial net zero plan within one year of announcing the net zero commitment. This represents Citi's fourth TCFD Report.

For information regarding Citi's management of climate risk, see "Managing Global Risk—Other Risks—Climate Risk" below.

ESG and Climate-Related Governance

ESG Governance

Citi's Board of Directors (Board) provides oversight of Citi's management activities to ensure responsible business practices (for additional information, see "Managing Global Risk—Risk Governance" below). For example, the Nomination, Governance and Public Affairs Committee of the Board oversees many of Citi's ESG activities, including reviewing Citi's policies and programs for environmental and social sustainability, climate change, human rights, diversity and other ESG issues, as well as advising on engagement with external stakeholders.

The Risk Management Committee of the Board provides oversight of Citi's Independent Risk Management function and reviews Citi's risk policies and frameworks, including receiving climate risk-related updates.

In 2021, Citi formed a Global ESG Council consisting of senior members of its management in order to provide enhanced oversight of Citi's ESG goals and activities. In addition, a number of teams and senior managers contribute to the oversight of different areas such as sustainability; community investing; talent and diversity; ethics and business practices; and remuneration.

Climate Change Governance

Citi's oversight of climate risk has continued to evolve with its expanding climate commitments. In 2021, Citi established its ESG Council, expanded its Climate Risk team and enhanced its climate risk and net zero-related governance through creation of a Net Zero Task Force. The Task Force, led by Citi's Chief Sustainability Officer and including leaders from various business units, was established to support the development and launch of Citi's net zero plan.

Key ESG Initiatives

Sustainable Progress Strategy

Citi's Sustainable Progress Strategy is summarized in its Environmental and Social Policy Framework. The three pillars of the strategy each have climate-related elements and serve as the foundation for Citi's climate commitments.

- The first pillar, "Low-Carbon Transition," focuses on financing and facilitating low-carbon solutions and supporting Citi's clients in their decarbonization and transition strategies.
- The second pillar, "Climate Risk," focuses on Citi's efforts to measure, manage and reduce the climate risk and impact of its client portfolio. Areas of activity include, portfolio analysis and stakeholder engagement as well as enhancing TCFD implementation and disclosure.
- The third pillar, "Sustainable Operations," focuses on Citi's efforts to reduce the environmental footprint of its facilities and strengthen its sustainability culture. This includes minimizing the impact of its global operations through operational footprint goals and further integrates sustainable practices across all countries in which Citi operates.

Net Zero Emissions by 2050

In March 2021, Citi announced its commitment to achieving net zero greenhouse gas (GHG) emissions associated with its financing by 2050, and net zero GHG emissions for its operations by 2030; both are significant targets given the size and breadth of Citi's lending portfolios and businesses. Citi made this commitment as part of its ongoing work to reduce its climate impact and help address the challenges that climate change poses to the global economy and broader society. Citi's net zero commitment demonstrates how identifying, assessing and managing climate-related risks and opportunities remains a top business priority for Citi.

While many financial institutions, including Citi, face increasing public pressure to divest from carbon-intensive sectors, Citi believes it has an important role to play in advising and financing the transition to net zero, and it plans to work closely with clients in this effort. Citi recognizes that large-scale, rapid divestment could result in an abrupt and disorderly transition to a low-carbon economy, creating both economic and social upheaval on a global scale. Citi believes that an orderly, responsible and equitable transition, which accounts for the immediate economic needs of communities, workers, environmental justice and broader economic development concerns, is essential for the retention of political and social support to move to a low-carbon economy.

Citi's 2021 TCFD Report discusses its initial 2050 net zero plan, including 2030 emissions targets for its Energy and Power loan portfolios that were developed in line with the Net Zero Banking Alliance Guidelines for Climate Target Setting for Banks. Citi's net zero plan incorporates a twofold approach: (i) assessment of climate-related factors affecting its clients, and (ii) engagement to understand their transition opportunities.

Citi's net zero approach includes the following areas of activity:

- *Client Transition Assessment, Advisory and Finance*: Seek to understand clients' GHG emissions and work with them to develop their transition plans and advise on capacity building
- *Clean Tech Finance*: Support clients and expedite the commercialization and adoption of climate technology globally through transition and environmental finance as well as public-private partnerships
- *Public Policy Engagement*: Support enabling public policy and regulation in the U.S. and other countries, including through trade associations and other industry groups

- *Risk Management*: Assess climate risk exposure across Citi's lending portfolios and review client carbon reduction progress, with ongoing review and refining of Citi's ESRM Policy as needed
- *Portfolio Management*: Active portfolio management to align with net zero targets, including considerations of transition measures taken by clients

The 2050 net zero commitment includes the following framework, delineating the key areas required to achieve its commitment:

- *Calculate Emissions*: Calculate baseline financed emissions for each carbon-intensive sector
- *Transition Pathway*: Identify the appropriate climate scenario transition pathway
- *Target Setting*: Establish emissions reduction targets for 2030 and beyond
- *Implementation Strategy*: Engage with and assess clients to determine transition opportunities
- *External Engagement*: Solicit feedback from clients, investors and other stakeholders, as the work continues to evolve and the parties collectively define net zero for the banking sector

In 2021, Citi continued to expand its participation in the financial industry's net zero leadership initiatives. Citi is a member of key industry initiatives that enhance its understanding of climate-related issues, improve its access to data and promote efficient communication and coordination across various climate efforts. These initiatives include the Partnership for Carbon Accounting Financials, the Net Zero Banking Alliance and the Glasgow Financial Alliance for Net Zero.

Action for Racial Equity

Effectively responding to the needs of communities of color in the U.S. represents a strategic imperative for the private sector. A wide range of data and studies have found that many major gaps in economic opportunity, education, income, housing and wealth run along racial lines, particularly between Black and white households. These gaps have not only had implications for Black Americans and other people of color but the broader economy as well.

Accordingly, in September 2020, Citi and the Citi Foundation announced Action for Racial Equity to help provide greater access to banking and credit in communities of color, increase investment in Black-owned businesses, expand affordable housing and homeownership among Black Americans and advance anti-racist practices within Citi and across the financial services industry. As part of Action for Racial Equity, Citi and the Citi Foundation have invested more than $1 billion in strategic initiatives to help close the racial wealth gap and increase economic mobility in the U.S. Action for Racial Equity builds on Citi's longstanding focus on advancing financial inclusion and economic opportunity for communities of color in the U.S. and accelerates its efforts in a time of increased calls for racial equity and shifting population demographics in a changing economy.

In line with Citi's continued commitment to expand access to banking products and services that can help advance economic progress—especially for underbanked and unbanked communities—on February 24, 2022, Citi announced plans to eliminate overdraft fees, returned item fees and overdraft protection fees by mid 2022. In addition to eliminating these fees, Citi will continue to offer a robust suite of free overdraft protection services for its consumers. See Note 5 to the Consolidated Financial Statements for details of Citi's *Commissions and fees* revenues.

Additional Information

For additional information on Citi's environmental and social policies and priorities, see Citi's website at www.citigroup.com. Click on "About Us" and then "Environmental, Social and Governance." For information on Citi's ESG and Sustainability (including climate change) governance, see Citi's 2021 Annual Meeting Proxy Statement available at www.citigroup.com. Click on "Investors" and then "Annual Reports & Proxy Statements."

The 2021 TCFD Report and any other ESG-related reports and information included elsewhere on Citi's investor relations website are not incorporated by reference into, and do not form any part of this 2021 Annual Report on Form 10-K.

HUMAN CAPITAL RESOURCES AND MANAGEMENT

Attracting and retaining a highly qualified and motivated workforce is a strategic priority for Citi. Citi seeks to enhance the competitive strength of its workforce through the following efforts:

- Continuous innovation in recruiting, training, compensation, promotion and engagement of colleagues.
- Actively seeking and listening to diverse perspectives at all levels of the organization.
- Optimizing transparency concerning workforce goals, to promote accountability, credibility and effectiveness in achieving those goals.

Workforce Size and Distribution

As of December 31, 2021, Citi employed approximately 223,400 colleagues in nearly 100 countries. The Company's workforce is constantly evolving and developing, benefiting from a strong mix of internal and external hiring into new and existing positions. In 2021, Citi welcomed 46,907 new colleagues in addition to the roles filled by colleagues through internal mobility. The following table shows the geographic distribution of those colleagues by segment, region and gender:

Segment or business[1]	North America	EMEA	Latin America	Asia	Total[2]	Women	Men	Unspecified
Institutional Clients Group	**19,029**	**18,096**	**7,909**	**25,458**	**70,492**	**44.1%**	**55.9%**	**—%**
Global Consumer Banking	**33,898**	**—**	**33,453**	**32,950**	**100,301**	**57.4**	**42.5**	**0.1**
Corporate/Other	**23,218**	**10,364**	**7,012**	**12,057**	**52,651**	**46.3**	**53.6**	**0.1**
Total	**76,145**	**28,460**	**48,374**	**70,465**	**223,444**	**50.6%**	**49.3%**	**0.1%**

(1) Colleague distribution is based on assigned business and region, which may not reflect where the colleague physically resides.
(2) Part-time colleagues represented less than 1.5% of Citi's global workforce.

Board Oversight

Citi devotes substantial resources to managing its workforce, guided by a culture of accountability and excellence. Citigroup's Board of Directors (the Board) provides strategic oversight and direction to management regarding workforce policies and includes many members with experience in overseeing workforce issues.

In addition, the Board's Personnel and Compensation Committee regularly reviews management's achievements against human capital management goals, such as addressing representation of women and U.S. minorities in assistant vice president (AVP) to managing director (MD) levels, as well as talent recruitment and development initiatives.

The Board works with the Nomination, Governance and Public Affairs Committee to evaluate potential successors to the Chief Executive Officer (CEO). With respect to regular succession of the CEO and senior management, Citi's Board evaluates internal, and, when appropriate, external candidates. To find external candidates, Citi seeks input from members of the Board, senior management and recruiting firms. To develop internal candidates, Citi engages in a number of practices, formal and informal, designed to familiarize the Board with Citi's talent pool. The formal process involves an annual talent review conducted by senior management at which the Board studies the most promising members of senior management. The Board learns about each person's experience, skills, areas of expertise, accomplishments, goals and risk and control assessments. This review is conducted at a regularly scheduled Board meeting on an annual basis.

Diversity, Equity and Inclusion

Citigroup's Board is committed to ensuring that the Board and Citi's Executive Management Team (see "Managing Global Risk—Risk Governance" below) are composed of individuals whose backgrounds reflect the diversity represented by Citi's employees, customers and stakeholders. In addition, over the past several years, Citi has increased efforts to diversify its workforce, including, among other things, taking actions with respect to pay equity, representation goals and use of diverse slates in recruiting.

Pay Equity

Citi has focused on measuring and addressing pay equity within the organization:

- In 2018, Citi was the first major U.S. financial institution to publicly release the results of a pay equity review comparing its compensation of women to men and U.S. minorities to U.S. non-minorities. Since 2018, Citi has continued to be transparent about pay equity, including disclosing its unadjusted or "raw" pay gap for both women and U.S. minorities.
- Citi's 2021 pay equity review determined that, on an adjusted basis, women globally are paid on average more than 99% of what men are paid at Citi. In addition, the review determined there was no statistically significant difference in adjusted compensation between U.S. minorities and non-minorities. Following the review, appropriate pay adjustments were made as part of Citi's 2021 compensation cycle.

- Citi's 2021 raw gap analysis showed that the median pay for women globally is 74% of the median for men, similar to 2020, and up from 73% in 2019 and 71% in 2018. The median pay for U.S. minorities is more than 96% of the median for non-minorities, which is up from just under 94% in 2020, 94% in 2019 and 93% in 2018.

Representation Goals

Increasing the number of women globally and U.S. Black employees into senior AVP to MD levels will position Citi to further close the raw pay gap and increase the diversity of the Company. At the AVP to MD levels, Citi established representation goals of 40% for women globally and 8% for U.S. Black employees by the end of 2021. As of December 31, 2021, Citi exceeded its goals for AVP to MD levels for women globally (at 40.6%) and U.S. Black employees (at 8.1%).

Citi is the first major Wall Street bank to participate in Management Leadership for Tomorrow's Black Equity at Work Certification, to help measure internal progress toward Black equity in the workplace.

In addition, consistent with its ongoing support of measurement and transparency, Citi will conduct a third-party racial equity audit to help assess the true impact of Citi's Action for Racial Equity initiatives (for additional information, see "Sustainability and Other ESG Matters—Action for Racial Equity" above).

Diverse Slates in Recruitment

In 2021, Citi expanded the use of diverse slates in its recruiting efforts to have at least two women or U.S. minorities interview for U.S.-based roles and at least two women interview for global hire roles at the AVP to MD levels.

Since implementation, Citi has increased the share of diverse candidates on slates by 26% and more than doubled the total number of diverse slates between March and December 2021. Candidate slates were as follows:

- 74.4% of roles included a diverse slate with at least two women globally and/or U.S. underrepresented minorities for U.S. hires; and
- 92.2% of roles included a diverse slate with at least one woman globally and/or U.S. underrepresented minority for U.S. hires compared to 86% in 2020.

In 2021, women representation in Citi's full-time global campus programs surpassed its goal of 50%, increasing to 51% from 49% in 2020. In addition, Black and Hispanic/Latino representation within Citi's full-time U.S. campus programs increased to 28% from 24% in 2020.

Workforce Development

Citi highly values a workplace environment where colleagues can bring their authentic selves to work and where diverse perspectives and ideas are embraced. Citi encourages career growth and development by offering broad and diverse opportunities to colleagues. Highlights of these opportunities include the following:

- Citi provides a range of internal development and rotational programs to colleagues at all levels, including various training programs and events to assist high-performing colleagues in building the skills needed to transition to manager and supervisory roles.
- Citi has a focus on internal talent development and aims to provide colleagues with career growth opportunities, with 37% of open positions filled internally in 2021. These opportunities are particularly important as Citi focuses on providing career paths for its internal talent base as part of its efforts to increase organic growth and promotions within the organization.

Moreover, in 2021, a diverse group of human resources and business stakeholders collaborated to provide input on the current state and target future state for promotions at Citi. Their analysis resulted in the identification of opportunities for improvement to create greater transparency and alignment of the promotion process across Citi's businesses, functions and regions.

Wellness

During the past two years, the pandemic's impact has been substantial on the mental and physical health of Citi colleagues and their families. As the Company transforms and the future of work evolves, colleague wellness is a central component of Citi's focus. Coming out of the pandemic, Citi has announced three working models: colleagues will be designated as hybrid, resident or remote, based on job-specific requirements.

As colleagues pivoted to remote work during their respective country lockdowns, Citi's health plans also expanded to keep colleagues at home and safe. In the U.S., Citi offered free virtual care visits, home delivery of prescriptions, enhanced bereavement leave and no-cost COVID testing.

In addition to providing access to COVID vaccinations, which included several onsite locations in Asia and the U.S., Citi organized drive-through flu vaccination programs in the U.S. for thousands of colleagues and their family members. All colleagues globally were provided time off for vaccinations and boosters and to recover from any side effects, if needed.

To support the ongoing health of its workforce, on October 28, 2021 Citi announced a COVID-19 vaccination policy requiring all U.S. colleagues and new hires to be fully vaccinated or receive an approved accommodation or state-permitted exemption, as a condition of employment. As of the January 14, 2022 deadline, over 99% of U.S. colleagues were in compliance with the vaccine policy.

Citi also took actions to support the emotional well-being of its colleagues. Citi significantly enhanced free mental well-being programs in our largest region by doubling the number of free counseling sessions for colleagues and their family members and adding real-time text, video and message-based counseling. Citi also debuted a new online tool so that all colleagues around the globe could easily find their local Employee Assistance programs and resources. Citi also expanded live, town hall-style mental well-being programming to include targeted events with subject matter experts aimed at parents, caregivers and other at-risk groups.

Citi's wellness vision is not simply a reaction to its external environment. It has consistently been about nurturing colleagues and their families, however their families are grown. Citi continues to broaden gender affirmation medical coverage and incorporate it in its basic medical plan coverage around the world. Citi also enhanced its fertility coverage and support. In North America, Citi's new Adoption and Surrogacy Assistance Program provides reimbursement to help with certain expenses in the adoption of a child or surrogacy parenting arrangement.

In early 2020, Citi expanded its Paid Parental Leave Policy to include Citi colleagues around the world. At a minimum, all Citi colleagues are eligible for 16 weeks of paid pregnancy leave or four weeks of paid parental bonding leave. Colleagues working in countries that require leave policies above the global minimum continue to maintain even longer periods of paid time off.

For information about Citi's reliance on a highly qualified and motivated workforce, see "Risk Factors" above. For additional information about Citi's human capital management initiatives and goals, see Citi's upcoming 2022 proxy statement to be filed with the SEC in March 2022, as well as its 2020 ESG report available at www.citigroup.com. The 2020 ESG report and other information included elsewhere on Citi's investor relations website are not incorporated by reference into, and do not form any part of, this 2021 Annual Report on Form 10-K.

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(1) For additional information regarding certain credit risk, market risk and other quantitative and qualitative information, refer to Citi's Pillar 3 Basel III Advanced Approaches Disclosures, as required by the rules of the Federal Reserve Board, on Citi's Investor Relations website.

MANAGING GLOBAL RISK

Overview

For Citi, effective risk management is of primary importance to its overall operations. Accordingly, Citi's risk management process has been designed to monitor, evaluate and manage the principal risks it assumes in conducting its activities. Specifically, the activities that Citi engages in, and the risks those activities generate, must be consistent with Citi's Mission and Value Proposition and the key principles that guide it, as well as Citi's risk appetite. As discussed above, Citi is continuing its efforts to comply with the FRB and OCC consent orders, relating principally to various aspects of risk management, compliance, data quality management and governance, and internal controls (see "Citi's Consent Order Compliance" and "Risk Factors—Compliance Risks" above).

Risk management must be built on a foundation of ethical culture. Under Citi's Mission and Value Proposition, which was developed by its senior leadership and distributed throughout the Company, Citi strives to serve its clients as a trusted partner by responsibly providing financial services that enable growth and economic progress while earning and maintaining the public's trust by constantly adhering to the highest ethical standards. As such, Citi asks all colleagues to ensure that their decisions pass three tests: they are in Citi's clients' interests, create economic value and are always systemically responsible. In addition, Citi evaluates colleagues' performance against behavioral expectations set out in Citi's Leadership Principles, which were designed in part to effectuate Citi's Mission and Value Proposition. Other culture-related efforts in connection with conduct risk, ethics and leadership, escalation and treating customers fairly help Citi to execute its Mission and Value Proposition.

Citi has established an Enterprise Risk Management (ERM) Framework to ensure that all of Citi's risks are managed appropriately and consistently across Citi and at an aggregate, enterprise-wide level. The ERM Framework details the principles used to support effective enterprise-wide risk management across the end-to-end risk management lifecycle. The ERM Framework also provides clarity on the expected activities in relation to risk management of the Citigroup Board of Directors (the Board), Citi's Executive Management Team (See "Risk Governance—Executive Management Team" below) and employees across the lines of defense. The underlying pillars of the framework encompass:

- *Culture*—the core principles and behaviors that underpin a strong culture of risk awareness, in line with Citi's Mission and Value Proposition, and Leadership Principles;
- *Governance*—the committee structure and reporting arrangements that support the appropriate oversight of risk management activities at the Board and Executive Management Team levels;
- *Risk Management*—the end-to-end risk management cycle including the identification, measurement, monitoring, controlling and reporting of all risks including emerging, growing, idiosyncratic or otherwise material risks, and aggregated to an enterprise-wide level; and
- *Enterprise Programs*—the key risk management programs performed across the risk management lifecycle for all risk categories; these programs also outline the specific roles played by each of the lines of defense in these processes.

Each of these pillars is underpinned by Supporting Capabilities, which are the infrastructure, people, technology and data, and modelling and analytical capabilities that are in place to enable the execution of the ERM Framework.

Citi's approach to risk management requires that its risk-taking be consistent with its risk appetite. Risk appetite is the aggregate type and level of risk Citi is willing to take in order to meet its strategic objectives and business plan. Citi's Risk Appetite Framework sets boundaries for risk-taking and consists of a set of risk appetite statements as well as the governance processes through which the risk appetite is established, communicated, cascaded and monitored.

Citi's risks are generally categorized and summarized as follows:

- *Credit risk* is the risk of loss resulting from the decline in credit quality (or downgrade risk) or failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations.
- *Liquidity risk* is the risk that Citi will not be able to efficiently meet both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or financial conditions of Citi.
- *Market risk (Trading and Non-Trading)*: Market risk of trading portfolios is the risk of loss arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables, such as equity and commodity prices or credit spreads. Market risk of non-trading portfolios is the risk to current or projected financial condition and resilience arising from movements in interest rates and resulting from repricing risk, basis risk, yield curve risk and options risk.
- *Operational risk* is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It includes legal risk, which is the risk of loss (including litigation costs, settlements and regulatory fines) resulting from the failure of Citi to comply with laws, regulations, prudent ethical standards and contractual obligations in any aspect of Citi's business, but excludes strategic and reputation risks (see below).
- *Compliance risk* is the risk to current or projected financial condition and resilience arising from violations of laws, rules or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards.
- *Reputation risk* is the risk to current or projected financial conditions and resilience arising from negative public opinion.
- *Strategic risk* is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalization, or capital, arising from the external factors affecting the Company's operating environment; as well as the risks associated with defining the strategy and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

Citi uses a lines of defense model as a key component of its ERM Framework to manage its risks. The lines of defense model brings together risk-taking, risk oversight and risk assurance under one umbrella and provides an avenue for risk accountability of first line of defense, a construct for effective challenge by the second line of defense (Independent Risk Management and Independent Compliance Risk Management), and empowers independent risk assurance by the third line of defense (Internal Audit). In addition, Citi has enterprise support functions that support safety and soundness across Citi. Each of the lines of defense and enterprise support functions, along with the Board, are empowered to perform relevant risk management processes and responsibilities in order to manage Citi's risks in a consistent and effective manner.

First Line of Defense: Front Line Units and Front Line Unit Activities

Citi's first line of defense owns the risks inherent in or arising from their business and is responsible for identifying, measuring, monitoring, controlling and reporting those risks consistent with Citi's strategy, Mission and Value Proposition, Leadership Principles and risk appetite.

Front line units are responsible and held accountable for managing the risks associated with their activities within the boundaries set by independent risk management. They are also responsible for designing and implementing effective internal controls and maintaining processes for managing their risk profile, including through risk mitigation, so that it remains consistent with Citi's established risk appetite.

Front line unit activities are considered part of the first line of defense and are subject to the oversight and challenge of independent risk management.

The first line of defense is composed of Citi's Business Management, Regional and Country Management, certain Corporate Functions (Enterprise Operations and Technology, Chief Administrative Office, Global Public Affairs, Office of the Citibank Chief Executive Officer (CEO) and Finance), as well as other front line unit activities. Front line units may also include enterprise support units and activities—see "Enterprise Support Functions" below.

Second Line of Defense: Independent Risk Management

Independent risk management units are independent of front line units. They are responsible for overseeing the risk-taking activities of the first line of defense and challenging the first line of defense in the execution of their risk management responsibilities. They are also responsible for independently identifying, measuring, monitoring, controlling and reporting aggregate risks and for setting standards for the management and oversight of risk. Independent risk management is comprised of Independent Risk Management (IRM) and Independent Compliance Risk Management (ICRM) and are led by chief risk executives (i.e., Chief Risk Officer (CRO) and Chief Compliance Officer (CCO)) who have unrestricted access to the Citigroup Board of Directors and its Risk Management Committee to facilitate the ability to execute their specific responsibilities pertaining to escalation to the Citigroup Board of Directors.

Independent Risk Management

The IRM organization sets risk and control standards for the first line of defense and actively manages and oversees aggregate credit, market (trading and non-trading), liquidity, strategic, operational and reputation risks across Citi, including risks that span categories, such as concentration risk, country risk and climate risk.

IRM is organized to align to risk categories, legal entities/regions and Company-wide, cross-risk functions or processes (i.e., foundational areas). There are teams that report to an independent CRO for various risk categories and legal entities/regions. In addition, there are foundational teams that report to Foundational Risk Management heads. The Risk Category, Legal Entity/Regional CROs and Foundational Risk Management Heads report to the Citigroup CRO.

Independent Compliance Risk Management

The ICRM organization actively oversees compliance risk across Citi, sets compliance risk and control standards for the first line of defense to manage compliance risk and promotes business conduct and activity that is consistent with Citi's Mission and Value Proposition and the compliance risk appetite. Citi's objective is to embed an enterprise-wide compliance risk management framework and culture that identifies, measures, monitors, controls and escalates compliance risk across Citi.

ICRM is aligned by product line, function and geography to provide compliance risk management advice and credible challenge on day-to-day matters and strategic decision-making for key initiatives. ICRM also has program-level Enterprise Compliance units responsible for setting standards and establishing priorities for program-related compliance efforts. These Compliance Risk Management heads report directly to the CCO.

Third Line of Defense: Internal Audit

Internal Audit is independent of front line units and independent risk management units. The role of Internal Audit is to provide independent, objective, reliable, valued and timely assurance to the Citigroup Board of Directors, its Audit Committee, Citi senior management and regulators over the effectiveness of governance, risk management and controls that mitigate current and evolving risks and enhance the control culture within Citi. Internal Audit reports to a chief audit executive (i.e., Citi's Chief Auditor) who has unrestricted access to the Board and the board of directors of certain subsidiaries or their respective audit committees to facilitate the ability to execute specific responsibilities pertaining to escalation of risks and issues. The Internal Audit function has designated Chief Auditors responsible for assessing the design and effectiveness of controls within the various business units, functions, geographies and legal entities in which Citi operates.

Enterprise Support Functions

Enterprise support functions engage in activities that support safety and soundness across Citi. These functions provide advisory services and/or design, implement, maintain and oversee Company-wide programs that support Citi in maintaining an effective control environment.

Enterprise support functions are comprised of Human Resources, International Franchise Management, Legal (including Citi Security and Investigative Services).

Enterprise support functions, units and activities are subject to the relevant Company-wide independent oversight processes specific to the risk category that they generate (e.g., operational risk, compliance risk, reputation risk).

Risk Governance

Citi's ERM Framework encompasses risk management processes to address risks undertaken by Citi through identification, measurement, monitoring, controlling and reporting of all risks. The ERM Framework integrates these processes with appropriate governance to complement Citi's commitment to maintaining strong and consistent risk management practices.

Board Oversight

The Board is responsible for oversight of risk management and holds the Executive Management Team accountable for implementing the ERM Framework and meeting strategic objectives within Citi's risk appetite.

Executive Management Team

The Board delegates authority to an Executive Management Team for directing and overseeing day-to-day management of Citi. The Executive Management Team is led by the Citigroup CEO and provides oversight of group activities, both directly and through authority delegated to committees it has established to oversee the management of risk, to ensure continued alignment with Citi's strategy and risk appetite.

Board and Executive Management Committees

The Board executes its responsibilities either directly or through its committees. The Board has delegated authorities to the following Board standing committees to help fulfill its oversight and risk management responsibilities:

- *Risk Management Committee (RMC)*: assists the Board in fulfilling its responsibility with respect to (i) oversight of Citi's risk management framework, including the significant policies and practices used in managing credit, market, liquidity, strategic, operational, compliance, reputation and certain other risks, including those pertaining to capital management, and (ii) performance oversight of the Global Risk Review—credit, capital and collateral review functions.
- *Audit Committee*: provides oversight of Citi's financial reporting and internal control risk, as well as Internal Audit and Citi's external independent accountants.
- *Personnel and Compensation Committee*: provides oversight of incentive compensation plans and risk related to compensation.
- *Ethics, Conduct and Culture Committee*: provides oversight of Citi's Conduct Risk Management Program.
- *Nomination, Governance and Public Affairs Committee*: provides oversight of reputational issues, Environmental, Social and Governance (ESG) and sustainability matters, and legal and regulatory compliance risks as they relate to corporate governance matters.

In addition to the above, the Board has established the following ad hoc committee:

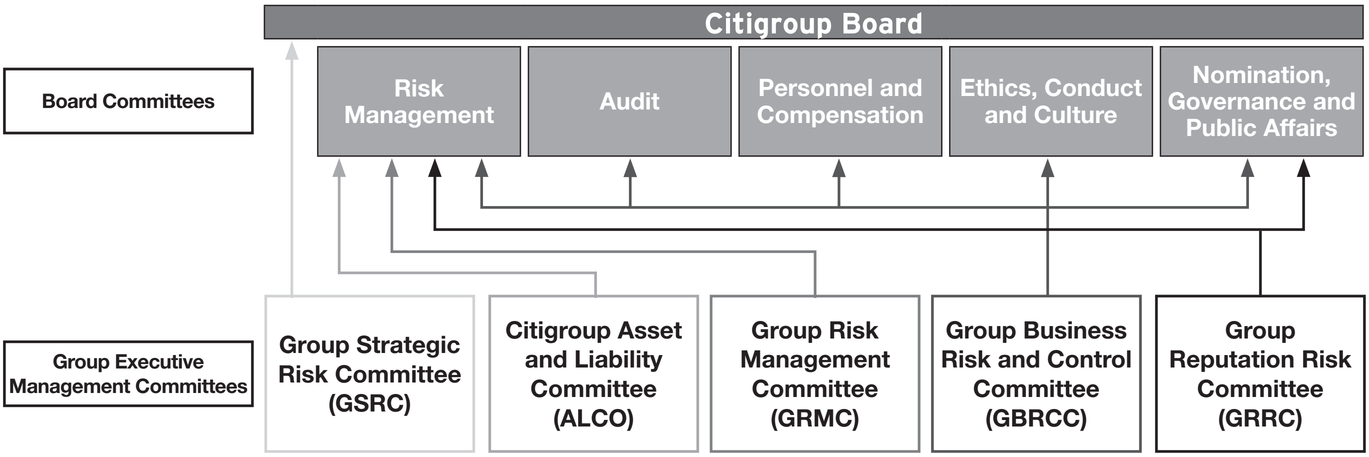
- *Transformation Oversight Committee*: provides oversight of the actions of Citi's management to develop and execute a transformation of Citi's risk and control environment pursuant to the recent regulatory consent orders (for additional information see "Citi's Consent Order Compliance" above).

The Executive Management Team has established five standing committees that cover the primary risks to which Citi (i.e., Group) is exposed. These consist of:

- *Group Strategic Risk Committee (GSRC)*: provides governance oversight of Citi's management actions to adequately identify, monitor, report, manage and escalate all material strategic risks facing Citi.
- *Citigroup Asset and Liability Committee (ALCO)*: responsible for governance over management's Liquidity Risk and Market Risk (non-trading) management and for monitoring and influencing the balance sheet, investment securities and capital management activities of Citigroup.
- *Group Risk Management Committee (GRMC)*: provides governance oversight of Credit Risk and Market Risk (trading) management in the Trading Book.
- *Group Business Risk and Control Committee (GBRCC)*: provides governance oversight of Citi's Compliance and Operational Risks.
- *Group Reputation Risk Committee (GRRC)*: provides governance oversight for Reputation Risk management across Citi.

In addition to the Executive Management committees listed above, the Board may establish ad-hoc committees in response to regulatory feedback or to manage additional activities where deemed necessary.

The figure below illustrates the reporting lines between the Board and Executive Management committees:



CREDIT RISK

Overview

Credit risk is the risk of loss resulting from the decline in credit quality of a client, customer or counterparty (or downgrade risk) or the failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations. Credit risk arises in many of Citigroup's business activities, including:

- consumer, commercial and corporate lending;
- capital markets derivative transactions;
- structured finance; and
- securities financing transactions (repurchase and reverse repurchase agreements, and securities loaned and borrowed).

Credit risk also arises from clearing and settlement activities, when Citi transfers an asset in advance of receiving its counter-value or advances funds to settle a transaction on behalf of a client. Concentration risk, within credit risk, is the risk associated with having credit exposure concentrated within a specific client, industry, region or other category.

Credit risk is one of the most significant risks Citi faces as an institution. For additional information, see "Risk Factors—Credit Risk" above. As a result, Citi has an established framework in place for managing credit risk across all businesses that includes a defined risk appetite, credit limits and credit policies. Citi's credit risk management also includes processes and policies with respect to problem recognition, including "watch lists," portfolio reviews, stress tests, updated risk ratings and classification triggers.

With respect to Citi's clearing and settlement activities, intraday client usage of clearing lines is monitored against limits, as well as against usage patterns with settlement activity monitored daily and intraday for select products. To the extent that a problem develops, Citi typically moves the client to a secured (collateralized) operating model. Generally, Citi's intraday clearing and settlement lines are uncommitted and cancelable at any time.

To manage concentration of risk within credit risk, Citi has in place a framework consisting of industry limits, an idiosyncratic framework consisting of single name concentrations for each business and across Citigroup and a specialized framework consisting of product limits.

Credit exposures are generally reported in notional terms for accrual loans, reflecting the value at which the loans as well as other off-balance sheet commitments are carried on the Consolidated Balance Sheet. Credit exposure arising from capital markets activities is generally expressed as the current mark-to-market, net of margin, reflecting the net value owed to Citi by a given counterparty.

The credit risk associated with these credit exposures is a function of the idiosyncratic creditworthiness of the obligor, as well as the terms and conditions of the specific obligation. Citi assesses the credit risk associated with its credit exposures on a regular basis through its Allowance for Credit Losses (ACL) process (see "Significant Accounting Policies and Significant Estimates—Allowance for Credit Losses" below and Notes 1 and 15 to the Consolidated Financial Statements), as well as through regular stress testing at the company, business, geography and product levels. These stress-testing processes typically estimate potential incremental credit costs that would occur as a result of either downgrades in the credit quality or defaults of the obligors or counterparties. For additional information on Citi's credit risk management, see Note 14 to the Consolidated Financial Statements.

CONSUMER CREDIT

Citi fulfills a broad spectrum of customers' financial needs with activities spanning retail banking, wealth management, credit card, personal loan, mortgage and small business banking through *North America GCB*. During 2021, Citi also provided such activities in 18 countries in *Latin America GCB* and *Asia GCB* (for information on Citi's consumer market exits in *Latin America GCB* and *Asia GCB*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above). The retail banking products include consumer mortgages, home equity, personal and small business loans and lines of credit and similar related products building a generally prime portfolio through well-defined lending parameters. Citi uses its risk appetite framework to define its lending parameters.

Consumer Credit Portfolio

The following table shows Citi's quarterly end-of-period consumer loans:[1]

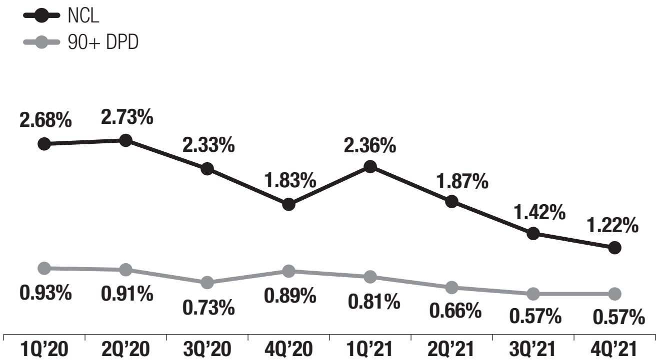
In billions of dollars	4Q'20	1Q'21	2Q'21	3Q'21[2]	**4Q'21[2]**
Retail banking:					
Mortgages	$ 88.9	$ 86.7	$ 86.3	$ 79.8	**$ 79.5**
Personal, small business and other	40.1	39.1	39.0	37.0	**36.1**
Total retail banking	$129.0	$125.8	$125.3	$116.8	**$115.6**
Cards:					
Branded cards	$106.7	$ 99.6	$102.9	$100.6	**$105.7**
Retail services	46.4	42.5	42.7	42.7	**46.0**
Total cards	$153.1	$142.1	$145.6	$143.3	**$151.7**
Total *GCB*	$282.1	$267.9	$270.9	$260.1	**$267.3**
***GCB* regional distribution:**					
North America	65%	64%	64%	67%	**68%**
Latin America	5	5	5	5	**5**
Asia[3]	30	31	31	28	**27**
Total *GCB*	100%	100%	100%	100%	**100%**
***Corporate/Other*[4]**	$ 6.7	$ 6.1	$ 5.0	$ 4.2	**$ 3.9**
Total consumer loans	$288.8	$274.0	$275.9	$264.3	**$271.2**

(1) End-of-period loans include interest and fees on credit cards.
(2) As a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines, the businesses were reclassified as held-for-sale and their assets and liabilities were included in *Other assets* and *Other liabilities*, respectively, on Citi's Consolidated Balance Sheet and excluded from loans and related credit measures, of *GCB* and *Asia GCB* beginning in the third quarter of 2021 for Australia and the fourth quarter of 2021 for the Philippines. For additional information, see Note 2 to the Consolidated Financial Statements.
(3) *Asia* includes loans and leases in certain *EMEA* countries for all periods presented.
(4) Primarily consists of legacy assets, principally *North America* consumer mortgages.

For information on changes to Citi's consumer loans, see "Liquidity Risk—Loans" below.

Overall Consumer Credit Trends

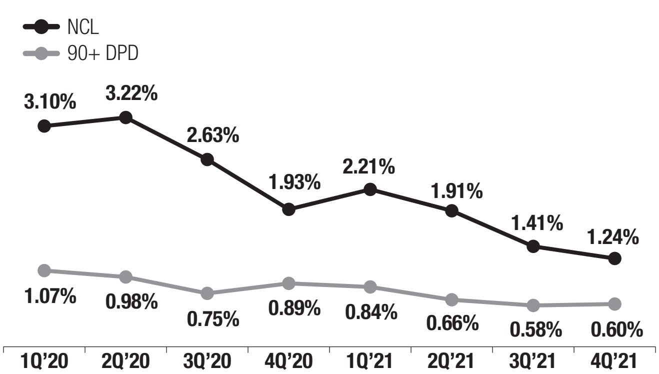
Global Consumer Banking



As shown in the chart above, *GCB*'s net credit loss rate decreased quarter-over-quarter and year-over-year for the fourth quarter of 2021, primarily reflecting the continued impact of government stimulus, unemployment benefits and consumer relief programs in *North America GCB*, and a decline following the peak charge-offs in *Asia GCB* and *Latin America GCB* in recent quarters.

GCB's 90+ days past due delinquency rate remained unchanged quarter-over-quarter. The 90+days past due delinquency rate decreased year-over-year, primarily due to the continued impacts of government stimulus, unemployment benefits and consumer relief programs in *North America GCB*, as well as lower delinquencies in *Asia GCB* and *Latin America GCB*, following the charge-off of peak delinquencies in recent quarters.

North America GCB



North America GCB provides mortgage, home equity, small business and personal loans through Citi's retail banking network and card products through branded cards and retail services businesses. The retail bank is concentrated in six major metropolitan cities in the U.S. (for additional information on the U.S. retail bank, see "*North America GCB*" above).

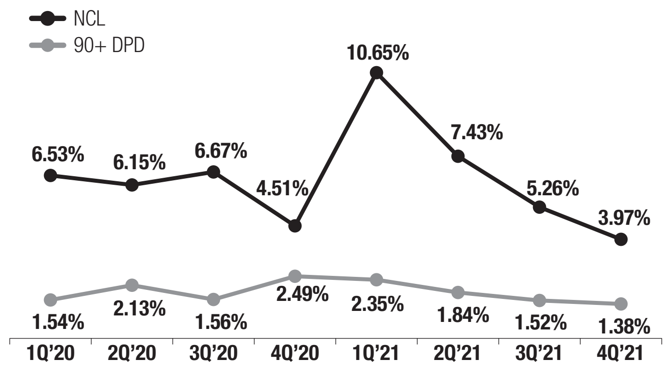
As of December 31, 2021, approximately 74% of *North America GCB* consumer loans consisted of branded and retail services cards, which generally drives the overall credit performance of *North America GCB* (for additional information on *North America GCB*'s cards portfolios, including delinquency and net credit loss rates, see "Credit Card Trends" below).

As shown in the chart above, the net credit loss rate in *North America GCB* for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, primarily reflecting the continued impact of high payment rates in cards, driven by government stimulus.

Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate in *North America GCB* increased modestly quarter-over-quarter, primarily due to seasonality in cards, while the 90+ days past due delinquency rate decreased year-over-year, primarily reflecting the continued impact of high payment rates in cards, driven by government stimulus.

Latin America GCB

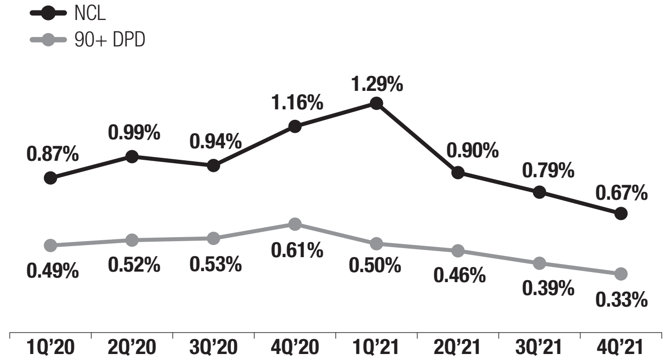


Latin America GCB operates in Mexico through Citibanamex and provides credit cards, consumer mortgages and small business and personal loans. *Latin America GCB* serves a more mass-market segment in Mexico and focuses on developing multiproduct relationships with customers.

As shown in the chart above, the net credit loss rate in *Latin America GCB* for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters resulted in lower delinquencies that led to lower net credit losses in the current quarter.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters and higher payment rates resulted in a lower 90+ days past due delinquency rate in the current quarter.

Asia [(1)] GCB



(1) *Asia* includes *GCB* activities in certain *EMEA* countries for all periods presented.

During 2021, *Asia GCB* operated in 17 countries and jurisdictions in *Asia* and *EMEA* and provided credit cards, consumer mortgages and small business and personal loans.

As shown in the chart above, the fourth quarter of 2021 net credit loss rate in *Asia GCB* decreased quarter-over-quarter, driven by the charge-off of peak delinquencies in recent quarters. Year-over-year, the net credit loss rate decreased, as elevated losses during the prior year returned to pre-pandemic levels. The decrease was also driven by the reclassification of approximately $10 billion of loans to held-for-sale as a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines (*Asia* HFS reclass).

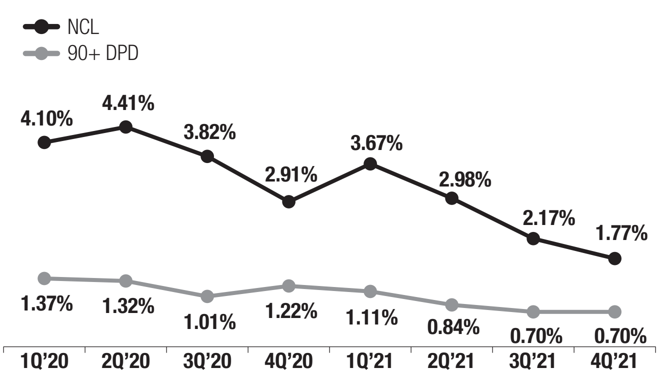
The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, driven by the charge-off of peak delinquencies in recent quarters, as elevated losses returned to pre-pandemic levels, as well as the impact of the *Asia* HFS reclass.

The performance of *Asia GCB*'s portfolios continues to reflect the strong credit profiles in the region's target customer segments. Regulatory changes in many markets in *Asia* over the past few years have also resulted in improved credit quality.

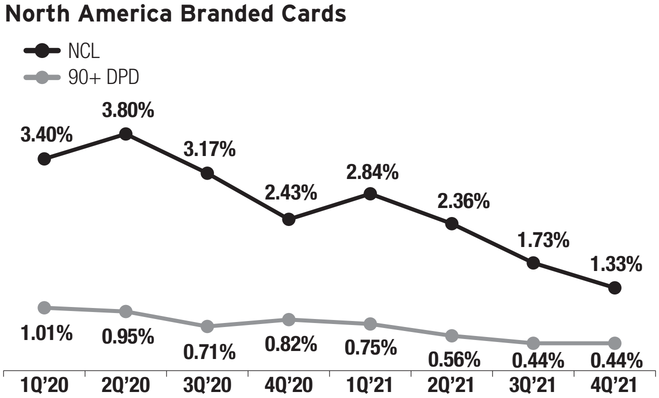
For additional information on cost of credit, loan delinquency and other information for Citi's consumer loan portfolios, see each respective business's results of operations above and Notes 13 and 14 to the Consolidated Financial Statements.

Credit Card Trends

Global Cards



North America Branded Cards

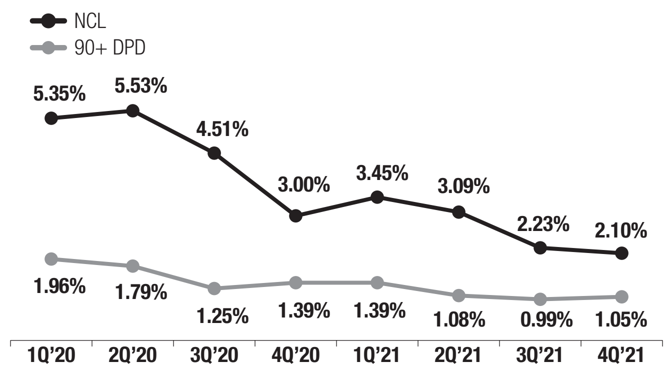


North America GCB's branded cards portfolio includes proprietary and co-branded cards.

As shown in the chart above, the net credit loss rate in *North America* branded cards for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate remained unchanged quarter-over-quarter and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

North America Retail Services



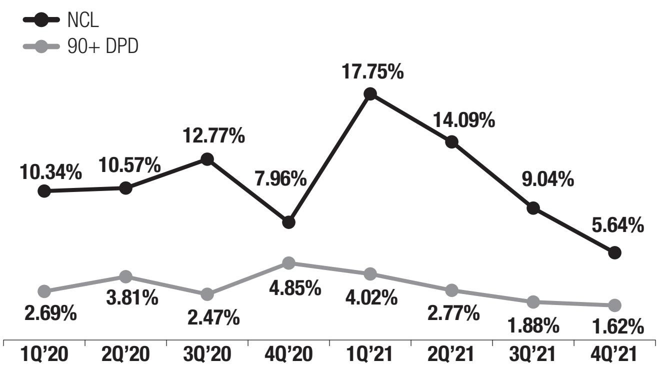
Retail services partners directly with more than 20 retailers and dealers to offer private label and co-branded cards. Retail services' target market focuses on select industry segments such as home improvement, specialty retail, consumer electronics and fuel.

Retail services continually evaluates opportunities to add partners within target industries that have strong loyalty, lending or payment programs and growth potential.

As shown in the chart above, the net credit loss rate in retail services for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

The 90+ days past due delinquency rate increased quarter-over-quarter due to seasonality, and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by government stimulus. Year-over-year, the payment rates were also impacted by unemployment benefits and consumer relief programs.

Latin America Branded Cards

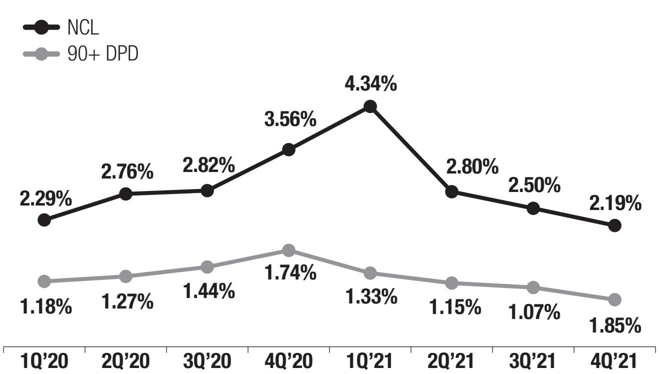


Latin America GCB issues proprietary and co-branded cards.

As shown in the chart above, the fourth quarter of 2021 net credit loss rate in *Latin America* branded cards decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters resulted in lower delinquencies that led to lower net credit losses in the current quarter.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year. The impact of charge-offs of delinquent loans in prior quarters and higher payment rates resulted in a lower 90+ days past due delinquency rate.

Asia Branded Cards (1)



(1) *Asia* includes loans and leases in certain *EMEA* countries for all periods presented.

As shown in the chart above, the net credit loss rate in *Asia* branded cards for the fourth quarter of 2021 decreased quarter-over-quarter and year-over-year, driven by the charge-off of peak delinquencies in recent quarters, as elevated losses returned to pre-pandemic levels, as well as the impact of the *Asia* HFS reclass.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, driven by the charge-off of peak delinquencies in recent quarters, as elevated losses returned to pre-pandemic levels, as well as the *Asia* HFS reclass.

For additional information on cost of credit, delinquency and other information for Citi's cards portfolios, see each respective business's results of operations above and Note 14 to the Consolidated Financial Statements.

North America Cards FICO Distribution

The following tables show the current FICO score distributions for Citi's *North America* cards portfolios based on end-of-period receivables. FICO scores are updated monthly for a substantial share of the portfolio and quarterly for the remaining portfolio.

Branded Cards

FICO distribution(1)	Dec. 31, 2021	Sept. 30, 2021	Dec. 31, 2020
> 760	**49%**	48%	46%
680–760	**38**	39	39
< 680	**13**	13	15
Total	**100%**	100%	100%

Retail Services

FICO distribution(1)	Dec. 31, 2021	Sept. 30, 2021	Dec. 31, 2020
> 760	**28%**	27%	27%
680–760	**44**	45	44
< 680	**28**	28	29
Total	**100%**	100%	100%

(1) The FICO bands in the tables are consistent with general industry peer presentations.

The FICO distribution of both cards portfolios remained largely stable compared to the prior quarter and improved compared to the prior year, demonstrating strong underlying credit quality and a benefit from the impacts of government stimulus, unemployment benefits and customer relief programs, as well as lower credit utilization. For additional information on FICO scores, see Note 14 to the Consolidated Financial Statements.

Additional Consumer Credit Details

Consumer Loan Delinquencies Amounts and Ratios

In millions of dollars, except EOP loan amounts in billions	EOP loans(1) December 31, 2021	90+ days past due(2) December 31, 2021	2020	2019	30–89 days past due(2) December 31, 2021	2020	2019
Global Consumer Banking **(3)(4)**							
Total	**$267.3**	**$ 1,521**	$ 2,507	$ 2,737	**$ 1,661**	$ 2,517	$ 3,001
Ratio		**0.57%**	0.89%	0.91%	**0.62%**	0.89%	1.00%
Retail banking							
Total	**$115.6**	**$ 462**	$ 632	$ 438	**$ 522**	$ 860	$ 816
Ratio		**0.40%**	0.49%	0.35%	**0.45%**	0.67%	0.66%
North America	**48.1**	**228**	299	146	**219**	328	334
Ratio		**0.49%**	0.58%	0.29%	**0.47%**	0.63%	0.67%
Latin America	**8.6**	**107**	130	106	**106**	220	180
Ratio		**1.24%**	1.33%	0.91%	**1.23%**	2.24%	1.54%
Asia(5)(6)	**58.9**	**127**	203	186	**197**	312	302
Ratio		**0.22%**	0.31%	0.30%	**0.33%**	0.47%	0.48%
Cards							
Total	**$151.7**	**$ 1,059**	$ 1,875	$ 2,299	**$ 1,139**	$ 1,657	$ 2,185
Ratio		**0.70%**	1.22%	1.31%	**0.75%**	1.08%	1.25%
North America—branded	**87.9**	**389**	686	915	**408**	589	814
Ratio		**0.44%**	0.82%	0.95%	**0.46%**	0.70%	0.85%
North America—retail services	**46.0**	**482**	644	1,012	**539**	639	945
Ratio		**1.05%**	1.39%	1.91%	**1.17%**	1.38%	1.79%
Latin America	**4.7**	**76**	233	165	**67**	170	159
Ratio		**1.62%**	4.85%	2.75%	**1.43%**	3.54%	2.65%
Asia(5)(6)	**13.1**	**112**	312	207	**125**	259	267
Ratio		**0.85%**	1.74%	1.04%	**0.95%**	1.45%	1.34%
***Corporate/Other*—Consumer(7)**							
Total	**$ 3.9**	**$ 221**	$ 313	$ 278	**$ 88**	$ 179	$ 295
Ratio		**6.14%**	5.13%	3.02%	**2.44%**	2.93%	3.21%
Total Citigroup	**$271.2**	**$ 1,742**	$ 2,820	$ 3,015	**$ 1,749**	$ 2,696	$ 3,296
Ratio		**0.65%**	0.98%	0.98%	**0.65%**	0.94%	1.07%

(1) End-of-period (EOP) loans include interest and fees on credit cards.
(2) The ratios of 90+ days past due and 30–89 days past due are calculated based on EOP loans, net of unearned income.
(3) The 90+ days past due balances for *North America*—branded and *North America*—retail services are generally still accruing interest. Citigroup's policy is generally to accrue interest on credit card loans until 180 days past due, unless notification of bankruptcy filing has been received earlier.
(4) The 90+ days past due and 30–89 days past due and related ratios for *North America GCB* exclude loans guaranteed by U.S. government-sponsored agencies since the potential loss predominantly resides with the U.S. government-sponsored agencies. The amounts excluded for loans 90+ days past due and (EOP loans) were $185 million ($1.1 billion), $171 million ($0.7 billion) and $135 million ($0.5 billion) at December 31, 2021, 2020 and 2019, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $74 million, $98 million and $72 million at December 31, 2021, 2020 and 2019, respectively.
(5) *Asia* includes delinquencies and loans in certain *EMEA* countries for all periods presented.
(6) During 2021, Citi's Australia and the Philippines consumer banking businesses were reclassified as HFS, due to Citi's entry into agreements to sell the businesses. Accordingly, Australia and the Philippines consumer loans are recorded in *Other assets* on the Consolidated Balance Sheet, and hence the loans and related delinquencies and ratios are not included in this table. See Note 2 to the Consolidated Financial Statements for additional information.
(7) The 90+ days past due and 30–89 days past due and related ratios exclude U.S. mortgage loans that are primarily related to U.S. mortgages guaranteed by U.S. government-sponsored agencies since the potential loss predominantly resides with the U.S. agencies. The amounts excluded for 90+ days past due EOP loans were $138 million ($0.4 billion), $183 million ($0.5 billion) and $172 million ($0.4 billion) at December 31, 2021, 2020 and 2019, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $35 million, $73 million and $55 million at December 31, 2021, 2020 and 2019, respectively.

Consumer Loan Net Credit Losses and Ratios

In millions of dollars, except average loan amounts in billions	Average loans(1) 2021	Net credit losses(2) 2021	2020	2019
Global Consumer Banking				
Total	**$266.3**	**$4,582**	$6,646	$7,382
Ratio		**1.72%**	2.39%	2.60%
Retail banking				
Total	**$122.3**	**$ 779**	$ 805	$ 910
Ratio		**0.64%**	0.65%	0.76%
North America	**50.0**	**109**	132	161
Ratio		**0.22%**	0.25%	0.33%
Latin America	**9.0**	**410**	377	494
Ratio		**4.56%**	3.85%	4.30%
Asia(3)(4)	**63.3**	**260**	296	255
Ratio		**0.41%**	0.47%	0.43%
Cards				
Total	**$144.0**	**$3,803**	$5,841	$6,472
Ratio		**2.64%**	3.82%	3.94%
North America—branded	**81.1**	**1,659**	2,708	2,864
Ratio		**2.05%**	3.20%	3.19%
North America—retail services	**43.1**	**1,169**	2,150	2,558
Ratio		**2.71%**	4.62%	5.13%
Latin America	**4.4**	**510**	489	615
Ratio		**11.59%**	10.40%	10.79%
Asia(3)(4)	**15.4**	**465**	494	435
Ratio		**3.02%**	2.84%	2.29%
***Corporate/Other*—Consumer**				
Total	**$ 5.3**	**$ (82)**	$ (21)	$ (6)
Ratio		**(1.55)%**	0.25%	0.14%
Total Citigroup	**$271.6**	**$4,500**	$6,625	$7,376
Ratio		**1.66%**	2.32%	2.49%

(1) Average loans include interest and fees on credit cards.
(2) The ratios of net credit losses are calculated based on average loans, net of unearned income.
(3) *Asia* includes NCLs and average loans in certain *EMEA* countries for all periods presented.
(4) As a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines during 2021, these businesses were reclassified as HFS beginning in 2021. As a result of HFS accounting treatment, approximately $6 million of net credit losses (NCLs) was recorded as a reduction in revenue (*Other revenue*) in 2021. Accordingly, these NCLs are not included in this table, as well as Loans HFS that are recorded in *Other assets* on the Consolidated Balance Sheet. See Note 2 to the Consolidated Financial Statements for additional information.

Loan Maturities and Fixed/Variable Pricing of Consumer Loans

Loan Maturities

In millions of dollars at December 31, 2021	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years but within 15 years	Greater than 15 years	Total
In North America offices					
Residential first mortgages	$ 15	$ 109	$2,573	$41,116	$ 43,813
Home equity loans	65	56	1,484	3,496	5,101
Credit cards	133,868	—	—	—	133,868
Personal, small business and other	1,092	1,678	237	151	3,158
Total	$135,040	$1,843	$4,294	$44,763	$185,940
In offices outside North America					
Residential mortgages	$ 2,022	$ 651	$6,667	$25,261	$ 34,601
Credit cards	17,808	—	—	—	17,808
Personal, small business and other	23,323	8,180	1,124	260	32,887
Total	$ 43,153	$8,831	$7,791	$25,521	$ 85,296

Fixed/Variable Pricing

In millions of dollars at December 31, 2021	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years but within 15 years	Greater than 15 years	Total
Loans at fixed interest rates					
Residential first mortgages	$ 225	$ 183	$1,990	$31,581	$ 33,979
Home equity loans	65	51	223	336	675
Credit cards	42,117	—	—	—	42,117
Personal, small business and other	11,883	6,407	37	83	18,410
Total	$ 54,290	$6,641	$2,250	$32,000	$ 95,181
Loans at floating or adjustable interest rates					
Residential first mortgages	$ 1,812	$ 577	$7,250	$34,796	$ 44,435
Home equity loans	—	5	1,261	3,160	4,426
Credit cards	109,559	—	—	—	109,559
Personal, small business and other	12,532	3,451	1,324	328	17,635
Total	$123,903	$4,033	$9,835	$38,284	$176,055

CORPORATE CREDIT

Consistent with its overall strategy, Citi's corporate clients are typically corporations that value the depth and breadth of Citi's global network. Citi aims to establish relationships with these clients that, consistent with client needs, encompass multiple products, including cash management and trade services, foreign exchange, lending, capital markets and M&A advisory. During 2021, Citi's corporate credit exposures also included exposures in the private bank, excluding certain loans managed on a delinquency basis. For information on Citi's planned revision to its reporting structure effective for the first quarter of 2022, including the reporting of the private bank as part of a new reporting segment, *Personal Banking and Wealth Management*, see "Strategic Refresh—Market Exits and Planned Revision to Reporting Structure" above.

Corporate Credit Portfolio

The following table details Citi's corporate credit portfolio within *ICG* (excluding certain loans in the private bank, which are managed on a delinquency basis, as well as loans carried at fair value and held-for-sale), and before consideration of collateral or hedges, by remaining tenor for the periods indicated:

	December 31, 2021				September 30, 2021				December 31, 2020			
In billions of dollars	**Due within 1 year**	**Greater than 1 year but within 5 years**	**Greater than 5 years**	**Total exposure**	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure
Direct outstandings (on-balance sheet)(1)	**$187**	**$136**	**$21**	**$344**	$192	$134	$21	$347	$175	$138	$25	$338
Unfunded lending commitments (off-balance sheet)(2)	**159**	**278**	**13**	**450**	164	286	11	461	158	272	11	441
Total exposure	**$346**	**$414**	**$34**	**$794**	$356	$420	$32	$808	$333	$410	$36	$779

(1) Includes drawn loans, overdrafts, bankers' acceptances and leases.
(2) Includes unused commitments to lend, letters of credit and financial guarantees.

Portfolio Mix—Geography and Counterparty

Citi's corporate credit portfolio is diverse across geography and counterparty. The following table shows the percentage of this portfolio by region (excluding the delinquency-managed private bank portfolio) based on Citi's internal management geography:

	December 31, 2021	September 30, 2021	December 31, 2020
North America	**57%**	57%	56%
EMEA	**24**	25	25
Asia	**13**	13	13
Latin America	**6**	5	6
Total	**100%**	100%	100%

The maintenance of accurate and consistent risk ratings across the corporate credit portfolio facilitates the comparison of credit exposure across all lines of business, geographic regions and products. Counterparty risk ratings reflect an estimated probability of default for a counterparty and are derived by leveraging validated statistical models, scorecard models and external agency ratings (under defined circumstances), in combination with consideration of factors specific to the obligor or market, such as management experience, competitive position, regulatory environment and commodity prices. Facility risk ratings are assigned that reflect the probability of default of the obligor and factors that affect the loss given default of the facility, such as support or collateral. Internal obligor ratings that generally correspond to BBB and above are considered investment grade, while those below are considered non-investment grade.

The following table presents the corporate credit portfolio (excluding the delinquency-managed private bank portfolio) by facility risk rating as a percentage of the total corporate credit portfolio:

	Total exposure		
	December 31, 2021	September 30, 2021	December 31, 2020
AAA/AA/A	**51%**	49%	49%
BBB	**32**	32	31
BB/B	**15**	16	17
CCC or below	**2**	3	3
Total	**100%**	100%	100%

Note: Total exposure includes direct outstandings and unfunded lending commitments.

In addition to the obligor and facility risk ratings assigned to all exposures, Citi may classify exposures in the corporate credit portfolio. These classifications are consistent with Citi's interpretation of the U.S. banking regulators' definition of criticized exposures, which may categorize exposures as special mention, substandard, doubtful or loss.

Risk ratings and classifications are reviewed regularly, and adjusted as appropriate. The credit review process incorporates quantitative and qualitative factors, including financial and non-financial disclosures or metrics, idiosyncratic events or changes to the competitive, regulatory or macroeconomic environment. This includes but is not limited to exposures in those sectors significantly impacted by the pandemic (including consumer retail, commercial real estate and transportation).

Citi believes the corporate credit portfolio to be appropriately rated and classified as of December 31, 2021. Since the onset of the pandemic, Citi has taken action to adjust internal ratings and classifications of exposures as both the macroeconomic environment and obligor-specific factors have changed, particularly where additional stress has been seen.

As obligor risk ratings are downgraded, the probability of default increases. Downgrades of obligor risk ratings tend to result in a higher provision for credit losses. In addition, downgrades may result in the purchase of additional credit derivatives or other risk mitigants to hedge the incremental credit risk, or may result in Citi's seeking to reduce exposure to an obligor or an industry sector. Citi will continue to review exposures to ensure that the appropriate probability of default is incorporated into all risk assessments.

For additional information on Citi's corporate credit portfolio, see Note 14 to the Consolidated Financial Statements.

Portfolio Mix—Industry

Citi's corporate credit portfolio is diversified by industry. The following table details the allocation of Citi's total corporate credit portfolio by industry (excluding the delinquency-managed private bank portfolio):

	Total exposure		
	December 31, 2021	September 30, 2021	December 31, 2020
Transportation and industrials	**18%**	19%	19%
Private bank	**14**	14	14
Consumer retail	**10**	10	11
Technology, media and telecom	**11**	10	10
Real estate	**9**	9	8
Power, chemicals, metals and mining	**8**	8	8
Banks and finance companies	**7**	7	7
Energy and commodities	**6**	6	6
Health	**4**	5	5
Public sector	**3**	3	3
Insurance	**4**	3	3
Asset managers and funds	**3**	3	3
Financial markets infrastructure	**2**	2	2
Securities firms	**—**	—	—
Other industries	**1**	1	1
Total	**100%**	100%	100%

The following table details Citi's corporate credit portfolio by industry as of December 31, 2021:

In millions of dollars	Total credit exposure	Funded[1]	Unfunded[1]	Investment grade	Non-investment grade: Non-criticized	Non-investment grade: Criticized performing	Non-investment grade: Criticized non-performing[2]	Selected metrics: 30 days or more past due and accruing[3]	Selected metrics: Net credit losses (recoveries)[4]	Selected metrics: Credit derivative hedges[5]
Transportation and industrials	**$143,444**	**$ 51,502**	**$ 91,942**	**$110,047**	**$19,051**	**$13,196**	**$1,150**	**$ 384**	**$127**	**$ (8,791)**
Autos[6]	48,210	18,662	29,548	39,824	5,365	2,906	115	49	2	(3,228)
Transportation	26,896	12,085	14,811	19,233	2,344	4,447	872	105	104	(1,334)
Industrials	68,338	20,755	47,583	50,990	11,342	5,843	163	230	21	(4,229)
Private bank	**114,018**	**79,684**	**34,334**	**110,684**	**2,060**	**1,190**	**84**	**793**	**6**	**(1,080)**
Consumer retail	**78,995**	**32,894**	**46,101**	**60,687**	**13,590**	**4,311**	**407**	**224**	**100**	**(5,115)**
Technology, media and telecom	**84,334**	**28,542**	**55,792**	**64,677**	**15,873**	**3,587**	**197**	**156**	**11**	**(6,875)**
Real estate	**69,808**	**46,220**	**23,588**	**58,089**	**6,761**	**4,923**	**35**	**116**	**50**	**(798)**
Power, chemicals, metals and mining	**65,641**	**20,224**	**45,417**	**53,576**	**10,708**	**1,241**	**116**	**292**	**22**	**(5,808)**
Power	26,199	5,610	20,589	22,860	2,832	420	87	100	17	(3,032)
Chemicals	25,550	8,525	17,025	20,789	4,224	528	9	88	6	(2,141)
Metals and mining	13,892	6,089	7,803	9,927	3,652	293	20	104	(1)	(635)
Banks and finance companies	**58,251**	**36,803**	**21,448**	**49,466**	**4,892**	**3,890**	**3**	**150**	**(5)**	**(680)**
Energy and commodities[7]	**48,973**	**13,485**	**35,488**	**38,972**	**7,517**	**2,220**	**264**	**224**	**78**	**(3,679)**
Health	**33,393**	**8,826**	**24,567**	**27,599**	**4,702**	**942**	**150**	**95**	**—**	**(2,465)**
Public sector	**23,842**	**12,464**	**11,378**	**21,035**	**1,527**	**1,275**	**5**	**37**	**(3)**	**(1,282)**
Insurance	**28,495**	**3,163**	**25,332**	**27,447**	**987**	**61**	**—**	**2**	**1**	**(2,711)**
Asset managers and funds	**22,269**	**6,649**	**15,620**	**20,871**	**1,019**	**377**	**2**	**12**	**—**	**(113)**
Financial markets infrastructure	**14,342**	**109**	**14,233**	**14,323**	**18**	**—**	**1**	**—**	**—**	**(22)**
Securities firms	**1,472**	**613**	**859**	**605**	**816**	**51**	**—**	**4**	**—**	**(5)**
Other industries	**6,590**	**2,802**	**3,788**	**4,146**	**1,892**	**490**	**62**	**—**	**6**	**(169)**
Total	**$793,867**	**$343,980**	**$449,887**	**$662,224**	**$91,413**	**$37,754**	**$2,476**	**$2,489**	**$393**	**$(39,593)**

(1) Excludes $46.5 billion and $1.7 billion of funded and unfunded exposure at December 31, 2021, respectively, primarily related to the delinquency-managed private bank portfolio. Funded balances also excludes loans carried at fair value of $6.1 billion at December 31, 2021.

(2) Includes non-accrual loan exposures and criticized unfunded exposures.

(3) Excludes $36 million of past due loans primarily related to the delinquency-managed private bank portfolio.

(4) Net credit losses (recoveries) are for the year ended December 31, 2021 and exclude delinquency-managed private bank net credit losses of $2 million.

(5) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the $39.6 billion of purchased credit protection, $36.0 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $3.6 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $28.4 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.

(6) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately $17.9 billion ($6.5 billion in funded, with more than 99% rated investment grade) as of December 31, 2021.

(7) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2021, Citi's total exposure to these energy-related entities was approximately $5.1 billion, of which approximately $2.6 billion consisted of direct outstanding funded loans.

The following table details Citi's corporate credit portfolio by industry as of December 31, 2020:

In millions of dollars	Total credit exposure	Funded[1]	Unfunded[1]	Investment grade	Non-investment grade: Non-criticized	Non-investment grade: Criticized performing	Non-investment grade: Criticized non-performing[2]	Selected metrics: 30 days or more past due and accruing[3]	Selected metrics: Net credit losses (recoveries)[4]	Selected metrics: Credit derivative hedges[5]
Transportation and industrials	$145,449	$ 58,353	$ 87,096	$104,311	$17,452	$21,887	$1,798	$ 136	$239	$ (8,110)
Autos[6]	52,150	23,586	28,564	41,334	4,374	6,167	275	8	45	(3,220)
Transportation	27,693	14,107	13,586	16,410	2,993	6,872	1,417	17	144	(1,166)
Industrials	65,606	20,660	44,946	46,566	10,085	8,848	106	111	50	(3,724)
Private bank[1]	109,397	75,693	33,705	104,244	2,395	2,510	248	963	78	(1,080)
Consumer retail	81,941	34,621	47,320	60,683	11,524	9,418	316	146	64	(5,493)
Technology, media and telecom	81,598	29,821	51,777	60,236	15,924	5,214	223	107	74	(7,237)
Real estate	64,817	42,711	22,106	53,839	5,342	5,453	185	334	18	(642)
Power, chemicals, metals and mining	63,273	20,156	43,117	47,534	11,367	4,181	192	59	70	(5,341)
Power	26,555	6,018	20,537	22,405	3,311	685	154	14	57	(2,637)
Chemicals	22,227	7,839	14,387	16,535	3,804	1,882	5	32	8	(2,102)
Metals and mining	14,492	6,299	8,193	8,593	4,251	1,614	34	13	5	(602)
Banks and finance companies	52,639	29,570	23,069	43,546	4,648	4,387	59	27	79	(765)
Energy and commodities[7]	48,447	14,009	34,438	33,678	7,226	6,546	996	70	285	(4,199)
Health	35,421	8,575	26,846	29,081	4,354	1,749	238	17	17	(1,964)
Public sector	26,705	13,416	13,289	22,098	1,887	2,704	16	45	9	(1,089)
Insurance	26,576	1,925	24,651	25,864	575	136	—	27	1	(2,682)
Asset managers and funds	19,745	4,491	15,254	18,528	1,013	191	13	41	(1)	(84)
Financial markets infrastructure	12,610	229	12,382	12,590	20	—	—	—	—	(9)
Securities firms	976	430	547	573	298	97	9	—	—	(6)
Other industries	9,009	4,247	4,762	4,980	2,404	1,442	182	10	43	(138)
Total	$778,603	$338,246	$440,357	$621,784	$86,427	$65,914	$4,477	$1,982	$976	$(38,839)

(1) Excludes $42.0 billion and $4.4 billion of funded and unfunded exposure at December 31, 2020, respectively, primarily related to the delinquency-managed private bank portfolio. Funded balances also excludes loans carried at fair value of $6.8 billion at December 31, 2020.

(2) Includes non-accrual loan exposures and criticized unfunded exposures.

(3) Excludes $162 million of past due loans primarily related to the delinquency-managed private bank portfolio.

(4) Net credit losses (recoveries) are for the year ended December 31, 2020 and exclude delinquency-managed private bank credit losses of $10 million.

(5) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the $38.8 billion of purchased credit protection, $36.8 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $2.0 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $16.1 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.

(6) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately $20.2 billion ($10.3 billion in funded, with more than 99% rated investment grade) at December 31, 2020.

(7) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2020, Citi's total exposure to these energy-related entities was approximately $7.0 billion, of which approximately $3.8 billion consisted of direct outstanding funded loans.

Exposure to Commercial Real Estate

As of December 31, 2021, *ICG*'s total corporate credit exposure to commercial real estate (CRE) was $66 billion, with $44 billion consisting of direct outstanding funded loans (mainly included in the real estate and private bank categories in the above table), or 7% of Citi's total outstanding loans. In addition, as of December 31, 2021, more than 70% of *ICG*'s total corporate CRE exposure was to borrowers in the U.S. Also as of December 31, 2021, approximately 77% of *ICG*'s total corporate CRE exposure was rated investment grade.

As of December 31, 2021, the ACLL was 0.9% of funded CRE exposure, including 2.4% of funded non-investment-grade exposure.

Of the total CRE exposure:

- $20 billion ($12 billion of direct outstanding funded loans) relates to Community Reinvestment Act-related lending provided pursuant to Citi's regulatory requirements to meet the credit needs of borrowers in low and moderate income neighborhoods.
- $20 billion ($16 billion of direct outstanding funded loans) relates to exposure secured by mortgages on underlying properties or in well-rated securitization exposures.
- $15 billion ($5 billion of direct outstanding funded loans) relates to unsecured loans to large REITs, with nearly 74% of the exposure rated investment grade.
- $11 billion ($11 billion of direct outstanding funded loans) relates to CRE exposure in the private bank, of which 100% is secured by mortgages. In addition, 48% of the exposure is also full recourse to the client. As of December 31, 2021, 82% of the exposure was rated investment grade.

Credit Risk Mitigation

As part of its overall risk management activities, Citi uses credit derivatives and other risk mitigants to hedge portions of the credit risk in its corporate credit portfolio, in addition to outright asset sales. Citi may enter into partial-term hedges as well as full-term hedges. In advance of the expiration of partial-term hedges, Citi will determine, among other factors, the economic feasibility of hedging the remaining life of the instrument. The results of the mark-to-market and any realized gains or losses on credit derivatives are reflected primarily in *Principal transactions* in the Consolidated Statement of Income.

At December 31, 2021, September 30, 2021 and December 31, 2020, *ICG* (excluding the delinquency-managed private bank portfolio) had economic hedges on the corporate credit portfolio of $39.6 billion, $38.1 billion and $38.8 billion, respectively. Citi's expected credit loss model used in the calculation of its ACL does not include the favorable impact of credit derivatives and other mitigants that are marked to market. In addition, the reported amounts of direct outstandings and unfunded lending commitments in the tables above do not reflect the impact of these hedging transactions. The credit protection was economically hedging underlying *ICG* (excluding the delinquency-managed private bank portfolio) corporate credit portfolio exposures with the following risk rating distribution:

Rating of Hedged Exposure

	December 31, 2021	September 30, 2021	December 31, 2020
AAA/AA/A	**35%**	32%	30%
BBB	**49**	47	48
BB/B	**13**	17	19
CCC or below	**3**	4	3
Total	**100%**	100%	100%

Loan Maturities and Fixed/Variable Pricing of Corporate Loans

In millions of dollars at December 31, 2021	Due within 1 year	Over 1 year but within 5 years	Over 5 years but within 15 years	Over 15 years	Total
Corporate loans					
In North America offices[1]					
Commercial and industrial loans	$ 25,694	$ 24,878	$ 973	$ 454	$ 51,999
Financial institutions	50,299	16,534	91	12	66,936
Mortgage and real estate[2]	12,385	5,948	5,460	39,564	63,357
Installment, revolving credit and other	13,090	13,454	2,573	26	29,143
Lease financing	95	230	88	—	413
Total	$101,563	$ 61,044	$ 9,185	$40,056	$211,848
In offices outside the North America[1]					
Commercial and industrial loans	$ 75,502	$ 22,905	$ 4,650	$ 110	$103,167
Financial institutions	26,672	5,147	92	292	32,203
Mortgage and real estate[2]	4,359	4,541	912	600	10,412
Installment, revolving credit and other	25,518	7,440	455	1,023	34,436
Governments and official institutions	792	2,183	843	605	4,423
Lease financing	1	23	18	—	42
Total	$132,844	$ 42,239	$ 6,970	$ 2,630	$184,683
Corporate loans, net of unearned income[3]	$234,407	$103,283	$16,155	$42,686	$396,531
Loans at fixed interest rates[4]					
Commercial and industrial loans		$ 6,003	$ 752	$ 96	
Financial institutions		4,982	26	12	
Mortgage and real estate[2]		1,506	4,557	17,150	
Installment, revolving credit and other		4,481	856	92	
Lease financing		240	88	—	
Total		$ 17,212	$ 6,279	$17,350	
Loans at floating or adjustable interest rates[4]					
Commercial and industrial loans		$ 41,780	$ 4,871	$ 468	
Financial institutions		16,699	157	292	
Mortgage and real estate[2]		8,983	1,815	23,015	
Installment, revolving credit and other		18,597	3,015	1,561	
Lease financing		12	18	—	
Total		$ 86,071	$ 9,876	$25,336	
Total fixed/variable pricing of corporate loans with maturities due after one year, net of unearned income[3]		$103,283	$16,155	$42,686	

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.
(2) Loans secured primarily by real estate.
(3) Corporate loans are net of unearned income of ($799) million. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.
(4) Based on contractual terms. Repricing characteristics may effectively be modified from time to time using derivative contracts. See Note 22 to the Consolidated Financial Statements.

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

In millions of dollars	December 31, 2021	2020	2019	2018	2017
Consumer loans					
In North America offices[1]					
Residential first mortgages[2]	**$ 43,813**	$ 47,778	$ 47,008	$ 47,412	$ 49,375
Home equity loans[2]	**5,101**	7,128	9,223	11,543	14,827
Credit cards	**133,868**	130,385	149,163	144,542	139,718
Personal, small business and other	**3,158**	4,509	3,699	4,046	4,140
Total	**$185,940**	$189,800	$209,093	$207,543	$208,060
In offices outside North America[1]					
Residential first mortgages[2]	**$ 34,601**	$ 39,969	$ 38,024	$ 36,388	$ 37,870
Credit cards	**17,808**	22,692	25,909	24,951	25,727
Personal, small business and other	**32,887**	36,378	36,522	33,478	34,157
Total	**$ 85,296**	$ 99,039	$100,455	$ 94,817	$ 97,754
Consumer loans, net of unearned income[3]	**$271,236**	$288,839	$309,548	$302,360	$305,814
Corporate loans					
In North America offices[1]					
Commercial and industrial	**$ 51,999**	$ 57,731	$ 55,929	$ 60,861	$ 60,219
Financial institutions	**66,936**	55,809	53,922	48,447	39,128
Mortgage and real estate[2]	**63,357**	60,675	53,371	50,124	44,683
Installment and other	**29,143**	26,744	31,238	32,425	31,932
Lease financing	**413**	673	1,290	1,429	1,470
Total	**$211,848**	$201,632	$195,750	$193,286	$177,432
In offices outside North America[1]					
Commercial and industrial	**$103,167**	$104,072	$112,668	$114,029	$113,178
Financial institutions	**32,203**	32,334	40,211	36,837	35,273
Mortgage and real estate[2]	**10,412**	11,371	9,780	7,376	7,309
Installment and other	**34,436**	33,759	27,303	25,685	22,638
Lease financing	**42**	65	95	103	190
Governments and official institutions	**4,423**	3,811	4,128	4,520	5,200
Total	**$184,683**	$185,412	$194,185	$188,550	$183,788
Corporate loans, net of unearned income[4]	**$396,531**	$387,044	$389,935	$381,836	$361,220
Total loans—net of unearned income	**$667,767**	$675,883	$699,483	$684,196	$667,034
Allowance for credit losses on loans (ACLL)	**(16,455)**	(24,956)	(12,783)	(12,315)	(12,355)
Total loans—net of unearned income and ACLL	**$651,312**	$650,927	$686,700	$671,881	$654,679
ACLL as a percentage of total loans—net of unearned income[5]	**2.49%**	3.73%	1.84%	1.81%	1.86%
ACLL for consumer loan losses as a percentage of total consumer loans—net of unearned income[5]	**5.02%**	6.77%	3.20%	3.14%	3.08%
ACLL for corporate loan losses as a percentage of total corporate loans—net of unearned income[5]	**0.73%**	1.42%	0.75%	0.74%	0.82%

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification of corporate loans between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.

(2) Loans secured primarily by real estate.

(3) Consumer loans are net of unearned income of $659 million, $749 million, $783 million, $742 million and $768 million at December 31, 2021, 2020, 2019, 2018 and 2017, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

(4) Corporate loans include private bank loans and are net of unearned income of $(799) million, $(844) million, $(814) million, $(855) million and $(794) million at December 31, 2021, 2020, 2019, 2018 and 2017, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

(5) Because loans carried at fair value do not have an ACLL, they are excluded from the ACLL ratio calculation.

Details of Credit Loss Experience

In millions of dollars	**2021**	2020	2019	2018	2017
Allowance for credit losses on loans (ACLL) at beginning of year	**$24,956**	$12,783	$12,315	$12,355	$12,060
Adjustments to opening balance:					
Financial instruments—credit losses (CECL)[1]	**—**	4,201	—	—	—
Variable post-charge-off third-party collection costs[2]	**—**	(443)	—	—	—
Adjusted ACLL at beginning of year	**$24,956**	$16,541	$12,315	$12,355	$12,060
Provision for credit losses on loans (PCLL)					
Consumer[2]	**(966)**	11,765	7,751	7,258	7,329
Corporate	**(2,137)**	4,157	467	96	174
Total	**$ (3,103)**	$15,922	$ 8,218	$ 7,354	$ 7,503
Gross credit losses on loans					
Consumer					
In U.S. offices	**$ 4,055**	$ 6,047	$ 6,538	$ 5,971	$ 5,664
In offices outside the U.S.	**2,143**	2,144	2,316	2,351	2,377
Corporate					
Commercial and industrial, and other					
In U.S. offices	**239**	562	265	121	223
In offices outside the U.S.	**256**	409	196	208	401
Loans to financial institutions					
In U.S. offices	**1**	14	—	3	3
In offices outside the U.S.	**1**	12	3	7	1
Mortgage and real estate					
In U.S. offices	**20**	71	23	2	2
In offices outside the U.S.	**5**	4	—	2	2
Total	**$ 6,720**	$ 9,263	$ 9,341	$ 8,665	$ 8,673
Credit recoveries on loans[2]					
Consumer					
In U.S. offices	**$ 1,204**	$ 1,106	$ 975	$ 912	$ 892
In offices outside the U.S.	**494**	460	503	502	552
Corporate					
Commercial and industrial, and other					
In U.S. offices	**67**	43	28	47	31
In offices outside the U.S.	**56**	28	59	78	117
Loans to financial institutions					
In U.S. offices	**3**	—	—	—	1
In offices outside the U.S.	**1**	14	—	3	1
Mortgage and real estate					
In U.S. offices	**—**	—	8	6	2
In offices outside the U.S.	**—**	1	—	4	1
Total	**$ 1,825**	$ 1,652	$ 1,573	$ 1,552	$ 1,597
Net credit losses on loans (NCLs)					
In U.S. offices	**$ 3,041**	$ 5,545	$ 5,815	$ 5,132	$ 4,966
In offices outside the U.S.	**1,854**	2,066	1,953	1,981	2,110
Total	**$ 4,895**	$ 7,611	$ 7,768	$ 7,113	$ 7,076
Other—net[3][4][5][6][7][8]	**$ (503)**	$ 104	$ 18	$ (281)	$ (132)
Allowance for credit losses on loans (ACLL) at end of year	**$16,455**	$24,956	$12,783	$12,315	$12,355
ACLL as a percentage of EOP loans[9]	**2.49%**	3.73%	1.84%	1.81%	1.86%
Allowance for credit losses on unfunded lending commitments (ACLUC)[10][11]	**$ 1,871**	$ 2,655	$ 1,456	$ 1,367	$ 1,258

Table and notes continue on the next page.

Total ACLL and ACLUC	**$18,326**	$27,611	$14,239	$13,682	$13,613
Net consumer credit losses on loans	**$ 4,500**	$ 6,625	$ 7,376	$ 6,908	$ 6,597
As a percentage of average consumer loans	**1.66%**	2.32%	2.49%	2.33%	2.22%
Net corporate credit losses on loans	**$ 395**	$ 986	$ 392	$ 205	$ 479
As a percentage of average corporate loans	**0.10%**	0.25%	0.10%	0.05%	0.14%
ACLL by type at end of year(12)					
Consumer	**$13,616**	$19,554	$ 9,897	$ 9,504	$ 9,412
Corporate	**2,839**	5,402	2,886	2,811	2,943
Total	**$16,455**	$24,956	$12,783	$12,315	$12,355

(1) On January 1, 2020, Citi adopted Accounting Standards Codification (ASC) 326, *Financial Instruments—Credit Losses (CECL)*. The ASC introduces a new credit loss methodology requiring earlier recognition of credit losses while also providing additional disclosure about credit risk. On January 1, 2020, Citi recorded a $4.1 billion, or an approximate 29%, pretax increase in the Allowance for credit losses, along with a $3.1 billion after-tax decrease in Retained earnings and a deferred tax asset increase of $1.0 billion. This transition impact reflects (i) a $4.9 billion build to the consumer ACL due to longer estimated tenors than under the incurred loss methodology under prior U.S. GAAP, net of recoveries; and (ii) a $0.8 billion decrease to the corporate ACL due to shorter remaining tenors, incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies. See Note 1 to the Consolidated Financial Statements for further discussion on the impact of Citi's adoption of CECL.

(2) Citi had a change in accounting related to its variable post-charge-off third-party collection costs that was recorded as an adjustment to its January 1, 2020 opening allowance for credit losses on loans of $443 million. See Note 1 to the Consolidated Financial Statements.

(3) Includes all adjustments to the allowance for credit losses, such as changes in the allowance from acquisitions, dispositions, securitizations, FX translation, purchase accounting adjustments, etc.

(4) 2021 includes an approximate $280 million reclass related to Citi's agreement to sell its consumer banking business in Australia and an approximate $90 million reclass related to Citi's agreement to sell its consumer banking business in the Philippines. Those ACLL were reclassified to Other assets during 2021. 2021 also includes a decrease of approximately $134 million related to FX translation.

(5) 2020 includes reductions of approximately $4 million related to the transfer to HFS of various real estate loan portfolios. In addition, 2020 includes an increase of approximately $97 million related to FX translation.

(6) 2019 includes reductions of approximately $42 million related to the sale or transfer to HFS of various loan portfolios. In addition, 2019 includes a reduction of approximately $60 million related to FX translation.

(7) 2018 includes reductions of approximately $201 million related to the sale or transfer to HFS of various loan portfolios, which include approximately $106 million related to the transfer of various real estate loan portfolios to HFS. In addition, 2017 includes an increase of approximately $115 million related to FX translation.

(8) 2017 includes reductions of approximately $261 million related to the sale or transfer to HFS of various loan portfolios, which include approximately $106 million related to the transfer of various real estate loan portfolios to HFS. In addition, 2017 includes an increase of approximately $115 million related to FX translation.

(9) December 31, 2021, 2020, 2019, 2018 and 2017 exclude $6.1 billion, $6.9 billion, $4.1 billion, $3.2 billion and $4.4 billion, respectively, of loans which are carried at fair value.

(10) 2020 corporate ACLUC includes a non-provision transfer of $68 million, representing reserves on performance guarantees. The reserves on these contracts were reclassified out of the ACL on unfunded lending commitments and into other liabilities.

(11) Represents additional credit reserves recorded as *Other liabilities* on the Consolidated Balance Sheet.

(12) Beginning in 2020, under CECL, the ACLL represents management's estimate of expected credit losses in the portfolio and troubled debt restructurings. See "Significant Accounting Policies and Significant Estimates" and Note 1 to the Consolidated Financial Statements below. Attribution of the ACLL is made for analytical purposes only and the entire ACLL is available to absorb credit losses in the overall portfolio. Prior to 2020, the ACLL represented management's estimate of probable losses inherent in the portfolio, as well as probable losses related to large individually evaluated impaired loans and TDRs. See "Superseded Accounting Principles" in Note 1 to the Consolidated Financial Statements.

Allowance for Credit Losses on Loans (ACLL)

The following tables detail information on Citi's ACLL, loans and coverage ratios:

	December 31, 2021		
In billions of dollars	**ACLL**	**EOP loans, net of unearned income**	**ACLL as a percentage of EOP loans**[1]
Consumer			
North America cards[2]	**$10.8**	**$133.8**	**8.1%**
North America mortgages[3]	**0.2**	**48.9**	**0.4**
North America other	**0.3**	**3.2**	**9.4**
International cards	**1.2**	**17.8**	**6.7**
International other[4]	**1.2**	**67.5**	**1.8**
Total	**$13.7**	**$271.2**	**5.1%**
Corporate			
Commercial and industrial	**$ 1.5**	**$151.1**	**1.0%**
Financial institutions	**0.3**	**98.9**	**0.3**
Mortgage and real estate	**0.7**	**73.8**	**0.9**
Installment and other	**0.3**	**66.7**	**0.4**
Total	**$ 2.8**	**$390.5**	**0.7%**
Loans at fair value[1]	**N/A**	**$ 6.1**	**N/A**
Total Citigroup	**$16.5**	**$667.8**	**2.5%**

(1) Loans carried at fair value do not have an ACLL and are excluded from the ACLL ratio calculation.
(2) Includes both branded cards and retail services. The $10.8 billion of loan loss reserves represented approximately 63 months of coincident net credit loss coverage. As of December 31, 2021, *North America* branded cards ACLL as a percentage of EOP loans was 7.1% and *North America* retail services ACLL as a percentage of EOP loans was 10.0%.
(3) Of the $0.2 billion, approximately $0.1 billion and $0.1 billion determined in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. Of the $48.9 billion in loans, approximately $47.5 billion and $1.4 billion of the loans were evaluated in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. For additional information, see Note 15 to the Consolidated Financial Statements.
(4) Includes mortgages and other retail loans.

	December 31, 2020		
In billions of dollars	ACLL	EOP loans, net of unearned income	ACLL as a percentage of EOP loans[1]
Consumer			
North America cards[2]	$14.7	$130.4	11.3%
North America mortgages[3]	0.7	54.9	1.3
North America other	0.3	4.5	6.7
International cards	2.1	22.7	9.3
International other[4]	1.8	76.3	2.4
Total	$ 19.6	$288.8	6.8%
Corporate			
Commercial and industrial	$ 3.6	$156.3	2.3%
Financial institutions	0.4	87.7	0.5
Mortgage and real estate	1.1	72.1	1.5
Installment and other	0.3	64.1	0.5
Total	$ 5.4	$380.2	1.4%
Loans at fair value[1]	N/A	$ 6.9	N/A
Total Citigroup	$ 25.0	$675.9	3.7%

(1) Loans carried at fair value do not have an ACLL and are excluded from the ACLL ratio calculation.
(2) Includes both branded cards and retail services. The $14.7 billion of loan loss reserves represented approximately 53 months of coincident net credit loss coverage. As of December 31, 2020, *North America* branded cards ACLL as a percentage of EOP loans was 10.0% and *North America* retail services ACLL as a percentage of EOP loans was 13.6%.
(3) Of the $0.7 billion, nearly all was allocated to *North America* mortgages in *Corporate/Other*, including approximately $0.5 billion and $0.2 billion determined in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. Of the $54.9 billion in loans, approximately $53.0 billion and $1.9 billion of the loans were evaluated in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. For additional information, see Note 15 to the Consolidated Financial Statements.
(4) Includes mortgages and other retail loans.

The following table details Citi's corporate credit allowance for credit losses on loans (ACLL) by industry exposure as of December 31, 2021:

In millions of dollars, except percentages	Funded exposure[1]	ACLL	ACLL as a % of funded exposure
Transportation and industrials	**$ 51,502**	**$ 597**	**1.16%**
Private bank	**79,684**	**145**	**0.18**
Consumer retail	**32,894**	**288**	**0.88**
Technology, media and telecom	**28,542**	**170**	**0.60**
Real estate	**46,220**	**509**	**1.10**
Power, chemicals, metals and mining	**20,224**	**151**	**0.75**
Banks and finance companies	**36,804**	**197**	**0.54**
Energy and commodities	**13,485**	**268**	**1.99**
Health	**8,826**	**73**	**0.83**
Public sector	**12,464**	**74**	**0.59**
Insurance	**3,162**	**8**	**0.25**
Asset managers and funds	**6,649**	**34**	**0.51**
Financial markets infrastructure	**109**	**—**	**—**
Securities firms	**613**	**10**	**1.63**
Other industries	**2,802**	**28**	**1.00**
Total classifiably managed loans[2]	**$343,980**	**$2,552**	**0.74%**
Loans managed on a delinquency basis[3]	**$ 46,481**	**$ 287**	**0.62%**
Total	**$390,461**	**$2,839**	**0.73%**

(1) Funded exposure excludes loans carried at fair value of $6.1 billion that are not subject to ACLL under the CECL standard.
(2) As of December 31, 2021, the ACLL shown above reflects coverage of 0.4% of funded investment-grade exposure and 2.3% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed private bank loans including non-rated mortgage and real estate loans to private banking clients at December 31, 2021.

The following table details Citi's corporate credit allowance for credit losses on loans (ACLL) by industry exposure as of December 31, 2020:

In millions of dollars, except percentages	Funded exposure[1]	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 58,352	$1,558	2.67%
Private bank	75,693	224	0.30
Consumer retail	34,621	563	1.63
Technology, media and telecom	29,821	407	1.36
Real estate	42,711	718	1.68
Power, chemicals, metals and mining	20,156	312	1.55
Banks and finance companies	29,570	219	0.74
Energy and commodities	14,009	523	3.73
Health	8,575	144	1.68
Public sector	13,416	172	1.28
Insurance	1,925	7	0.36
Asset managers and funds	4,491	22	0.49
Financial markets infrastructure	229	—	—
Securities firms	430	10	2.33
Other industries	4,247	122	2.87
Total classifiably managed loans[2]	$338,246	$5,001	1.48%
Loans managed on a delinquency basis[3]	$ 41,958	$ 401	0.96%
Total	$380,204	$5,402	1.42%

(1) Funded exposure excludes loans carried at fair value of $6.8 billion that are not subject to ACLL under the CECL standard.
(2) As of December 31, 2021, the ACLL shown above reflects coverage of 0.5% of funded investment-grade exposure and 4.4% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed private bank loans including non-rated mortgage and real estate loans to private banking clients at December 31, 2020.

Non-Accrual Loans and Assets and Renegotiated Loans

There is a certain amount of overlap among non-accrual loans and assets and renegotiated loans. The following summary provides a general description of each category.

Non-Accrual Loans and Assets:

- Corporate and consumer (including commercial banking) non-accrual status is based on the determination that payment of interest or principal is doubtful.
- A corporate loan may be classified as non-accrual and still be performing under the terms of the loan structure. Non-accrual loans may still be current on interest payments. Citi's corporate non-accrual loans were \$1.9 billion, \$2.4 billion and \$3.5 billion as of December 31, 2021, September 30, 2021 and December 31, 2020, respectively. Of these, approximately 54%, 56% and 59% were performing at December 31, 2021, September 30, 2021 and December 31, 2020, respectively.
- Consumer non-accrual status is generally based on aging, i.e., the borrower has fallen behind on payments.
- Consumer mortgage loans, other than Federal Housing Administration (FHA) insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy. In addition, home equity loans are classified as non-accrual if the related residential first mortgage loan is 90 days or more past due.
- *North America* branded cards and retail services are not included because, under industry standards, credit card loans accrue interest until such loans are charged off, which typically occurs at 180 days of contractual delinquency.

Renegotiated Loans:

- Includes both corporate and consumer loans whose terms have been modified in a troubled debt restructuring (TDR).
- Includes both accrual and non-accrual TDRs.

Non-Accrual Loans

The table below summarizes Citigroup's non-accrual loans as of the periods indicated. Non-accrual loans may still be current on interest payments. In situations where Citi reasonably expects that only a portion of the principal owed will ultimately be collected, all payments received are reflected as a reduction of principal and not as interest income. For all other non-accrual loans, cash interest receipts are generally recorded as revenue.

	December 31,				
In millions of dollars	**2021**	2020	2019	2018	2017
Corporate non-accrual loans[1]					
North America	**$ 801**	$1,928	$1,214	$ 586	$ 966
EMEA	**399**	661	430	375	849
Latin America	**568**	719	473	307	348
Asia	**109**	219	71	243	70
Total corporate non-accrual loans	**$1,877**	$3,527	$2,188	$1,511	$2,233
Consumer non-accrual loans[1]					
North America	**$ 759**	$1,059	$ 905	$1,138	$1,468
Latin America	**524**	774	632	638	688
Asia[2]	**219**	308	279	250	243
Total consumer non-accrual loans	**$1,502**	$2,141	$1,816	$2,026	$2,399
Total non-accrual loans	**$3,379**	$5,668	$4,004	$3,537	$4,632

(1) For years prior to 2020, excludes purchased credit-deteriorated loans, as they are generally accruing interest. The carrying value of these loans was $128 million at December 31, 2019, $128 million at December 31, 2018 and $167 million at December 31, 2017.

(2) *Asia GCB* includes balances in certain *EMEA* countries for all periods presented.

The changes in Citigroup's non-accrual loans were as follows:

	Year ended December 31, 2021			Year ended December 31, 2020		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
Non-accrual loans at beginning of year	**$ 3,527**	**$ 2,141**	**$ 5,668**	$ 2,188	$ 1,816	$ 4,004
Additions	**1,708**	**2,018**	**3,726**	5,103	2,829	7,932
Sales and transfers to HFS	**(405)**	**(199)**	**(604)**	(2)	(95)	(97)
Returned to performing	**(217)**	**(615)**	**(832)**	(157)	(389)	(546)
Paydowns/settlements	**(2,215)**	**(630)**	**(2,845)**	(3,117)	(677)	(3,794)
Charge-offs	**(493)**	**(1,180)**	**(1,673)**	(446)	(1,132)	(1,578)
Other	**(28)**	**(33)**	**(61)**	(42)	(211)	(253)
Ending balance	**$ 1,877**	**$ 1,502**	**$ 3,379**	$ 3,527	$ 2,141	$ 5,668

The table below summarizes Citigroup's other real estate owned (OREO) assets. OREO is recorded on the Consolidated Balance Sheet within *Other assets*. This represents the carrying value of all real estate property acquired by foreclosure or other legal proceedings when Citi has taken possession of the collateral:

	December 31,				
In millions of dollars	**2021**	2020	2019	2018	2017
OREO					
North America	**$ 15**	$ 19	$ 39	$ 64	$ 89
EMEA	**—**	—	1	1	2
Latin America	**8**	7	14	12	35
Asia	**4**	17	7	22	18
Total OREO	**$ 27**	$ 43	$ 61	$ 99	$ 144
Non-accrual assets					
Corporate non-accrual loans	**$1,877**	$3,527	$2,188	$1,511	$2,233
Consumer non-accrual loans	**1,502**	2,141	1,816	2,026	2,399
Non-accrual loans (NAL)	**$3,379**	$5,668	$4,004	$3,537	$4,632
OREO	**$ 27**	$ 43	$ 61	$ 99	$ 144
Non-accrual assets (NAA)	**$3,406**	$5,711	$4,065	$3,636	$4,776
NAL as a percentage of total loans	**0.51%**	0.84%	0.57%	0.52%	0.69%
NAA as a percentage of total assets	**0.15**	0.25	0.21	0.19	0.26
ACLL as a percentage of NAL[1]	**487**	440	319	348	267

(1) The ACLL includes the allowance for Citi's credit card portfolios and purchased distressed loans, while the non-accrual loans exclude credit card balances (with the exception of certain international portfolios) and, prior to 2020, include purchased credit-deteriorated loans as these continue to accrue interest until charge-off.

Renegotiated Loans

The following table presents Citi's loans modified in TDRs:

In millions of dollars	Dec. 31, 2021	Dec. 31, 2020
Corporate renegotiated loans[1]		
In U.S. offices		
Commercial and industrial[2]	**$ 103**	$ 193
Mortgage and real estate	**51**	60
Financial institutions	**—**	—
Other	**32**	30
Total	**$ 186**	$ 283
In offices outside the U.S.		
Commercial and industrial[2]	**$ 133**	$ 132
Mortgage and real estate	**22**	32
Financial institutions	**—**	—
Other	**9**	3
Total	**$ 164**	$ 167
Total corporate renegotiated loans	**$ 350**	$ 450
Consumer renegotiated loans[3]		
In U.S. offices		
Mortgage and real estate	**$1,422**	$1,904
Cards	**1,269**	1,449
Installment and other	**26**	33
Total	**$2,717**	$3,386
In offices outside the U.S.		
Mortgage and real estate	**$ 223**	$ 361
Cards	**313**	533
Installment and other	**428**	519
Total	**$ 964**	$1,413
Total consumer renegotiated loans	**$3,681**	$4,799

(1) Includes $321 million and $415 million of non-accrual loans included in the non-accrual loans table above at December 31, 2021 and 2020, respectively. The remaining loans were accruing interest.
(2) In addition to modifications reflected as TDRs at December 31, 2021 and 2020, Citi also modified none and $47 million, respectively, of commercial loans risk rated "Substandard Non-Performing" or worse (asset category defined by banking regulators) in offices outside the U.S. These modifications were not considered TDRs because the modifications did not involve a concession or because the modifications qualified for exemptions from TDR accounting provided by the CARES Act or the interagency guidance.
(3) Includes $627 million and $873 million of non-accrual loans included in the non-accrual loans table above at December 31, 2021 and 2020, respectively. The remaining loans were accruing interest.

Forgone Interest Revenue on Loans[1]

In millions of dollars	In U.S. offices	In non-U.S. offices	2021 total
Interest revenue that would have been accrued at original contractual rates[2]	$343	$346	$689
Amount recognized as interest revenue[2]	166	189	355
Forgone interest revenue	**$177**	**$157**	**$334**

(1) Relates to corporate non-accrual loans, renegotiated loans and consumer loans on which accrual of interest has been suspended.
(2) Interest revenue in offices outside the U.S. may reflect prevailing local interest rates, including the effects of inflation and monetary correction in certain countries.

LIQUIDITY RISK

Overview

Adequate and diverse sources of funding and liquidity are essential to Citi's businesses. Funding and liquidity risks arise from several factors, many of which are mostly or entirely outside Citi's control, such as disruptions in the financial markets, changes in key funding sources, credit spreads, changes in Citi's credit ratings and macroeconomic, geopolitical and other conditions. For additional information, see "Risk Factors—Liquidity Risks" above.

Citi's funding and liquidity management objectives are aimed at (i) funding its existing asset base, (ii) growing its core businesses, (iii) maintaining sufficient liquidity, structured appropriately, so that Citi can operate under a variety of adverse circumstances, including potential Company-specific and/or market liquidity events in varying durations and severity, and (iv) satisfying regulatory requirements, including, among other things, those related to resolution planning (for additional information, see "Resolution Plan" and "Total Loss-Absorbing Capacity (TLAC)" below). Citigroup's primary liquidity objectives are established by entity, and in aggregate, across two major categories:

- Citibank (including Citibank Europe plc, Citibank Singapore Ltd. and Citibank (Hong Kong) Ltd.); and
- Citi's non-bank and other entities, including the parent holding company (Citigroup Inc.), Citi's primary intermediate holding company (Citicorp LLC), Citi's broker-dealer subsidiaries (including Citigroup Global Markets Inc., Citigroup Global Markets Limited. and Citigroup Global Markets Japan Inc.) and other bank and non-bank subsidiaries that are consolidated into Citigroup (including Citibanamex).

At an aggregate Citigroup level, Citi's goal is to maintain sufficient funding in amount and tenor to fully fund customer assets and to provide an appropriate amount of cash and high-quality liquid assets (as discussed below), even in times of stress, in order to meet its payment obligations as they come due. The liquidity risk management framework provides that in addition to the aggregate requirements, certain entities be self-sufficient or net providers of liquidity, including in conditions established under their designated stress tests.

Citi's primary funding sources include (i) corporate and consumer deposits via Citi's bank subsidiaries, including Citibank, N.A. (Citibank), (ii) long-term debt (primarily senior and subordinated debt) mainly issued by Citigroup Inc., as the parent, and Citibank, and (iii) stockholders' equity. These sources may be supplemented by short-term borrowings, primarily in the form of secured funding transactions.

As referenced above, Citi's funding and liquidity framework ensures that the tenor of these funding sources is of sufficient term in relation to the tenor of its asset base. The goal of Citi's asset/liability management is to ensure that there is sufficient liquidity and tenor in the liability structure relative to the liquidity profile of the assets. This reduces the risk that liabilities will become due before assets mature or are monetized. This excess liquidity is held primarily in the form of high-quality liquid assets (HQLA), as set forth in the table below.

Citi's liquidity is managed via a centralized treasury model by Treasury, in conjunction with regional and in-country treasurers with oversight provided by Independent Risk Management and various Asset & Liability Committees (ALCOs) at the Citigroup, region, country and business levels. Pursuant to this approach, Citi's HQLA is managed with emphasis on asset-liability management and entity-level liquidity adequacy throughout Citi.

Citi's CRO and Chief Financial Officer co-chair Citigroup's ALCO, which includes Citi's Treasurer and other senior executives. The ALCO sets the strategy of the liquidity portfolio and monitors portfolio performance (for additional information about the ALCO, see "Risk Governance—Board and Executive Management Committees" above). Significant changes to portfolio asset allocations are approved by the ALCO. Citi also has other ALCOs, which are established at various organizational levels to ensure appropriate oversight for countries, franchise businesses and regions, serving as the primary governance committees for managing Citi's balance sheet and liquidity.

As a supplement to ALCO, Citi's Funding and Liquidity Risk Committee (FLRC) is a more focused assembly for funding and liquidity risk matters. The FLRC reviews and discusses the funding and liquidity risk profile of, as well as risk management practices for Citigroup and Citibank and reports its findings and recommendations to each relevant ALCO as appropriate.

Liquidity Monitoring and Measurement

Stress Testing

Liquidity stress testing is performed for each of Citi's major entities, operating subsidiaries and/or countries. Stress testing and scenario analyses are intended to quantify the potential impact of an adverse liquidity event on the balance sheet and liquidity position, and to identify viable funding alternatives that can be utilized. These scenarios include assumptions about significant changes in key funding sources, market triggers (such as credit ratings), potential uses of funding and macroeconomic, geopolitical and other conditions. These conditions include expected and stressed market conditions as well as Company-specific events.

Liquidity stress tests are performed to ascertain potential mismatches between liquidity sources and uses over a variety of time horizons and over different stressed conditions. To monitor the liquidity of an entity, these stress tests and potential mismatches are calculated with varying frequencies, with several tests performed daily.

Given the range of potential stresses, Citi maintains contingency funding plans on a consolidated basis and for individual entities. These plans specify a wide range of readily available actions for a variety of adverse market conditions or idiosyncratic stresses.

High-Quality Liquid Assets (HQLA)

In billions of dollars	Citibank Dec. 31, 2021	Citibank Sept. 30, 2021	Citibank Dec. 31, 2020	Citi non-bank and other entities Dec. 31, 2021	Citi non-bank and other entities Sept. 30, 2021	Citi non-bank and other entities Dec. 31, 2020	Total Dec. 31, 2021	Total Sept. 30, 2021	Total Dec. 31, 2020
Available cash	**$253.6**	$255.1	$304.3	**$ 2.6**	$ 3.5	$ 2.1	**$256.2**	$258.6	$306.4
U.S. sovereign	**119.6**	108.9	77.8	**63.1**	64.3	64.8	**182.7**	173.2	142.6
U.S. agency/agency MBS	**45.0**	45.3	31.8	**5.7**	6.0	6.5	**50.7**	51.3	38.3
Foreign government debt(1)	**48.9**	50.2	39.6	**13.6**	11.2	16.2	**62.5**	61.4	55.8
Other investment grade	**1.6**	1.8	1.2	**0.8**	0.3	0.5	**2.4**	2.1	1.7
Total HQLA (AVG)	**$468.7**	$461.2	$454.7	**$85.8**	$85.3	$90.1	**$554.5**	$546.5	$544.8

Note: The amounts set forth in the table above are presented on an average basis. For securities, the amounts represent the liquidity value that potentially could be realized and, therefore, exclude any securities that are encumbered and incorporate any haircuts applicable under the U.S. LCR rule. The table above incorporates various restrictions that could limit the transferability of liquidity between legal entities, including Section 23A of the Federal Reserve Act.

(1) Foreign government debt includes securities issued or guaranteed by foreign sovereigns, agencies and multilateral development banks. Foreign government debt securities are held largely to support local liquidity requirements and Citi's local franchises and principally include government bonds from Japan, Mexico, South Korea, India and Hong Kong.

The table above includes average amounts of HQLA held at Citigroup's operating entities that are eligible for inclusion in the calculation of Citigroup's consolidated Liquidity Coverage ratio (LCR), pursuant to the U.S. LCR rules. These amounts include the HQLA needed to meet the minimum requirements at these entities and any amounts in excess of these minimums that are assumed to be transferable to other entities within Citigroup. Citigroup's HQLA increased quarter-over-quarter as of the fourth quarter of 2021, primarily reflecting an increase in deposits.

As of December 31, 2021, Citigroup had $961 billion of available liquidity resources to support client and business needs, including end-of-period HQLA assets; additional unencumbered securities, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi's HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Short-Term Liquidity Measurement: Liquidity Coverage Ratio (LCR)

In addition to internal 30-day liquidity stress testing performed for Citi's major entities, operating subsidiaries and countries, Citi also monitors its liquidity by reference to the LCR.

The LCR is calculated by dividing HQLA by estimated net outflows assuming a stressed 30-day period, with the net outflows determined by standardized stress outflow and inflow rates prescribed in the LCR rule. The outflows are partially offset by contractual inflows from assets maturing within 30 days. Similar to outflows, the inflows are calculated based on prescribed factors to various assets categories, such as retail loans as well as unsecured and secured wholesale lending. The minimum LCR requirement is 100%.

The table below details the components of Citi's LCR calculation and HQLA in excess of net outflows for the periods indicated:

In billions of dollars	Dec. 31, 2021	Sept. 30, 2021	Dec. 31, 2020
HQLA	**$554.5**	$546.5	$544.8
Net outflows	**482.9**	474.8	460.7
LCR	**115%**	115%	118%
HQLA in excess of net outflows	**$ 71.6**	$ 71.7	$ 84.1

Note: The amounts are presented on an average basis.

As of December 31, 2021, Citi's average LCR was unchanged sequentially, as Citi's average HQLA and net outflows increased proportionately.

Long-Term Liquidity Measurement: Net Stable Funding Ratio (NSFR)

As previously disclosed, in October 2020, the U.S. banking agencies adopted a final rule to assess the availability of a bank's stable funding against a required level.

In general, a bank's available stable funding includes portions of equity, deposits and long-term debt, while its required stable funding will be based on the liquidity characteristics of its assets, derivatives and commitments. Standardized weightings are required to be applied to the various asset and liabilities classes. The ratio of available stable funding to required stable funding is required to be greater than 100%.

The final rule became effective beginning July 1, 2021, while public disclosure requirements to report the ratio will occur on a semiannual basis beginning June 30, 2023. Citi was in compliance with the final rule as of December 31, 2021.

Loans

As part of its funding and liquidity objectives, Citi seeks to fund its existing asset base appropriately as well as maintain sufficient liquidity to grow its *GCB* and *ICG* businesses, including its loan portfolio. Citi maintains a diversified portfolio of loans to its consumer and institutional clients. The table below details the average loans, by business and/or segment, and the total end-of-period loans for each of the periods indicated:

In billions of dollars	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Global Consumer Banking			
North America	**$176.8**	$173.8	$179.4
Latin America	**13.0**	13.2	14.3
Asia[1]	**72.5**	75.9	82.4
Total	**$262.3**	$262.9	$276.1
Institutional Clients Group			
Corporate lending	**$127.5**	$129.2	$146.2
Treasury and trade solutions (TTS)	**76.3**	73.7	67.1
Private bank	**124.5**	125.9	113.3
Markets and securities services and other	**72.5**	72.0	56.1
Total	**$400.8**	$400.8	$382.7
Total *Corporate/Other*	**$ 4.3**	$ 4.7	$ 7.4
Total Citigroup loans (AVG)	**$667.4**	$668.5	$666.2
Total Citigroup loans (EOP)	**$667.8**	$664.8	$676.1

(1) Includes loans in certain *EMEA* countries for all periods presented.

As of the fourth quarter of 2021, end-of period loans declined 1% year-over-year and were largely unchanged quarter-over-quarter.

On an average basis, loans were largely unchanged both year-over-year and sequentially. Excluding the impact of FX translation, average loans increased 1% year-over-year and were largely unchanged sequentially. On this basis, average *GCB* loans declined 4% year-over-year, primarily reflecting the reclassification of loans to held-for-sale as a result of Citi's entry into agreements to sell its consumer banking businesses in Australia and the Philippines.

Excluding the impact of FX translation, average *ICG* loans increased 5% year-over-year. Loans in corporate lending declined 12% on an average basis, reflecting net repayments as Citi continued to assist its clients in accessing the capital markets, as well as lower demand. Private bank loans increased 10%, largely driven by increased secured lending to high-net-worth clients. *Markets and securities services* loans increased 29%, reflecting an increase in securitization financing. TTS loans increased 15%, reflecting an increase in trade flows and originations.

Average *Corporate/Other* loans continued to decline (down 46%), driven by the wind-down of legacy assets.

Deposits

The table below details the average deposits, by business and/or segment, and the total end-of-period deposits for each of the periods indicated:

In billions of dollars	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Global Consumer Banking[1]			
North America	**$ 214.0**	$ 208.4	$ 188.9
Latin America	**23.8**	24.2	24.3
Asia[2]	**117.2**	120.7	120.0
Total	**$ 355.0**	$ 353.3	$ 333.2
Institutional Clients Group			
Treasury and trade solutions (TTS)	**$ 690.6**	$ 674.8	$ 686.5
Banking ex-TTS	**188.2**	179.5	163.2
Markets and securities services	**129.3**	127.2	109.3
Total	**$1,008.1**	$ 981.6	$ 959.0
Corporate/Other	**$ 7.2**	$ 8.2	$ 13.1
Total Citigroup deposits (AVG)	**$1,370.3**	$1,343.0	$1,305.3
Total Citigroup deposits (EOP)	**$1,317.2**	$1,347.5	$1,280.7

(1) Reflects deposits within retail banking.
(2) Includes deposits in certain *EMEA* countries for all periods presented.

End-of-period deposits increased 3% year-over-year and declined 2% sequentially.

As of the fourth quarter of 2021, on an average basis, deposits increased 5% year-over-year and 2% sequentially. Excluding the impact of FX translation, average deposits grew 6% from the prior-year period and 3% sequentially. The year-over-year increase reflected continued client engagement as well as the elevated level of liquidity in the financial system. Excluding the impact of FX translation, average deposits in *GCB* increased 7%, with continued strong growth in *North America*.

Excluding the impact of FX translation, average deposits in *ICG* grew 6% year-over-year, with strong growth in the private bank and securities services.

Long-Term Debt

Long-term debt (generally defined as debt with original maturities of one year or more) represents the most significant component of Citi's funding for the Citigroup parent company and Citi's non-bank subsidiaries and is a supplementary source of funding for the bank entities.

Long-term debt is an important funding source due in part to its multiyear contractual maturity structure. The weighted-average maturity of unsecured long-term debt issued by Citigroup and its affiliates (including Citibank) with a remaining life greater than one year was approximately 8.6 years as of December 31, 2021, unchanged from the prior quarter and the prior year. The weighted-average maturity is calculated based on the contractual maturity of each security. For securities that are redeemable prior to maturity at the option of the holder, the weighted-average maturity is calculated based on the earliest date an option becomes exercisable.

Citi's long-term debt outstanding at the Citigroup parent company includes benchmark senior and subordinated debt and what Citi refers to as customer-related debt, consisting of structured notes, such as equity- and credit-linked notes, as well as non-structured notes. Citi's issuance of customer-related debt is generally driven by customer demand and complements benchmark debt issuance as a source of funding for Citi's non-bank entities. Citi's long-term debt at the bank includes Citibank benchmark senior debt, FHLB borrowings and securitizations.

Long-Term Debt Outstanding

The following table sets forth Citi's end-of-period total long-term debt outstanding for each of the dates indicated:

In billions of dollars	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Non-bank[(1)]			
Benchmark debt:			
Senior debt	**$117.8**	$123.9	$126.2
Subordinated debt	**25.7**	26.0	27.1
Trust preferred	**1.7**	1.7	1.7
Customer-related debt	**78.3**	74.7	65.2
Local country and other[(2)]	**7.3**	7.2	6.7
Total non-bank	**$230.8**	$233.5	$226.9
Bank			
FHLB borrowings	**$ 5.3**	$ 5.8	$ 10.9
Securitizations[(3)]	**9.6**	11.0	16.6
Citibank benchmark senior debt	**3.6**	3.6	13.6
Local country and other[(2)]	**5.1**	4.3	3.6
Total bank	**$ 23.6**	$ 24.7	$ 44.7
Total long-term debt	**$254.4**	$258.2	$271.7

Note: Amounts represent the current value of long-term debt on Citi's Consolidated Balance Sheet that, for certain debt instruments, includes consideration of fair value, hedging impacts and unamortized discounts and premiums.

(1) Non-bank includes long-term debt issued to third parties by the parent holding company (Citigroup) and Citi's non-bank subsidiaries (including broker-dealer subsidiaries) that are consolidated into Citigroup. As of December 31, 2021, non-bank included $65.9 billion of long-term debt issued by Citi's broker-dealer and other subsidiaries, as well as certain Citigroup consolidated hedging activities.

(2) Local country and other includes debt issued by Citi's affiliates in support of their local operations. Within non-bank, certain secured financing is also included. Within bank, borrowings under certain U.S. government-sponsored liquidity programs are also included.

(3) Predominantly credit card securitizations, primarily backed by branded credit card receivables.

As of the fourth quarter of 2021, Citi's total long-term debt outstanding decreased year-over-year, primarily driven by declines in unsecured benchmark senior debt at the non-bank entities and the bank, as well as securitizations and FHLB borrowings at the bank. The decrease in total long-term debt was partially offset by the issuance of customer-related debt at the non-bank entities. Sequentially, long-term debt outstanding decreased, driven primarily by decreases in unsecured benchmark senior debt at the non-bank entities and securitizations at the bank, partially offset by the issuance of customer-related debt at the non-bank entities.

As part of its liability management, Citi also has considered, and may continue to consider, opportunities to redeem or repurchase its long-term debt pursuant to open market purchases, tender offers or other means. Such redemptions and repurchases help reduce Citi's overall funding costs. During 2021, Citi redeemed or repurchased an aggregate of approximately $33.8 billion of its outstanding long-term debt.

Long-Term Debt Issuances and Maturities

The table below details Citi's long-term debt issuances and maturities (including repurchases and redemptions) during the periods presented:

In billions of dollars	**2021**		2020		2019	
	Maturities	**Issuances**	Maturities	Issuances	Maturities	Issuances
Non-bank						
Benchmark debt:						
Senior debt	**$17.6**	**$15.4**	$ 6.5	$20.4	$16.5	$16.2
Subordinated debt	**—**	**—**	—	—	—	—
Trust preferred	**—**	**—**	—	—	—	—
Customer-related debt	**31.2**	**48.7**	27.7	36.8	12.7	25.1
Local country and other	**3.3**	**3.6**	2.4	1.4	1.1	5.4
Total non-bank	**$52.1**	**$67.7**	$36.6	$58.6	$30.3	$46.7
Bank						
FHLB borrowings	**$ 5.7**	**$ —**	$ 7.5	$12.9	$ 7.1	$ 2.1
Securitizations	**6.1**	**—**	4.6	0.3	7.9	0.1
Citibank benchmark senior debt	**9.8**	**—**	9.8	—	4.8	8.8
Local country and other	**1.2**	**2.9**	4.9	4.6	0.9	1.4
Total bank	**$22.8**	**$ 2.9**	$26.8	$17.8	$20.7	$12.4
Total	**$74.9**	**$70.6**	$63.4	$76.4	$51.0	$59.1

The table below shows Citi's aggregate long-term debt maturities (including repurchases and redemptions) in 2021, as well as its aggregate expected remaining long-term debt maturities by year as of December 31, 2021:

				Maturities				
In billions of dollars	**2021**	2022	2023	2024	2025	2026	Thereafter	Total
Non-bank								
Benchmark debt:								
Senior debt	**$17.6**	$ 8.2	$12.6	$11.0	$10.7	$18.2	$ 57.1	$117.8
Subordinated debt	**—**	0.8	1.3	1.0	5.2	2.6	14.8	25.7
Trust preferred	**—**	—	—	—	—	—	1.7	1.7
Customer-related debt	**31.2**	11.9	10.2	8.5	4.9	5.5	37.3	78.3
Local country and other	**3.3**	2.3	2.2	0.1	—	0.7	1.8	7.3
Total non-bank	**$52.1**	$23.2	$26.3	$20.6	$20.8	$27.0	$112.7	$230.8
Bank								
FHLB borrowings	**$ 5.7**	$ 5.3	$ —	$ —	$ —	$ —	$ —	$ 5.3
Securitizations	**6.1**	2.1	3.3	1.4	0.4	—	2.4	9.6
Citibank benchmark senior debt	**9.8**	0.9	—	2.7	—	—	—	3.6
Local country and other	**1.2**	1.5	0.9	0.9	0.1	0.1	1.6	5.1
Total bank	**$22.8**	$ 9.8	$ 4.2	$ 5.0	$ 0.5	$ 0.1	$ 4.0	$ 23.6
Total long-term debt	**$74.9**	$33.0	$30.5	$25.6	$21.3	$27.1	$116.7	$254.4

Resolution Plan

Citi is required under Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) and the rules promulgated by the FDIC and Federal Reserve Board to periodically submit a plan for Citi's rapid and orderly resolution under the U.S. Bankruptcy Code in the event of material financial distress or failure.

On December 17, 2019, the Federal Reserve Board and FDIC issued feedback on the resolution plans filed on July 1, 2019 by the eight U.S. Global Systemically Important Banks, including Citigroup. The Federal Reserve Board and FDIC identified one shortcoming, but no deficiencies, in Citigroup's resolution plan relating to governance mechanisms. Based on regulatory changes effective December 31, 2019, Citigroup's 2021 resolution plan submission, which was filed on July 1, 2021 was a targeted resolution plan, only including a subset of the information of a full resolution plan and additional information, identified by the Federal Reserve Board and FDIC on July 1, 2020. Citigroup will alternate between submitting a full resolution plan and a targeted resolution plan on a biennial cycle. For additional information on Citi's resolution plan submissions, see "Risk Factors—Strategic Risks" above. Citigroup's preferred resolution strategy is "single point of entry" under the U.S. Bankruptcy Code.

Under Citi's preferred "single point of entry" resolution plan strategy, only Citigroup, the parent holding company, would enter into bankruptcy, while Citigroup's material legal entities (as defined in the public section of its 2021 resolution plan, which can be found on the Federal Reserve Board's and FDIC's websites) would remain operational outside of any resolution or insolvency proceedings. Citigroup's resolution plan has been designed to minimize the risk of systemic impact to the U.S. and global financial systems, while maximizing the value of the bankruptcy estate for the benefit of Citigroup's creditors, including its unsecured long-term debt holders.

In addition, in line with the Federal Reserve Board's final total loss-absorbing capacity (TLAC) rule, Citigroup believes it has developed the resolution plan so that Citigroup's shareholders and unsecured creditors—including its unsecured long-term debt holders—bear any losses resulting from Citigroup's bankruptcy. Accordingly, any value realized by holders of its unsecured long-term debt may not be sufficient to repay the amounts owed to such debt holders in the event of a bankruptcy or other resolution proceeding of Citigroup.

The FDIC has also indicated that it was developing a single point of entry strategy to implement the Orderly Liquidation Authority under Title II of the Dodd-Frank Act, which provides the FDIC with the ability to resolve a firm when it is determined that bankruptcy would have serious adverse effects on financial stability in the U.S.

As previously disclosed, in response to feedback received from the Federal Reserve Board and FDIC, Citigroup took the following actions:

(i) Citicorp LLC (Citicorp), an existing wholly owned subsidiary of Citigroup, was established as an intermediate holding company (an IHC) for certain of Citigroup's operating material legal entities;

(ii) Citigroup executed an inter-affiliate agreement with Citicorp, Citigroup's operating material legal entities and certain other affiliated entities pursuant to which Citicorp is required to provide liquidity and capital support to Citigroup's operating material legal entities in the event Citigroup were to enter bankruptcy proceedings (Citi Support Agreement);

(iii) pursuant to the Citi Support Agreement:

- Citigroup made an initial contribution of assets, including certain high-quality liquid assets and inter-affiliate loans (Contributable Assets), to Citicorp, and Citicorp became the business-as-usual funding vehicle for Citigroup's operating material legal entities;
- Citigroup will be obligated to continue to transfer Contributable Assets to Citicorp over time, subject to certain amounts retained by Citigroup to, among other things, meet Citigroup's near-term cash needs;
- in the event of a Citigroup bankruptcy, Citigroup will be required to contribute most of its remaining assets to Citicorp; and

(iv) the obligations of both Citigroup and Citicorp under the Citi Support Agreement, as well as the Contributable Assets, are secured pursuant to a security agreement.

The Citi Support Agreement provides two mechanisms, besides Citicorp's issuing of dividends to Citigroup, pursuant to which Citicorp will be required to transfer cash to Citigroup during business as usual so that Citigroup can fund its debt service as well as other operating needs: (i) one or more funding notes issued by Citicorp to Citigroup and (ii) a committed line of credit under which Citicorp may make loans to Citigroup.

Total Loss-Absorbing Capacity (TLAC)

U.S. GSIBs are required to maintain minimum levels of TLAC and eligible LTD, each set by reference to the GSIB's consolidated risk-weighted assets (RWA) and total leverage exposure. The intended purpose of the requirements is to facilitate the orderly resolution of U.S. GSIBs under the U.S. Bankruptcy Code and Title II of the Dodd-Frank Act. For additional information, including Citi's TLAC and LTD amounts and ratios, see "Capital Resources—Current Regulatory Capital Standards" and "Risk Factors—Compliance Risks" above.

SECURED FUNDING TRANSACTIONS AND SHORT-TERM BORROWINGS

Citi supplements its primary sources of funding with short-term financings that generally include (i) secured funding transactions consisting of securities loaned or sold under agreements to repurchase, i.e., repos, and (ii) to a lesser extent, short-term borrowings consisting of commercial paper and borrowings from the FHLB and other market participants.

Secured Funding Transactions

Secured funding is primarily accessed through Citi's broker-dealer subsidiaries to fund efficiently both (i) secured lending activity and (ii) a portion of the securities inventory held in the context of market-making and customer activities. Citi also executes a smaller portion of its secured funding transactions through its bank entities, which are typically collateralized by government debt securities. Generally, daily changes in the level of Citi's secured funding are primarily due to fluctuations in secured lending activity in the matched book (as described below) and securities inventory.

Secured funding of $191 billion as of December 31, 2021 decreased 3% from the prior-year period and 9% sequentially. Excluding the impact of FX translation, secured funding decreased 1% from the prior-year period and 8% sequentially, driven by normal business activity. The average balance for secured funding was approximately $222 billion for the quarter ended December 31, 2021.

The portion of secured funding in the broker-dealer subsidiaries that funds secured lending is commonly referred to as "matched book" activity. The majority of this activity is secured by high-quality liquid securities such as U.S. Treasury securities, U.S. agency securities and foreign government debt securities. Other secured funding is secured by less liquid securities, including equity securities, corporate bonds and asset-backed securities, the tenor of which is generally equal to or longer than the tenor of the corresponding matched book assets.

The remainder of the secured funding activity in the broker-dealer subsidiaries serves to fund securities inventory held in the context of market-making and customer activities. To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and establishing minimum required funding tenors. The weighted average maturity of Citi's secured funding of less liquid securities inventory was greater than 110 days as of December 31, 2021.

Citi manages the risks in its secured funding by conducting daily stress tests to account for changes in capacity, tenor, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress. Citi generally sources secured funding from more than 150 counterparties.

Short-Term Borrowings

Citi's short-term borrowings of $28 billion as of the fourth quarter of 2021 decreased 5% year-over-year, reflecting a decline in FHLB advances, and 6% sequentially, primarily driven by a decline in structured notes (see Note 17 to the Consolidated Financial Statements for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

CREDIT RATINGS

Citigroup's funding and liquidity, funding capacity, ability to access capital markets and other sources of funds, the cost of these funds and its ability to maintain certain deposits are partially dependent on its credit ratings.

The table below shows the ratings for Citigroup and Citibank as of December 31, 2021. While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holding Inc. (CGMHI) were BBB+/A-2 at S&P Global Ratings and A+/F1 at Fitch as of December 31, 2021.

	Citigroup Inc.			Citibank, N.A.		
Ratings as of December 31, 2021	**Senior debt**	**Commercial paper**	**Outlook**	**Long-term**	**Short-term**	**Outlook**
Fitch Ratings	**A**	**F1**	**Stable**	**A+**	**F1**	**Stable**
Moody's Investors Service	**A3**	**P-2**	**Stable**	**Aa3**	**P-1**	**Stable**
S&P Global Ratings	**BBB+**	**A-2**	**Stable**	**A+**	**A-1**	**Stable**

Potential Impacts of Ratings Downgrades

Ratings downgrades by Moody's, Fitch or S&P Global Ratings could negatively impact Citigroup's and/or Citibank's funding and liquidity due to reduced funding capacity, including derivative triggers, which could take the form of cash obligations and collateral requirements.

The following information is provided for the purpose of analyzing the potential funding and liquidity impact to Citigroup and Citibank of a hypothetical simultaneous ratings downgrade across all three major rating agencies. This analysis is subject to certain estimates, estimation methodologies, judgments and uncertainties. Uncertainties include potential ratings limitations that certain entities may have with respect to permissible counterparties, as well as general subjective counterparty behavior. For example, certain corporate customers and markets counterparties could re-evaluate their business relationships with Citi and limit transactions in certain contracts or market instruments with Citi. Changes in counterparty behavior could impact Citi's funding and liquidity, as well as the results of operations of certain of its businesses. The actual impact to Citigroup or Citibank is unpredictable and may differ materially from the potential funding and liquidity impacts described below. For additional information on the impact of credit rating changes on Citi and its applicable subsidiaries, see "Risk Factors—Liquidity Risks" above.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of December 31, 2021, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citigroup Inc. across all three major rating agencies could impact Citigroup's funding and liquidity due to derivative triggers by approximately $0.8 billion, compared to $1.1 billion as of September 30, 2021. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

As of December 31, 2021, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citibank across all three major rating agencies could impact Citibank's funding and liquidity due to derivative triggers by approximately $0.6 billion, compared to $0.5 billion as of September 30, 2021. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

In total, as of December 31, 2021, Citi estimates that a one-notch downgrade of Citigroup and Citibank across all three major rating agencies could result in increased aggregate cash obligations and collateral requirements of approximately $1.4 billion, compared to $1.6 billion as of September 30, 2021 (see also Note 22 to the Consolidated Financial Statements). As detailed under "High-Quality Liquid Assets" above, Citigroup has various liquidity resources available to its bank and non-bank entities in part as a contingency for the potential events described above.

In addition, a broad range of mitigating actions are currently included in Citigroup's and Citibank's contingency funding plans. For Citigroup, these mitigating factors include, but are not limited to, accessing surplus funding capacity from existing clients, tailoring levels of secured lending and adjusting the size of select trading books and collateralized borrowings at certain Citibank subsidiaries. Mitigating actions available to Citibank include, but are not limited to, selling or financing highly liquid government securities, tailoring levels of secured lending, adjusting the size of select trading assets, reducing loan originations and renewals, raising additional deposits or borrowing from the FHLB or central banks. Citi believes these mitigating actions could substantially reduce the funding and liquidity risk, if any, of the potential downgrades described above.

Citibank—Additional Potential Impacts

In addition to the above derivative triggers, Citi believes that a potential downgrade of Citibank's senior debt/long-term rating across any of the three major rating agencies could also have an adverse impact on the commercial paper/short-term rating of Citibank. Citibank has provided liquidity commitments to consolidated asset-backed commercial paper conduits, primarily in the form of asset purchase agreements. As of December 31, 2021, Citibank had liquidity commitments of approximately $9.0 billion to consolidated asset-backed commercial paper conduits, compared to $10.0 billion as of September 30, 2021 (for additional information, see Note 21 to the Consolidated Financial Statements).

In addition to the above-referenced liquidity resources of certain Citibank entities, Citibank could reduce the funding and liquidity risk, if any, of the potential downgrades described above through mitigating actions, including repricing or reducing certain commitments to commercial paper conduits. In the event of the potential downgrades described above, Citi believes that certain corporate customers could re-evaluate their deposit relationships with Citibank. This re-evaluation could result in clients adjusting their discretionary deposit levels or changing their depository institution, which could potentially reduce certain deposit levels at Citibank. However, Citi could choose to adjust pricing, offer alternative deposit products to its existing customers or seek to attract deposits from new customers, in addition to the mitigating actions referenced above.

MARKET RISK

OVERVIEW

Market risk is the potential for losses arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities. Market risk emanates from both Citi's trading and non-trading portfolios. For additional information on market risk and market risk management, see "Risk Factors" above.

Each business is required to establish, with approval from Citi's market risk management, a market risk limit framework for identified risk factors that clearly defines approved risk profiles and is within the parameters of Citi's overall risk appetite. These limits are monitored by the Risk organization, including various regional, legal entity and business Risk Management committees, Citi's country and business Asset & Liability Committees and the Citigroup Risk Management and Asset & Liability Committees. In all cases, the businesses are ultimately responsible for the market risks taken and for remaining within their defined limits.

MARKET RISK OF NON-TRADING PORTFOLIOS

Market risk from non-trading portfolios stems from the potential impact of changes in interest rates and foreign exchange rates on Citi's net interest income, and on Citi's *Accumulated other comprehensive income (loss) (AOCI)* from its debt securities portfolios. Market risk from non-trading portfolios also includes the potential impact of changes in foreign exchange rates on Citi's capital invested in foreign currencies.

Net Interest Income at Risk

Net interest income, for interest rate exposure purposes, is the difference between the yield earned on the non-trading portfolio assets (including customer loans) and the rate paid on the liabilities (including customer deposits or company borrowings). Net interest income is affected by changes in the level of interest rates, as well as the amounts and mix of assets and liabilities, and the timing of contractual and assumed repricing of assets and liabilities to reflect market rates.

Citi's principal measure of risk to net interest income is interest rate exposure (IRE). IRE measures the change in expected net interest income in each currency resulting solely from unanticipated changes in forward interest rates.

Citi's estimated IRE incorporates various assumptions including prepayment rates on loans, customer behavior and the impact of pricing decisions. For example, in rising interest rate scenarios, portions of the deposit portfolio may be assumed to experience rate increases that are less than the change in market interest rates. In declining interest rate scenarios, it is assumed that mortgage portfolios experience higher prepayment rates. Citi's estimated IRE below assumes that its businesses and/or Citi Treasury make no additional changes in balances or positioning in response to the unanticipated rate changes.

Citi is planning to transition the sensitivity analysis for its IRE (see the current IRE sensitivity impacts below), employing enhanced methodologies and changes to certain assumptions. The changes include, among other things, assumptions around the projected balance sheet (being more static), coupled with revisions to the treatment of certain business contributions to IRE, mainly accrual positions in *ICG*'s *Markets* businesses. These changes are planned for 2022, and will result in a higher impact to Citi's NII and *AOCI* and a better reflection of the nature of the portfolios.

In order to manage changes in interest rates effectively, Citi may modify pricing on new customer loans and deposits, purchase fixed-rate securities, issue debt that is either fixed or floating or enter into derivative transactions that have the opposite risk exposures. Citi regularly assesses the viability of these and other strategies to reduce its interest rate risks and implements such strategies when it believes those actions are prudent.

Citi manages interest rate risk as a consolidated Company-wide position. Citi's client-facing businesses create interest rate-sensitive positions, including loans and deposits, as part of their ongoing activities. Citi Treasury aggregates these risk positions and manages them centrally. Operating within established limits, Citi Treasury makes positioning decisions and uses tools, such as Citi's investment securities portfolio, company-issued debt and interest rate derivatives, to target the desired risk profile. Changes in Citi's interest rate risk position reflect the accumulated changes in all non-trading assets and liabilities, with potentially large and offsetting impacts, as well as in Citi Treasury's positioning decisions.

Citigroup employs additional measurements, including stress testing the impact of non-linear interest rate movements on the value of the balance sheet, and the analysis of portfolio duration and volatility, particularly as they relate to mortgage loans and mortgage-backed securities and the potential impact of the change in the spread between different market indices.

Interest Rate Risk of Investment Portfolios—Impact on *AOCI*

Citi also measures the potential impacts of changes in interest rates on the value of its *AOCI*, which can in turn impact Citi's common equity and tangible common equity. This will impact Citi's Common Equity Tier 1 and other regulatory capital ratios. Citi's goal is to benefit from an increase in the market level of interest rates, while limiting the impact of changes in *AOCI* on its regulatory capital position.

AOCI at risk is managed as part of the Company-wide interest rate risk position. *AOCI* at risk considers potential changes in *AOCI* (and the corresponding impact on the Common Equity Tier 1 Capital ratio) relative to Citi's capital generation capacity.

The following table sets forth the estimated impact to Citi's net interest income, *AOCI* and the Common Equity Tier 1 Capital ratio (on a fully implemented basis), each assuming an unanticipated parallel instantaneous 100 basis point (bps) increase in interest rates:

In millions of dollars, except as otherwise noted	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Estimated annualized impact to net interest income			
U.S. dollar[1]	**$ 563**	$ 151	$ 373
All other currencies	**612**	586	683
Total	**$ 1,175**	$ 737	$ 1,056
As a percentage of average interest-earning assets	**0.05%**	0.03%	0.05%
Estimated initial negative impact to *AOCI* (after-tax)[2]	**$(4,609)**	$(4,914)	$(5,645)
Estimated initial impact on Common Equity Tier 1 Capital ratio (bps)	**(30)**	(30)	(34)

(1) Certain trading-oriented businesses within Citi have accrual-accounted positions that are excluded from the estimated impact to net interest income in the table, since these exposures are managed economically in combination with mark-to-market positions. The U.S. dollar interest rate exposure associated with these businesses was $(179) million for a 100 bps instantaneous increase in interest rates as of December 31, 2021.
(2) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

The year-over-year increase in the estimated impact to net interest income primarily reflected changes in Citi's balance sheet composition and Citi Treasury positioning. The year-over-year changes in the estimated impact to *AOCI* and the Common Equity Tier 1 Capital ratio primarily reflected the impact of the composition of Citi Treasury's investment and derivatives portfolio.

In the event of a parallel instantaneous 100 bps increase in interest rates, Citi expects that the negative impact to *AOCI* would be offset in shareholders' equity through the expected recovery of the impact on *AOCI* through accretion of Citi's investment portfolio over a period of time. As of December 31, 2021, Citi expects that the $4.6 billion negative impact to *AOCI* in such a scenario could potentially be offset over approximately 27 months.

The following table sets forth the estimated impact to Citi's net interest income, *AOCI* and the Common Equity Tier 1 Capital ratio (on a fully implemented basis) under five different changes in interest rate scenarios for the U.S. dollar and Citi's other currencies. The 100 bps downward rate scenarios are impacted by the low level of interest rates in several countries and the assumption that market interest rates, as well as rates paid to depositors and charged to borrowers, do not fall below zero (i.e., the "flooring assumption"). The rate scenarios are also impacted by convexity related to mortgage products.

In millions of dollars, except as otherwise noted	**Scenario 1**	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**
Overnight rate change (bps)	100	100	—	—	(100)
10-year rate change (bps)	100	—	100	(100)	(100)
Estimated annualized impact to net interest income					
U.S. dollar	$ 563	$ 647	$ 86	$ (244)	$ (770)
All other currencies	612	655	41	(41)	(353)
Total	$ 1,175	$ 1,302	$ 127	$ (285)	$(1,123)
Estimated initial impact to *AOCI* (after-tax)[1]	$(4,609)	$(2,934)	$(1,757)	$1,373	$ 3,050
Estimated initial impact to Common Equity Tier 1 Capital ratio (bps)	(30)	(19)	(12)	9	18

Note: Each scenario assumes that the rate change will occur instantaneously. Changes in interest rates for maturities between the overnight rate and the 10-year rate are interpolated.
(1) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

As shown in the table above, the magnitude of the impact to Citi's net interest income and *AOCI* is greater under Scenario 2 as compared to Scenario 3. This is because the combination of changes to Citi's investment portfolio, partially offset by changes related to Citi's pension liabilities, results in a net position that is more sensitive to rates at shorter- and intermediate-term maturities.

Changes in Foreign Exchange Rates—Impacts on *AOCI* and Capital

As of December 31, 2021, Citi estimates that an unanticipated parallel instantaneous 5% appreciation of the U.S. dollar against all of the other currencies in which Citi has invested capital could reduce Citi's tangible common equity (TCE) by approximately $1.5 billion, or 0.9%, as a result of changes to Citi's FX translation adjustment in *AOCI*, net of hedges. This impact would be primarily due to changes in the value of the Mexican peso, Euro, Singapore dollar and Indian rupee.

This impact is also before any mitigating actions Citi may take, including ongoing management of its FX translation exposure. Specifically, as currency movements change the value of Citi's net investments in foreign currency-denominated capital, these movements also change the value of Citi's risk-weighted assets denominated in those currencies. This, coupled with Citi's foreign currency hedging strategies, such as foreign currency borrowings, foreign currency forwards and other currency hedging instruments, lessens the impact of foreign currency movements on Citi's Common Equity Tier 1 Capital ratio. Changes in these hedging strategies, as well as hedging costs, divestitures and tax impacts, can further affect the actual impact of changes in foreign exchange rates on Citi's capital as compared to an unanticipated parallel shock, as described above.

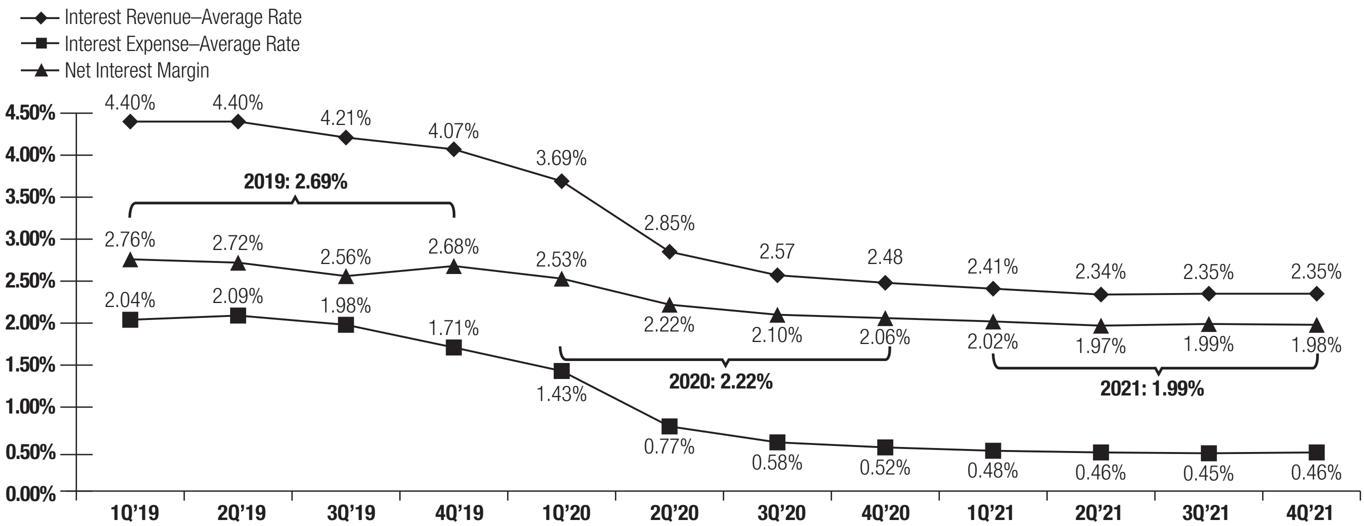
In addition, the effect of Citi's ongoing management strategies with respect to quarterly changes in foreign exchange rates, and the quarterly impact of these changes on Citi's TCE and Common Equity Tier 1 Capital ratio, are shown in the table below. For additional information on the changes in *AOCI*, see Note 19 to the Consolidated Financial Statements.

	For the quarter ended		
In millions of dollars, except as otherwise noted	**Dec. 31, 2021**	Sept. 30, 2021	Dec. 31, 2020
Change in FX spot rate[1]	**(0.6)%**	(2.7)%	5.5%
Change in TCE due to FX translation, net of hedges	**$ (438)**	$(1,042)	$1,829
As a percentage of TCE	**(0.3)%**	(0.7)%	1.2%
Estimated impact to Common Equity Tier 1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	**(1)**	(1)	2

(1) FX spot rate change is a weighted average based on Citi's quarterly average GAAP capital exposure to foreign countries.

Interest Revenue/Expense and Net Interest Margin (NIM)

Average Rates—Interest Revenue, Interest Expense, and Net Interest Margin



In millions of dollars, except as otherwise noted	**2021**	2020	2019	**Change 2021 vs. 2020**	Change 2020 vs. 2019
Interest revenue[1]	**$50,667**	$58,285	$76,718	**(13)%**	(24)%
Interest expense[2]	**7,981**	13,338	28,382	**(40)**	(53)
Net interest income, taxable equivalent basis[1]	**$42,686**	$44,947	$48,336	**(5)%**	(7)%
Interest revenue—average rate[3]	**2.36%**	2.88%	4.27%	**(52)bps**	(139)bps
Interest expense—average rate	**0.46**	0.81	1.95	**(35)bps**	(114)bps
Net interest margin[3][4]	**1.99**	2.22	2.69	**(23)bps**	(47)bps
Interest rate benchmarks					
Two-year U.S. Treasury note—average rate	**0.27%**	0.39%	1.97%	**(12)bps**	(158)bps
10-year U.S. Treasury note—average rate	**1.45**	0.89	2.14	**56bps**	(125)bps
10-year vs. two-year spread	**118bps**	50bps	17bps		

Note: Revenue previously referred to as net interest revenue is now referred to as net interest income. In addition, during the fourth quarter of 2021, Citi reclassified deposit insurance expenses (FDIC and other similar insurance assessments outside of the U.S.) from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each year were $1,207 million for 2021, $1,203 million for 2020 and $781 million for 2019.

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $192 million, $196 million and $208 million for 2021, 2020 and 2019, respectively.

(2) Interest expense associated with certain hybrid financial instruments, which are classified as *Long-term debt* and accounted for at fair value, is reported together with any changes in fair value as part of *Principal transactions* in the Consolidated Statement of Income and is therefore not reflected in *Interest expense* in the table above.

(3) The average rate on interest revenue and net interest margin reflects the taxable equivalent gross-up adjustment. See footnote 1 above.

(4) Citi's net interest margin (NIM) is calculated by dividing net interest income by average interest-earning assets.

Non-*ICG Markets* Net Interest Income

In millions of dollars	**2021**	2020	2019
Net interest income (NII)—taxable equivalent basis[1] per above	**$42,686**	$44,947	$48,338
ICG Markets NII—taxable equivalent basis[1]	**5,733**	5,786	4,562
Non-*ICG Markets* NII—taxable equivalent basis[1]	**$36,953**	$39,161	$43,776

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

Citi's net interest income (NII) in the fourth quarter of 2021 was $10.8 billion ($10.9 billion on a taxable equivalent basis), largely unchanged versus the prior year, as a modest increase in non-*ICG Markets* NII (approximately $60 million) offset an equivalent decline in *ICG Markets* (fixed income markets and equity markets). Citi's NIM was 1.98% on a taxable equivalent basis in the fourth quarter of 2021, a decrease of one basis point from the prior quarter, largely reflecting deposit growth.

Citi's NII for 2021 decreased 5%, or approximately $2.3 billion, to $42.5 billion ($42.7 billion on a taxable equivalent basis) versus the prior year. The decrease was primarily related to a decline in non-*ICG Markets* NII, largely reflecting lower interest rates and lower loan balances. In 2021, Citi's NIM was 1.99% on a taxable equivalent basis, compared to 2.22% in 2020, primarily driven by lower rates and a mix-shift in balances.

Additional Interest Rate Details

Average Balances and Interest Rates—Assets(1)(2)(3)

Taxable Equivalent Basis

In millions of dollars, except rates	Average volume 2021	Average volume 2020	Average volume 2019	Interest revenue 2021	Interest revenue 2020	Interest revenue 2019	% Average rate 2021	% Average rate 2020	% Average rate 2019
Assets									
Deposits with banks(4)	**$ 298,319**	$ 288,629	$ 188,523	**$ 577**	$ 928	$ 2,682	**0.19%**	0.32%	1.42%
Securities borrowed and purchased under agreements to resell(5)									
In U.S. offices	**$ 172,716**	$ 149,076	$ 146,030	**$ 385**	$ 1,202	$ 4,752	**0.22%**	0.81%	3.25%
In offices outside the U.S.(4)	**149,944**	138,074	119,550	**667**	1,081	2,133	**0.44**	0.78	1.78
Total	**$ 322,660**	$ 287,150	$ 265,580	**$ 1,052**	$ 2,283	$ 6,885	**0.33%**	0.80%	2.59%
Trading account assets(6)(7)									
In U.S. offices	**$ 140,215**	$ 144,130	$ 109,064	**$ 2,653**	$ 3,624	$ 4,099	**1.89%**	2.51%	3.76%
In offices outside the U.S.(4)	**151,722**	134,078	131,217	**2,718**	2,509	3,589	**1.79**	1.87	2.74
Total	**$ 291,937**	$ 278,208	$ 240,281	**$ 5,371**	$ 6,133	$ 7,688	**1.84%**	2.20%	3.20%
Investments									
In U.S. offices									
Taxable	**$ 322,884**	$ 265,833	$ 221,895	**$ 3,547**	$ 3,860	$ 5,162	**1.10%**	1.45%	2.33%
Exempt from U.S. income tax	**12,296**	14,084	15,227	**437**	452	577	**3.55**	3.21	3.79
In offices outside the U.S.(4)	**152,940**	139,400	117,529	**3,498**	3,781	4,222	**2.29**	2.71	3.59
Total	**$ 488,120**	$ 419,317	$ 354,651	**$ 7,482**	$ 8,093	$ 9,961	**1.53%**	1.93%	2.81%
Loans (net of unearned income)(8)									
In U.S. offices	**$ 386,141**	$ 396,846	$ 395,792	**$24,023**	$26,700	$30,563	**6.22%**	6.73%	7.72%
In offices outside the U.S.(4)	**281,895**	288,379	288,319	**11,509**	13,569	17,266	**4.08**	4.71	5.99
Total	**$ 668,036**	$ 685,225	$ 684,111	**$35,532**	$40,269	$47,829	**5.32%**	5.88%	6.99%
Other interest-earning assets(9)	**$ 75,876**	$ 67,547	$ 64,322	**$ 653**	$ 579	$ 1,673	**0.86%**	0.86%	2.60%
Total interest-earning assets	**$2,144,948**	$2,026,076	$1,797,468	**$50,667**	$58,285	$76,718	**2.36%**	2.88%	4.27%
Non-interest-earning assets(6)	**$ 202,761**	$ 200,378	$ 181,337						
Total assets	**$2,347,709**	$2,226,454	$1,978,805						

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $192 million, $196 million and $208 million for 2021, 2020 and 2019, respectively.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(5) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to ASC 210-20-45. However, *Interest revenue* excludes the impact of ASC 210-20-45.
(6) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.
(7) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue. Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(8) Includes cash-basis loans.
(9) Includes *Brokerage receivables*.

Average Balances and Interest Rates—Liabilities and Equity, and Net Interest Income(1)(2)(3)

Taxable Equivalent Basis

In millions of dollars, except rates	Average volume 2021	Average volume 2020	Average volume 2019	Interest expense 2021	Interest expense 2020	Interest expense 2019	% Average rate 2021	% Average rate 2020	% Average rate 2019
Liabilities									
Deposits									
In U.S. offices[4]	**$ 532,466**	$ 485,848	$ 388,948	**$ 1,084**	$ 2,524	$ 5,873	**0.20%**	0.52%	1.51%
In offices outside the U.S.[5]	**557,207**	541,301	487,318	**1,812**	2,810	5,979	**0.33**	0.52	1.23
Total	**$1,089,673**	$1,027,149	$ 876,266	**$ 2,896**	$ 5,334	$11,852	**0.27%**	0.52%	1.35%
Securities loaned and sold under agreements to repurchase[6]									
In U.S. offices	**$ 136,955**	$ 137,348	$ 112,876	**$ 676**	$ 1,292	$ 4,194	**0.49%**	0.94%	3.72%
In offices outside the U.S.[5]	**93,744**	79,426	77,283	**336**	785	2,069	**0.36**	0.99	2.68
Total	**$ 230,699**	$ 216,774	$ 190,159	**$ 1,012**	$ 2,077	$ 6,263	**0.44%**	0.96%	3.29%
Trading account liabilities[7][8]									
In U.S. offices	**$ 47,871**	$ 38,308	$ 37,099	**$ 109**	$ 283	$ 818	**0.23%**	0.74%	2.20%
In offices outside the U.S.[5]	**67,739**	52,051	51,817	**373**	345	490	**0.55**	0.66	0.95
Total	**$ 115,610**	$ 90,359	$ 88,916	**$ 482**	$ 628	$ 1,308	**0.42%**	0.70%	1.47%
Short-term borrowings and other interest-bearing liabilities[9]									
In U.S. offices	**$ 69,683**	$ 82,363	$ 78,230	**$ (27)**	$ 493	$ 2,138	**(0.04)%**	0.60%	2.73%
In offices outside the U.S.[5]	**26,133**	20,053	20,575	**148**	137	327	**0.57**	0.68	1.59
Total	**$ 95,816**	$ 102,416	$ 98,805	**$ 121**	$ 630	$ 2,465	**0.13%**	0.62%	2.49%
Long-term debt[10]									
In U.S. offices	**$ 186,522**	$ 213,809	$ 193,972	**$ 3,384**	$ 4,656	$ 6,398	**1.81%**	2.18%	3.30%
In offices outside the U.S.[5]	**4,282**	3,918	4,803	**86**	13	96	**2.01**	0.33	2.00
Total	**$ 190,804**	$ 217,727	$ 198,775	**$ 3,470**	$ 4,669	$ 6,494	**1.82%**	2.14%	3.27%
Total interest-bearing liabilities	**$1,722,602**	$1,654,425	$1,452,921	**$ 7,981**	$13,338	$28,382	**0.46%**	0.81%	1.95%
Demand deposits in U.S. offices	**$ 98,414**	$ 30,876	$ 27,737						
Other non-interest-bearing liabilities[7]	**324,724**	346,736	301,756						
Total liabilities	**$2,145,740**	$2,032,037	$1,782,414						
Citigroup stockholders' equity	**$ 201,360**	$ 193,769	$ 195,685						
Noncontrolling interests	**609**	648	706						
Total equity	**$ 201,969**	$ 194,417	$ 196,391						
Total liabilities and stockholders' equity	**$2,347,709**	$2,226,454	$1,978,805						
Net interest income as a percentage of average interest-earning assets[11]									
In U.S. offices	**$1,244,182**	$1,187,077	$1,017,021	**$26,404**	$27,520	$28,898	**2.12%**	2.32%	2.84%
In offices outside the U.S.[6]	**900,766**	838,999	780,447	**16,282**	17,427	19,440	**1.81**	2.08	2.49
Total	**$2,144,948**	$2,026,076	$1,797,468	**$42,686**	$44,947	$48,338	**1.99%**	2.22%	2.69%

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective liability categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Consists of other time deposits and savings deposits. Savings deposits are made up of insured money market accounts, NOW accounts and other savings deposits. The interest expense on savings deposits includes FDIC deposit insurance assessments.
(5) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(6) Average volumes of securities sold under agreements to repurchase are reported net pursuant to ASC 210-20-45. However, *Interest expense* excludes the impact of ASC 210-20-45.
(7) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities.*
(8) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue. Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(9) Includes *Brokerage payables.*
(10) Excludes hybrid financial instruments and beneficial interests in consolidated VIEs that are classified as *Long-term debt*, as the changes in fair value for these obligations are recorded in *Principal transactions.*
(11) Includes allocations for capital and funding costs based on the location of the asset.

Analysis of Changes in Interest Revenue[1][2][3]

In millions of dollars	2021 vs. 2020 Increase (decrease) due to change in: Average volume	Average rate	Net change	2020 vs. 2019 Increase (decrease) due to change in: Average volume	Average rate	Net change
Deposits with banks[3]	**$ 30**	**$ (381)**	**$ (351)**	$ 976	$ (2,730)	$ (1,754)
Securities borrowed and purchased under agreements to resell						
In U.S. offices	**$ 166**	**$ (983)**	**$ (817)**	$ 97	$ (3,647)	$ (3,550)
In offices outside the U.S.[3]	**86**	**(500)**	**(414)**	290	(1,342)	(1,052)
Total	**$ 252**	**$(1,483)**	**$(1,231)**	$ 387	$ (4,989)	$ (4,602)
Trading account assets[4]						
In U.S. offices	**$ (96)**	**$ (875)**	**$ (971)**	$1,103	$ (1,578)	$ (475)
In offices outside the U.S.[3]	**320**	**(111)**	**209**	77	(1,157)	(1,080)
Total	**$ 224**	**$ (986)**	**$ (762)**	$1,180	$ (2,735)	$ (1,555)
Investments[1]						
In U.S. offices	**$ 761**	**$(1,089)**	**$ (328)**	$ 911	$ (2,338)	$ (1,427)
In offices outside the U.S.[3]	**345**	**(628)**	**(283)**	703	(1,144)	(441)
Total	**$ 1,106**	**$(1,717)**	**$ (611)**	$1,614	$ (3,482)	$ (1,868)
Loans (net of unearned income)[5]						
In U.S. offices	**$ (706)**	**$(1,971)**	**$(2,677)**	$ 81	$ (3,945)	$ (3,864)
In offices outside the U.S.[3]	**(299)**	**(1,761)**	**(2,060)**	4	(3,700)	(3,696)
Total	**$(1,005)**	**$(3,732)**	**$(4,737)**	$ 85	$ (7,645)	$ (7,560)
Other interest-earning assets[6]	**$ 72**	**$ 2**	**$ 74**	$ 80	$ (1,174)	$ (1,094)
Total interest revenue	**$ 679**	**$(8,297)**	**$(7,618)**	$4,322	$(22,755)	$(18,433)

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue. Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes cash-basis loans.
(6) Includes *Brokerage receivables.*

Analysis of Changes in Interest Expense and Net Interest Income(1)(2)(3)

	2021 vs. 2020			2020 vs. 2019		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	**Average volume**	**Average rate**	**Net change**	Average volume	Average rate	Net change
Deposits						
In U.S. offices	**$ 222**	**$(1,661)**	**$(1,439)**	$1,199	$ (4,548)	$ (3,349)
In offices outside the U.S.(3)	**80**	**(1,078)**	**(998)**	601	(3,770)	(3,169)
Total	**$ 302**	**$(2,739)**	**$(2,437)**	$1,800	$ (8,318)	$ (6,518)
Securities loaned and sold under agreements to repurchase						
In U.S. offices	**$ (4)**	**$ (612)**	**$ (616)**	$ 757	$ (3,659)	$ (2,902)
In offices outside the U.S.(3)	**122**	**(571)**	**(449)**	56	(1,340)	(1,284)
Total	**$ 118**	**$(1,183)**	**$(1,065)**	$ 813	$ (4,999)	$ (4,186)
Trading account liabilities(4)						
In U.S. offices	**$ 58**	**$ (232)**	**$ (174)**	$ 26	$ (561)	$ (535)
In offices outside the U.S.(3)	**93**	**(65)**	**28**	2	(147)	(145)
Total	**$ 151**	**$ (297)**	**$ (146)**	$ 28	$ (708)	$ (680)
Short-term borrowings and other interest-bearing liabilities(5)						
In U.S. offices	**$ (66)**	**$ (454)**	**$ (520)**	$ 107	$ (1,752)	$ (1,645)
In offices outside the U.S.(3)	**37**	**(26)**	**11**	(8)	(182)	(190)
Total	**$ (29)**	**$ (480)**	**$ (509)**	$ 99	$ (1,934)	$ (1,835)
Long-term debt						
In U.S. offices	**$(551)**	**$ (721)**	**$(1,272)**	$ 603	$ (2,346)	$ (1,743)
In offices outside the U.S.(3)	**1**	**71**	**72**	(15)	(67)	(82)
Total	**$(550)**	**$ (650)**	**$(1,200)**	$ 588	$ (2,413)	$ (1,825)
Total interest expense	**$ (8)**	**$(5,349)**	**$(5,357)**	$3,328	$(18,372)	$(15,044)
Net interest income	**$ 687**	**$(2,948)**	**$(2,261)**	$ 993	$ (4,382)	$ (3,389)

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(4) *Interest expense* on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue. Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
(5) Includes *Brokerage payables.*

Market Risk of Trading Portfolios

Trading portfolios include positions resulting from market-making activities, hedges of certain available-for-sale (AFS) debt securities, the CVA relating to derivative counterparties and all associated hedges, fair value option loans and hedges of the loan portfolio within capital markets origination within *ICG*.

The market risk of Citi's trading portfolios is monitored using a combination of quantitative and qualitative measures, including, but not limited to:

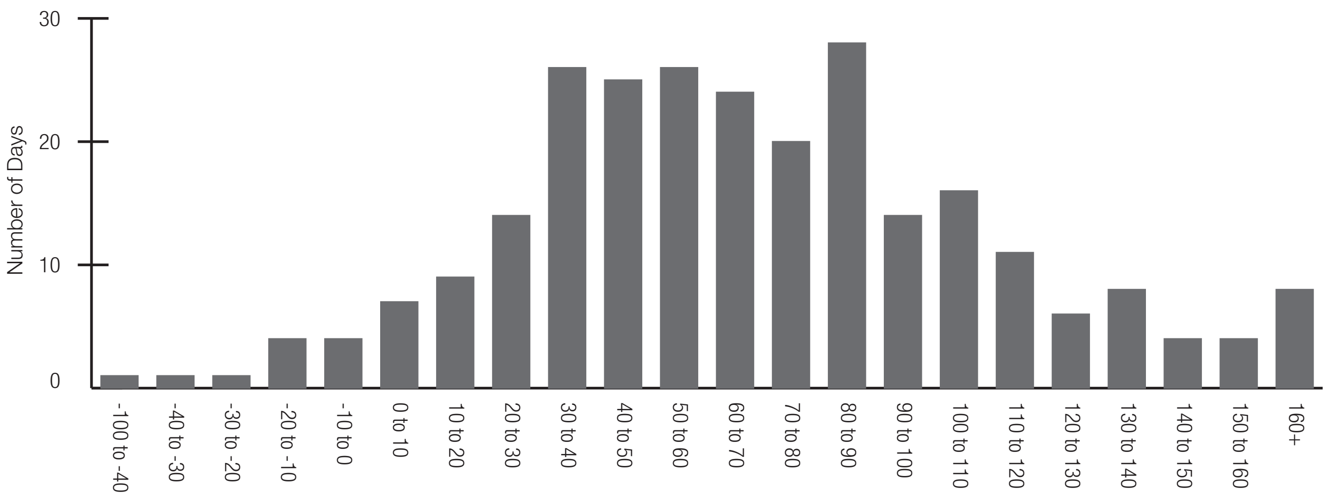
- factor sensitivities;
- value at risk (VAR); and
- stress testing.

Each trading portfolio across Citi's businesses has its own market risk limit framework encompassing these measures and other controls, including trading mandates, new product approval, permitted product lists and pre-trade approval for larger, more complex and less liquid transactions.

The following chart of total daily trading-related revenue (loss) captures trading volatility and shows the number of days in which revenues for Citi's trading businesses fell within particular ranges. Trading-related revenue includes trading, net interest and other revenue associated with Citi's trading businesses. It excludes DVA, FVA and CVA adjustments incurred due to changes in the credit quality of counterparties, as well as any associated hedges of that CVA. In addition, it excludes fees and other revenue associated with capital markets origination activities. Trading-related revenues are driven by both customer flows and the changes in valuation of the trading inventory. As shown in the chart below, positive trading-related revenue was achieved for 95.8% of the trading days in 2021.

Daily Trading-Related Revenue (Loss)[1]—Twelve Months Ended December 31, 2021

In millions of dollars



(1) Reflects the effects of asymmetrical accounting for economic hedges of certain AFS debt securities. Specifically, the change in the fair value of hedging derivatives is included in trading-related revenue, while the offsetting change in the fair value of hedged AFS debt securities is included in *AOCI* and not reflected above.

Factor Sensitivities

Factor sensitivities are expressed as the change in the value of a position for a defined change in a market risk factor, such as a change in the value of a U.S. Treasury Bond for a one-basis-point change in interest rates. Citi's Global Market Risk function, within the Independent Risk Management organization, works to ensure that factor sensitivities are calculated, monitored and limited for all material risks taken in the trading portfolios.

Value at Risk (VAR)

VAR estimates, at a 99% confidence level, the potential decline in the value of a position or a portfolio under normal market conditions assuming a one-day holding period. VAR statistics, which are based on historical data, can be materially different across firms due to differences in portfolio composition, differences in VAR methodologies and differences in model parameters. As a result, Citi believes VAR statistics can be used more effectively as indicators of trends in risk-taking within a firm, rather than as a basis for inferring differences in risk-taking across firms.

Citi uses a single, independently approved Monte Carlo simulation VAR model (see "VAR Model Review and Validation" below), which has been designed to capture material risk sensitivities (such as first- and second-order sensitivities of positions to changes in market prices) of various asset classes/risk types (such as interest rate, credit spread, foreign exchange, equity and commodity risks). Citi's VAR includes positions that are measured at fair value; it does not include investment securities classified as AFS or HTM. For information on these securities, see Note 13 to the Consolidated Financial Statements.

Citi believes its VAR model is conservatively calibrated to incorporate fat-tail scaling and the greater of short-term (approximately the most recent month) and long-term (three years) market volatility. The Monte Carlo simulation involves approximately 450,000 market factors, making use of approximately 350,000 time series, with sensitivities updated daily, volatility parameters updated intra-monthly and correlation parameters updated monthly. The conservative features of the VAR calibration contribute an approximate 33% add-on to what would be a VAR estimated under the assumption of stable and perfectly, normally distributed markets.

As set forth in the table below, Citi's average trading VAR decreased $5 million from 2020 to 2021, mainly due to a reduction of market volatility, given improved macroeconomic conditions, compared to 2020. Citi's average trading and credit portfolio VAR decreased $24 million from 2020 to 2021 due to VAR volatility recalibration.

Year-end and Average Trading VAR and Trading and Credit Portfolio VAR

In millions of dollars	**December 31, 2021**	**2021 Average**	December 31, 2020	2020 Average
Interest rate	**$ 50**	**$ 65**	$ 72	$ 66
Credit spread	**59**	**71**	70	86
Covariance adjustment(1)	**(35)**	**(42)**	(51)	(48)
Fully diversified interest rate and credit spread(2)	**$ 74**	**$ 94**	$ 91	$104
Foreign exchange	**36**	**42**	40	26
Equity	**29**	**33**	31	36
Commodity	**28**	**34**	17	22
Covariance adjustment(1)	**(88)**	**(102)**	(85)	(82)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)(2)	**$ 79**	**$ 101**	$ 94	$106
Specific risk-only component(3)	**$ 3**	**$ 1**	$ (1)	$ (2)
Total trading VAR—general market risk factors only (excluding credit portfolios)	**$ 76**	**$ 100**	$ 95	$108
Incremental impact of the credit portfolio(4)	**$ 45**	**$ 30**	$ 29	$ 49
Total trading and credit portfolio VAR	**$124**	**$ 131**	$123	$155

(1) Covariance adjustment (also known as diversification benefit) equals the difference between the total VAR and the sum of the VARs tied to each risk type. The benefit reflects the fact that the risks within individual and across risk types are not perfectly correlated and, consequently, the total VAR on a given day will be lower than the sum of the VARs relating to each risk type. The determination of the primary drivers of changes to the covariance adjustment is made by an examination of the impact of both model parameter and position changes.

(2) The total trading VAR includes mark-to-market and certain fair value option trading positions in *ICG*, with the exception of hedges to the loan portfolio, fair value option loans and all CVA exposures. Available-for-sale and accrual exposures are not included.

(3) The specific risk-only component represents the level of equity and fixed income issuer-specific risk embedded in VAR.

(4) The credit portfolio is composed of mark-to-market positions associated with non-trading business units including Citi Treasury, the CVA relating to derivative counterparties and all associated CVA hedges. FVA and DVA are not included. The credit portfolio also includes hedges to the loan portfolio, fair value option loans and hedges to the leveraged finance pipeline within capital markets origination in *ICG*.

The table below provides the range of market factor VARs associated with Citi's total trading VAR, inclusive of specific risk:

	2021		2020	
In millions of dollars	**Low**	**High**	Low	High
Interest rate	**$ 47**	**$ 96**	$28	$137
Credit spread	**54**	**96**	36	171
Fully diversified interest rate and credit spread	**$ 74**	**$123**	$44	$223
Foreign exchange	**33**	**49**	14	40
Equity	**21**	**50**	13	141
Commodity	**19**	**55**	12	64
Total trading	**$ 79**	**$130**	$47	$245
Total trading and credit portfolio	**108**	**166**	58	424

Note: No covariance adjustment can be inferred from the above table as the high and low for each market factor will be from different close-of-business dates.

The following table provides the VAR for *ICG*, excluding the CVA relating to derivative counterparties, hedges of CVA, fair value option loans and hedges to the loan portfolio:

In millions of dollars	**Dec. 31, 2021**
Total—all market risk factors, including general and specific risk	**$ 81**
Average—during year	**$103**
High—during year	**134**
Low—during year	**81**

VAR Model Review and Validation

Generally, Citi's VAR review and model validation process entails reviewing the model framework, major assumptions and implementation of the mathematical algorithm. In addition, product specific back-testing on portfolios is periodically completed as part of the ongoing model performance monitoring process and reviewed with Citi's U.S. banking regulators. Furthermore, Regulatory VAR back-testing (as described below) is performed against buy-and-hold profit and loss on a monthly basis for multiple sub-portfolios across the organization (trading desk level, *ICG* business segment and Citigroup) and the results are shared with U.S. banking regulators.

Material VAR model and assumption changes must be independently validated within Citi's Independent Risk Management organization. All model changes, including those for the VAR model, are validated by the model validation group within Citi's Model Risk Management. In the event of significant model changes, parallel model runs are undertaken prior to implementation. In addition, significant model and assumption changes are subject to the periodic reviews and approval by Citi's U.S. banking regulators.

Citi uses the same independently validated VAR model for both Regulatory VAR and Risk Management VAR (i.e., total trading and total trading and credit portfolios VARs) and, as such, the model review and validation process for both purposes is as described above.

Regulatory VAR, which is calculated in accordance with Basel III, differs from Risk Management VAR due to the fact that certain positions included in Risk Management VAR are not eligible for market risk treatment in Regulatory VAR. The composition of Risk Management VAR is discussed under "Value at Risk" above. The applicability of the VAR model for positions eligible for market risk treatment under U.S. regulatory capital rules is periodically reviewed and approved by Citi's U.S. banking regulators.

In accordance with Basel III, Regulatory VAR includes all trading book-covered positions and all foreign exchange and commodity exposures. Pursuant to Basel III, Regulatory VAR excludes positions that fail to meet the intent and ability to trade requirements and are therefore classified as non-trading book and categories of exposures that are specifically excluded as covered positions. Regulatory VAR excludes CVA on derivative instruments and DVA on Citi's own fair value option liabilities. CVA hedges are excluded from Regulatory VAR and included in credit risk-weighted assets as computed under the Advanced Approaches for determining risk-weighted assets.

Regulatory VAR Back-Testing

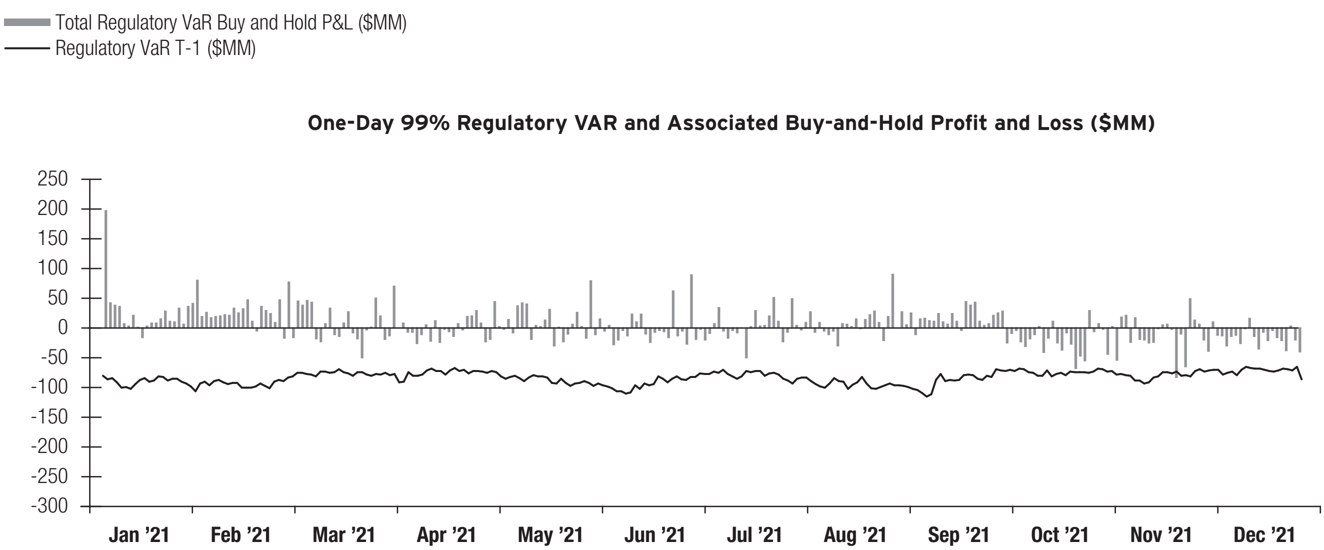
In accordance with Basel III, Citi is required to perform back-testing to evaluate the effectiveness of its Regulatory VAR model. Regulatory VAR back-testing is the process in which the daily one-day VAR, at a 99% confidence interval, is compared to the buy-and-hold profit and loss (i.e., the profit and loss impact if the portfolio is held constant at the end of the day and re-priced the following day). Buy-and-hold profit and loss represents the daily mark-to-market profit and loss attributable to price movements in covered positions from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue, net interest, fees and commissions, intra-day trading profit and loss and changes in reserves.

Based on a 99% confidence level, Citi would expect two to three days in any one year where buy-and-hold losses exceed the Regulatory VAR. Given the conservative calibration of Citi's VAR model (as a result of taking the greater of short- and long-term volatilities and fat-tail scaling of volatilities), Citi would expect fewer exceptions under normal and stable market conditions. Periods of unstable market conditions could increase the number of back-testing exceptions.

The following graph shows the daily buy-and-hold profit and loss associated with Citi's covered positions compared to Citi's one-day Regulatory VAR during 2021. As of December 31, 2021, one back-testing exception was observed at the Citigroup level.

The difference between the 54.4% of days with buy-and-hold gains for Regulatory VAR back-testing and the 95.8% of days with trading, net interest and other revenue associated with Citi's trading businesses, shown in the histogram of daily trading-related revenue below, reflects, among other things, that a significant portion of Citi's trading-related revenue is not generated from daily price movements on these positions and exposures, as well as differences in the portfolio composition of Regulatory VAR and Risk Management VAR.

Regulatory Trading VAR and Associated Buy-and-Hold Profit and Loss[1]—12 Months Ended December 31, 2021
In millions of dollars



(1) Buy-and-hold profit and loss, as defined by the banking regulators under Basel III, represents the daily mark-to-market revenue movement attributable to the trading position from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue and net interest intra-day trading profit and loss on new and terminated trades, as well as changes in reserves. Therefore, it is not comparable to the trading-related revenue presented in the chart of daily trading-related revenue above.

Stress Testing

Citi performs market risk stress testing on a regular basis to estimate the impact of extreme market movements. It is performed on individual positions and trading portfolios, as well as in aggregate, inclusive of multiple trading portfolios. Citi's market risk management, after consultations with the businesses, develops both systemic and specific stress scenarios, reviews the output of periodic stress testing exercises and uses the information to assess the ongoing appropriateness of exposure levels and limits. Citi uses two complementary approaches to market risk stress testing across all major risk factors (i.e., equity, foreign exchange, commodity, interest rate and credit spreads): top-down systemic stresses and bottom-up business-specific stresses. Systemic stresses are designed to quantify the potential impact of extreme market movements on an institution-wide basis, and are constructed using both historical periods of market stress and projections of adverse economic scenarios. Business-specific stresses are designed to probe the risks of particular portfolios and market segments, especially those risks that are not fully captured in VAR and systemic stresses.

The systemic stress scenarios and business-specific stress scenarios at Citi are used in several reports reviewed by senior management and also to calculate internal risk capital for trading market risk. In general, changes in market values are defined over a one-year horizon. For the most liquid positions and market factors, changes in market values are defined over a shorter two-month horizon. The limited set of positions and market factors whose market value changes are defined over a two-month horizon are those that in management's judgment have historically remained very liquid during financial crises, even as the trading liquidity of most other positions and market factors materially declined.

OPERATIONAL RISK

Overview

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This includes legal risk, which is the risk of loss (including litigation costs, settlements, and regulatory fines) resulting from the failure of Citi to comply with laws, regulations, prudent ethical standards, and contractual obligations in any aspect of its businesses, but excludes strategic and reputation risks. Citi also recognizes the impact of operational risk on the reputation risk associated with Citi's business activities.

Operational risk is inherent in Citi's global business activities, as well as related support functions, and can result in losses. Citi maintains a comprehensive Citi-wide risk taxonomy to classify operational risks that it faces using standardized definitions across Citi's Operational Risk Management Framework (see discussion below). This taxonomy also supports regulatory requirements and expectations inclusive of those related to U.S. Basel III, Comprehensive Capital Analysis and Review (CCAR), Heightened Standards for Large Financial Institutions and Dodd Frank Annual Stress Testing (DFAST).

Citi manages operational risk consistent with the overall framework described in "Managing Global Risk—Overview" above. Citi's goal is to keep operational risk at appropriate levels relative to the characteristics of its businesses, the markets in which it operates, its capital and liquidity and the competitive, economic and regulatory environment. This includes effectively managing operational risk and maintaining or reducing operational risk exposures within Citi's operational risk appetite.

Citi's Independent Operational Risk Management group has established a global-Operational Risk Management Framework with policies and practices for identification, measurement, monitoring, managing and reporting operational risks and the overall operating effectiveness of the internal control environment. As part of this framework, Citi has defined its operational risk appetite and established a manager's control assessment (MCA) process for self-identification of significant operational risks, assessment of the performance of key controls and mitigation of residual risk above acceptable levels.

Each major business segment must implement operational risk processes consistent with the requirements of this framework. This includes:

- understanding the operational risks they are exposed to;
- designing controls to mitigate identified risks;
- establishing key indicators;
- monitoring and reporting whether the operational risk exposures are in or out of their operational risk appetite;
- having processes in place to bring operational risk exposures within acceptable levels;
- periodically estimate and aggregate the operational risks they are exposed to; and
- ensuring that sufficient resources are available to actively improve the operational risk environment and mitigate emerging risks.

Citi considers operational risks that result from the introduction of new or changes to existing products, or result from significant changes in its organizational structures, systems, processes and personnel.

Citi has a governance structure for the oversight of operational risk exposures through Business Risk and Controls Committees (BRCCs), which include a Citigroup BRCC as well as business, functions, regional and country BRCCs. BRCCs are chaired by the individuals in the first line of defense and provide escalation channels for senior management to review operational risk exposures including breaches of operational risk appetite, key indicators, operational risk events, and control issues. Membership includes senior business and functions leadership as well as members of the second line of defense.

In addition, Independent Risk Management, including the Operational Risk Management group, works proactively with Citi's businesses and functions to drive a strong and embedded operational risk management culture and framework across Citi. The Operational Risk Management group actively challenges business and functions implementation of the Operational Risk Management Framework requirements and the quality of operational risk management practices and outcomes.

Information about businesses' key operational risks, historical operational risk losses and the control environment is reported by each major business segment and functional area. Citi's operational risk profile and related information is summarized and reported to senior management, as well as to the Audit and Risk Committees of Citi's Board of Directors by the Head of Operational Risk Management.

Operational risk is measured through Operational Risk Capital and Operational Risk Regulatory Capital for the Advanced Approaches under Basel III. Projected operational risk losses under stress scenarios are estimated as a required part of the FRB's CCAR process.

For additional information on Citi's operational risks, see "Risk Factors—Operational Risk" above.

Cybersecurity Risk

Overview

Cybersecurity risk is the business risk associated with the threat posed by a cyber attack, cyber breach or the failure to protect Citi's most vital business information assets or operations, resulting in a financial or reputational loss (for additional information, see the operational processes and systems and cybersecurity risk factors in "Risk Factors—Operational Risks" above). With an evolving threat landscape, ever-increasing sophistication of threat actor tactics, techniques and procedures, and use of new technologies to conduct financial transactions, Citi and its clients, customers and third parties are and will continue to be at risk from cyber attacks and information security incidents. Citi recognizes the significance of these risks and, therefore, leverages an intelligence-led strategy to protect against, detect and respond to, and recover from cyber attacks. Further, Citi actively participates in financial industry, government and cross-sector knowledge-sharing groups to enhance individual and collective cybersecurity preparedness and resilience.

Risk Management

Citi's technology and cybersecurity risk management program is built on three lines of defense. Citi's first line of defense under the Office of the Chief Information Security Officer provides frontline business, operational and technical controls and capabilities to protect against cybersecurity risks, and to respond to cyber incidents and data breaches. Citi manages these threats through state-of-the-art Fusion Centers, which serve as central commands for monitoring and coordinating responses to cyber threats. The enterprise information security team is responsible for infrastructure defense and security controls, performing vulnerability assessments and third-party information security assessments, employee awareness and training programs and security incident management. In each case the team works in coordination with a network of information security officers who are embedded within the businesses and functions globally.

Citi's Operational Risk Management-Technology and Cyber (ORM-T/C) and Independent Compliance Risk Management-Technology and Information Security (ICRM-T) groups serve as the second line of defense, and actively evaluate, anticipate and challenge Citi's risk mitigation practices and capabilities. Citi seeks to proactively identify and remediate technology and cybersecurity risks before they materialize as incidents that negatively affect business operations. Accordingly, the ORM-T/C team independently challenges and monitors capabilities in accordance with Citi's defined Technology and Cyber Risk Appetite statements. To address evolving cybersecurity risks and corresponding regulations, ORM-T/C and ICRM-T teams collectively also monitor cyber legal and regulatory requirements, identify and define emerging risks, execute strategic cyber threat assessments, perform new products and initiative reviews, perform data management risk oversight and conduct cyber risk assurance reviews (inclusive of third-party assessments). In addition, ORM-T/C employs tools and oversees and challenges metrics that are both tailored to cybersecurity and technology and aligned with Citi's overall operational risk management framework to effectively track, identify and manage risk.

Internal audit serves as the third line of defense and independently provides assurance on how effectively the organization as a whole manages cybersecurity risk. Citi also has multiple senior committees such as the Information Security Risk Committee (ISRC), which governs enterprise-level risk tolerance inclusive of cybersecurity risk.

Board Oversight

Citi's Board of Directors provides oversight of management's efforts to mitigate cybersecurity risk and respond to cyber incidents. The Board receives regular reports on cybersecurity and engages in discussions throughout the year with management and subject-matter experts on the effectiveness of Citi's overall cybersecurity program. The Board also obtains updates on Citi's inherent cybersecurity risks and Citi's road map and progress for addressing these risks.

Moreover, Citi's Board and its committee members receive contemporaneous reporting on significant cyber events including response, legal obligations, and outreach and notification to regulators, and customers when needed, as well as guidance to management as appropriate. In 2021, the Board of Directors underwent a cyber incident tabletop exercise. Also in 2021, the Board's Risk Management Committee approved a standalone Cybersecurity Risk Appetite Statement against which Citi's performance is measured quarterly. For additional information on the Board's oversight of cybersecurity risk management, see Citi's 2022 proxy statement to be filed with the SEC in March 2022.

COMPLIANCE RISK

Compliance risk is the risk to current or projected financial condition and resilience arising from violations of laws, rules, or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards. Compliance risk exposes Citi to fines, civil money penalties, payment of damages and the voiding of contracts. Compliance risk can result in diminished reputation, harm to Citi's customers, limited business opportunities and lessened expansion potential. It encompasses the risk of noncompliance with all laws and regulations, as well as prudent ethical standards and some contractual obligations. It could also include exposure to litigation (known as legal risk) from all aspects of traditional and non-traditional banking.

Citi seeks to operate with integrity, maintain strong ethical standards and adhere to applicable policies and regulatory and legal requirements. Citi must maintain and execute a proactive Compliance Risk Management (CRM) Policy that is designed to manage compliance risk effectively across Citi, with a view to fundamentally strengthen the compliance risk management culture across the lines of defense taking into account Citi's risk governance framework and regulatory requirements. Independent Compliance Risk Management's (ICRM) primary objectives are to:

- Drive and embed a culture of compliance and control throughout Citi;
- Maintain and oversee an integrated CRM Policy and Compliance Risk Framework that facilitates enterprise-wide compliance with local, national or cross-border laws, rules or regulations, Citi's internal policies, standards and procedures and relevant standards of conduct;
- Assess compliance risks and issues across product lines, functions and geographies, supported by globally consistent systems and compliance risk management processes; and
- Provide compliance risk data aggregation and reporting capabilities.

To anticipate, control and mitigate compliance risk, Citi has established the CRM Policy to achieve standardization and centralization of methodologies and processes, and to enable more consistent and comprehensive execution of compliance risk management.

Citi has a commitment, as well as an obligation, to identify, assess and mitigate compliance risks associated with its businesses and functions. ICRM is responsible for oversight of Citi's CRM Policy, while all businesses and global control functions are responsible for managing their compliance risks and operating within the Compliance Risk Appetite.

Citi carries out its objectives and fulfills its responsibilities through the Compliance Risk Framework, which is composed of the following integrated key activities, to holistically manage compliance risk:

- Management of Citi's compliance with laws, rules and regulations by identifying and analyzing changes, assessing the impact, and implementing appropriate policies, processes and controls;
- Developing and providing compliance training to ensure colleagues are aware of and understand the key laws, rules and regulations;
- Monitoring the Compliance Risk Appetite, which is articulated through qualitative compliance risk statements describing Citi's appetite for certain types of risk and quantitative measures to monitor the Company's compliance risk exposure;
- Monitoring and testing of compliance risks and controls in assessing conformance with laws, rules, regulations and internal policies; and
- Issue identification, escalation and remediation to drive accountability, including measurement and reporting of compliance risk metrics against established thresholds in support of the CRM Policy and Compliance Risk Appetite.

As discussed above, Citi is working to address the FRB and OCC consent orders, which include improvements to Citi's Compliance Risk Framework and its Enterprise-wide application (for additional information regarding the consent orders, see "Citi's Consent Order Compliance" above).

REPUTATION RISK

Citi's reputation is a vital asset in building trust with its stakeholders and Citi is diligent in enhancing and protecting its reputation with its colleagues, customers, investors and regulators. To support this, Citi has developed a reputation risk framework. Under this framework, Citigroup and Citibank have implemented a risk appetite statement and related key indicators to monitor corporate activities and operations relative to our risk appetite. The framework also requires that business segments and regions escalate significant reputation risks that require review or mitigation through a Reputation Risk Committee or equivalent.

The Reputation Risk Committees, which are composed of Citi's most senior executives, govern the process by which material reputation risks are identified, monitored, reported, managed, and escalated. The Reputation Risk Committees determine the appropriate actions to be taken in line with risk appetite and regulatory expectations, while promoting a culture of risk awareness and high standards of integrity and ethical behavior across the Company, consistent with Citi's mission and value proposition. The Reputation Risk Committees in the business segments and regions are part of the governance infrastructure that Citi has in place to review the reputation risk posed by business activities, sales practices, product design, or perceived conflicts of interest. These committees may also raise potential reputation risks for due consideration by the Reputation Risk Committee at the corporate level. The Citigroup Reputation Risk Committee may escalate reputation risks to the Nomination, Governance and Public Affairs Committee or other appropriate committee of the Citigroup Board of Directors.

The responsibility for enhancing and protecting Citi's reputation is shared by all colleagues, who are guided by Citi's Code of Conduct. Colleagues are expected to exercise sound judgment and common sense in decisions and actions. They are also expected to promptly escalate all issues that present potential reputation risk in line with policy.

STRATEGIC RISK

As discussed above, strategic risk is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalization, or capital, arising from the external factors affecting the Company's operating environment; as well as the risks associated with defining the strategy and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

In this context, external factors affecting Citi's operating environment are the economic environment, geopolitical/political landscape, industry/competitive landscape, societal trends, customer/client behavior, regulatory/legislative environment and trends related to investors/shareholders.

Citi's Executive Management Team is responsible for the development and execution of Citi's strategy. This strategy is translated into forward-looking plans (collectively Citi's Strategic Plan) that are then cascaded across the organization. Citi's Strategic Plan is presented to the board on an annual basis and is aligned with Risk Appetite thresholds and includes Top Risk identification as required by internal frameworks. It is also aligned with limit requirements for capital allocation. Governance and oversight of strategic risk is facilitated by internal committees on a group-wide basis as well as strategic committees at the *ICG, GCB* and regional levels.

Citi works to ensure that strategic risks are adequately considered and addressed across its various risk management activities, and that strategic risks are assessed in the context of Citi's risk appetite. Citi conducts a top-down, bottom-up risk identification process to identify risks, including strategic risks. Business segments undertake a quarterly risk identification process to systematically identify and document all material risks faced by Citi. Independent Risk Management oversees the Risk Identification process through regular reviews and coordinates identification and monitoring of Top Risks. Independent Risk Management also manages strategic risk by monitoring risk appetite thresholds in conjunction with various strategic risk committees, which are part of the governance structure that Citi has in place to manage its strategic risks.

For additional information on Citi's strategic risks, see "Risk Factors—Strategic Risks" above.

OTHER RISKS

LIBOR Transition Risk

The LIBOR administrator ceased publication of non-USD LIBOR and one week and two-month USD LIBOR on a representative basis on December 31, 2021, with plans to cease publication of all other USD LIBOR tenors on June 30, 2023. Regulators expect banks, including Citi, to have ceased entering into new contracts that reference USD LIBOR as a benchmark by December 31, 2021, except for limited circumstances as set out in regulatory guidance.

Citi recognizes that a transition away from and discontinuance of LIBOR presents various risks and challenges that could significantly impact financial markets and market participants, including Citi (for information about Citi's risks from a transition away from and discontinuation of LIBOR or any other benchmark rates, see "Risk Factors—Other Risks" above). Accordingly, Citi has continued its efforts to identify and manage its LIBOR transition risks.

For example, Citi continues to closely monitor legislative, regulatory and other developments related to LIBOR transition matters and legislative relief. The International Swaps and Derivatives Association (ISDA) published the Interbank Offered Rate (IBOR) Fallbacks Protocol for existing IBOR derivatives transactions, which became effective in January 2021. The IBOR Fallbacks Protocol provides derivatives market participants with new fallbacks for legacy and new derivatives contracts if both counterparties adhere to the protocol or engage in bilateral amendments (see discussion below regarding Citi's adherence to the protocol). In April 2021, legislation was adopted in New York State that provides for the use of a statutory replacement for USD LIBOR in certain New York law legacy contracts. Similar federal legislation was passed in the House of Representatives in December 2021 and is pending passage by the Senate, although there is no guarantee that the federal legislative proposal will become law.

In addition, Citi has established a LIBOR governance and implementation program focused on identifying and addressing the impact of LIBOR transition on Citi's clients, operational capabilities and financial contracts. The program operates globally across Citi's businesses and functions and includes active involvement of senior management, oversight by Citi's Asset and Liability Committee and reporting to the Risk Management Committee of Citigroup's Board of Directors. As part of the program, Citi has continued to implement its LIBOR transition action plans and associated roadmaps under the following key workstreams: program management; transition strategy and risk management; customer management, including internal communications and training, legal/contract management and product management; financial exposures and risk management; regulatory and industry engagement; operations and technology; and finance, risk, tax and treasury.

During 2021, Citi continued to participate in a number of working groups formed by global regulators, including the Alternative Reference Rates Committee (ARRC) convened by the FRB. These working groups promote and advance development of alternative reference rates and seek to identify and address potential challenges from any transition to such rates. Citi's LIBOR transition action plans and associated roadmaps are intended to be consistent with the timelines recommended by these working groups. This includes the Commodity Futures Trading Commission's SOFR First Initiative, which is designed to promote derivatives trading in SOFR. Citi also continued to engage with regulators, financial accounting bodies and others on LIBOR transition matters.

Citi's LIBOR transition efforts include, among other things, reducing its overall exposure to LIBOR, increasing Citi's virtual client communication efforts and client transition facilitation, including outreach regarding new industry-led protocols and solutions, and using alternative reference rates in certain newly issued financial instruments and products. In the past several years, Citi has issued preferred stock and benchmark debt referencing the Secured Overnight Financing Rate (SOFR) and issued customer-related debt referencing SOFR and the Sterling Overnight Interbank Average Rate (SONIA), the recommended replacement rate for Sterling LIBOR. Citi has also originated and arranged loans referencing SOFR and SONIA and executed SOFR and SONIA-based derivatives contracts. Further, Citi has also been investing in its systems and infrastructure, as client activity moves away from LIBOR to alternative reference rates. Since the ARRC's recommendation of CME Group's Term SOFR in July 2021, Citi has focused on systems' readiness to provide Term SOFR loan and derivatives to clients, where permitted.

In 2021, Citi also focused on remediating existing LIBOR contracts for which publication ceased on a representative basis on December 31, 2021. Substantially all of these contracts were remediated by December 31, 2021, and Citi continues to actively engage in and track the remediation of any remaining contracts after December 31, 2021. As of December 31, 2021, Citi's overall USD LIBOR gross notional exposure for contracts maturing after the LIBOR cessation date of June 30, 2023 was approximately $7.1 trillion, which includes approximately $4 trillion of cleared derivatives that are covered by planned Central Counterparty Clearing House (CCP) conversions, and approximately $2.4 trillion of bilateral derivatives that are covered by robust contract fallback language. The remaining exposure of approximately $0.7 trillion includes bilateral derivatives and cash products that will be addressed by 2022 contract remediation plans.

In addition, for LIBOR contracts that have not yet been remediated, Citi continues to review the effect of relevant legislative solutions, which are expected to facilitate the transition to replacement rates.

Climate Risk

Climate change presents immediate and long-term risks to Citi and its clients and customers, with the risks expected to increase over time. Climate risk refers to the risk of loss arising from climate change and is comprised of both physical risk and transition risk. Physical risk considers how chronic and acute climate change (e.g., increased storms, drought, fires, floods) can directly damage physical assets (e.g., real estate, crops) or otherwise impact their value or productivity. Transition risk considers how changes in policy, technology, business practices and market preferences to address climate change (e.g., carbon pricing policies, power generation shifts from fossil fuels to renewable energy) can lead to changes in the value of assets, commodities and companies.

Climate risk is an overarching risk that can act as a driver of other categories of risk, such as credit risk from obligors exposed to high climate risk, reputational risk from increased stakeholder concerns about financing high-carbon industries and operational risk from physical risks to Citi's facilities and personnel.

Citi currently identifies climate risk as an "emerging risk" within its enterprise risk management framework. Emerging risks are risks or thematic issues that are either new to the landscape, or in the case of climate risk, existing risks that are rapidly changing or evolving in an escalating fashion, which are difficult to assess due to limited data or other uncertainties. For additional information on climate risk, see "Risk Factors—Other Risks" above.

Citi reviews factors related to climate risk under its longstanding Environmental and Social Risk Management (ESRM) Policy, which includes a focus on climate risk related to financed projects and clients in high-carbon sectors. Cautious of the credit risk of stranded assets, as well as the reputational risks associated with the coal sector due to its high carbon emissions, Citi began a phase-down of its financing of thermal coal mining companies in 2015 and of new coal-fired power plants in 2018. As Citi's phase-down has continued, Citi's ESRM Policy was updated to include a prohibition on all project-related financing of new coal-fired power plants and new or expanding thermal coal mines as well as clear timetables to reduce financing of companies with high exposure to coal fired power and coal mining who do not pursue low-carbon transition in the coming years. These sector approaches allow Citi to set a comprehensive and industry-wide approach to clarify its positions, set clear expectations for its clients and help address certain climate risk driven credit risk concerns while reducing reputation risk.

Citi continues to explore and test methodologies for quantifying how climate risks could impact the individual credit profiles of its clients across various sectors. To assist in embedding climate risk assessments in its credit assessment process, Citi is developing sector-specific climate risk assessments. Such climate risk assessments are designed to supplement publicly available client disclosures and data provided from third-party vendors and facilitate conversations with clients on their most material climate risks and management plans for adaptation and mitigation. In the near term, Citi's assessments will consider sectors that have been identified as higher climate risk by Citi's risk identification process. This will not only help Citi better understand its clients' businesses and climate-related risks, but will also provide a source of climate data. Citi's net zero plan is leading to the further integration of climate risk discussions into client engagement and client selection.

Furthermore, Citi is developing globally consistent principles and approaches for managing climate risk across Citi. Climate risk will be embedded into relevant policies and processes over time.

In addition, Citi continues to participate in financial industry collaborations to develop and pilot new methodologies and approaches for measuring and assessing the potential financial risks of climate change. Citi is also closely monitoring regulatory developments on climate risk and sustainable finance, and actively engaging with regulators on these topics.

For additional information about sustainability and other ESG matters at Citi, see "Sustainability and Other ESG Matters" above.

Country Risk

Top 25 Country Exposures

The following table presents Citi's top 25 exposures by country (excluding the U.S.) as of December 31, 2021. (Including the U.S., the total exposure as of December 31, 2021 to the top 25 countries would represent approximately 98% of Citi's exposure to all countries.)

For purposes of the table, loan amounts are reflected in the country where the loan is booked, which is generally based on the domicile of the borrower. For example, a loan to a Chinese subsidiary of a Switzerland-based corporation will generally be categorized as a loan in China. In addition, Citi has developed regional booking centers in certain countries, most significantly in the United Kingdom (U.K.) and Ireland, in order to more efficiently serve its corporate customers. As an example, with respect to the U.K., only 33% of corporate loans presented in the table below are to U.K. domiciled entities (36% for unfunded commitments), with the balance of the loans predominately to European domiciled counterparties. Approximately 87% of the total U.K. funded loans and 88% of the total U.K. unfunded commitments were investment grade as of December 31, 2021.

Trading account assets and investment securities are generally categorized based on the domicile of the issuer of the security of the underlying reference entity. For additional information on the assets included in the table, see the footnotes to the table below.

In billions of dollars	ICG loans(1)	GCB loans	Other funded(2)	Unfunded(3)	Net MTM on derivatives/ repos(4)	Total hedges (on loans and CVA)	Investment securities(5)	Trading account assets(6)	Total as of 4Q21	Total as of 3Q21	Total as of 4Q20	Total as a % of Citi as of 4Q21
United Kingdom	$42.8	$ 0.2	$1.2	$45.7	$12.8	$(5.7)	$ 3.6	$(4.7)	**$95.9**	$111.6	$115.2	**5.5%**
Mexico	14.2	13.3	0.3	7.7	3.4	(0.9)	19.6	2.0	**59.6**	60.0	64.5	**3.4**
Hong Kong	18.8	15.3	0.2	7.1	0.7	(1.6)	7.9	2.0	**50.4**	52.8	49.0	**2.9**
Singapore	15.6	14.0	0.1	7.4	1.2	(0.9)	6.3	2.0	**45.7**	46.0	45.8	**2.6**
Ireland	13.9	—	0.6	28.9	0.4	(0.2)	—	0.9	**44.5**	45.3	43.9	**2.5**
South Korea	3.8	15.7	0.1	2.1	1.0	(0.9)	9.7	0.5	**32.0**	34.2	35.8	**1.8**
India	6.8	3.8	0.9	5.3	4.6	(0.7)	8.5	0.6	**29.8**	30.3	31.4	**1.7**
Brazil	11.0	—	0.1	3.0	5.6	(0.7)	5.7	2.6	**27.3**	24.4	26.2	**1.6**
China	7.3	3.6	0.8	1.8	2.5	(1.0)	8.2	0.2	**23.4**	20.2	21.8	**1.3**
Germany	0.3	—	—	6.0	6.4	(3.6)	5.9	4.4	**19.4**	14.4	24.4	**1.1**
Jersey	7.3	—	0.1	10.4	—	(0.1)	—	—	**17.7**	14.9	13.4	**1.0**
Australia	5.9	—	0.1	8.0	1.1	(0.7)	1.3	0.7	**16.4**	17.7	21.7	**0.9**
Japan	2.3	—	—	3.4	3.2	(1.8)	5.0	3.8	**15.9**	19.3	21.8	**0.9**
Taiwan	4.1	8.6	0.1	1.4	0.5	(0.2)	0.2	0.6	**15.3**	17.0	17.3	**0.9**
United Arab Emirates	7.3	1.5	0.1	3.8	0.4	(0.5)	2.2	0.1	**14.9**	16.6	12.4	**0.9**
Canada	2.1	0.5	0.1	7.5	1.7	(1.5)	3.3	1.0	**14.7**	16.9	17.8	**0.8**
Poland	3.2	1.8	—	2.6	0.4	(0.2)	4.5	0.8	**13.1**	11.2	15.0	**0.7**
Thailand	1.1	2.7	—	2.1	—	—	1.8	0.2	**7.9**	8.0	8.0	**0.5**
Malaysia	1.4	3.4	0.2	1.0	0.1	(0.1)	1.9	(0.1)	**7.8**	8.2	8.3	**0.4**
Indonesia	2.2	0.6	—	1.2	0.2	(0.1)	1.5	(0.1)	**5.5**	5.8	6.0	**0.3**
Russia	2.2	0.7	—	0.7	0.4	(0.1)	1.5	—	**5.4**	5.5	5.2	**0.3**
Luxembourg	0.8	—	—	—	0.2	(0.9)	4.0	(0.1)	**4.0**	5.3	5.1	**0.2**
South Africa	1.4	—	0.1	0.6	0.2	(0.1)	1.8	(0.2)	**3.8**	3.8	3.6	**0.2**
Czech Republic	0.7	—	—	0.9	1.6	(0.1)	0.4	—	**3.5**	3.5	4.3	**0.2**
Spain	0.4	—	—	2.9	0.4	(1.3)	—	0.3	**2.7**	3.3	3.4	**0.2**
Total as a % of Citi's total exposure												**32.8%**
Total as a % of Citi's non-U.S. total exposure												**93.4%**

(1) *ICG* loans reflect funded corporate loans and private bank loans, net of unearned income. As of December 31, 2021, private bank loans in the table above totaled $31.8 billion, concentrated in the U.K. ($8.8 billion), Hong Kong ($8.6 billion) and Singapore ($7.5 billion).
(2) Other funded includes other direct exposures such as accounts receivable, loans HFS, other loans in *Corporate/Other* and investments accounted for under the equity method.
(3) Unfunded exposure includes unfunded corporate lending commitments, letters of credit and other contingencies.
(4) Net mark-to-market counterparty risk on OTC derivatives and securities lending/borrowing transactions (repos). Exposures are shown net of collateral and inclusive of CVA. Includes margin loans.
(5) Investment securities include debt securities available-for-sale, recorded at fair market value, and debt securities held-to-maturity, recorded at amortized cost.
(6) Trading account assets are shown on a net basis and include issuer risk on cash products and derivative exposure where the underlying reference entity/issuer is located in that country.

Argentina

Citi operates in Argentina through its *ICG* businesses. As of December 31, 2021, Citi's net investment in its Argentine operations was approximately $1.5 billion. Citi uses the U.S. dollar as the functional currency for its operations in highly inflationary countries under U.S. GAAP. Citi uses Argentina's official market exchange rate to remeasure its net Argentine peso-denominated assets into the U.S. dollar. As of December 31, 2021, the official Argentine peso exchange rate against the U.S. dollar was 102.73.

The Central Bank of Argentina maintains certain capital and currency controls that generally restrict Citi's ability to access U.S. dollars in Argentina and remit substantially all of its earnings from its Argentine operations. Citi's net investment in its Argentine operations is likely to increase as Citi continues to generate net income from its Argentine franchise and the majority of its earnings cannot be remitted.

Due to the currency controls implemented by the Central Bank of Argentina, certain indirect foreign exchange mechanisms have developed that some Argentine entities may use to obtain U.S. dollars, generally at rates that are significantly higher than Argentina's official exchange rate. Citibank Argentina is precluded from accessing these alternative mechanisms, and these exchange mechanisms cannot be used to remeasure Citi's net monetary assets into the U.S. dollar under U.S. GAAP. Citi cannot predict future fluctuations in Argentina's official market exchange rate or to what extent Citi may be able to access U.S. dollars at the official exchange rate in the future.

Citi economically hedges the foreign currency risk in its net Argentine peso-denominated assets to the extent possible and prudent using non-deliverable forward (NDF) derivative instruments that are primarily executed outside of Argentina. As of December 31, 2021, the international NDF market had very limited liquidity, resulting in Citi being unable to economically hedge nearly all of its Argentine peso exposure. As a result, and to the extent that Citi does not execute NDF contracts for this unhedged exposure in the future, Citi would record devaluations on its net Argentine peso-denominated assets in earnings, without any benefit from a change in the fair value of derivative positions used to economically hedge the exposure.

Citi continually evaluates its economic exposure to its Argentine counterparties and reserves for changes in credit risk and sovereign risk associated with its Argentine assets. Citi believes it has established appropriate allowances for credit losses on its Argentine loans, and appropriate fair value adjustments on Argentine assets and liabilities measured at fair value, for such risks under U.S. GAAP as of December 31, 2021. However, U.S. regulatory agencies may require Citi to record additional reserves in the future, increasing *ICG*'s cost of credit, based on the perceived country risk associated with its Argentine exposures.

For additional information on Citi's emerging markets risks, including those related to its Argentine exposures, see "Risk Factors" above.

Russia

Citi operates both its *ICG* and *GCB* businesses in Russia, although the Company is currently pursuing the exit of its *GCB* business in the country. All of Citi's domestic operations in Russia are conducted through a subsidiary of Citibank, which uses the Russian ruble as its functional currency. Citi's net investment in Russia was approximately $1 billion as of December 31, 2021. The majority of Citi's net investment was hedged for foreign currency depreciation as of December 31, 2021, using forward foreign exchange contracts. Citi's total third-party exposure was approximately $8.2 billion as of December 31, 2021. These assets primarily consisted of corporate and consumer loans, local government debt securities, reverse repurchase agreements, and cash on deposit and placements with the Bank of Russia and other financial institutions. A significant portion of Citi's third-party exposures were funded with domestic deposit liabilities from both *ICG* and *GCB* clients. Further, Citi has approximately $1.6 billion of additional exposures to Russian counterparties that are not held on the Russian subsidiary and are not included in the $8.2 billion above.

The $5.4 billion in Russia credit and other exposures in the "Top 25 Country Exposures" table above does not include approximately $1.0 billion of cash and placements with the Bank of Russia and other financial institutions and $1.8 billion of reverse repurchase agreements with various counterparties.

Citi continues to monitor the current Russia–Ukraine geopolitical situation and economic conditions and will mitigate its exposures and risks as appropriate. For additional information, see "Risk Factors—Market-Related Risk," "—Operational Risks" and "—Other Risks" above.

FFIEC—Cross-Border Claims on Third Parties and Local Country Assets

Citi's cross-border disclosures are set forth below, based on the country exposure bank regulatory reporting guidelines of the Federal Financial Institutions Examination Council (FFIEC). The following summarizes some of the FFIEC key reporting guidelines:

- Amounts are based on the domicile of the ultimate obligor, counterparty, collateral (only including qualifying liquid collateral), issuer or guarantor, as applicable (e.g., a security recorded by a Citi U.S. entity but issued by the U.K. government is considered U.K. exposure; a loan recorded by a Citi Mexico entity to a customer domiciled in Mexico where the underlying collateral is held in Germany is considered German exposure).
- Amounts do not consider the benefit of collateral received for secured financing transactions (i.e., repurchase agreements, reverse repurchase agreements and securities loaned and borrowed) and are reported based on notional amounts.
- Netting of derivative receivables and payables, reported at fair value, is permitted, but only under a legally binding netting agreement with the same specific counterparty, and does not include the benefit of margin received or hedges.
- Credit default swaps (CDS) are included based on the gross notional amount sold and purchased and do not include any offsetting CDS on the same underlying entity.
- Loans are reported without the benefit of hedges.

Given the requirements noted above, Citi's FFIEC cross-border exposures and total outstandings tend to fluctuate, in some cases significantly, from period to period. As an example, because total outstandings under FFIEC guidelines do not include the benefit of margin or hedges, market volatility in interest rates, foreign exchange rates and credit spreads may cause significant fluctuations in the level of total outstandings, all else being equal.

The tables below show each country whose total outstandings exceeded 0.75% of total Citigroup assets:

In billions of dollars	December 31, 2021									
	Cross-border claims on third parties and local country assets									
	Banks (a)	Public (a)	NBFIs[1] (a)	Other (corporate and households) (a)	Trading assets[2] (included in (a))	Short-term claims[2] (included in (a))	Total outstanding[3] (sum of (a))	Commitments and guarantees[4]	Credit derivatives purchased[5]	Credit derivatives sold[5]
United Kingdom	**$ 7.0**	**$31.1**	**$55.6**	**$19.2**	**$16.5**	**$70.8**	**$112.9**	**$23.0**	**$76.3**	**$70.8**
Cayman Islands	**—**	**—**	**78.8**	**13.2**	**7.4**	**56.3**	**92.0**	**9.9**	**0.4**	**0.3**
Japan	**31.0**	**30.1**	**12.8**	**8.7**	**15.6**	**54.8**	**82.6**	**8.4**	**13.4**	**12.1**
Germany	**4.5**	**48.9**	**47.7**	**9.6**	**18.5**	**78.3**	**110.7**	**23.2**	**48.6**	**44.7**
Mexico	**2.8**	**28.4**	**9.3**	**25.8**	**2.7**	**33.4**	**66.3**	**19.7**	**6.7**	**6.1**
France	**9.7**	**9.6**	**27.0**	**9.8**	**14.0**	**41.6**	**56.1**	**85.3**	**62.6**	**55.7**
Singapore	**1.9**	**18.3**	**12.1**	**17.4**	**2.7**	**39.1**	**49.7**	**16.3**	**1.4**	**1.3**
South Korea	**3.6**	**17.9**	**3.2**	**21.9**	**2.0**	**37.7**	**46.6**	**12.7**	**9.0**	**8.1**
Hong Kong	**1.3**	**12.3**	**3.9**	**21.8**	**4.2**	**30.2**	**39.3**	**13.6**	**1.7**	**1.5**
Australia	**3.9**	**14.2**	**5.7**	**12.8**	**7.3**	**22.9**	**36.6**	**13.6**	**4.0**	**3.9**
China	**4.2**	**12.9**	**3.7**	**14.7**	**8.0**	**26.3**	**35.5**	**4.4**	**9.6**	**9.0**
India	**1.2**	**15.0**	**4.4**	**13.1**	**2.6**	**23.4**	**33.7**	**10.2**	**1.8**	**1.4**
Taiwan	**0.5**	**7.0**	**1.7**	**15.8**	**4.8**	**21.1**	**25.0**	**14.6**	**—**	**0.1**
Netherlands	**5.9**	**8.8**	**3.3**	**5.7**	**5.2**	**16.2**	**23.7**	**9.8**	**30.8**	**27.6**
Brazil	**2.0**	**12.9**	**2.2**	**12.5**	**3.9**	**20.3**	**29.6**	**3.2**	**6.2**	**5.6**
Italy	**2.8**	**10.9**	**0.9**	**1.8**	**8.1**	**2.4**	**16.4**	**1.6**	**38.8**	**37.0**
Switzerland	**1.4**	**13.7**	**0.9**	**6.0**	**3.1**	**20.0**	**22.0**	**9.7**	**18.9**	**17.6**
Canada	**6.5**	**12.2**	**4.7**	**4.1**	**3.8**	**21.0**	**27.5**	**12.9**	**5.7**	**5.3**

In billions of dollars	December 31, 2020									
	Cross-border claims on third parties and local country assets									
	Banks (a)	Public (a)	NBFIs[1] (a)	Other (corporate and households) (a)	Trading assets[2] (included in (a))	Short-term claims[2] (included in (a))	Total outstanding[3] (sum of (a))	Commitments and guarantees[4]	Credit derivatives purchased[5]	Credit derivatives sold[5]
United Kingdom[6]	$16.0	$26.0	$50.5	$17.5	$14.2	$73.5	$110.0	$25.8	$76.2	$75.3
Cayman Islands	—	—	85.8	12.7	8.0	69.7	98.5	11.9	0.3	0.2
Japan	32.9	35.5	12.1	6.6	16.2	63.3	87.1	6.6	16.1	15.1
Germany[6]	7.1	51.8	15.9	9.6	11.3	58.6	84.4	14.1	49.7	48.1
Mexico	3.9	31.5	9.5	28.8	6.0	44.4	73.7	21.7	7.3	6.6
France	11.0	9.7	39.3	9.5	13.3	58.7	69.5	68.2	61.3	56.4
Singapore	2.5	25.6	10.7	17.5	2.8	46.5	56.3	13.8	1.9	1.5
South Korea	3.3	18.2	1.8	24.9	1.5	35.6	48.2	14.7	10.8	10.7
Hong Kong	1.5	13.8	3.9	19.8	7.2	33.2	39.0	13.1	2.1	1.7
Australia	5.1	16.4	4.0	13.0	9.6	31.6	38.5	13.0	5.7	5.2
China	4.5	16.3	3.3	14.1	9.7	33.4	38.2	5.8	10.5	10.0
India	1.9	14.0	2.5	12.9	2.3	22.1	31.3	11.3	1.8	1.6
Taiwan	0.4	7.8	2.0	16.5	5.1	23.7	26.7	14.1	—	—
Netherlands	7.8	10.4	3.4	4.8	5.2	18.2	26.4	10.4	28.5	27.4
Brazil	2.8	11.3	1.6	9.9	5.2	20.0	25.6	2.7	6.0	6.0
Italy	2.5	19.1	0.6	1.9	15.0	16.1	24.1	2.7	42.3	41.3
Switzerland	1.8	14.3	1.4	4.9	2.6	20.0	22.4	7.3	18.0	17.4
Canada	4.5	6.3	5.9	4.5	3.4	15.1	21.2	14.5	3.9	4.0

(1) Non-bank financial institutions.
(2) Included in total outstanding.
(3) Total outstanding includes cross-border claims on third parties, as well as local country assets. Cross-border claims on third parties include cross-border loans, securities, deposits with banks and other monetary assets, as well as net revaluation gains on foreign exchange and derivative products.
(4) Commitments (not included in total outstanding) include legally binding cross-border letters of credit and other commitments and contingencies as defined by the FFIEC guidelines. The FFIEC definition of commitments includes commitments to local residents to be funded with local currency liabilities originated within the country.
(5) Credit default swaps (CDS) are not included in total outstanding.
(6) Exposures for the United Kingdom and Germany for the December 31, 2020 period have been revised by $(5.4) billion and $4.8 billion, respectively, as compared to those previously reported, with the balance in the U.S. This revision reflects a correction in the domicile for Non-Bank Financial Institutions counterparties.

SIGNIFICANT ACCOUNTING POLICIES AND SIGNIFICANT ESTIMATES

This section contains a summary of Citi's most significant accounting policies. Note 1 to the Consolidated Financial Statements contains a summary of all of Citigroup's significant accounting policies. These policies, as well as estimates made by management, are integral to the presentation of Citi's results of operations and financial condition. While all of these policies require a certain level of management judgment and estimates, this section highlights and discusses the significant accounting policies that require management to make highly difficult, complex or subjective judgments and estimates at times regarding matters that are inherently uncertain and susceptible to change (see also "Risk Factors—Operational Risks" above). Management has discussed each of these significant accounting policies, the related estimates and its judgments with the Audit Committee of the Citigroup Board of Directors.

Valuations of Financial Instruments

Citigroup holds debt and equity securities, derivatives, retained interests in securitizations, investments in private equity and other financial instruments. A substantial portion of these assets and liabilities is reflected at fair value on Citi's Consolidated Balance Sheet as *Trading account assets, Available-for-sale securities* and *Trading account liabilities*.

Citi purchases securities under agreements to resell (reverse repos or resale agreements) and sells securities under agreements to repurchase (repos), a substantial portion of which is carried at fair value. In addition, certain loans, short-term borrowings, long-term debt and deposits, as well as certain securities borrowed and loaned positions that are collateralized with cash, are carried at fair value. Citigroup holds its investments, trading assets and liabilities, and resale and repurchase agreements on Citi's Consolidated Balance Sheet to meet customer needs and to manage liquidity needs, interest rate risks and private equity investing.

When available, Citi generally uses quoted market prices in active markets to determine fair value and classifies such items within Level 1 of the fair value hierarchy established under ASC 820-10, *Fair Value Measurement*. If quoted market prices are not available, fair value is based on internally developed valuation models that use, where possible, current market-based or independently sourced market parameters, such as interest rates, currency rates and option volatilities. Such models are often based on a discounted cash flow analysis. In addition, items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified under the fair value hierarchy as Level 3 even though there may be some significant inputs that are readily observable.

Citi is required to exercise subjective judgments relating to the applicability and functionality of internal valuation models, the significance of inputs or value drivers to the valuation of an instrument and the degree of observability in certain markets. The fair value of these instruments is reported on Citi's Consolidated Balance Sheet with the changes in fair value recognized in either the Consolidated Statement of Income or in *AOCI*.

Losses on available-for-sale securities whose fair values are less than the amortized cost, where Citi intends to sell the security or could more-likely-than-not be required to sell the security, are recognized in earnings. Where Citi does not intend to sell the security nor could more-likely-than-not be required to sell the security, the portion of the loss related to credit is recognized as an allowance for credit losses with a corresponding provision for credit losses and the remainder of the loss is recognized in other comprehensive income. Such losses are capped at the difference between the fair value and amortized cost of the security.

For equity securities carried at cost or under the measurement alternative, decreases in fair value below the carrying value are recognized as impairment in the Consolidated Statement of Income. Moreover, for certain equity method investments, decreases in fair value are only recognized in earnings in the Consolidated Statement of Income if such decreases are judged to be an other-than-temporary impairment (OTTI). Adjudicating the temporary nature of fair value impairments is also inherently judgmental.

The fair value of financial instruments incorporates the effects of Citi's own credit risk and the market view of counterparty credit risk, the quantification of which is also complex and judgmental. For additional information on Citi's fair value analysis, see Notes 1, 6, 24 and 25 to the Consolidated Financial Statements.

Citi's Allowance for Credit Losses (ACL)

The table below shows Citi's ACL as of the fourth quarter of 2021. For information on the drivers of Citi's ACL release in the fourth quarter, see below. For additional information on Citi's accounting policy on accounting for credit losses under ASC Topic 326, *Financial Instruments—Credit losses; Current Expected Credit Losses (CECL)*, see Note 1 to the Consolidated Financial Statements below.

	Allowance for credit losses (ACL)								
	Balance	**Build (release)**					**2021**	**Balance**	**ACLL/EOP loans**
In millions of dollars	**Dec. 31, 2020**	**1Q21**	**2Q21**	**3Q21**	**4Q21**	**2021**	**FX/Other[1]**	**Dec. 31, 2021**	**Dec. 31, 2021[2]**
Cards[2]	$16,805	$(1,523)	$(1,106)	$ (906)	$ (957)	**$(4,492)**	**$(322)**	**$11,991**	**7.90%**
All other GCB	2,419	(283)	(292)	(125)	18	**(682)**	**(149)**	**1,588**	
Global Consumer Banking	$19,224	$(1,806)	$(1,398)	$(1,031)	$ (939)	**$(5,174)**	**$(471)**	**$13,579**	**5.08%**
Institutional Clients Group	5,402	(1,312)	(949)	(65)	(207)	**(2,533)**	**(30)**	**2,839**	**0.73**
Corporate/Other	330	(109)	(99)	(53)	(30)	**(291)**	**(2)**	**37**	
Allowance for credit losses on loans (ACLL)	**$24,956**	**$(3,227)**	**$(2,446)**	**$(1,149)**	**$(1,176)**	**$(7,998)**	**$(503)**	**$16,455**	**2.49%**
Allowance for credit losses on unfunded lending commitments	2,655	(626)	44	(13)	(193)	**(788)**	**4**	**1,871**	
Other	146	1	1	(13)	11	**—**	**2**	**148**	
Total allowance for credit losses (ACL)	**$27,757**	**$(3,852)**	**$(2,401)**	**$(1,175)**	**$(1,358)**	**$(8,786)**	**$(497)**	**$18,474**	

(1) Includes reclassifications to *Other assets* related to Citi's agreements to sell its consumer banking businesses in Australia and the Philippines. See Notes 2 and 15 to the Consolidated Financial Statements.
(2) As of December 31, 2021, in *North America GCB*, branded cards ACLL/EOP loans was 7.10% and retail services ACLL/EOP loans was 10.0%.

Citi's reserves for expected credit losses on funded loans and unfunded lending commitments, standby letters of credit and financial guarantees are reflected on the Consolidated Balance Sheet in the *Allowance for credit losses on loans* (ACLL) and *Other liabilities* (Allowance for credit losses on unfunded lending commitments (ACLUC)), respectively. In addition, Citi reserves for expected credit losses on other financial assets carried at amortized cost, including held-to-maturity securities, reverse repurchase agreements, securities borrowed, deposits with banks and other financial receivables. These reserves, together with the ACLL and ACLUC, are referred to as the ACL. Changes in the ACL are reflected as *Provision for credit losses* in the Consolidated Statement of Income for each reporting period.

The ACL is composed of quantitative and qualitative management adjustment components. The quantitative component uses a forward-looking base macroeconomic forecast. The qualitative management adjustment component reflects economic uncertainty using alternative downside macroeconomic scenarios and portfolio characteristics and current economic conditions not captured in the quantitative component, such as adjustments to reflect uncertainty around the estimated impact of the pandemic on credit losses. Both the quantitative and qualitative management adjustment components are further discussed below.

Quantitative Component

Citi estimates expected credit losses for its quantitative component using (i) its comprehensive internal data on loss and default history, (ii) internal credit risk ratings, (iii) external credit bureau and rating agencies information, and (iv) a reasonable and supportable forecast of macroeconomic conditions.

For its consumer and corporate portfolios, Citi's expected credit losses are determined primarily by utilizing models that consider the borrowers' probability of default (PD), loss given default (LGD) and exposure at default (EAD). The loss likelihood and severity models used for estimating expected credit losses are sensitive to changes in macroeconomic variables that inform the forecasts, and cover a wide range of geographic, industry, product and operating segments.

In addition, Citi's models determine expected credit losses based on leading credit indicators, including loan delinquencies, changes in portfolio size, default frequency, risk ratings and loss recovery rates (among other things), as well as other current economic factors and credit trends, including housing prices, unemployment and gross domestic product (GDP). This methodology is applied separately for each product within each geographic region in which these portfolios exist.

This evaluation process is subject to numerous estimates and judgments. The frequency of default, risk ratings, loss recovery rates, size and diversity of individual large credits and ability of borrowers with foreign currency obligations to obtain the foreign currency necessary for orderly debt servicing, among other things, are all taken into account.

Changes in these estimates could have a direct impact on Citi's credit costs and the allowance in any period.

Qualitative Component

The qualitative management adjustment component includes, among other things, management adjustments to reflect economic uncertainty based on the likelihood and severity of downside scenarios and certain portfolio characteristics not captured in the quantitative component, such as concentrations, collateral valuation, model limitations, idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. The qualitative management adjustment component also reflects the uncertainty around the estimated impact of the pandemic on credit loss estimates. The ultimate extent of the pandemic's impact on Citi's ACL will depend on, among other things, (i) how consumers respond to the conclusion of government stimulus and assistance programs, (ii) the impact on unemployment, (iii) the timing and extent of the economic recovery, (iv) the severity and duration of any resurgence of COVID-19, (v) the rate of distribution and administration of vaccines and (vi) the extent of any market volatility.

4Q21 Changes in the ACL

In the fourth quarter of 2021, Citi released $1.0 billion of the ACL for its consumer portfolios and $0.4 billion of the ACL for its corporate portfolios, for a total release of $1.4 billion. The releases in the consumer and corporate ACLs were driven primarily by the continued improvement in the macroeconomic outlook, as well as continued improvements in credit quality. The overall qualitative management adjustments declined compared to the previous quarter. Based on its latest macroeconomic forecast, Citi believes its analysis of the ACL reflects the forward view of the economic environment as of December 31, 2021.

Macroeconomic Variables

Citi considers a multitude of macroeconomic variables for both the base and downside macroeconomic forecasts it uses to estimate the ACL, including domestic and international variables for its global portfolios and exposures. Citi's forecasts of the U.S. unemployment rate and U.S. Real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of the ACL.

The tables below show Citi's forecasted quarterly average U.S. unemployment rate and year-over-year U.S. Real GDP growth rate used in determining Citi's ACL for each quarterly reporting period from 4Q20 to 4Q21:

	Quarterly average			13-quarter
U.S. unemployment	**4Q21**	**2Q22**	**4Q22**	**average(1)**
Citi forecast at 4Q20	6.3	6.1	5.7	6.1
Citi forecast at 1Q21	4.9	4.1	3.8	4.3
Citi forecast at 2Q21	4.6	4.1	3.9	4.1
Citi forecast at 3Q21	4.5	4.1	3.9	4.0
Citi forecast at 4Q21	4.3	4.0	3.8	3.8

(1) Represents the average unemployment rate for the rolling, forward-looking 13 quarters in the forecast horizon.

	Year-over-year growth rate(1)		
	Full year		
U.S. Real GDP	**2021**	**2022**	**2023**
Citi forecast at 4Q20	3.7	2.7	2.6
Citi forecast at 1Q21	6.2	4.1	1.9
Citi forecast at 2Q21	6.5	3.7	2.0
Citi forecast at 3Q21	5.9	3.9	2.1
Citi forecast at 4Q21	5.5	4.0	2.2

(1) The year-over-year growth rate is the percentage change in the Real (inflation adjusted) GDP level.

Under the base macroeconomic forecast as of 4Q21, U.S. Real GDP growth is expected to remain strong during 2022, and the unemployment rate is expected to continue to improve as the U.S. moves past the peak of the pandemic-related health and economic crisis.

Consumer

As discussed above, Citi's total consumer ACLL release (including *Corporate/Other*) of $1.0 billion in the fourth quarter of 2021 reduced the ACLL balance to $13.6 billion, or 5.0% of total consumer loans as of December 31, 2021. The release was primarily driven by the continued improvement in the macroeconomic outlook, as well as continued improvements in credit quality. Citi's consumer ACLL is largely driven by the cards businesses.

For cards, including Citi's international businesses, the level of reserves relative to EOP loans decreased to 7.9% as of December 31, 2021, compared to 9.1% at September 30, 2021, primarily driven by the continued improvement in the macroeconomic outlook, as well as continued improvements in credit quality. For the remaining consumer exposures, the level of reserves relative to EOP loans was 1.4% at December 31, 2021, essentially unchanged from September 30, 2021.

Corporate

Citi's corporate ACLL release of $0.2 billion in the fourth quarter of 2021 reduced the ACLL reserve balance to $2.8 billion, or 0.73% of total funded loans. The release was primarily driven by improvements in portfolio credit quality, as well as improvement in the macroeconomic outlook.

The *Allowance for credit losses on unfunded lending commitments* (ACLUC) release of $191 million in the fourth quarter of 2021 decreased the total ACLUC reserve balance included in *Other liabilities* to $1.9 billion at December 31, 2021.

ACLL and Non-accrual Ratios

At December 31, 2021, the ratio of the allowance for credit losses to total funded loans was 2.49% (5.02% for consumer loans and 0.73% for corporate loans) compared to 2.69% at September 30, 2021 (5.55% for consumer loans and 0.77% for corporate loans).

Citi's total non-accrual loans were $3.4 billion at December 31, 2021, down $610 million from September 30, 2021. Consumer non-accrual loans decreased $87 million to $1.5 billion at December 31, 2021 from $1.6 billion at September 30, 2021, while corporate non-accrual loans decreased $523 million to $1.9 billion at December 31, 2021 from $2.4 billion at September 30, 2021. In addition, the ratio of non-accrual loans to total consumer loans was 0.55% and non-accrual loans to total corporate loans was 0.47%, at December 31, 2021.

Regulatory Capital Impact

Citi has elected to phase in the CECL impact for regulatory capital purposes. The transition provisions were recently modified to defer the phase-in. After two years with no impact on capital, the CECL transition impact will phase in over a three-year transition period with 25% of the impact (net of deferred taxes) recognized on the first day of each subsequent year, commencing January 1, 2022, and will be fully implemented on January 1, 2025. In addition, 25% of the impact of the build (pretax) in 2020 and 2021 were deferred and being amortized over the same timeframe.

For a further description of the ACL and related accounts, see Notes 1 and 15 to the Consolidated Financial Statements.

For a discussion of the adoption of the CECL accounting pronouncement, see Note 1 to the Consolidated Financial Statements.

Goodwill

Citi tests goodwill for impairment annually on July 1 (the annual test) and through interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount, such as a significant adverse change in the business climate, a decision to sell or dispose of all or a significant portion of a reporting unit or a significant decline in Citi's stock price. During 2021, the annual test was performed, which resulted in no goodwill impairment as described in Note 16 to the Consolidated Financial Statements.

As of December 31, 2021, Citigroup's activities were conducted through the *Global Consumer Banking* and *Institutional Clients Group* business operating segments and *Corporate/Other*. Goodwill impairment testing is performed at the level below the business segment (referred to as a reporting unit).

Citi utilizes allocated equity as a proxy for the carrying value of its reporting units for purposes of goodwill impairment testing. The allocated equity in the reporting units is determined based on the capital the business would require if it were operating as a standalone entity, incorporating sufficient capital to be in compliance with both current and expected regulatory capital requirements, including capital for specifically identified goodwill and intangible assets. The capital allocated to the reporting units is incorporated into the annual budget process, which is approved by Citi's Board of Directors.

Goodwill impairment testing involves management judgment, requiring an assessment of whether the carrying value of a reporting unit can be supported by its fair value of the reporting unit using widely accepted valuation techniques, such as the market approach (earnings multiples and/or transaction multiples) and/or the income approach (discounted cash flow (DCF) method). In applying these methodologies, Citi utilizes a number of factors, including actual operating results, future business plans, economic projections and market data.

Similar to 2020, Citi engaged an independent valuation specialist in 2021 to assist in Citi's valuation of all the reporting units, employing both the market approach and the DCF method. The resulting fair values were relatively consistent and appropriate weighting was given to outputs from both methods. The DCF method utilized at the time of each impairment test used discount rates that Citi believes adequately reflected the risk and uncertainty in the financial markets in the internally generated cash flow projections.

The DCF method employs a capital asset pricing model in estimating the discount rate. Since none of the Company's reporting units are publicly traded, individual reporting unit fair value determinations cannot be directly correlated to Citigroup's common stock price. The sum of the fair values of the reporting units exceeded the overall market capitalization of Citi as of July 1, 2021. However, Citi believes that it is not meaningful to reconcile the sum of the fair values of the Company's reporting units to its market capitalization due to several factors. The market capitalization of Citigroup reflects the execution risk in a transaction involving Citigroup due to its size. However, the individual reporting units' fair values are not subject to the same level of execution risk nor a business model that is as international. In addition, the market capitalization of Citigroup does not include consideration of the individual reporting unit's control premium.

Citi performed its annual goodwill impairment test as of July 1, 2021. The fair values of Citi's reporting units as a percentage of their carrying values ranged from approximately 125% to 153%, resulting in no impairment. While the inherent risk related to uncertainty is embedded in the key assumptions used in the valuations, the economic and business environments continue to evolve as management implements its strategic refresh, which includes, among others, the exits of consumer businesses in 13 markets in *Asia* and *EMEA*, as well as the exit of the Mexico consumer, small business and middle-market banking operations. If management's future estimate of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future. Citi expects that the implementation of its new operating segments and reporting units in the first quarter of 2022, as well as the timing and sequencing of the sales of its *Asia* consumer banking businesses, may result in goodwill impairment. See Notes 1 and 16 to the Consolidated Financial Statements for additional information on goodwill, including the changes in the goodwill balance year-over-year and the segments' goodwill balances as of December 31, 2021.

Income Taxes

Overview

Citi is subject to the income tax laws of the U.S., its states and local municipalities and the non-U.S. jurisdictions in which Citi operates. These tax laws are complex and are subject to differing interpretations by the taxpayer and the relevant governmental taxing authorities. Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of the various tax jurisdictions or may be settled with the taxing authority upon audit.

In establishing a provision for income tax expense, Citi must make judgments and interpretations about the application of these inherently complex tax laws. Citi must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign. Deferred taxes are recorded for the future consequences of events that have been recognized in the financial statements or tax returns, based upon enacted tax laws and rates. Deferred tax assets (DTAs) are recognized subject to management's judgment that realization is more-likely-than-not. For example, if it is more-likely-than-not that a carry-forward would expire unused, Citi would set up a valuation allowance (VA) against that DTA. Citi has established valuation allowances as described below.

As a result of the Tax Cuts and Jobs Act (Tax Reform), beginning in 2018, Citi is taxed on income generated by its U.S. operations at a federal tax rate of 21%. The effect on Citi's state tax rate is dependent upon how and when the individual states that have not yet addressed the federal tax law changes choose to adopt the various new provisions of the U.S. Internal Revenue Code.

Citi's non-U.S. branches and subsidiaries are subject to tax at their local tax rates. Non-U.S. branches also continue to be subject to U.S. taxation. The impact of this on Citi's earnings depends on the level of branch pretax income, the local branch tax rate and allocations of overall domestic loss (ODL) and expenses for U.S. tax purposes to branch earnings. Citi expects no residual U.S. tax on such earnings since it currently has sufficient branch tax carry-forwards. With respect to non-U.S. subsidiaries, dividends from these subsidiaries are excluded from U.S. taxation. While the majority of Citi's non-U.S. subsidiary earnings are classified as Global Intangible Low Taxed Income (GILTI), Citi expects no material residual U.S. tax on such earnings based on its non-U.S. subsidiaries' local tax rates, which exceed, on average, the GILTI tax rate. Finally, Citi does not expect the Base Erosion Anti-Abuse Tax (BEAT) to affect its tax provision.

Deferred Tax Assets and Valuation Allowances

At December 31, 2021, Citi had net DTAs of $24.8 billion. In the fourth quarter of 2021, Citi's DTAs increased by $0.3 billion, primarily as a result of losses in *Other comprehensive income*. On a full-year basis, Citi's DTAs at December 31, 2021 were essentially unchanged from $24.8 billion at December 31, 2020.

Of Citi's total net DTAs of $24.8 billion as of December 31, 2021, $9.5 billion, primarily related to tax carry-forwards, was deducted in calculating Citi's regulatory capital. Net DTAs arising from temporary differences are deducted from regulatory capital if in excess of the 10%/15% limitations (see "Capital Resources" above). For the quarter and year ended December 31, 2021, Citi did not have any such DTAs. Accordingly, the remaining $15.3 billion of net DTAs as of December 31, 2021 was not deducted in calculating regulatory capital pursuant to Basel III standards, and was appropriately risk weighted under those rules.

Citi's total VA at December 31, 2021 was $4.2 billion, a decrease of $1.0 billion from $5.2 billion at December 31, 2020. The decrease was primarily driven by usage of carry-forwards and expirations in the FTC branch basket. Citi's VA of $4.2 billion is composed of $2.5 billion on its FTC carry-forwards, $1.0 billion on its U.S. residual DTA related to its non-U.S. branches, $0.6 billion on local non-U.S. DTAs and $0.1 billion on state net operating loss carry-forwards.

In 2021, Citi reduced its VA for DTAs related to FTCs in its branch basket for 2021 and future periods. As stated above with regard to the impact of non-U.S. branches on Citi's earnings, the level of branch pretax income, the local branch tax rate and the allocations of ODL and expenses for U.S. tax purposes to the branch basket are the main factors in determining the branch VA. The allocated ODL was enhanced by significant taxable income generated in the current year. In addition, during 2021, the global interest rate environment and balance sheet requirements in non-U.S. branches resulted in a lower relative allocation of interest expense to non-U.S. branches. The combination of the factors enumerated resulted in a VA release of $0.2 billion. Citi also released branch basket VA of $0.1 billion with respect to future years, based upon Citi's operating plan and estimates of future branch basket factors, as outlined above.

Citi's VA of $0.8 billion against FTC carry-forwards in its general basket was reduced by $0.2 billion in 2021, primarily as a result of audit adjustments made to prior years' returns. In Citi's general basket for FTCs, changes in the forecasted amount of income in U.S. locations derived from sources outside the U.S., in addition to tax examination changes from prior years, could alter the amount of valuation allowance that is needed against such FTCs. Citi continues to look for additional actions that may become prudent and feasible, taking into account client, regulatory and operational considerations. (See Note 9 to the Consolidated Financial Statements.)

Recognized FTCs comprised approximately $2.8 billion of Citi's DTAs as of December 31, 2021, compared to approximately $4.4 billion as of December 31, 2020. The decrease in FTCs year-over-year was primarily due to current-year usage. The FTC carry-forward period represents the most time-sensitive component of Citi's DTAs.

Citi has an ODL of approximately $15 billion at December 31, 2021, which allows Citi to elect a percentage between 50% and 100% of future years' domestic source income to be reclassified as foreign source income. (See Note 9 to the Consolidated Financial Statements for a description of the ODL.)

The majority of Citi's U.S. federal net operating loss carry-forward and all of its New York State and City net operating loss carry-forwards are subject to a carry-forward period of 20 years. This provides enough time to fully utilize the net DTAs pertaining to these existing net operating loss carry-forwards. This is due to Citi's forecast of sufficient U.S. taxable income and the continued taxation of Citi's non-U.S. income by New York State and City.

Although realization is not assured, Citi believes that the realization of its recognized net DTAs of $24.8 billion at December 31, 2021 is more-likely-than-not, based upon management's expectations of future taxable income in the jurisdictions in which the DTAs arise, as well as available tax planning strategies (as defined in ASC Topic 740, *Income Taxes*). Citi has concluded that it has the necessary positive evidence to support the realization of its net DTAs after taking its valuation allowances into consideration.

For additional information on Citi's income taxes, including its income tax provision, tax assets and liabilities and a tabular summary of Citi's net DTAs balance as of December 31, 2021 (including the FTCs and applicable expiration dates of the FTCs), see Note 9 to the Consolidated Financial Statements. For information on Citi's ability to use its DTAs, see "Risk Factors—Strategic Risks" above and Note 9 to the Consolidated Financial Statements.

Potential U.S. Tax Legislation

On January 4, 2022, final FTC regulations were published in the Federal Register. These regulations eliminate the creditability of foreign taxes paid in certain situations. These include countries that do not align with U.S. tax principles in significant part and for services performed outside the recipient country. Citi is examining the extent to which these regulations will impact its effective tax rate. Any adoption effect on Citi's DTAs, including its valuation allowance against FTC carry-forwards, will be reported in the first quarter of 2022. Citi does not expect a significant impact on its 2022 effective tax rate. However, the U.S. president's proposed legislation discussed below, if enacted, could exacerbate the impact of these regulations.

The president has proposed the Build Back Better Act, which makes substantial changes to the taxation of multinational corporations. While the Act does not presently contain an increase to the U.S. corporate tax rate, it would impose a minimum level of U.S. taxation, computed on a jurisdiction by jurisdiction basis. The Organization for Economic Cooperation and Development (OECD) Inclusive Framework (140 countries) similarly proposed a minimum tax that could impact Citi.

2017 Impact of Tax Reform

The table below discloses the as-reported GAAP results for 2018 and 2017, as well as the 2017 adjusted results excluding the one-time 2017 impact of Tax Reform. The table does not reflect any adjustment to 2018 results:

In millions of dollars, except per share amounts and as otherwise noted	2018 as reported[1]	2017 as reported	2017 one-time impact of Tax Reform	2017 adjusted results[2]	2018 increase (decrease) vs. 2017 ex-Tax Reform $ Change	% Change
Net income	$18,045	$ (6,798)	$(22,594)	$15,796	$2,249	14%
Diluted earnings per share:						
Income from continuing operations	6.69	(2.94)	(8.31)	5.37	1.32	25
Net income	6.68	(2.98)	(8.31)	5.33	1.35	25
Effective tax rate	22.8%	129.1%	(9,930)bps	29.8%		(700)bps
Performance and other metrics:						
Return on average assets	0.94%	(0.36)%	(120)bps	0.84%		10bps
Return on average common stockholders' equity	9.4	(3.9)	(1,090)	7.0		240
Return on average total stockholders' equity	9.1	(3.0)	(1,000)	7.0		210
Return on average tangible common equity	11.0	(4.6)	(1,270)	8.1		290
Dividend payout ratio	23.1	(32.2)	(5,020)	18.0		510
Total payout ratio	109.1	(213.9)	(33,140)	117.5		840

(1) 2018 includes the one-time benefit of $94 million, due to the finalization of the provisional component of the impact based on Citi's analysis as well as additional guidance received from the U.S. Treasury Department related to Tax Reform, which impacted the tax line within *Corporate/Other*.

(2) 2017 excludes the one-time impact of Tax Reform.

Litigation Accruals

See the discussion in Note 27 to the Consolidated Financial Statements for information regarding Citi's policies on establishing accruals for litigation and regulatory contingencies.

Accounting Changes

See Note 1 to the Consolidated Financial Statements for a discussion of changes in accounting standards.

DISCLOSURE CONTROLS AND PROCEDURES

Citi's disclosure controls and procedures are designed to ensure that information required to be disclosed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including without limitation that information required to be disclosed by Citi in its SEC filings is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), as appropriate, to allow for timely decisions regarding required disclosure.

Citi's Disclosure Committee assists the CEO and CFO in their responsibilities to design, establish, maintain and evaluate the effectiveness of Citi's disclosure controls and procedures. The Disclosure Committee is responsible for, among other things, the oversight, maintenance and implementation of the disclosure controls and procedures, subject to the supervision and oversight of the CEO and CFO.

Citi's management, with the participation of its CEO and CFO, has evaluated the effectiveness of Citigroup's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of December 31, 2021. Based on that evaluation, the CEO and CFO have concluded that at that date Citigroup's disclosure controls and procedures were effective.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Citi's management is responsible for establishing and maintaining adequate internal control over financial reporting. Citi's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. Citi's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of Citi's assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that Citi's receipts and expenditures are made only in accordance with authorizations of Citi's management and directors and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Citi's assets that could have a material effect on its financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Citi's management assessed the effectiveness of Citigroup's internal control over financial reporting as of December 31, 2021 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework (2013)*. Based on this assessment, management believes that, as of December 31, 2021, Citi's internal control over financial reporting was effective. In addition, there were no changes in Citi's internal control over financial reporting during the fiscal quarter ended December 31, 2021 that materially affected, or are reasonably likely to materially affect, Citi's internal control over financial reporting.

The effectiveness of Citi's internal control over financial reporting as of December 31, 2021 has been audited by KPMG LLP, Citi's independent registered public accounting firm, as stated in their report below, which expressed an unqualified opinion on the effectiveness of Citi's internal control over financial reporting as of December 31, 2021.

FORWARD-LOOKING STATEMENTS

Certain statements in this Form 10-K, including but not limited to statements included within the Management's Discussion and Analysis of Financial Condition and Results of Operations, are "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. In addition, Citigroup also may make forward-looking statements in its other documents filed or furnished with the SEC, and its management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

Generally, forward-looking statements are not based on historical facts but instead represent Citigroup's and its management's beliefs regarding future events. Such statements may be identified by words such as believe, expect, anticipate, intend, estimate, may increase, may fluctuate, target and illustrative, and similar expressions or future or conditional verbs such as will, should, would and could.

Such statements are based on management's current expectations and are subject to risks, uncertainties and changes in circumstances. Actual results and capital and other financial conditions may differ materially from those included in these statements due to a variety of factors, including without limitation (i) the precautionary statements included within each individual business's discussion and analysis of its results of operations and (ii) the factors listed and described under "Risk Factors" above.

Any forward-looking statements made by or on behalf of Citigroup speak only as to the date they are made, and Citi does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the forward-looking statements were made.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
Citigroup Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Citigroup Inc. and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for the recognition and measurement of credit losses as of January 1, 2020 due to the adoption of ASC Topic 326, Financial Instruments – Credit Losses.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying management's annual report on internal control over financial reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Assessment of the fair value of certain Level 3 assets and liabilities measured on a recurring basis

As described in Notes 1, 24 and 25 to the consolidated financial statements, the Company's assets and liabilities recorded at fair value on a recurring basis were $856.6 billion and $313.4 billion, respectively at December 31, 2021. The Company estimated the fair value of Level 3 assets and liabilities measured on a recurring basis ($14.7 billion and $35.2 billion, respectively at December 31, 2021) utilizing various valuation techniques with one or more significant inputs or significant value drivers being unobservable including, but not limited to, complex internal valuation models, alternative pricing procedures or comparables analysis and discounted cash flows.

We identified the assessment of the measurement of fair value for certain Level 3 assets and liabilities recorded at fair value on a recurring basis as a critical audit matter. A high degree of effort, including specialized skills and knowledge, and subjective and complex auditor judgment was involved in the assessment of the Level 3 fair values due to measurement uncertainty. Specifically, the assessment encompassed the evaluation of the fair value methodology, including methods, models and significant assumptions and inputs used to estimate fair value. Significant assumptions and inputs include interest rate, price, yield, credit spread, volatilities, correlations and forward prices. The assessment also included an evaluation of the conceptual soundness and performance of the valuation models.

The following are the primary procedures we performed to address this critical audit matter. We involved valuation professionals with specialized skills and knowledge who assisted in evaluating the design and testing the operating effectiveness of certain internal controls related to the Company's Level 3 fair value measurements, including controls over:

- valuation methodologies, including significant inputs and assumptions
- independent price verification
- evaluating that significant model assumptions and inputs reflected those which a market participant would use to determine an exit price in the current market environment
- the valuation models used were mathematically accurate and appropriate to value the financial instruments
- relevant information used within the Company's models that was reasonably available was considered in the fair value determination.

We evaluated the Company's methodology for compliance with U.S. generally accepted accounting principles. We involved valuation professionals with specialized skills and knowledge who assisted in developing an independent fair value estimate for a selection of certain Level 3 assets and liabilities recorded at fair value on a recurring basis, based on independently developed valuation models and assumptions, as applicable, using market data sources we determined to be relevant and reliable, and compared our independent expectation to the Company's fair value measurements.

Assessment of the allowance for credit losses collectively evaluated for impairment

As discussed in Notes 1 and 15 to the consolidated financial statements, the Company's allowance for credit losses related to loans and unfunded lending commitments collectively evaluated for impairment (the collective ACLL) was $18.3 billion as of December 31, 2021. The expected credit losses for the quantitative component of the collective ACLL is the product of multiplying the probability of default (PD), loss given default (LGD), and exposure at default (EAD) for consumer and corporate loans. For consumer credit cards, the Company uses the payment rate approach over the life of the loan, which leverages payment rate curves, to determine the payments that should be applied to liquidate the end-of-period balance in the estimation of EAD. For unconditionally cancelable accounts, reserves are based on the expected life of the balance as of the evaluation date and do not include any undrawn commitments that are unconditionally cancelable. The Company's models utilize a single forward-looking macroeconomic forecast and macroeconomic assumptions over reasonable and supportable forecast periods. Reasonable and supportable forecast periods vary by product. For consumer loan models, the Company uses a 13-quarter reasonable and supportable period and reverts to historical loss experience thereafter. For corporate loan models, the Company uses a nine-quarter reasonable and supportable period followed by a three-quarter transition to historical loss experience. Additionally, for consumer loans, these models consider leading credit indicators including loan delinquencies, as well as economic factors. For corporate loans, these models consider the credit quality as measured by risk ratings and economic factors. The qualitative component considers idiosyncratic events and the uncertainty of forward-looking economic scenarios.

We identified the assessment of the collective ACLL as a critical audit matter. The assessment involved significant measurement uncertainty requiring complex auditor judgment, and specialized skills and knowledge as well as experience in the industry. This assessment encompassed the evaluation of the various components of the collective ACLL methodology, including the methods and models used to estimate the PD, LGD, and EAD and certain key assumptions and inputs for the Company's quantitative and qualitative components. Key assumptions and inputs for consumer loans included loan delinquencies, certain credit indicators, reasonable and supportable forecast periods, expected life as well as economic factors, including unemployment rates, gross domestic product (GDP), and housing prices, which are considered in the model. For corporate loans, key assumptions and inputs included risk ratings, reasonable and supportable forecasts, credit conversion factor for unfunded lending commitments, and economic factors, including GDP and unemployment rates considered in the model. Key assumptions and inputs for the qualitative component for both consumer and corporate loan portfolios included the likelihood and severity of a downside scenario and consideration of uncertainties due to idiosyncratic events as a result of the COVID-19 pandemic. The assessment also included an evaluation of the conceptual soundness and performance of the PD, LGD, and EAD models. In addition, auditor judgment was required to evaluate the sufficiency of audit evidence obtained.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's measurement of the collective ACLL estimate, including controls over the:

- approval of the collective ACLL methodologies
- determination of the key assumptions and inputs used to estimate the quantitative and qualitative components of the collective ACLL
- performance monitoring of the PD, LGD, and EAD models.

We evaluated the Company's process to develop the collective ACLL estimate by testing certain sources of data, and assumptions that the Company used and considered the relevance and reliability of such data, and assumptions. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in:

- reviewing the Company's collective ACLL methodologies and key assumptions for compliance with U.S. generally accepted accounting principles
- assessing the conceptual soundness and performance testing of the PD, LGD, and EAD models by inspecting the model documentation to determine whether the models are suitable for their intended use
- evaluating judgments made by the Company relative to the development and performance monitoring testing of the PD, LGD, and EAD models by comparing them to relevant Company-specific metrics
- assessing the economic forecast scenarios through comparison to publicly available forecasts
- evaluating the methodologies used to develop certain economic forecast scenarios by comparing them to relevant industry practices
- testing corporate loan risk ratings for a selection of borrowers by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral
- evaluating the methodologies used in determining the qualitative components and the effect of those components on the collective ACLL compared with relevant credit risk factors and consistency with credit trends.

We also assessed the sufficiency of the audit evidence obtained related to the collective ACLL by evaluating the:

- cumulative results of the audit procedures
- qualitative aspects of the Company's accounting practices
- potential bias in the accounting estimates.

KPMG LLP

We have served as the Company's auditor since 1969.

New York, New York
(PCAOB ID # 185)
February 25, 2022

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CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF INCOME

Citigroup Inc. and Subsidiaries

In millions of dollars, except per share amounts	Years ended December 31, 2021	2020	2019
Revenues			
Interest revenue	**$ 50,475**	$ 58,089	$ 76,510
Interest expense	**7,981**	13,338	28,382
Net interest income	**$ 42,494**	$ 44,751	$ 48,128
Commissions and fees	**$ 13,672**	$ 11,385	$ 11,746
Principal transactions	**10,154**	13,885	8,892
Administration and other fiduciary fees	**3,943**	3,472	3,411
Realized gains on sales of investments, net	**665**	1,756	1,474
Impairment losses on investments:			
Impairment losses on investments and other assets	**(206)**	(165)	(32)
Provision for credit losses on AFS debt securities[1]	**(3)**	(3)	—
Net impairment losses recognized in earnings	**$ (209)**	$ (168)	$ (32)
Other revenue	**$ 1,165**	$ 420	$ 1,448
Total non-interest revenues	**$ 29,390**	$ 30,750	$ 26,939
Total revenues, net of interest expense	**$ 71,884**	$ 75,501	$ 75,067
Provisions for credit losses and for benefits and claims			
Provision for credit losses on loans	**$ (3,103)**	$ 15,922	$ 8,218
Provision for credit losses on held-to-maturity (HTM) debt securities	**(3)**	7	—
Provision for credit losses on other assets	**—**	7	—
Policyholder benefits and claims	**116**	113	73
Provision for credit losses on unfunded lending commitments	**(788)**	1,446	92
Total provisions for credit losses and for benefits and claims[2]	**$ (3,778)**	$ 17,495	$ 8,383
Operating expenses			
Compensation and benefits	**$ 25,134**	$ 22,214	$ 21,433
Premises and equipment	**2,314**	2,333	2,328
Technology/communication	**7,828**	7,383	7,077
Advertising and marketing	**1,490**	1,217	1,516
Other operating	**11,427**	11,227	10,429
Total operating expenses	**$ 48,193**	$ 44,374	$ 42,783
Income from continuing operations before income taxes	**$ 27,469**	$ 13,632	$ 23,901
Provision for income taxes	**5,451**	2,525	4,430
Income from continuing operations	**$ 22,018**	$ 11,107	$ 19,471
Discontinued operations			
Income (loss) from discontinued operations	**$ 7**	$ (20)	$ (31)
Benefit for income taxes	**—**	—	(27)
Income (loss) from discontinued operations, net of taxes	**$ 7**	$ (20)	$ (4)
Net income before attribution of noncontrolling interests	**$ 22,025**	$ 11,087	$ 19,467
Noncontrolling interests	**73**	40	66
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Basic earnings per share[3]			
Income from continuing operations	**$ 10.21**	$ 4.75	$ 8.08
Loss from discontinued operations, net of taxes	**—**	(0.01)	—
Net income	**$ 10.21**	$ 4.74	$ 8.08
Weighted average common shares outstanding *(in millions)*	**2,033.0**	2,085.8	2,249.2
Diluted earnings per share[3]			
Income from continuing operations	**$ 10.14**	$ 4.73	$ 8.04
Loss from discontinued operations, net of taxes	**—**	(0.01)	—
Net income	**$ 10.14**	$ 4.72	$ 8.04
Adjusted weighted average common shares outstanding *(in millions)*	**2,049.4**	2,099.0	2,265.3

(1) This presentation is in accordance with ASC 326, which requires the provision for credit losses on AFS securities to be included in revenue.
(2) This total excludes the provision for credit losses on AFS securities, which is disclosed separately above.
(3) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Citigroup Inc. and Subsidiaries

In millions of dollars	Years ended December 31, 2021	2020	2019
Citigroup's net income	**$21,952**	$11,047	$19,401
Add: Citigroup's other comprehensive income (loss)			
Net change in unrealized gains and losses on debt securities, net of taxes(1)	**$ (3,934)**	$ 3,585	$ 1,985
Net change in debt valuation adjustment (DVA), net of taxes(1)	**232**	(475)	(1,136)
Net change in cash flow hedges, net of taxes	**(1,492)**	1,470	851
Benefit plans liability adjustment, net of taxes(2)	**1,012**	(55)	(552)
Net change in foreign currency translation adjustment, net of taxes and hedges	**(2,525)**	(250)	(321)
Net change in excluded component of fair value hedges, net of taxes	**—**	(15)	25
Citigroup's total other comprehensive income (loss)	**$ (6,707)**	$ 4,260	$ 852
Citigroup's total comprehensive income	**$15,245**	$15,307	$20,253
Add: Other comprehensive income (loss) attributable to noncontrolling interests	**$ (99)**	$ 26	$ —
Add: Net income attributable to noncontrolling interests	**73**	40	66
Total comprehensive income	**$15,219**	$15,373	$20,319

(1) See Note 1 to the Consolidated Financial Statements.
(2) See Note 8 to the Consolidated Financial Statements.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEET

Citigroup Inc. and Subsidiaries

In millions of dollars	December 31, 2021	2020
Assets		
Cash and due from banks (including segregated cash and other deposits)	**$ 27,515**	$ 26,349
Deposits with banks, net of allowance	**234,518**	283,266
Securities borrowed and purchased under agreements to resell (including $216,466 and $185,204 as of December 31, 2021 and 2020, respectively, at fair value), net of allowance	**327,288**	294,712
Brokerage receivables, net of allowance	**54,340**	44,806
Trading account assets (including $133,828 and $168,967 pledged to creditors at December 31, 2021 and 2020, respectively)	**331,945**	375,079
Investments:		
Available-for-sale debt securities (including $9,226 and $5,921 pledged to creditors as of December 31, 2021 and 2020, respectively), net of allowance	**288,522**	335,084
Held-to-maturity debt securities (including $1,460 and $547 pledged to creditors as of December 31, 2021 and 2020, respectively), net of allowance	**216,963**	104,943
Equity securities (including $1,032 and $1,066 as of December 31, 2021 and 2020, respectively, at fair value)	**7,337**	7,332
Total investments	**$ 512,822**	$ 447,359
Loans:		
Consumer (including $12 and $14 as of December 31, 2021 and 2020, respectively, at fair value)	**271,236**	288,839
Corporate (including 6,070 and 6,840 as of December 31, 2021 and 2020, respectively, at fair value)	**396,531**	387,044
Loans, net of unearned income	**$ 667,767**	$ 675,883
Allowance for credit losses on loans (ACLL)	**(16,455)**	(24,956)
Total loans, net	**$ 651,312**	$ 650,927
Goodwill	**21,299**	22,162
Intangible assets (including MSRs of $404 and $336 as of December 31, 2021 and 2020, respectively, at fair value)	**4,495**	4,747
Other assets (including $12,342 and $14,613 as of December 31, 2021 and 2020, respectively, at fair value), net of allowance	**125,879**	110,683
Total assets	**$2,291,413**	$2,260,090

The following table presents certain assets of consolidated variable interest entities (VIEs), which are included on the Consolidated Balance Sheet above. The assets in the table below include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. In addition, the assets in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation.

In millions of dollars	December 31, 2021	2020
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs		
Cash and due from banks	**$ 260**	$ 281
Trading account assets	**10,038**	8,104
Investments	**844**	837
Loans, net of unearned income		
Consumer	**34,677**	37,561
Corporate	**14,312**	17,027
Loans, net of unearned income	**$48,989**	$54,588
Allowance for credit losses on loans (ACLL)	**(2,668)**	(3,794)
Total loans, net	**$46,321**	$50,794
Other assets	**1,174**	43
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	**$58,637**	$60,059

Statement continues on the next page.

CONSOLIDATED BALANCE SHEET (Continued)

Citigroup Inc. and Subsidiaries

In millions of dollars, except shares and per share amounts	December 31, 2021	2020
Liabilities		
Non-interest-bearing deposits in U.S. offices	**$ 158,552**	$ 126,942
Interest-bearing deposits in U.S. offices (including $879 and $879 as of December 31, 2021 and 2020, respectively, at fair value)	**543,283**	503,213
Non-interest-bearing deposits in offices outside the U.S.	**97,270**	100,543
Interest-bearing deposits in offices outside the U.S. (including $787 and $1,079 as of December 31, 2021 and 2020, respectively, at fair value)	**518,125**	549,973
Total deposits	**$1,317,230**	$1,280,671
Securities loaned and sold under agreements to repurchase (including $56,694 and $60,206 as of December 31, 2021 and 2020, respectively, at fair value)	**191,285**	199,525
Brokerage payables (including $3,575 and $6,835 as of December 31, 2021 and 2020, respectively, at fair value), including allowance	**61,430**	50,484
Trading account liabilities	**161,529**	168,027
Short-term borrowings (including $7,358 and $4,683 as of December 31, 2021 and 2020, respectively, at fair value)	**27,973**	29,514
Long-term debt (including $82,609 and $67,063 as of December 31, 2021 and 2020, respectively, at fair value)	**254,374**	271,686
Other liabilities	**74,920**	59,983
Total liabilities	**$2,088,741**	$2,059,890
Stockholders' equity		
Preferred stock ($1.00 par value; authorized shares: 30 million), issued shares: **759,800 as of December 31, 2021** and 779,200 as of December 31, 2020, at aggregate liquidation value	**$ 18,995**	$ 19,480
Common stock ($0.01 par value; authorized shares: 6 billion), issued shares: **3,099,651,835 as of December 31, 2021** and 3,099,633,160 as of December 31, 2020	**31**	31
Additional paid-in capital	**108,003**	107,846
Retained earnings	**184,948**	168,272
Treasury stock, at cost: **1,115,296,641 shares as of December 31, 2021** and 1,017,543,951 shares as of December 31, 2020	**(71,240)**	(64,129)
Accumulated other comprehensive income (loss) *(AOCI)*	**(38,765)**	(32,058)
Total Citigroup stockholders' equity	**$ 201,972**	$ 199,442
Noncontrolling interests	**700**	758
Total equity	**$ 202,672**	$ 200,200
Total liabilities and equity	**$2,291,413**	$2,260,090

The following table presents certain liabilities of consolidated VIEs, which are included on the Consolidated Balance Sheet above. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude amounts where creditors or beneficial interest holders have recourse to the general credit of Citigroup.

In millions of dollars	December 31, 2021	2020
Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup		
Short-term borrowings	**$ 8,376**	$ 9,278
Long-term debt	**12,579**	20,405
Other liabilities	**694**	463
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	**$21,649**	$ 30,146

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY

Citigroup Inc. and Subsidiaries

	Years ended December 31,					
	Amounts			Shares		
In millions of dollars, except shares in thousands	**2021**	2020	2019	**2021**	2020	2019
Preferred stock at aggregate liquidation value						
Balance, beginning of year	**$ 19,480**	$ 17,980	$ 18,460	**779**	719	738
Issuance of new preferred stock	**3,300**	3,000	1,500	**132**	120	60
Redemption of preferred stock	**(3,785)**	(1,500)	(1,980)	**(151)**	(60)	(79)
Balance, end of year	**$ 18,995**	$ 19,480	$ 17,980	**760**	779	719
Common stock and additional paid-in capital (APIC)						
Balance, beginning of year	**$107,877**	$107,871	$107,953	**3,099,633**	3,099,603	3,099,567
Employee benefit plans	**85**	5	(112)	**19**	30	36
Preferred stock issuance costs (new issuances, net of reclassifications to retained earnings for redemptions)	**25**	(4)	(4)	**—**	—	—
Other	**47**	5	34	**—**	—	—
Balance, end of year	**$108,034**	$107,877	$107,871	**3,099,652**	3,099,633	3,099,603
Retained earnings						
Balance, beginning of year	**$168,272**	$165,369	$151,347			
Adjustments to opening balance, net of taxes[1]						
Financial instruments—credit losses (CECL adoption)	**—**	(3,076)	—			
Variable post-charge-off third-party collection costs	**—**	330	—			
Lease accounting, intra-entity transfers of assets	**—**	—	151			
Adjusted balance, beginning of year	**$168,272**	$162,623	$151,498			
Citigroup's net income	**21,952**	11,047	19,401			
Common dividends[2]	**(4,196)**	(4,299)	(4,403)			
Preferred dividends	**(1,040)**	(1,095)	(1,109)			
Other (primarily reclassifications from APIC for preferred issuance costs on redemptions)	**(40)**	(4)	(18)			
Balance, end of year	**$184,948**	$168,272	$165,369			
Treasury stock, at cost						
Balance, beginning of year	**$ (64,129)**	$ (61,660)	$ (44,370)	**(1,017,544)**	(985,480)	(731,100)
Employee benefit plans[3]	**489**	456	585	**7,745**	8,676	9,872
Treasury stock acquired[4]	**(7,600)**	(2,925)	(17,875)	**(105,498)**	(40,740)	(264,252)
Balance, end of year	**$ (71,240)**	$ (64,129)	$ (61,660)	**(1,115,297)**	(1,017,544)	(985,480)
Citigroup's accumulated other comprehensive income (loss)						
Balance, beginning of year	**$ (32,058)**	$ (36,318)	$ (37,170)			
Citigroup's total other comprehensive income (loss)	**(6,707)**	4,260	852			
Balance, end of year	**$ (38,765)**	$ (32,058)	$ (36,318)			
Total Citigroup common stockholders' equity	**$182,977**	$179,962	$175,262	**1,984,355**	2,082,089	2,114,123
Total Citigroup stockholders' equity	**$201,972**	$199,442	$193,242			
Noncontrolling interests						
Balance, beginning of year	**$ 758**	$ 704	$ 854			
Transactions between noncontrolling-interest shareholders and the related consolidated subsidiary	**—**	—	—			
Transactions between Citigroup and the noncontrolling-interest shareholders	**(10)**	(4)	(169)			
Net income attributable to noncontrolling-interest shareholders	**73**	40	66			
Distributions paid to noncontrolling-interest shareholders	**(10)**	(2)	(40)			
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	**(99)**	26	—			
Other	**(12)**	(6)	(7)			
Net change in noncontrolling interests	**$ (58)**	$ 54	$ (150)			
Balance, end of year	**$ 700**	$ 758	$ 704			
Total equity	**$202,672**	$200,200	$193,946			

(1) See Note 1 to the Consolidated Financial Statements for additional details.
(2) Common dividends declared were $0.51 per share in the first, second, third and fourth quarters of 2021 and 2020; $0.45 per share in the first and second quarters of 2019 and $0.51 per share in the third and fourth quarters of 2019.
(3) Includes treasury stock related to (i) certain activity on employee stock option program exercises where the employee delivers existing shares to cover the option exercise, or (ii) under Citi's employee restricted or deferred stock programs where shares are withheld to satisfy tax requirements.
(4) Primarily consists of open market purchases under Citi's Board of Directors-approved common stock repurchase programs.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

Citigroup Inc. and Subsidiaries

In millions of dollars	Years ended December 31, **2021**	2020	2019
Cash flows from operating activities of continuing operations			
Net income before attribution of noncontrolling interests	**$ 22,025**	$ 11,087	$ 19,467
Net income attributable to noncontrolling interests	**73**	40	66
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Income (loss) from discontinued operations, net of taxes	**7**	(20)	(4)
Income from continuing operations—excluding noncontrolling interests	**$ 21,945**	$ 11,067	$ 19,405
Adjustments to reconcile net income to net cash provided by (used in) operating activities of continuing operations			
Net loss on significant disposals[1]	**700**	—	—
Depreciation and amortization	**3,964**	3,937	3,905
Deferred income taxes	**1,413**	(2,333)	(610)
Provision for credit losses on loans and unfunded lending commitments	**(3,891)**	17,368	8,310
Realized gains from sales of investments	**(665)**	(1,756)	(1,474)
Impairment losses on investments and other assets	**206**	165	32
Change in trading account assets	**43,059**	(98,997)	(20,124)
Change in trading account liabilities	**(6,498)**	48,133	(24,411)
Change in brokerage receivables net of brokerage payables	**1,412**	(3,066)	(20,377)
Change in loans HFS	**(3,809)**	1,202	(909)
Change in other assets	**(2,139)**	(1,012)	4,724
Change in other liabilities	**6,839**	558	1,737
Other, net	**(1,287)**	4,113	16,955
Total adjustments	**$ 39,304**	$ (31,688)	$ (32,242)
Net cash provided by (used in) operating activities of continuing operations	**$ 61,249**	$ (20,621)	$ (12,837)
Cash flows from investing activities of continuing operations			
Change in securities borrowed and purchased under agreements to resell	**$ (32,576)**	$ (43,390)	$ 19,362
Change in loans	**(1,173)**	14,249	(22,466)
Proceeds from sales and securitizations of loans	**2,918**	1,495	2,878
Purchases of investments	**(359,158)**	(334,900)	(274,491)
Proceeds from sales of investments	**126,728**	146,285	137,173
Proceeds from maturities of investments	**142,100**	124,229	119,051
Capital expenditures on premises and equipment and capitalized software	**(4,119)**	(3,446)	(5,336)
Proceeds from sales of premises and equipment, subsidiaries and affiliates and repossessed assets	**190**	50	259
Other, net	**185**	116	196
Net cash used in investing activities of continuing operations	**$(124,905)**	$ (95,312)	$ (23,374)
Cash flows from financing activities of continuing operations			
Dividends paid	**$ (5,198)**	$ (5,352)	$ (5,447)
Issuance of preferred stock	**3,300**	2,995	1,496
Redemption of preferred stock	**(3,785)**	(1,500)	(1,980)
Treasury stock acquired	**(7,601)**	(2,925)	(17,571)
Stock tendered for payment of withholding taxes	**(337)**	(411)	(364)
Change in securities loaned and sold under agreements to repurchase	**(8,240)**	33,186	(11,429)
Issuance of long-term debt	**70,658**	76,458	59,134
Payments and redemptions of long-term debt	**(74,950)**	(63,402)	(51,029)
Change in deposits	**44,966**	210,081	57,420
Change in short-term borrowings	**(1,541)**	(15,535)	12,703

Statement continues on the next page.

CONSOLIDATED STATEMENT OF CASH FLOWS (Continued)

	Years ended December 31,		
In millions of dollars	**2021**	2020	2019
Net cash provided by financing activities of continuing operations	**$ 17,272**	$ 233,595	$ 42,933
Effect of exchange rate changes on cash and due from banks	**$ (1,198)**	$ (1,966)	$ (908)
Change in cash, due from banks and deposits with banks	**(47,582)**	115,696	5,814
Cash, due from banks and deposits with banks at beginning of year	**309,615**	193,919	188,105
Cash, due from banks and deposits with banks at end of year	**$ 262,033**	$ 309,615	$ 193,919
Cash and due from banks (including segregated cash and other deposits)	**$ 27,515**	$ 26,349	$ 23,967
Deposits with banks, net of allowance	**234,518**	283,266	169,952
Cash, due from banks and deposits with banks at end of year	**$ 262,033**	$ 309,615	$ 193,919
Supplemental disclosure of cash flow information for continuing operations			
Cash paid during the year for income taxes	**$ 4,028**	$ 4,797	$ 4,888
Cash paid during the year for interest	**7,143**	12,094	27,901
Non-cash investing activities[(1)(2)]			
Decrease in net loans associated with significant disposals reclassified to HFS	**$ 9,945**	$ —	$ —
Transfers to loans HFS *(Other assets)* from loans	**7,414**	2,614	5,500
Non-cash financing activities[(1)]			
Decrease in long-term debt associated with significant disposals reclassified to HFS	**$ 479**	$ —	$ —
Decrease in deposits associated with significant disposals reclassified to HFS	**8,407**	—	—

(1) See Note 2 to the Consolidated Financial Statements for further information on significant disposals.
(2) Operating and finance lease right-of-use assets and lease liabilities represent non-cash investing and financing activities, respectively, and are not included in the non-cash investing activities presented here. See Note 26 to the Consolidated Financial Statements for more information and balances.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Throughout these Notes, "Citigroup," "Citi" and the "Company" refer to Citigroup Inc. and its consolidated subsidiaries.

Certain reclassifications and updates have been made to the prior periods' financial statements and notes to conform to the current period's presentation.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of Citigroup and its subsidiaries prepared in accordance with U.S. generally accepted accounting principles (GAAP). The Company consolidates subsidiaries in which it holds, directly or indirectly, more than 50% of the voting rights or where it exercises control. Entities in which the Company holds 20% to 50% of the voting rights and/or has the ability to exercise significant influence, other than investments of designated venture capital subsidiaries or investments accounted for at fair value under the fair value option, are accounted for under the equity method, and the pro rata share of their income (loss) is included in *Other revenue*. Income from investments in less-than-20%-owned companies is recognized when dividends are received. As discussed in more detail in Note 21 to the Consolidated Financial Statements, Citigroup also consolidates entities deemed to be variable interest entities when Citigroup is determined to be the primary beneficiary. Gains and losses on the disposition of branches, subsidiaries, affiliates, buildings and other investments are included in *Other revenue*.

Citibank

Citibank, N.A. (Citibank) is a commercial bank and indirect wholly owned subsidiary of Citigroup. Citibank's principal offerings include investment banking, commercial banking, cash management, trade finance and e-commerce; private banking products and services; consumer finance, credit cards, and mortgage lending; and retail banking products and services.

Variable Interest Entities (VIEs)

An entity is a variable interest entity (VIE) if it meets either of the criteria outlined in Accounting Standards Codification (ASC) Topic 810, *Consolidation*, which are (i) the entity has equity that is insufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, or (ii) the entity has equity investors that cannot make significant decisions about the entity's operations or that do not absorb their proportionate share of the entity's expected losses or expected returns.

The Company consolidates a VIE when it has both the power to direct the activities that most significantly impact the VIE's economic performance and a right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE (that is, Citi is the primary beneficiary). In addition to variable interests held in consolidated VIEs, the Company has variable interests in other VIEs that are not consolidated because the Company is not the primary beneficiary.

All unconsolidated VIEs are monitored by the Company to assess whether any events have occurred to cause its primary beneficiary status to change.

All entities not deemed to be VIEs with which the Company has involvement are evaluated for consolidation under other subtopics of ASC 810. See Note 21 to the Consolidated Financial Statements for more detailed information.

Foreign Currency Translation

Assets and liabilities of Citi's foreign operations are translated from their respective functional currencies into U.S. dollars using period-end spot foreign exchange rates. The effects of those translation adjustments are reported in *Accumulated other comprehensive income (loss)*, a component of stockholders' equity, net of any related hedge and tax effects, until realized upon sale or substantial liquidation of the foreign entity, at which point such amounts are reclassified into earnings. Revenues and expenses of Citi's foreign operations are translated monthly from their respective functional currencies into U.S. dollars at amounts that approximate weighted average exchange rates.

For transactions that are denominated in a currency other than the functional currency, including transactions denominated in the local currencies of foreign operations that use the U.S. dollar as their functional currency, the effects of changes in exchange rates are primarily included in *Principal transactions*, along with the related effects of any economic hedges. Instruments used to hedge foreign currency exposures include foreign currency forward, option and swap contracts and, in certain instances, designated issues of non-U.S.-dollar debt. Foreign operations in countries with highly inflationary economies designate the U.S. dollar as their functional currency, with the effects of changes in exchange rates primarily included in *Other revenue*.

Investment Securities

Investments include debt and equity securities. Debt securities include bonds, notes and redeemable preferred stocks, as well as certain loan-backed and structured securities that are subject to prepayment risk. Equity securities include common and nonredeemable preferred stock.

Debt Securities

- Debt securities classified as "held-to-maturity" (HTM) are securities that the Company has both the ability and the intent to hold until maturity and are carried at amortized cost. Interest income on such securities is included in *Interest revenue*.
- Debt securities classified as "available-for-sale" (AFS) are carried at fair value with changes in fair value reported in *Accumulated other comprehensive income (loss)*, a component of stockholders' equity, net of applicable income taxes and hedges. Interest income on such securities is included in *Interest revenue*.

Equity Securities

- Marketable equity securities are measured at fair value with changes in fair value recognized in earnings.
- Non-marketable equity securities are measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost. Non-marketable equity securities under the measurement alternative are carried at cost less impairment (if any), plus or minus changes resulting from observed prices for orderly transactions for the identical or a similar investment of the same issuer.
- Certain investments that would otherwise have been accounted for using the equity method are carried at fair value with changes in fair value recognized in earnings, since the Company elected to apply fair value accounting.

For investments in debt securities classified as held-to-maturity (HTM) or available-for-sale (AFS), the accrual of interest income is suspended for investments that are in default or for which it is likely that future interest payments will not be made as scheduled.

Debt securities not measured at fair value through earnings include securities held in HTM or AFS, and equity securities accounted for under the Measurement Alternative or equity method and Federal Reserve Bank, Federal Home Loan Bank stock and certain exchange seats. These securities are subject to evaluation for impairment as described in Note 15 to the Consolidated Financial Statements for HTM securities and in Note 13 for AFS, Measurement Alternative and equity method investments. Realized gains and losses on sales of investments are included in earnings, primarily on a specific identification basis.

The Company uses a number of valuation techniques for investments carried at fair value, which are described in Note 24 to the Consolidated Financial Statements.

Trading Account Assets and Liabilities

Trading account assets include debt and marketable equity securities, derivatives in a receivable position, residual interests in securitizations and physical commodities inventory. In addition, as described in Note 25 to the Consolidated Financial Statements, certain assets that Citigroup has elected to carry at fair value under the fair value option, such as loans and purchased guarantees, are also included in *Trading account assets*.

Trading account liabilities include securities sold, not yet purchased (short positions) and derivatives in a net payable position, as well as certain liabilities that Citigroup has elected to carry at fair value (as described in Note 25 to the Consolidated Financial Statements).

Other than physical commodities inventory, all trading account assets and liabilities are carried at fair value. Revenues generated from trading assets and trading liabilities are generally reported in *Principal transactions* and include realized gains and losses as well as unrealized gains and losses resulting from changes in the fair value of such instruments. Interest income on trading assets is recorded in *Interest revenue* reduced by interest expense on trading liabilities.

Physical commodities inventory is carried at the lower of cost or market with related losses reported in *Principal transactions*, except when included in a hedge relationship. Realized gains and losses on sales of commodities inventory are included in *Principal transactions*. Investments in unallocated precious metals accounts (gold, silver, platinum and palladium) are accounted for as hybrid instruments containing a debt host contract and an embedded non-financial derivative instrument indexed to the price of the relevant precious metal. The embedded derivative instrument and debt host contract are carried at fair value under the fair value option, as described in Note 25 to the Consolidated Financial Statements.

Derivatives used for trading purposes include interest rate, currency, equity, credit and commodity swap agreements, options, caps and floors, warrants, and financial and commodity futures and forward contracts. Derivative asset and liability positions are presented net by counterparty on the Consolidated Balance Sheet when a valid master netting agreement exists and the other conditions set out in ASC Topic 210-20, *Balance Sheet—Offsetting*, are met. See Note 22 to the Consolidated Financial Statements.

The Company uses a number of techniques to determine the fair value of trading assets and liabilities, which are described in Note 24 to the Consolidated Financial Statements.

Securities Borrowed and Securities Loaned

Securities borrowing and lending transactions do not constitute a sale of the underlying securities for accounting purposes and are treated as collateralized financing transactions. Such transactions are recorded at the amount of proceeds advanced or received plus accrued interest. As described in Note 25 to the Consolidated Financial Statements, the Company has elected to apply fair value accounting to a number of securities borrowing and lending transactions. Fees received or paid for all securities borrowing and lending transactions are recorded in *Interest revenue* or *Interest expense* at the contractually specified rate.

Where the conditions of ASC 210-20-45-1, *Balance Sheet—Offsetting: Right of Setoff Conditions*, are met, securities borrowing and lending transactions are presented net on the Consolidated Balance Sheet.

The Company monitors the fair value of securities borrowed or loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 24 to the Consolidated Financial Statements, the Company uses a discounted cash flow technique to determine the fair value of securities lending and borrowing transactions.

Repurchase and Resale Agreements

Securities sold under agreements to repurchase (repos) and securities purchased under agreements to resell (reverse repos) do not constitute a sale (or purchase) of the underlying securities for accounting purposes and are treated as collateralized financing transactions. As described in Note 25 to the Consolidated Financial Statements, the Company has elected to apply fair value accounting to certain of such transactions, with changes in fair value reported in earnings. Any transactions for which fair value accounting has not been elected are recorded at the amount of cash advanced or received plus accrued interest. Irrespective of whether the Company has elected fair value accounting, interest paid or received on all repo and reverse repo transactions is recorded in *Interest expense* or *Interest revenue* at the contractually specified rate.

Where the conditions of ASC 210-20-45-11, *Balance Sheet—Offsetting: Repurchase and Reverse Repurchase Agreements*, are met, repos and reverse repos are presented net on the Consolidated Balance Sheet.

The Company's policy is to take possession of securities purchased under reverse repurchase agreements. The Company monitors the fair value of securities subject to repurchase or resale on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 24 to the Consolidated Financial Statements, the Company uses a discounted cash flow technique to determine the fair value of repo and reverse repo transactions.

Loans

Loans are reported at their outstanding principal balances net of any unearned income and unamortized deferred fees and costs, except for credit card receivable balances, which include accrued interest and fees. Loan origination fees and certain direct origination costs are generally deferred and recognized as adjustments to income over the lives of the related loans.

As described in Note 25 to the Consolidated Financial Statements, Citi has elected fair value accounting for certain loans. Such loans are carried at fair value with changes in fair value reported in earnings. Interest income on such loans is recorded in *Interest revenue* at the contractually specified rate.

Loans that are held-for-investment are classified as *Loans, net of unearned income* on the Consolidated Balance Sheet, and the related cash flows are included within the cash flows from investing activities category in the Consolidated Statement of Cash Flows on the line *Change in loans*. However, when the initial intent for holding a loan has changed from held-for-investment to held-for-sale (HFS), the loan is reclassified to HFS, but the related cash flows continue to be reported in cash flows from investing activities in the Consolidated Statement of Cash Flows on the line *Proceeds from sales and securitizations of loans*.

Consumer Loans

Consumer loans represent loans and leases managed primarily by the *Global Consumer Banking (GCB)* businesses and *Corporate/Other*.

Consumer Non-accrual and Re-aging Policies

As a general rule, interest accrual ceases for installment and real estate (both open- and closed-end) loans when payments are 90 days contractually past due. For credit cards and other unsecured revolving loans, however, Citi generally accrues interest until payments are 180 days past due. As a result of OCC guidance, home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Also as a result of OCC guidance, mortgage loans in regulated bank entities are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy, with the exception of Federal Housing Administration (FHA)-insured loans.

Loans that have been modified to grant a concession to a borrower in financial difficulty may not be accruing interest at the time of the modification. The policy for returning such modified loans to accrual status varies by product and/or region. In most cases, a minimum number of payments (ranging from one to six) is required, while in other cases the loan is never returned to accrual status. For regulated bank entities, such modified loans are returned to accrual status if a credit evaluation at the time of, or subsequent to, the modification indicates the borrower is able to meet the restructured terms, and the borrower is current and has demonstrated a reasonable period of sustained payment performance (minimum six months of consecutive payments).

For U.S. consumer loans, generally one of the conditions to qualify for modification (other than for loan modifications made through the CARES Act relief provisions or banking agency guidance for pandemic-related issues) is that a minimum number of payments (typically ranging from one to three) must be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for the loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years). Furthermore, FHA and Department of Veterans Affairs (VA) loans may only be modified under those respective agencies' guidelines, and payments are not always required in order to re-age a modified loan to current.

Consumer Charge-Off Policies

Citi's charge-off policies follow the general guidelines below:

- Unsecured installment loans are charged off at 120 days contractually past due.
- Unsecured revolving loans and credit card loans are charged off at 180 days contractually past due.
- Loans secured with non-real estate collateral are written down to the estimated value of the collateral, less costs to sell, at 120 days contractually past due.
- Real estate-secured loans are written down to the estimated value of the property, less costs to sell, at 180 days contractually past due.
- Real estate-secured loans are charged off no later than 180 days contractually past due if a decision has been made not to foreclose on the loans.
- Unsecured loans in bankruptcy are charged off within 60 days of notification of filing by the bankruptcy court or in accordance with Citi's charge-off policy, whichever occurs earlier.
- Real estate-secured loans in bankruptcy, other than FHA-insured loans, are written down to the estimated value of the property, less costs to sell, within 60 days of notification that the borrower has filed for bankruptcy or in accordance with Citi's charge-off policy, whichever is earlier.

Corporate Loans

Corporate loans represent loans and leases managed by *Institutional Clients Group (ICG)*. Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days past due and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectability of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan.

Impaired corporate loans and leases are written down to the extent that principal is deemed to be uncollectible. Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral and there are no other available and reliable sources of repayment, are written down to the lower of carrying value or collateral value. Cash-basis loans are returned to accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance in accordance with the contractual terms.

Loans Held-for-Sale

Corporate and consumer loans that have been identified for sale are classified as loans HFS and included in *Other assets*. The practice of Citi's U.S. prime mortgage business has been to sell substantially all of its conforming loans. As such, U.S. prime mortgage conforming loans are classified as HFS and the fair value option is elected at origination, with changes in fair value recorded in *Other revenue*. With the exception of those loans for which the fair value option has been elected, HFS loans are accounted for at the lower of cost or market value, with any write-downs or subsequent recoveries charged to *Other revenue*. The related cash flows are classified in the Consolidated Statement of Cash Flows in the cash flows from operating activities category on the line *Change in loans held-for-sale*.

Allowances for Credit Losses (ACL)

Commencing January 1, 2020, Citi adopted Accounting Standards Update (ASC) 326, *Financial Instruments—Credit Losses*, using the methodologies described below. For information about Citi's accounting for loan losses prior to January 1, 2020, see "Superseded Accounting Principles" below.

The current expected credit losses (CECL) methodology is based on relevant information about past events, including historical experience, current conditions and reasonable and supportable (R&S) forecasts that affect the collectability of the reported financial asset balances. If the asset's life extends beyond the R&S forecast period, then historical experience is considered over the remaining life of the assets in the ACL. The resulting ACL is adjusted in each subsequent reporting period through *Provisions for credit losses* in the Consolidated Statement of Income to reflect changes in history, current conditions and forecasts as well as changes in asset positions and portfolios. ASC 326 defines the ACL as a valuation account that is deducted from the amortized cost of a financial asset to present the net amount that management expects to collect on the financial asset over its expected life. All financial assets carried at amortized cost are in the scope of ASC 326, while assets measured at fair value are excluded. See Note 13 to the Consolidated Financial Statements for a discussion of impairment on available-for-sale (AFS) securities.

Increases and decreases to the allowances are recorded in *Provisions for credit losses*. The CECL methodology utilizes a lifetime expected credit loss (ECL) measurement objective for the recognition of credit losses for held-for-investment (HFI) loans, held-to-maturity (HTM) debt securities, receivables and other financial assets measured at amortized cost at the time the financial asset is originated or acquired. Within the life of a loan or other financial asset, the methodology generally results in the earlier recognition of the provision for credit losses and the related ACL than prior U.S. GAAP.

Estimation of ECLs requires Citi to make assumptions regarding the likelihood and severity of credit loss events and their impact on expected cash flows, which drive the probability of default (PD), loss given default (LGD) and exposure at default (EAD) models and, where Citi discounts the ECL, using discounting techniques for certain products. Where the asset's life extends beyond the R&S forecast period, Citi considers historical experience over the remaining life of the assets in estimating the ACL.

Citi uses a multitude of variables in its macroeconomic forecast as part of its calculation of both the qualitative and quantitative components of the ACL, including both domestic and international variables for its global portfolios and exposures. Citi's forecasts of the U.S. unemployment rate and U.S. Real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of its consumer and corporate ACLs. Under the quantitative base scenario, Citi's 4Q21 forecasts are for U.S. unemployment to continue to improve as the U.S. continues to move past the peak of the pandemic-related health and economic crisis.

The following are the main factors and interpretations that Citi considers when estimating the ACL under the CECL methodology:

- The most important reasons for the change in the ACL during 2021 were the ACL releases resulting from the recovery from the pandemic.
- CECL reserves are estimated over the contractual term of the financial asset, which is adjusted for expected prepayments. Expected extensions are generally not considered unless the option to extend the loan cannot be canceled unilaterally by Citi. Modifications are also not considered, unless Citi has a reasonable expectation that it will execute a troubled debt restructuring (TDR).

- Credit enhancements that are not freestanding (such as those that are included in the original terms of the contract or those executed in conjunction with the lending transaction) are considered loss mitigants for purposes of CECL reserve estimation.
- For unconditionally cancelable accounts such as credit cards, reserves are based on the expected life of the balance as of the evaluation date (assuming no further charges) and do not include any undrawn commitments that are unconditionally cancelable. Reserves are included for undrawn commitments for accounts that are not unconditionally cancelable (such as letters of credit and corporate loan commitments, home equity lines of credit (HELOCs), undrawn mortgage loan commitments and financial guarantees).
- CECL models are designed to be economically sensitive. They utilize the macroeconomic forecasts provided by Citi's economic forecasting team (EFT) that are approved by senior management. Analysis is performed and documented to determine the necessary qualitative management adjustment (QMA) to capture forward-looking macroeconomic expectations and model uncertainty.
- The portion of the forecast that reflects the EFT's reasonable and supportable (R&S) period indicates the maximum length of time its models can produce a R&S macroeconomic forecast, after which mean reversion reflecting historical loss experience is used for the remaining life of the loan to estimate expected credit losses. For the loss forecast, businesses consume the macroeconomic forecast as determined to be appropriate and justifiable.

Citi's ability to forecast credit losses over the reasonable and supportable (R&S) period is based on the ability to forecast economic activity over a reasonable and supportable time window. The R&S period reflects the overall ability to have a reasonable and supportable forecast of credit loss based on economic forecasts.

- The loss models consume all or a portion of the R&S economic forecast and then revert to historical loss experience. The R&S forecast period for consumer loans is 13 quarters and, in most cases, reverts to historically based loss experience either immediately or using a straight-line approach thereafter, while the R&S period for corporate loans is nine quarters with an additional straight-line reversion period of three quarters for ECL parameters.
- The ACL incorporates provisions for accrued interest on products that are not subject to a non-accrual and timely write-off policy (e.g., credit cards, etc.).
- The reserves for TDRs are calculated using the discounted cash flow method and considers appropriate macroeconomic forecast data for the exposure type. For TDR loans that are collateral dependent, the ACL is based on the fair value of the collateral.
- Citi uses the most recent available information to inform its macroeconomic forecasts, allowing sufficient time for analysis of the results and corresponding approvals. Key variables are reviewed for significant changes through year end and changes to portfolio positions are reflected in the ACL.
- Reserves are calculated at an appropriately granular level and on a pooled basis where financial assets share risk characteristics. At a minimum, reserves are calculated at a portfolio level (product and country). Where a financial asset does not share risk characteristics with any of the pools, it is evaluated for credit losses individually.

Quantitative and Qualitative Components of the ACL

The loss likelihood and severity models use both internal and external information and are sensitive to forecasts of different macroeconomic conditions. For the quantitative component, Citi uses a single forward-looking macroeconomic forecast, complemented by the qualitative component that reflects economic uncertainty due to a different possible more adverse scenario for estimating the ACL. Estimates of these ECLs are based upon (i) Citigroup's internal system of credit risk ratings; (ii) historical default and loss data, including comprehensive internal history and rating agency information regarding default rates and internal data on the severity of losses in the event of default; and (iii) a R&S forecast of future macroeconomic conditions. ECL is determined primarily by utilizing models for the borrowers' PD, LGD and EAD. Adjustments may be made to this data, including (i) statistically calculated estimates to cover the historical fluctuation of the default rates over the credit cycle, the historical variability of loss severity among defaulted loans and the degree to which there are large obligor concentrations in the global portfolio, and (ii) adjustments made for specifically known items, such as current environmental factors and credit trends.

Any adjustments needed to the modeled expected losses in the quantitative calculations are addressed through a qualitative adjustment. The qualitative adjustment considers, among other things: the uncertainty of forward-looking scenarios based on the likelihood and severity of a possible recession; the uncertainty of economic conditions related to an alternative downside scenario; certain portfolio characteristics and concentrations; collateral coverage; model limitations; idiosyncratic events; and other relevant criteria under banking supervisory guidance for loan loss reserves. The qualitative adjustment also reflects the estimated impact of the pandemic on the economic forecasts and the impact on credit loss estimates. The total ACL is composed of the quantitative and qualitative components.

Consumer Loans

For consumer loans, most portfolios including North America cards, mortgages and personal installment loans (PILs) are covered by the PD, LGD and EAD loss forecasting models. Some smaller international portfolios are covered by econometric models where the gross credit loss (GCL) rate is forecasted. The modeling of all retail products is performed by examining risk drivers for a given portfolio; these drivers relate to exposures with similar credit risk characteristics and consider past events, current conditions and R&S forecasts. Under the PD x LGD x EAD approach, GCLs and recoveries are captured on an undiscounted basis. Citi incorporates expected recoveries on loans into its reserve estimate, including expected recoveries on assets previously written off.

CECL defines the exposure's expected life as the remaining contractual maturity including any expected prepayments. Subsequent changes to the contractual terms that are the result of a re-underwriting are not included in the loan's expected CECL life.

Citi does not establish reserves for the uncollectible accrued interest on non-revolving consumer products, such as mortgages and installment loans, which are subject to a non-accrual and timely write-off policy. As such, only the principal balance is subject to the CECL reserve methodology and interest does not attract a further reserve. FAS 91-deferred origination costs and fees related to new account originations are amortized within a 12-month period, and an ACL is provided for components in the scope of the ASC.

Separate valuation allowances are determined for impaired smaller-balance homogeneous loans whose terms have been modified in a TDR. Long-term modification programs, and short-term (less than 12 months) modifications that provide concessions (such as interest rate reductions) to borrowers in financial difficulty, are reported as TDRs. In addition, loan modifications that involve a trial period are reported as TDRs at the start of the trial period. The ACL for TDRs is determined using a discounted cash flow (DCF) approach. When a DCF approach is used, the initial allowance for ECLs is calculated as the expected contractual cash flows discounted at the loan's original effective interest rate. DCF techniques are applied only for consumer loans classified as TDR loan exposures.

For credit cards, Citi uses the payment rate approach, which leverages payment rate curves, to determine the payments that should be applied to liquidate the end-of-period balance (CECL balance) in the estimation of EAD. The payment rate approach uses customer payment behavior (payment rate) to establish the portion of the CECL balance that will be paid each month. These payment rates are defined as the percentage of principal payments received in the respective month divided by the prior month's billed principal balance. The liquidation (CECL payment) amount for each forecast period is determined by multiplying the CECL balance by that period's forecasted payment rate. The cumulative sum of these payments less the CECL balance produces the balance liquidation curve. Citi does not apply a non-accrual policy to credit card receivables; rather, they are subject to full charge-off at 180 days past due. As such, the entire customer balance up until write-off, including accrued interest and fees, will be subject to the CECL reserve methodology.

Corporate Loans and HTM Securities

Citi records allowances for credit losses on all financial assets carried at amortized cost that are in the scope of CECL, including corporate loans classified as HFI and HTM debt securities. Discounting techniques are applied for corporate loans classified as HFI and HTM securities and non-accrual/TDR loan exposures. All cash flows are fully discounted to the reporting date. The ACL includes Citi's estimate of all credit losses expected to be incurred over the estimated full contractual life of the financial asset. The contractual life of the financial asset does not include expected extensions, renewals or modifications, except for instances where the Company reasonably expects to extend the tenor of the financial asset pursuant to a future TDR. Where Citi has an unconditional option to extend the contractual term, Citi does not consider the potential extension in determining the contractual term; however, where the borrower has the sole right to exercise the extension option without Citi's approval, Citi does consider the potential extension in determining the contractual term. The decrease in credit losses under CECL at the date of adoption on January 1, 2020, compared with the prior incurred loss methodology, was largely due to more precise contractual maturities that resulted in shorter remaining tenors, the incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies.

The Company primarily bases its ACL on models that assess the likelihood and severity of credit events and their impact on cash flows under R&S forecasted economic scenarios. Allowances consider the probability of the borrower's default, the loss the Company would incur upon default and the borrower's exposure at default. Such models discount the present value of all future cash flows, using the asset's effective interest rate (EIR). Citi applies a more simplified approach based on historical loss rates to certain exposures recorded in *Other assets* and certain loan exposures in the private bank.

The Company considers the risk of nonpayment to be zero for U.S. Treasuries and U.S. government-sponsored agency guaranteed mortgage-backed securities (MBS) and, as such, Citi does not have an ACL for these securities. For all other HTM debt securities, ECLs are estimated using PD models and discounting techniques, which incorporate assumptions regarding the likelihood and severity of credit losses. For structured securities, specific models use relevant assumptions for the underlying collateral type. A discounting approach is applied to HTM direct obligations of a single issuer, similar to that used for corporate HFI loans.

Other Financial Assets with Zero Expected Credit Losses

For certain financial assets, zero expected credit losses will be recognized where the expectation of nonpayment of the amortized cost basis is zero, based on there being no history of loss and the nature of the receivables.

Secured Financing Transactions

Most of Citi's reverse repurchase agreements, securities borrowing arrangements and margin loans require that the borrower continually adjust the amount of the collateral securing Citi's interest, primarily resulting from changes in the fair value of such collateral. In such arrangements, ACLs are recorded based only on the amount by which the asset's amortized cost basis exceeds the fair value of the collateral. No ACLs are recorded where the fair value of the collateral is equal to or exceeds the asset's amortized cost basis, as Citi does not expect to incur credit losses on such well-collateralized exposures. For certain margin loans presented in *Loans* on the Consolidated Balance Sheet, credit losses are estimated using the same approach as corporate loans.

Accrued Interest

CECL permits entities to make an accounting policy election not to reserve for interest, if the entity has a policy in place that will result in timely reversal or write-off of interest. However, when a non-accrual or timely charge-off policy is not applied, an ACL is recognized on accrued interest. For HTM debt securities, Citi established a non-accrual policy that results in timely write-off of accrued interest. For corporate loans, where a timely charge-off policy is used, Citi has elected to recognize an ACL on accrued interest receivable. The LGD models for corporate loans include an adjustment for estimated accrued interest.

Reasonably Expected TDRs

For corporate loans, the reasonable expectation of TDR concept requires that the contractual life over which ECLs are estimated be extended when a TDR that results in a tenor extension is reasonably expected. Reasonably expected TDRs are included in the life of the asset. A discounting technique or collateral-dependent practical expedient is used for non-accrual and TDR loan exposures that do not share risk characteristics with other loans and are individually assessed. Loans modified in accordance with the CARES Act and bank regulatory guidance are not classified as TDRs.

Purchased Credit-Deteriorated (PCD) Assets

ASC 326 requires entities that have acquired financial assets (such as loans and HTM securities) with an intent to hold, to evaluate whether those assets have experienced a more-than-insignificant deterioration in credit quality since origination. These assets are subject to specialized accounting at initial recognition under CECL. Subsequent measurement of PCD assets will remain consistent with other purchased or originated assets, i.e., non-PCD assets. CECL introduces the notion of PCD assets, which replaces purchased credit impaired (PCI) accounting under prior U.S. GAAP.

CECL requires the estimation of credit losses to be performed on a pool basis unless a PCD asset does not share characteristics with any pool. If certain PCD assets do not meet the conditions for aggregation, those PCD assets should be accounted for separately. This determination must be made at the date the PCD asset is purchased. In estimating ECLs from day 2 onward, pools can potentially be reassembled based upon similar risk characteristics. When PCD assets are pooled, Citi determines the amount of the initial ACL at the pool level. The amount of the initial ACL for a PCD asset represents the portion of the total discount at acquisition that relates to credit and is recognized as a "gross-up" of the purchase price to arrive at the PCD asset's (or pool's) amortized cost. Any difference between the unpaid principal balance and the amortized cost is considered to be related to non-credit factors and results in a discount or premium, which is amortized to interest income over the life of the individual asset (or pool). Direct expenses incurred related to the acquisition of PCD assets and other assets and liabilities in a business combination are expensed as incurred. Subsequent accounting for acquired PCD assets is the same as the accounting for originated assets; changes in the allowance are recorded in *Provisions for credit losses*.

Consumer

Citi does not purchase whole portfolios of PCD assets in its retail businesses. However, there may be a small portion of a purchased portfolio that is identified as PCD at the purchase date. Interest income recognition does not vary between PCD and non-PCD assets. A consumer financial asset is considered to be more-than-insignificantly credit deteriorated if it is more than 30 days past due at the purchase date.

Corporate

Citi generally classifies wholesale loans and debt securities classified as HTM or AFS as PCD when both of the following criteria are met: (i) the purchase price discount is at least 10% of par and (ii) the purchase date is more than 90 days after the origination or issuance date. Citi classifies HTM beneficial interests rated AA- and lower obtained at origination from certain securitization transactions as PCD when there is a significant difference (i.e., 10% or greater) between contractual cash flows, adjusted for prepayments, and expected cash flows at the date of recognition.

Reserve Estimates and Policies

Management provides reserves for an estimate of lifetime ECLs in the funded loan portfolio on the Consolidated Balance Sheet in the form of an ACL. These reserves are established in accordance with Citigroup's credit reserve policies, as approved by the Audit Committee of the Citigroup Board of Directors. Citi's Chief Risk Officer and Chief Financial Officer review the adequacy of the credit loss reserves each quarter with risk management and finance representatives for each applicable business area. Applicable business areas include those having classifiably managed portfolios, where internal credit risk ratings are assigned (primarily *ICG*) and delinquency managed portfolios (primarily *GCB*) or modified consumer loans, where concessions were granted due to the borrowers' financial difficulties. The aforementioned representatives for these business areas present recommended reserve balances for their funded and unfunded lending portfolios along with supporting quantitative and qualitative data discussed below:

Estimated Credit Losses in the Delinquency-Managed Portfolios for Performing Exposures
In addition, risk management and finance representatives who cover business areas with delinquency-managed portfolios containing smaller-balance homogeneous loans present their recommended reserve balances based on leading credit indicators, including loan delinquencies and changes in portfolio size as well as economic trends, including current and future housing prices, unemployment, length of time in foreclosure, costs to sell and GDP. This methodology is applied separately for each product within each geographic region in which these portfolios exist. This evaluation process is subject to numerous estimates and judgments. The frequency of default, risk ratings, loss recovery rates, size and diversity of individual large credits and ability of borrowers with foreign currency obligations to obtain the foreign currency necessary for orderly debt servicing, among other things, are all taken into account during this review. Changes in these estimates could have a direct impact on the credit costs in any period and could result in a change in the allowance.

Allowance for Unfunded Lending Commitments
Credit loss reserves are recognized on all off-balance sheet commitments that are not unconditionally cancelable. Corporate loan EAD models include an incremental usage factor (or credit conversion factor) to estimate ECLs on amounts undrawn at the reporting date. Off-balance sheet commitments include unfunded exposures, revolving facilities, securities underwriting commitments, letters of credit, HELOCs and financial guarantees (excluding performance guarantees). This reserve is classified on the Consolidated Balance Sheet in *Other liabilities*. Changes to the allowance for unfunded lending commitments are recorded in *Provision for credit losses on unfunded lending commitments*.

Mortgage Servicing Rights (MSRs)
Mortgage servicing rights (MSRs) are recognized as intangible assets when purchased or when the Company sells or securitizes loans acquired through purchase or origination and retains the right to service the loans. Mortgage servicing rights are accounted for at fair value, with changes in value recorded in *Other revenue* in the Company's Consolidated Statement of Income.

For additional information on the Company's MSRs, see Notes 16 and 21 to the Consolidated Financial Statements.

Goodwill
Goodwill represents the excess of acquisition cost over the fair value of net tangible and intangible assets acquired in a business combination. Goodwill is subject to annual impairment testing and interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount.

Under ASC Topic 350, *Intangibles—Goodwill and Other* and upon the adoption of ASU No. 2017-04 on January 1, 2020, the Company has an option to assess qualitative factors to determine if it is necessary to perform the goodwill impairment test. If, after assessing the totality of events or circumstances, the Company determines that it is not more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, no further testing is necessary. If, however, the Company determines that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then the Company must perform the quantitative test.

The Company has an unconditional option to bypass the qualitative assessment for any reporting unit in any reporting period and proceed directly to the quantitative test.

The quantitative test requires a comparison of the fair value of the individual reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is in excess of the carrying value, the related goodwill is considered not impaired and no further analysis is necessary. If the carrying value of the reporting unit exceeds the fair value, an impairment loss is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Upon any business disposition, goodwill is allocated to, and derecognized with, the disposed business based on the ratio of the fair value of the disposed business to the fair value of the reporting unit.

Additional information on Citi's goodwill impairment testing can be found in Note 16 to the Consolidated Financial Statements.

Intangible Assets
Intangible assets—including core deposit intangibles, present value of future profits, purchased credit card relationships, credit card contract related intangibles, other customer relationships and other intangible assets, but excluding MSRs—are amortized over their estimated useful lives. Intangible assets that are deemed to have indefinite useful lives, primarily trade names, are not amortized and are subject to annual impairment tests. An impairment exists if the carrying value of the indefinite-lived intangible asset exceeds its fair value. For other intangible assets subject to amortization, an impairment is recognized if the carrying amount is not recoverable and exceeds the fair value of the intangible asset.

Other Assets and Other Liabilities
Other assets include, among other items, loans HFS, deferred tax assets, equity method investments, interest and fees receivable, lease right-of-use assets, premises and equipment (including purchased and developed software), repossessed assets and other receivables. *Other liabilities* include, among other items, accrued expenses and other payables, lease liabilities, deferred tax liabilities and reserves for legal claims, taxes, unfunded lending commitments, repositioning reserves and other payables.

Other Real Estate Owned and Repossessed Assets
Real estate or other assets received through foreclosure or repossession are generally reported in *Other assets*, net of a valuation allowance for selling costs and subsequent declines in fair value.

Securitizations

There are two key accounting determinations that must be made relating to securitizations. Citi first makes a determination as to whether the securitization entity must be consolidated. Second, it determines whether the transfer of financial assets to the entity is considered a sale under GAAP. If the securitization entity is a VIE, the Company consolidates the VIE if it is the primary beneficiary (as discussed in "Variable Interest Entities" above). For all other securitization entities determined not to be VIEs in which Citigroup participates, consolidation is based on which party has voting control of the entity, giving consideration to removal and liquidation rights in certain partnership structures. Only securitization entities controlled by Citigroup are consolidated.

Interests in the securitized and sold assets may be retained in the form of subordinated or senior interest-only strips, subordinated tranches, spread accounts and servicing rights. In credit card securitizations, the Company retains a seller's interest in the credit card receivables transferred to the trusts, which is not in securitized form. In the case of consolidated securitization entities, including the credit card trusts, these retained interests are not reported on Citi's Consolidated Balance Sheet. The securitized loans remain on the balance sheet. Substantially all of the consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Intangible assets* on Citigroup's Consolidated Balance Sheet.

Debt

Short-term borrowings and *Long-term debt* are accounted for at amortized cost, except where the Company has elected to report the debt instruments, including certain structured notes, at fair value, or the debt is in a fair value hedging relationship.

Transfers of Financial Assets

For a transfer of financial assets to be considered a sale: (i) the assets must be legally isolated from the Company, even in bankruptcy or other receivership, (ii) the purchaser must have the right to pledge or sell the assets transferred (or, if the purchaser is an entity whose sole purpose is to engage in securitization and asset-backed financing activities through the issuance of beneficial interests and that entity is constrained from pledging the assets it receives, each beneficial interest holder must have the right to sell or pledge their beneficial interests) and (iii) the Company may not have an option or obligation to reacquire the assets.

If these sale requirements are met, the assets are removed from the Company's Consolidated Balance Sheet. If the conditions for sale are not met, the transfer is considered to be a secured borrowing, the assets remain on the Consolidated Balance Sheet and the sale proceeds are recognized as the Company's liability. A legal opinion on a sale generally is obtained for complex transactions or where the Company has continuing involvement with assets transferred or with the securitization entity. For a transfer to be eligible for sale accounting, that opinion must state that the asset transfer would be considered a sale and that the assets transferred would not be consolidated with the Company's other assets in the event of the Company's insolvency.

For a transfer of a portion of a financial asset to be considered a sale, the portion transferred must meet the definition of a participating interest. A participating interest must represent a pro rata ownership in an entire financial asset; all cash flows must be divided proportionately, with the same priority of payment; no participating interest in the transferred asset may be subordinated to the interest of another participating interest holder; and no party may have the right to pledge or exchange the entire financial asset unless all participating interest holders agree. Otherwise, the transfer is accounted for as a secured borrowing.

See Note 21 to the Consolidated Financial Statements for further discussion.

Risk Management Activities—Derivatives Used for Hedging Purposes

The Company manages its exposures to market movements outside of its trading activities by modifying the asset and liability mix, either directly or through the use of derivative financial products, including interest rate swaps, futures, forwards, purchased options and commodities, as well as foreign-exchange contracts. These end-user derivatives are carried at fair value in *Trading account assets* and *Trading account liabilities*.

See Note 22 to the Consolidated Financial Statements for a further discussion of the Company's hedging and derivative activities.

Instrument-Specific Credit Risk

Citi presents separately in *AOCI* the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk, when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. Accordingly, the change in fair value of liabilities for which the fair value option was elected, related to changes in Citigroup's own credit spreads, is presented in *AOCI*.

Employee Benefits Expense

Employee benefits expense includes current service costs of pension and other postretirement benefit plans (which are accrued on a current basis), contributions and unrestricted awards under other employee plans, the amortization of restricted stock awards and costs of other employee benefits. For its most significant pension and postretirement benefit plans (Significant Plans), Citigroup measures and discloses plan obligations, plan assets and periodic plan expense quarterly, instead of annually. The effect of remeasuring the Significant Plan obligations and assets by updating plan actuarial assumptions on a quarterly basis is reflected in *Accumulated other comprehensive income (loss)* and periodic plan expense. All other plans (All Other Plans) are remeasured annually. See Note 8 to the Consolidated Financial Statements.

Stock-Based Compensation

The Company recognizes compensation expense related to stock and option awards over the requisite service period, generally based on the instruments' grant-date fair value, reduced by actual forfeitures as they occur. Compensation cost related to awards granted to employees who meet certain age plus years-of-service requirements (retirement-eligible employees) is accrued in the year prior to the grant date, in the same manner as the accrual for cash incentive compensation. Certain stock awards with performance conditions or certain clawback provisions are subject to variable accounting, pursuant to which the associated compensation expense fluctuates with changes in Citigroup's common stock price. See Note 7 to the Consolidated Financial Statements.

Income Taxes

The Company is subject to the income tax laws of the U.S. and its states and municipalities, as well as the non-U.S. jurisdictions in which it operates. These tax laws are complex and may be subject to different interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, the Company must make judgments and interpretations about these tax laws. The Company must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign.

Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of the various tax jurisdictions, or may be settled with the taxing authority upon examination or audit. The Company treats interest and penalties on income taxes as a component of *Income tax expense*.

Deferred taxes are recorded for the future consequences of events that have been recognized in financial statements or tax returns, based upon enacted tax laws and rates. Deferred tax assets are recognized subject to management's judgment about whether realization is more-likely-than-not. ASC 740, *Income Taxes*, sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain tax positions. This interpretation uses a two-step approach wherein a tax benefit is recognized if a position is more-likely-than-not to be sustained. The amount of the benefit is then measured to be the highest tax benefit that is more than 50% likely to be realized. ASC 740 also sets out disclosure requirements to enhance transparency of an entity's tax reserves.

See Note 9 to the Consolidated Financial Statements for a further description of the Company's tax provision and related income tax assets and liabilities.

Commissions, Underwriting and Principal Transactions

Commissions and fees revenues are recognized in income when earned. Underwriting revenues are recognized in income typically at the closing of the transaction. *Principal transactions* revenues are recognized in income on a trade-date basis. See Note 5 to the Consolidated Financial Statements for a description of the Company's revenue recognition policies for *Commissions and fees*, and Note 6 to the Consolidated Financial Statements for details of *Principal transactions* revenue.

Earnings per Share

Earnings per share (EPS) is computed after deducting preferred stock dividends. The Company has granted restricted and deferred share awards with dividend rights that are considered to be participating securities, which are akin to a second class of common stock. Accordingly, a portion of Citigroup's earnings is allocated to those participating securities in the EPS calculation.

Basic earnings per share is computed by dividing income available to common stockholders after the allocation of dividends and undistributed earnings to the participating securities by the weighted average number of common shares outstanding for the period. *Diluted earnings per share* reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised. It is computed after giving consideration to the weighted average dilutive effect of the Company's stock options and warrants and convertible securities and after the allocation of earnings to the participating securities. Anti-dilutive options and warrants are disregarded in the EPS calculations.

Use of Estimates

Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related Notes to the Consolidated Financial Statements. Such estimates are used in connection with certain fair value measurements. See Note 24 to the Consolidated Financial Statements for further discussions on estimates used in the determination of fair value. Moreover, estimates are significant in determining the amounts of other-than-temporary impairments, impairments of goodwill and other intangible assets, provisions for probable losses that may arise from credit-related exposures and probable and estimable losses related to litigation and regulatory proceedings, and income taxes. While management makes its best judgment, actual amounts or results could differ from those estimates.

Cash Flows

Cash equivalents are defined as those amounts included in *Cash and due from banks* and predominately all of *Deposits with banks*. Cash flows from risk management activities are classified in the same category as the related assets and liabilities.

Related Party Transactions

The Company has related party transactions with certain of its subsidiaries and affiliates. These transactions, which are primarily short-term in nature, include cash accounts, collateralized financing transactions, margin accounts, derivative transactions, charges for operational support and the borrowing and lending of funds, and are entered into in the ordinary course of business.

ACCOUNTING CHANGES

Accounting for Deposit Insurance Expenses

During the fourth quarter of 2021, Citi changed its presentation of accounting for deposit insurance costs paid to the Federal Deposit Insurance Corporation (FDIC) and similar foreign regulators. These costs were previously presented within *Interest expense* and, as a result of this change, are now presented within *Other operating expenses.* Citi concluded that this presentation was preferable in Citi's circumstances, as it better reflected the nature of these deposit insurance costs in that these costs do not directly represent interest payments to creditors, but are similar in nature to other payments to regulatory agencies that are accounted for as operating expenses.

This change in income statement presentation represents a "change in accounting principle" under ASC Topic 250, *Accounting Changes and Error Corrections,* with retrospective application to the earliest period presented. This change in accounting principle resulted in a reclassification of $1,207 million, $1,203 million and $781 million of deposit insurance expenses from *Interest expense* to *Other operating expenses,* for the years ended December 31, 2021, 2020 and 2019, respectively. This change had no impact on Citi's net income or the total deposit insurance expense incurred by Citi.

Accounting for Financial Instruments—Credit Losses

Overview

In June 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326).* The ASU introduced a new credit loss methodology, the CECL methodology, which requires earlier recognition of credit losses while also providing additional disclosure about credit risk. Citi adopted the ASU as of January 1, 2020, which, as discussed below, resulted in an increase in Citi's *Allowance for credit losses* and a decrease to opening *Retained earnings*, net of deferred income taxes, at January 1, 2020.

The CECL methodology utilizes a lifetime "expected credit loss" measurement objective for the recognition of credit losses for loans, HTM debt securities, receivables and other financial assets measured at amortized cost at the time the financial asset is originated or acquired. The ACL is adjusted each period for changes in lifetime expected credit losses. The CECL methodology represents a significant change from prior U.S. GAAP and replaced the prior multiple existing impairment methods, which generally required that a loss be incurred before it was recognized. Within the life cycle of a loan or other financial asset, the methodology generally results in the earlier recognition of the provision for credit losses and the related ACL than prior U.S. GAAP. For available-for-sale debt securities where fair value is less than cost that Citi intends to hold or more-likely-than-not will not be required to sell, credit-related impairment, if any, is recognized through an ACL and adjusted each period for changes in credit risk.

January 1, 2020 CECL Transition (Day 1) Impact

The CECL methodology's impact on expected credit losses, among other things, reflects Citi's view of the current state of the economy, forecasted macroeconomic conditions and quality of Citi's portfolios. At the January 1, 2020 date of adoption, based on forecasts of macroeconomic conditions and exposures at that time, the aggregate impact to Citi was an approximate $4.1 billion, or an approximate 29%, pretax increase in the *Allowance for credit losses*, along with a $3.1 billion after-tax decrease in *Retained earnings* and a deferred tax asset increase of $1.0 billion. This transition impact reflects (i) a $4.9 billion build to the *Allowance for credit losses* for Citi's consumer exposures, primarily driven by the impact on credit card receivables of longer estimated tenors under the CECL lifetime expected credit loss methodology (loss coverage of approximately 23 months) compared to shorter estimated tenors under the probable loss methodology under prior U.S. GAAP (loss coverage of approximately 14 months), net of recoveries; and (ii) a release of $0.8 billion of reserves primarily related to Citi's corporate net loan loss exposures, largely due to more precise contractual maturities that result in shorter remaining tenors, incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies.

Under the CECL methodology, the *Allowance for credit losses consists* of quantitative and qualitative components. Citi's quantitative component of the *Allowance for credit losses* is model based and utilizes a single forward-looking macroeconomic forecast and discounts inputs for the corporate classifiably managed portfolios, complemented by the qualitative component described below, in estimating expected credit losses and discounts inputs for the corporate classifiably managed portfolios. Reasonable and supportable forecast periods vary by product. For example, Citi's consumer models use a 13-quarter reasonable and supportable period and revert to historical loss experience thereafter, while its corporate loan models use a nine-quarter reasonable and supportable period followed by a three-quarter graduated transition to historical loss experience.

The qualitative management adjustment component includes, among other things, management adjustments to reflect economic uncertainty based on the likelihood and severity of downside scenarios and certain portfolio characteristics not captured in the quantitative component, such as concentrations, collateral coverage, model limitations, idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. The qualitative management adjustment component also includes management adjustments to reflect the uncertainty around the estimated impact of the pandemic on credit loss estimates.

Accounting for Variable Post-Charge-Off Third-Party Collection Costs

During the second quarter of 2020, Citi changed its accounting for variable post-charge-off third-party collection costs, whereby these costs were accounted for as an increase in expenses as incurred rather than a reduction in expected credit recoveries. Citi concluded that such a change in the method of accounting is preferable in Citi's circumstances as it better reflects the nature of these collection costs. That is, these costs do not represent reduced payments from borrowers and are similar to Citi's other executory third-party vendor contracts that are accounted for as operating expenses as incurred. As a result of this change, Citi had a consumer ACL release of $426 million in the second quarter of 2020 for its U.S. cards portfolios and $122 million in the third quarter of 2020 for its international portfolios.

In the fourth quarter of 2020, Citi revised the second quarter of 2020 accounting conclusion from a "change in accounting estimate effected by a change in accounting principle" to a "change in accounting principle," which required an adjustment to opening retained earnings rather than net income, with retrospective application to the earliest period presented. Citi considered the guidance in ASC Topic 250, *Accounting Changes and Error Corrections;* ASC Topic 270, *Interim Reporting;* ASC Topic 250-S99-1, *Assessing Materiality;* and ASC Topic 250-S99-23, *Accounting Changes Not Retroactively Applied Due to Immateriality, Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements.* Citi believes that the effects of the revisions were not material to any previously reported quarterly or annual period. As a result, Citi's full-year and quarterly results were revised to reflect this change as if it were effective as of January 1, 2020 (impacts to 2018 and 2019 were de minimis). Accordingly, Citi recorded an increase to its beginning retained earnings on January 1, 2020 of $330 million and a decrease of $443 million to its ACL. Further, Citi recorded a decrease of $18 million to its provisions for credit losses on loans in the first quarter of 2020 and an increase of $339 million and $122 million to its provisions for credit losses on loans in the second and third quarters of 2020, respectively. In addition, Citi`s operating expenses increased by $49 million and $45 million, with a corresponding decrease in net credit losses, in the first and second quarters of 2020, respectively. As a result of these changes, Citi's net income for the year ended December 31, 2020 was $330 million lower, or $0.16 per share lower, than under the previous presentation as a change in accounting estimate effected by a change in accounting principle.

Reference Rate Reform

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting,* which provides optional guidance to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. Specifically, the guidance permits an entity, when certain criteria are met, to consider amendments to contracts made to comply with reference rate reform to meet the definition of a modification under U.S. GAAP. It further allows hedge accounting to be maintained and permits a one-time transfer or sale of qualifying held-to-maturity securities. The expedients and exceptions provided by the amendments are permitted to be adopted any time through December 31, 2022 and do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022, except for certain optional expedients elected for certain hedging relationships existing as of December 31, 2022. The ASU was adopted by Citi as of June 30, 2020 with prospective application and did not impact financial results in 2020.

In January 2021, the FASB issued ASU No. 2021-01, *Reference Rate Reform (Topic 848): Scope,* which clarifies that the scope of the initial accounting relief issued by the FASB in March 2020 includes derivative instruments that do not reference a rate that is expected to be discontinued but that use an interest rate for margining, discounting or contract price alignment that is modified as a result of reference rate reform (commonly referred to as the "discounting transition"). The amendments do not apply to contract modifications made after December 31, 2022, new hedging relationships entered into after December 31, 2022 and existing hedging relationships evaluated for effectiveness in periods after December 31, 2022, except for hedging relationships existing as of December 31, 2022 that apply certain optional expedients in which the accounting effects are recorded through the end of the hedging relationship. The ASU was adopted by Citi on a full retrospective basis upon issuance and did not impact financial results in 2020.

Lease Accounting

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842),* which increases the transparency and comparability of accounting for lease transactions. The ASU requires lessees to recognize liabilities for operating leases and corresponding right-of-use (ROU) assets on the balance sheet. The ASU also requires quantitative and qualitative disclosures regarding key information about leasing arrangements. Lessee accounting for finance leases, as well as lessor accounting, is largely unchanged.

Effective January 1, 2019, Citi prospectively adopted the provisions of the ASU. At adoption, Citi recognized a lease liability and a corresponding ROU asset of approximately $4.4 billion on the Consolidated Balance Sheet related to its future lease payments as a lessee under operating leases. In addition, Citi recorded a $151 million increase in *Retained earnings* for the cumulative effect of recognizing previously deferred gains on sale/leaseback transactions. Adoption of the ASU did not have a material impact on the Consolidated Statement of Income. See Notes 14 and 26 for additional details.

Citi has elected not to separate lease and non-lease components in its lease contracts and accounts for them as a single lease component. Citi has also elected not to record an ROU asset for short-term leases that have a term of 12 months or less and do not contain purchase options that Citi is reasonably certain to exercise. The cost of short-term leases is recognized in the Consolidated Statement of Income on a straight-line basis over the lease term. In addition, Citi applies the portfolio approach to account for certain equipment leases with nearly identical contractual terms.

Lessee Accounting

Operating lease ROU assets and lease liabilities are included in *Other assets* and *Other liabilities,* respectively, on the Consolidated Balance Sheet. Finance lease assets and liabilities are included in *Other assets* and *Long-term debt*, respectively, on the Consolidated Balance Sheet. Citi uses its incremental borrowing rate, factoring in the lease term, to determine the lease liability, which is measured at the present value of future lease payments. The ROU asset is initially measured at the amount of the lease liability plus any prepaid rent and remaining initial direct costs, less any remaining lease incentives and accrued rent. The ROU asset is subject to impairment, during the lease term, in a manner consistent with the impairment of long-lived assets. The lease terms include periods covered by options to extend or terminate the lease depending on whether Citi is reasonably certain to exercise such options.

Lessor Accounting

Lessor accounting is largely unchanged under the ASU. Citi acts as a lessor for power, railcar, shipping and aircraft assets, where Citi has executed operating, direct financing and leveraged leasing arrangements. In a direct financing or a leveraged lease, Citi derecognizes the leased asset and records a lease financing receivable at lease commencement in *Loans*. Upon lease termination, Citi may obtain control of the asset, which is then recorded in *Other assets* on the Consolidated Balance Sheet and any remaining receivable for the asset's residual value is derecognized. Under the ASU, leveraged lease accounting is grandfathered and may continue to be applied until the leveraged lease is terminated or modified. Upon modification, the lease must be classified as an operating, direct finance or sales-type lease in accordance with the ASU.

Separately, as part of managing its real estate footprint, Citi subleases excess real estate space via operating lease arrangements.

FUTURE ACCOUNTING CHANGES

Long-Duration Insurance Contracts

In August 2018, the FASB issued ASU No. 2018-12, *Financial Services—Insurance: Targeted Improvements to the Accounting for Long-Duration Contracts,* which changes the existing recognition, measurement, presentation and disclosures for long-duration contracts issued by an insurance entity. Specifically, the guidance (i) improves the timeliness of recognizing changes in the liability for future policy benefits and prescribes the rate used to discount future cash flows for long-duration insurance contracts, (ii) simplifies and improves the accounting for certain market-based options or guarantees associated with deposit (or account balance) contracts, (iii) simplifies the amortization of deferred acquisition costs and (iv) introduces additional quantitative and qualitative disclosures. Citi has certain insurance subsidiaries, primarily in Mexico, that issue long-duration insurance contracts such as traditional life insurance policies and life-contingent annuity contracts that will be impacted by the requirements of ASU 2018-12.

The effective date of ASU 2018-12 was deferred for all insurance entities by ASU 2019-09, *Finance Services—Insurance: Effective Date* (issued in October 2019) and by ASU 2020-11, *Financial Services—Insurance: Effective Date and Early Application* (issued in November 2020). Citi plans to adopt the targeted improvements in ASU 2018-12 on January 1, 2023 and is currently evaluating the impact of the standard on its insurance subsidiaries. Citi does not expect a material impact to its results of operations as a result of adopting the standard.

SUPERSEDED ACCOUNTING PRINCIPLES

The following accounting principle was in effect for 2019 since ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326)* became effective beginning on January 1, 2020.

Allowance for Credit Losses

The allowance for credit losses on loans represents management's best estimate of probable credit losses inherent in the portfolio, including probable losses related to large individually evaluated impaired loans and troubled debt restructurings. Additions to the allowance are made through the *Provision for credit losses* on loans. Loan losses are deducted from the allowance and subsequent recoveries are added. Assets received in exchange for loan claims in a restructuring are initially recorded at fair value, with any gain or loss reflected as a recovery or charge-off in the provision.

2. DISCONTINUED OPERATIONS, SIGNIFICANT DISPOSALS AND OTHER BUSINESS EXITS

Summary of Discontinued Operations

The Company's results from *Discontinued operations* consisted of residual activities related to the sales of the Egg Banking plc credit card business in 2011 and the German retail banking business in 2008. All *Discontinued operations* results are recorded within *Corporate/Other*.

The following table summarizes financial information for all *Discontinued operations:*

In millions of dollars	2021	2020	2019
Total revenues, net of interest expense	**$ —**	$ —	$ —
Income (loss) from discontinued operations	**$ 7**	$(20)	$(31)
Benefit for income taxes	**—**	—	(27)
Income (loss) from discontinued operations, net of taxes	**$ 7**	$(20)	$ (4)

Cash flows from *Discontinued operations* were not material for any period presented.

Significant Disposals

The following transactions were identified as significant disposals that are recorded within the *GCB* segment, including the assets and liabilities that were reclassified to held-for-sale within *Other assets* and *Other liabilities* on the Consolidated Balance Sheet and the *Income (loss) before taxes (benefits)* related to each business.

Agreement to Sell Australia Consumer Banking Business

On August 9, 2021, Citi entered into an agreement to sell its Australia consumer banking business, which is part of *Asia GCB.* The sale, which is subject to regulatory approvals and other closing conditions, is expected to close in the first half of 2022. As of December 31, 2021, Citi reported the business as held-for-sale, resulting in a pretax loss on sale of approximately $700 million recorded in *Other revenue* ($600 million after-tax), subject to closing adjustments. The loss on sale primarily reflected the impact of a pretax $625 million currency translation adjustment (CTA) loss (net of hedges) ($475 million after-tax) already reflected in the *Accumulated other comprehensive income (AOCI)* component of equity. Upon closing, the CTA-related balance will be removed from the *AOCI* component of equity, resulting in a neutral CTA impact to Citi's Common Equity Tier 1 Capital. Income before taxes, excluding the above referenced pretax loss on sale, for the Australia consumer banking business was as follows:

In millions of dollars	2021	2020	2019
Income before taxes	**$ 306**	$ 181	$ 302

The following assets and liabilities for the Australia consumer banking business were identified and reclassified to held-for-sale within *Other assets* and *Other liabilities* on the Consolidated Balance Sheet at December 31, 2021:

In millions of dollars	December 31, 2021
Assets	
Cash and deposits with banks	**$ 24**
Loans (net of allowance of $242 million at December 31, 2021)	**8,813**
Goodwill and intangible assets	**257**
Other assets	**81**
Total assets	**$9,175**
Liabilities	
Deposits	**$7,034**
Long-term debt	**479**
Other liabilities	**171**
Total liabilities	**$7,684**

Agreement to Sell Philippines Consumer Banking Business

On December 23, 2021, Citi entered into an agreement to sell its Philippines consumer banking business, which is part of *Asia GCB*. The sale, which is subject to regulatory approvals and other closing conditions, is expected to close in the second half of 2022 and result in an after-tax gain upon closing. Income before taxes for the period in which the individually significant component was classified as held-for-sale and for all prior periods was as follows:

In millions of dollars	2021	2020	2019
Income before taxes	**$ 145**	$42	$ 196

The following assets and liabilities for the Philippines consumer banking business were identified and reclassified to held-for-sale within *Other assets* and *Other liabilities* on the Consolidated Balance Sheet at December 31, 2021:

In millions of dollars	December 31, 2021
Assets	
Cash and deposits with banks	**$ 20**
Loans (net of allowance of $96 million at December 31, 2021)	**1,132**
Goodwill	**244**
Other assets, advances to/from subs	**588**
Other assets	**63**
Total assets	**$2,047**
Liabilities	
Deposits	**$1,373**
Other liabilities	**76**
Total liabilities	**$1,449**

Sale of Mexico Asset Management Business

On September 21, 2018, Citi completed the sale of its Mexico asset management business, which was part of *Latin America GCB.* As part of the sale, Citi derecognized total assets of $137 million and total liabilities of $41 million. The transaction resulted in a pretax gain on sale of approximately $250 million (approximately $150 million after-tax) recorded in *Other revenue* in 2018. Further, Citi and the buyer entered into a 10-year services framework agreement, with Citi acting as the distributor in exchange for an ongoing fee.

Income before taxes for the divested business, excluding the pretax gain on sale, was as follows:

In millions of dollars	**2021**	2020	2019
Income before taxes	**$—**	$—	$123

Other Business Exits

Wind-Down of Korea Consumer Banking Business

On October 25, 2021, Citi announced its decision to wind down and close its Korea consumer banking business, which is part of *Asia GCB*. In connection with the announcement, Citibank Korea Inc. (CKI) commenced a voluntary termination program (VERP). Due to the voluntary nature of this termination program, no liabilities for termination benefits are recorded until CKI makes formal offers to employees that are then irrevocably accepted by those employees. Related charges are recorded as *Compensation and benefits.*

For the year ended December 31, 2021, Citigroup recorded pretax charges of approximately $1.1 billion, composed of gross charges connected to the Korea voluntary termination program.

The following table summarizes the reserve charges related to the voluntary termination program and other initiatives reported in the *GCB* business segment:

In millions of dollars	**2021**
Employee termination costs (pretax)	
Original reserve charges	**$1,052**
Utilization	**(1)**
Foreign exchange	**3**
Balance at December 31, 2021	**$1,054**

The total estimated cash charges for the termination program are approximately $1.1 billion, of which most are already recognized in 2021. Citi expects to recognize the remaining charges throughout 2022, as voluntary retirements are phased in and irrevocably accepted in order to minimize business and operational impacts.

3. OPERATING SEGMENTS

As of December 31, 2021, Citigroup's primary activities were conducted through the following operating segments: *Institutional Clients Group (ICG)* and *Global Consumer Banking (GCB)*. Activities not assigned to the operating segments, as well as certain *North America* legacy consumer loan portfolios, discontinued operations and other legacy assets, were included in *Corporate/Other*.

The operating segments are determined based on how management allocates resources and measures financial performance to make business decisions, and are reflective of the types of customers served, and products and services provided.

ICG consisted of *Banking* and *Markets and securities services*, providing institutional, public sector and high-net-worth clients in 95 countries and jurisdictions with a broad range of banking and financial products and services.

GCB included a global, full-service consumer franchise delivering a wide array of banking, credit card, lending and investment services through a network of local branches, offices and electronic delivery systems and consisted of three GCB reporting units: *North America, Latin America* and *Asia* (including consumer banking activities in certain *EMEA* countries).

Corporate/Other included certain unallocated costs of global functions, other corporate expenses and net treasury results, offsets to certain line-item reclassifications and eliminations, and unallocated taxes.

Beginning in 2021, Citi changed its allocation for certain recurring expenses that are attributable to the operating segments from *Corporate/Other* to *GCB* and *ICG*. These expenses include incremental investments related to risks and controls, technology capabilities and information security initiatives, as well as some incremental spend related to the pandemic. The prior-period reportable operating segment results have been revised to conform to the current-year presentation for all periods to reflect this revised allocation methodology. Citi's consolidated results were unchanged for all periods presented as a result of the changes discussed above.

As part of its strategic refresh, Citi is making management reporting changes to align with its vision and strategy, including to assist Citi in decisions about resources and capital allocation and to assess business performance. In the first quarter of 2022, Citi plans to revise its financial reporting structure to align with these management reporting changes.

The accounting policies of these operating segments are the same as those disclosed in Note 1 to the Consolidated Financial Statements.

The following table presents certain information regarding the Company's continuing operations by operating segment and *Corporate/Other*:

In millions of dollars, except identifiable assets in billions	**Revenues, net of interest expense[(1)]**			**Provision (benefits) for income taxes**			**Income (loss) from continuing operations[(2)]**			**Identifiable assets**	
	2021	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020
Institutional Clients Group	**$43,887**	$45,088	$39,824	**$4,524**	$3,303	$3,524	**$15,763**	$11,553	$12,776	**$1,762**	$1,730
Global Consumer Banking	**27,330**	30,342	33,221	**1,745**	143	1,708	**6,046**	663	5,579	**432**	434
Corporate/Other	**667**	71	2,022	**(818)**	(921)	(802)	**209**	(1,109)	1,116	**97**	96
Total	**$71,884**	$75,501	$75,067	**$5,451**	$2,525	$4,430	**$22,018**	$11,107	$19,471	**$2,291**	$2,260

(1) Includes total revenues, net of interest expense (excluding *Corporate/Other*), in *North America* of $34.2 billion, $36.8 billion and $34.1 billion; in *EMEA* of $13.1 billion, $13.0 billion and $12.2 billion; in *Latin America* of $9.2 billion, $9.4 billion and $10.6 billion; and in *Asia* of $14.7 billion, $16.2 billion and $16.2 billion in 2021, 2020 and 2019, respectively. These regional numbers exclude *Corporate/Other*, which largely reflects U.S. activities.

(2) Includes pretax provisions for credit losses and for benefits and claims in the *ICG* results of $(2.9) billion, $5.6 billion and $0.6 billion; in the *GCB* results of $(0.5) billion, $11.7 billion and $7.9 billion; and in the *Corporate/Other* results of $(0.4) billion, $0.2 billion and $(0.1) billion in 2021, 2020 and 2019, respectively.

4. INTEREST REVENUE AND EXPENSE

Interest revenue and *Interest expense* consisted of the following:

In millions of dollars	**2021**	2020	2019
Interest revenue			
Loan interest, including fees	**$35,440**	$40,185	$47,751
Deposits with banks	**577**	928	2,682
Securities borrowed and purchased under agreements to resell	**1,052**	2,283	6,872
Investments, including dividends	**7,388**	7,989	9,860
Trading account assets(2)	**5,365**	6,125	7,672
Other interest-bearing assets	**653**	579	1,673
Total interest revenue	**$50,475**	$58,089	$76,510
Interest expense			
Deposits(1)	**$ 2,896**	$ 5,334	$11,852
Securities loaned and sold under agreements to repurchase	**1,012**	2,077	6,263
Trading account liabilities(2)	**482**	628	1,308
Short-term borrowings and other interest-bearing liabilities	**121**	630	2,465
Long-term debt	**3,470**	4,669	6,494
Total interest expense	**$ 7,981**	$13,338	$28,382
Net interest income	**$42,494**	$44,751	$48,128
Provision for credit losses on loans	**(3,103)**	15,922	8,218
Net interest income after provision for credit losses on loans	**$45,597**	$28,829	$39,910

(1) During 2021, Citi reclassified deposit insurance expenses from *Interest expense to Other operating expenses* for all periods presented. Amounts reclassified for each year were $1,207 million for 2021, $1,203 million for 2020 and $781 million for 2019. For additional information, see Note 1 to the Consolidated Financial Statements.

(2) Interest expense on *Trading account liabilities* of *ICG* is reported as a reduction of *Interest revenue. Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.

5. COMMISSIONS AND FEES; ADMINISTRATION AND OTHER FIDUCIARY FEES

Commissions and Fees

The primary components of *Commissions and fees* revenue are investment banking fees, brokerage commissions, credit card and bank card income and deposit-related fees.

Investment banking fees are substantially composed of underwriting and advisory revenues. Such fees are recognized at the point in time when Citigroup's performance under the terms of a contractual arrangement is completed, which is typically at the closing of a transaction. Reimbursed expenses related to these transactions are recorded as revenue and are included within investment banking fees. In certain instances for advisory contracts, Citi will receive amounts in advance of the deal's closing. In these instances, the amounts received will be recognized as a liability and not recognized in revenue until the transaction closes. For the periods presented, the contract liability amount was negligible.

Out-of-pocket expenses associated with underwriting activity are deferred and recognized at the time the related revenue is recognized, while out-of-pocket expenses associated with advisory arrangements are expensed as incurred. In general, expenses incurred related to investment banking transactions, whether consummated or not, are recorded in *Other operating expenses*. The Company has determined that it acts as principal in the majority of these transactions and therefore presents expenses gross within *Other operating expenses.*

Brokerage commissions primarily include commissions and fees from the following: executing transactions for clients on exchanges and over-the-counter markets; sales of mutual funds and other annuity products; and assisting clients in clearing transactions, providing brokerage services and other such activities. Brokerage commissions are recognized in *Commissions and fees* at the point in time the associated service is fulfilled, generally on the trade execution date. Sales of certain investment products include a portion of variable consideration associated with the underlying product. In these instances, a portion of the revenue associated with the sale of the product is not recognized until the variable consideration becomes fixed. The Company recognized $639 million, $495 million and $485 million of revenue related to such variable consideration for the years ended December 31, 2021, 2020 and 2019, respectively. These amounts primarily relate to performance obligations satisfied in prior periods.

Credit card and bank card income is primarily composed of interchange fees, which are earned by card issuers based on purchase sales, and certain card fees, including annual fees. Costs related to customer reward programs and certain payments to partners (primarily based on program sales, profitability and customer acquisitions) are recorded as a reduction of credit card and bank card income. Citi's credit card programs have certain partner sharing agreements that vary by partner. These partner sharing agreements are subject to contractually based performance thresholds that, if met, would require Citi to make ongoing payments to the partner. The threshold is based on the profitability of a program and is generally calculated based on predefined program revenues less predefined program expenses. In most of Citi's partner sharing agreements, program expenses include net credit losses and, to the extent that the increase in net credit losses reduces Citi's liability for the partners' share for a given program year, it would generally result in lower payments to partners in total for that year and vice versa. Further, in some instances, other partner payments are based on program sales and new account acquisitions. Interchange revenues are recognized as earned on a daily basis when Citi's performance obligation to transmit funds to the payment networks has been satisfied. Annual card fees, net of origination costs, are deferred and amortized on a straight-line basis over a 12-month period. Costs related to card reward programs are recognized when the rewards are earned by the cardholders. Payments to partners are recognized when incurred.

Deposit-related fees consist of service charges on deposit accounts and fees earned from performing cash management activities and other deposit account services. Such fees are recognized in the period in which the related service is provided.

Transactional service fees primarily consist of fees charged for processing services such as cash management, global payments, clearing, international funds transfer and other trade services. Such fees are recognized as/when the associated service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi.

Insurance distribution revenue consists of commissions earned from third-party insurance companies for marketing and selling insurance policies on behalf of such entities. Such commissions are recognized in *Commissions and fees* at the point in time the associated service is fulfilled, generally when the insurance policy is sold to the policyholder. Sales of certain insurance products include a portion of variable consideration associated with the underlying product. In these instances, a portion of the revenue associated with the sale of the policy is not recognized until the variable consideration becomes determinable. The Company recognized $260 million, $290 million and $322 million of revenue related to such variable consideration for the years ended December 31, 2021, 2020 and 2019, respectively. These amounts primarily relate to performance obligations satisfied in prior periods.

Insurance premiums consist of premium income from insurance policies that Citi has underwritten and sold to policyholders.

The following table presents *Commissions and fees* revenue:

	2021				2020				2019			
In millions of dollars	**ICG**	**GCB**	**Corp/Other**	**Total**	ICG	GCB	Corp/Other	Total	ICG	GCB	Corp/Other	Total
Investment banking	**$ 6,007**	**$ —**	**$—**	**$ 6,007**	$4,483	$ —	$—	$ 4,483	$3,767	$ —	$—	$ 3,767
Brokerage commissions	**2,080**	**1,156**	**—**	**3,236**	1,986	974	—	2,960	1,771	841	—	2,612
Credit card and bank card income												
Interchange fees	**817**	**9,004**	**—**	**9,821**	703	7,301	—	8,004	1,222	8,621	—	9,843
Card-related loan fees	**28**	**667**	**—**	**695**	23	626	—	649	60	718	—	778
Card rewards and partner payments[(1)]	**(405)**	**(9,830)**	**—**	**(10,235)**	(380)	(8,293)	—	(8,673)	(691)	(8,883)	—	(9,574)
Deposit-related fees[(2)]	**1,044**	**287**	**—**	**1,331**	958	376	—	1,334	1,048	470	—	1,518
Transactional service fees	**1,003**	**95**	**—**	**1,098**	886	88	—	974	824	123	—	947
Corporate finance[(3)]	**709**	**—**	**—**	**709**	457	—	—	457	616	—	—	616
Insurance distribution revenue	**11**	**462**	**—**	**473**	11	492	—	503	12	524	—	536
Insurance premiums	**—**	**94**	**—**	**94**	—	125	—	125	—	186	—	186
Loan servicing	**43**	**40**	**15**	**98**	82	30	25	137	78	55	21	154
Other	**104**	**237**	**4**	**345**	118	310	4	432	99	261	3	363
Total commissions and fees[(4)]	**$11,441**	**$ 2,212**	**$19**	**$ 13,672**	$9,327	$ 2,029	$29	$11,385	$8,806	$ 2,916	$24	$11,746

(1) Citi's consumer credit card programs have certain partner-sharing agreements that vary by partner. These agreements are subject to contractually based performance thresholds that, if met, would require Citi to make ongoing payments to the partner. The threshold is based on the profitability of a program and is generally calculated based on predefined program revenues less predefined program expenses. In most of Citi's partner-sharing agreements, program expenses include net credit losses and, to the extent that the increase in net credit losses reduces Citi's liability for the partners' share for a given program year, would generally result in lower payments to partners in total for that year and vice versa. Further, in some instances, other partner payments are based on program sales and new account acquisitions.

(2) Includes overdraft fees of $107 million, $100 million and $127 million for the years ended December 31, 2021, 2020 and 2019, respectively. Overdraft fees are accounted for under ASC 310.

(3) Consists primarily of fees earned from structuring and underwriting loan syndications or related financing activity. This activity is accounted for under ASC 310.

(4) *Commissions and fees* include $(8,516) million, $(7,160) million and $(7,695) million not accounted for under ASC 606, *Revenue from Contracts with Customers*, for the years ended December 31, 2021, 2020 and 2019, respectively. Amounts reported in *Commissions and fees* accounted for under other guidance primarily include card-related loan fees, card reward programs and certain partner payments, corporate finance fees, insurance premiums and loan servicing fees.

Administration and Other Fiduciary Fees

Administration and other fiduciary fees revenue is primarily composed of custody fees and fiduciary fees.

The custody product is composed of numerous services related to the administration, safekeeping and reporting for both U.S. and non-U.S. denominated securities. The services offered to clients include trade settlement, safekeeping, income collection, corporate action notification, record-keeping and reporting, tax reporting and cash management. These services are provided for a wide range of securities, including but not limited to equities, municipal and corporate bonds, mortgage- and asset-backed securities, money market instruments, U.S. Treasuries and agencies, derivative instruments, mutual funds, alternative investments and precious metals. Custody fees are recognized as or when the associated promised service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi.

Fiduciary fees consist of trust services and investment management services. As an escrow agent, Citi receives, safe-keeps, services and manages clients' escrowed assets, such as cash, securities, property (including intellectual property), contracts or other collateral. Citi performs its escrow agent duties by safekeeping the assets during the specified time period agreed upon by all parties and therefore earns its revenue evenly during the contract duration.

Investment management services consist of managing assets on behalf of Citi's retail and institutional clients. Revenue from these services primarily consists of asset-based fees for advisory accounts, which are based on the market value of the client's assets and recognized monthly, when the market value is fixed. In some instances, the Company contracts with third-party advisors and with third-party custodians. The Company has determined that it acts as principal in the majority of these transactions and therefore presents the amounts paid to third parties gross within *Other operating expenses.*

The following table presents *Administration and other fiduciary fees* revenue:

	2021				2020				2019			
In millions of dollars	**ICG**	**GCB**	**Corp/Other**	**Total**	ICG	GCB	Corp/Other	Total	ICG	GCB	Corp/Other	Total
Custody fees	**$1,872**	**$ 25**	**$ 1**	**$1,898**	$1,590	$ 29	$38	$1,657	$1,453	$ 16	$ 73	$1,542
Fiduciary fees	**798**	**659**	**7**	**1,464**	668	602	4	1,274	647	621	28	1,296
Guarantee fees	**569**	**8**	**4**	**581**	529	7	5	541	558	8	7	573
Total administration and other fiduciary fees(1)	**$3,239**	**$692**	**$12**	**$3,943**	$2,787	$638	$47	$3,472	$2,658	$645	$108	$3,411

(1) *Administration and other fiduciary fees* include $581 million, $541 million and $573 million for the years ended December 31, 2021, 2020 and 2019, respectively, that are not accounted for under ASC 606, *Revenue from Contracts with Customers.* These generally include guarantee fees.

6. PRINCIPAL TRANSACTIONS

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. Trading activities include revenues from fixed income, equities, credit and commodities products and foreign exchange transactions that are managed on a portfolio basis and characterized below based on the primary risk managed by each trading desk. Not included in the table below is the impact of net interest income related to trading activities, which is an integral part of trading activities' profitability. See Note 4 to the Consolidated Financial Statements for information about net interest income related to trading activities. Principal transactions include CVA (credit valuation adjustments) and FVA (funding valuation adjustments) on over-the-counter derivatives, and gains (losses) on certain economic hedges on loans in *ICG*. These adjustments are discussed further in Note 24 to the Consolidated Financial Statements.

In certain transactions, Citi incurs fees and presents these fees paid to third parties in operating expenses.

The following table presents *Principal transactions* revenue:

In millions of dollars	**2021**	2020	2019
Interest rate risks[(1)]	**$ 2,790**	$ 5,561	$3,831
Foreign exchange risks[(2)]	**3,886**	4,158	3,850
Equity risks[(3)]	**2,197**	1,343	808
Commodity and other risks[(4)]	**1,123**	1,133	546
Credit products and risks[(5)]	**158**	1,690	(143)
Total	**$10,154**	$13,885	$8,892

(1) Includes revenues from government securities and corporate debt, municipal securities, mortgage securities and other debt instruments. Also includes spot and forward trading of currencies and exchange-traded and over-the-counter (OTC) currency options, options on fixed income securities, interest rate swaps, currency swaps, swap options, caps and floors, financial futures, OTC options and forward contracts on fixed income securities.
(2) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as foreign currency translation (FX translation) gains and losses.
(3) Includes revenues from common, preferred and convertible preferred stock, convertible corporate debt, equity-linked notes and exchange-traded and OTC equity options and warrants.
(4) Primarily includes revenues from crude oil, refined oil products, natural gas and other commodities trades.
(5) Includes revenues from structured credit products.

7. INCENTIVE PLANS

Discretionary Annual Incentive Awards

Citigroup grants immediate cash bonus payments and various forms of immediate and deferred awards as part of its discretionary annual incentive award program involving a large segment of Citigroup's employees worldwide.

Discretionary annual incentive awards are generally awarded in the first quarter of the year based on the previous year's performance. Awards valued at less than U.S. $100,000 (or the local currency equivalent) are generally paid entirely in the form of an immediate cash bonus. Pursuant to Citigroup policy and/or regulatory requirements, certain employees are subject to mandatory deferrals of incentive pay and generally receive 25%–60% of their awards in the form of deferred stock and deferred cash stock units. Discretionary annual incentive awards to many employees in the EU are subject to deferral requirements regardless of the total award value, with at least 50% of the immediate incentive delivered in the form of a stock payment award subject to a restriction on sale or transfer (generally, for 12 months).

Subject to certain exceptions (principally, for retirement-eligible employees), continuous employment within Citigroup is required to vest in deferred annual incentive awards. Post employment vesting by retirement-eligible employees and participants who meet other conditions is generally conditioned upon their refraining from competition with Citigroup during the remaining vesting period, unless the employment relationship has been terminated by Citigroup under certain conditions.

Generally, the deferred awards vest in equal annual installments over three- or four-year periods. Vested CAP awards are delivered in shares of common stock. Deferred cash awards are payable in cash and, except as prohibited by applicable regulatory guidance, earn a fixed notional rate of interest that is paid only if and when the underlying principal award amount vests. Deferred cash stock unit awards are payable in cash at the vesting value of the underlying stock. Generally, in the EU, vested CAP shares are subject to a restriction on sale or transfer after vesting, and vested deferred cash awards and deferred cash stock units are subject to hold back (generally, for 6 or 12 months based on the award type).

Unvested CAP, deferred cash stock units and deferred cash awards may be subject to performance conditions and are subject to one or more cancellation and clawback provisions that apply in certain circumstances, including gross misconduct.

Outstanding (Unvested) Stock Awards

A summary of the status of unvested stock awards granted as discretionary annual incentive or sign-on and replacement awards is presented below:

Unvested stock awards	Shares	Weighted-average grant date fair value per share
Unvested at December 31, 2020	28,226,292	$69.25
Granted[1]	17,535,978	62.10
Canceled	(1,453,029)	67.01
Vested[2]	(12,664,557)	67.17
Unvested at December 31, 2021	**31,644,684**	**$66.22**

(1) The weighted-average fair value of the shares granted during 2020 and 2019 was $76.68 and $61.78, respectively.
(2) The weighted-average fair value of the shares vesting during 2021 was approximately $64.23 per share on the vesting date, compared to $67.17 on the grant date.

Total unrecognized compensation cost related to unvested stock awards was $654 million at December 31, 2021. The cost is expected to be recognized over a weighted-average period of 1.6 years.

Performance Share Units

Executive officers were awarded performance share units (PSUs) every February from 2018 to 2021, for performance in the year prior to the award date based on two performance metrics. For PSUs awarded in 2018, 2019 and 2020, those metrics were return on tangible common equity and earnings per share. For PSUs awards in 2021, the metrics were return on tangible common equity and tangible book value per share. In each year, the metrics were equally weighted.

For all award years, if the total shareholder return is negative over the three-year performance period, executives may earn no more than 100% of the target PSUs, regardless of the extent to which Citigroup outperforms against performance goals and/or peer firms. The number of PSUs ultimately earned could vary from zero, if performance goals are not met, to as much as 150% of target, if performance goals are meaningfully exceeded.

For all award years, the value of each PSU is equal to the value of one share of Citi common stock. Dividend equivalents are accrued and paid on the number of earned PSUs after the end of the performance period.

PSUs are subject to variable accounting, pursuant to which the associated value of the award will fluctuate with changes in Citigroup's stock price and the attainment of the specified performance goals for each award, until the award is settled solely in cash after the end of the performance period. The value of the award, subject to the performance goals and taking into account any mandatory equitable adjustments as per the terms of the award agreement, is estimated using a simulation model that incorporates multiple valuation assumptions, including the probability of achieving the specified performance goals of each award. The risk-free rate used in the model is based on the applicable U.S. Treasury yield curve. Other significant assumptions for the awards are as follows:

Valuation assumptions	2021	2020	2019
Expected volatility	**40.88%**	22.26%	25.33%
Expected dividend yield	**4.21**	2.82	2.67

A summary of the performance share unit activity for 2021 is presented below:

Performance share units	Units	Weighted-average grant date fair value per unit
Outstanding, beginning of year	**1,333,803**	**$79.39**
Granted[1]	**418,098**	**78.55**
Canceled	**(344,131)**	**83.24**
Payments	**(133,497)**	**83.24**
Outstanding, end of year	**1,274,273**	**$77.67**

(1) The weighted-average grant date fair value per unit awarded in 2020 and 2019 was $83.45 and $72.83, respectively.

Transformation Program

In order to provide an incentive for select employees to effectively execute Citi's transformation program, in August 2021 the Personnel and Compensation (P&C) Committee of Citigroup's Board of Directors approved a program for them to earn additional compensation based on the achievement of Citi's transformation goals from August 2021 through December 2024 and satisfaction of other conditions. Eligible employees were notified of their award under the program in November 2021. Performance under the program is divided into three consecutive periods, ending on December 31, 2022, 2023 and 2024. The awards will be subject to variable accounting, pursuant to which the associated value of the award will fluctuate with the attainment of the performance conditions for each tranche and changes to Citigroup's stock price. The amortization commenced after the service inception date of November 2021. Payment for each period will be in cash, in a lump sum, with the third payment indexed to changes in the value of Citi's common stock from the service inception date through the payment date. Earnings generally will be based on collective performance with respect to Citi's transformation goals and will be evaluated and approved by the Committee on an annual basis.

Payments in the event of any category of employment termination or change in job title or employment status are subject to Citi's discretion. Cancellation and clawback is provided for in the event of misconduct and certain other circumstances. The program applies to senior leaders critical to helping deliver a successful transformation with the value varying based on individual compensation levels.

Stock Option Programs

All outstanding stock options are fully vested, with the related expense recognized as a charge to income in prior periods. The following table presents information with respect to stock option activity under Citigroup's stock option programs:

	2021			2020			2019		
	Options	**Weighted-average exercise price**	**Intrinsic value per share**	Options	Weighted-average exercise price	Intrinsic value per share	Options	Weighted-average exercise price	Intrinsic value per share
Outstanding, beginning of year	**166,650**	**$47.42**	**$14.24**	166,650	$47.42	$32.47	762,225	$101.84	$ —
Canceled	**—**	**—**	**—**	—	—	—	(11,365)	40.80	—
Expired	**—**	**—**	**—**	—	—	—	(449,916)	142.30	—
Exercised	**(166,650)**	**52.50**	**20.49**	—	—	—	(134,294)	39.00	23.50
Outstanding, end of year	**—**	**$ —**	**$ —**	166,650	$47.42	$14.24	166,650	$ 47.42	$32.47
Exercisable, end of year	**—**			166,650			166,650		

As of December 31, 2021, Citigroup no longer has any stock options outstanding.

Other Variable Incentive Compensation

Citigroup has various incentive plans globally that are used to motivate and reward performance primarily in the areas of sales, operational excellence and customer satisfaction. Participation in these plans is generally limited to employees who are not eligible for discretionary annual incentive awards. Other forms of variable compensation include monthly commissions paid to financial advisors and mortgage loan officers.

Summary

Except for awards subject to variable accounting, the total expense recognized for stock awards represents the grant date fair value of such awards, which is generally recognized as a charge to income ratably over the vesting period, other than for awards to retirement-eligible employees and immediately vested awards. Whenever awards are made or are expected to be made to retirement-eligible employees, the charge to income is accelerated based on when the applicable conditions to retirement eligibility were or will be met. If the employee is retirement eligible on the grant date, or the award is vested at the grant date, Citi recognizes the expense each year equal to the grant date fair value of the awards that it estimates will be granted in the following year.

Recipients of Citigroup stock awards generally do not have any stockholder rights until shares are delivered upon vesting or exercise, or after the expiration of applicable required holding periods. Recipients of deferred stock awards and deferred cash stock unit awards, however, may, except as prohibited by applicable regulatory guidance, be entitled to receive or accrue dividends or dividend-equivalent payments during the vesting period. Recipients of stock payment awards generally are entitled to vote the shares in their award during the sale-restriction period. Once a stock award vests, the shares delivered to the participant are freely transferable, unless they are subject to a restriction on sale or transfer for a specified period.

All equity awards granted since April 19, 2005 have been made pursuant to stockholder-approved stock incentive plans that are administered by the P&C Committee, which is composed entirely of independent non-employee directors.

At December 31, 2021, approximately 39.0 million shares of Citigroup common stock were authorized and available for grant under Citigroup's 2019 Stock Incentive Plan, the only plan from which equity awards are currently granted.

The 2019 Stock Incentive Plan and predecessor plans permit the use of treasury stock or newly issued shares in connection with awards granted under the plans. Treasury shares were used to settle vestings from 2018 to 2021, and for the first quarter of 2022, except where local laws favor newly issued shares. The use of treasury stock or newly issued shares to settle stock awards does not affect the compensation expense recorded in the Consolidated Statement of Income for equity awards.

Incentive Compensation Cost

The following table shows components of compensation expense, relating to certain of the incentive compensation programs described above:

In millions of dollars	**2021**	2020	2019
Charges for estimated awards to retirement-eligible colleagues	**$ 807**	$ 748	$ 683
Amortization of deferred cash awards, deferred cash stock units and performance stock units	**384**	201	355
Immediately vested stock award expense(1)	**99**	95	82
Amortization of restricted and deferred stock awards(2)	**395**	420	404
Other variable incentive compensation	**435**	627	666
Total	**$2,120**	$2,091	$2,190

(1) Represents expense for immediately vested stock awards that generally were stock payments in lieu of cash compensation. The expense is generally accrued as cash incentive compensation in the year prior to grant.

(2) All periods include amortization expense for all unvested awards to non-retirement-eligible colleagues.

8. RETIREMENT BENEFITS

Pension and Postretirement Plans

The Company has several non-contributory defined benefit pension plans covering certain U.S. employees and has various defined benefit pension and termination indemnity plans covering employees outside the U.S.

The U.S. qualified defined benefit plan was frozen effective January 1, 2008 for most employees. Accordingly, no additional compensation-based contributions have been credited to the cash balance portion of the plan for existing plan participants after 2007. However, certain employees covered under the prior final pay plan formula continue to accrue benefits. The Company also offers postretirement health care and life insurance benefits to certain eligible U.S. retired employees, as well as to certain eligible employees outside the U.S.

The Company also sponsors a number of non-contributory, nonqualified pension plans. These plans, which are unfunded, provide supplemental defined pension benefits to certain U.S. employees. With the exception of certain employees covered under the prior final pay plan formula, the benefits under these plans were frozen in prior years.

The plan obligations, plan assets and periodic plan expense for the Company's most significant pension and postretirement benefit plans (Significant Plans) are measured and disclosed quarterly, instead of annually. The Significant Plans captured approximately 90% of the Company's global pension and postretirement plan obligations as of December 31, 2021. All other plans (All Other Plans) are measured annually with a December 31 measurement date.

Net (Benefit) Expense

The following table summarizes the components of net (benefit) expense recognized in the Consolidated Statement of Income for the Company's pension and postretirement plans for Significant Plans and All Other Plans:

	Pension plans						Postretirement benefit plans					
	U.S. plans			Non-U.S. plans			U.S. plans			Non-U.S. plans		
In millions of dollars	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Benefits earned during the year	**$ —**	$ —	$ 1	**$ 149**	$ 147	$ 146	**$ —**	$—	$—	**$ 6**	$ 7	$ 8
Interest cost on benefit obligation	**351**	378	469	**268**	246	287	**13**	17	24	**96**	93	104
Expected return on assets	**(683)**	(824)	(821)	**(253)**	(245)	(281)	**(13)**	(17)	(18)	**(84)**	(77)	(84)
Amortization of unrecognized:												
Prior service cost (benefit)	**2**	2	2	**(6)**	5	(4)	**(9)**	(2)	—	**(9)**	(9)	(10)
Net actuarial loss (gain)	**228**	233	200	**62**	70	61	**(3)**	—	—	**13**	20	23
Curtailment loss (gain)(1)	**—**	—	1	**1**	(8)	(6)	**—**	—	—	**—**	—	—
Settlement loss (gain)(1)	**—**	—	—	**10**	(1)	6	**—**	—	—	**—**	—	—
Total net (benefit) expense	**$(102)**	$(211)	$(148)	**$ 231**	$ 214	$ 209	**$ (12)**	$ (2)	$ 6	**$ 22**	$ 34	$ 41

(1) Losses (gains) due to curtailment and settlement relate to repositioning and divestiture activities.

Contributions

The Company's funding practice for U.S. and non-U.S. pension and postretirement plans is generally to fund to minimum funding requirements in accordance with applicable local laws and regulations. The Company may increase its contributions above the minimum required contribution, if appropriate. In addition, management has the ability to change its funding practices. For the U.S. pension plans, there were no required minimum cash contributions for 2021 or 2020.

The following table summarizes the Company's actual contributions for the years ended December 31, 2021 and 2020, as well as expected Company contributions for 2022. Expected contributions are subject to change, since contribution decisions are affected by various factors, such as market performance, tax considerations and regulatory requirements.

	Pension plans(1)						Postretirement benefit plans(1)					
	U.S. plans(2)			Non-U.S. plans			U.S. plans			Non-U.S. plans		
In millions of dollars	2022	**2021**	2020	2022	**2021**	2020	2022	**2021**	2020	2022	**2021**	2020
Contributions made by the Company	$—	**$—**	$ —	$ 74	**$104**	$115	$—	**$ —**	$ —	$3	**$3**	$ 4
Benefits paid directly by (reimbursements to) the Company(3)	57	**56**	56	413	**51**	43	5	**22**	(15)	6	**5**	5

(1) Amounts reported for 2022 are expected amounts.
(2) The U.S. pension plans include benefits paid directly by the Company for the nonqualified pension plans.
(3) Estimated 2022 benefit payments have increased due to the wind-down of Citi's consumer banking business in Korea, as it is expected that employees who elected the VERP plan will be withdrawing their pension plan assets. See Note 2 to the Consolidated Financial Statements for additional information.

Funded Status and *Accumulated Other Comprehensive Income (AOCI)*

The following table summarizes the funded status and amounts recognized on the Consolidated Balance Sheet for the Company's pension and postretirement plans:

	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Change in projected benefit obligation								
Projected benefit obligation at beginning of year	**$13,815**	$13,453	**$ 8,629**	$ 8,105	**$ 559**	$ 692	**$1,390**	$1,384
Benefits earned during the year	**—**	—	**149**	147	**—**	—	**6**	7
Interest cost on benefit obligation	**351**	378	**268**	246	**13**	17	**96**	93
Plan amendments[1]	**—**	—	**6**	(4)	**—**	(104)	**—**	—
Actuarial (gain) loss[2]	**(447)**	950	**(344)**	518	**(28)**	(18)	**(110)**	30
Benefits paid, net of participants' contributions and government subsidy[3]	**(953)**	(966)	**(345)**	(298)	**(43)**	(28)	**(78)**	(64)
Settlement gain[4]	**—**	—	**(124)**	(110)	**—**	—	**—**	—
Curtailment gain[4]	**—**	—	**(30)**	(14)	**—**	—	**—**	—
Foreign exchange impact and other	**—**	—	**(208)**	39	**—**	—	**(135)**	(60)
Projected benefit obligation at year end	**$12,766**	$13,815	**$ 8,001**	$ 8,629	**$ 501**	$ 559	**$1,169**	$1,390
Change in plan assets								
Plan assets at fair value at beginning of year	**$13,309**	$12,717	**$ 7,831**	$ 7,556	**$ 331**	$ 345	**$1,146**	$1,127
Actual return on assets[2]	**565**	1,502	**217**	584	**9**	29	**97**	129
Company contributions (reimbursements)	**56**	56	**155**	158	**22**	(15)	**8**	9
Benefits paid, net of participants' contributions and government subsidy[3]	**(953)**	(966)	**(345)**	(298)	**(43)**	(28)	**(78)**	(64)
Settlement gain[4]	**—**	—	**(124)**	(110)	**—**	—	**—**	—
Foreign exchange impact and other	**—**	—	**(120)**	(59)	**—**	—	**(130)**	(55)
Plan assets at fair value at year end	**$12,977**	$13,309	**$ 7,614**	$ 7,831	**$ 319**	$ 331	**$1,043**	$1,146
Funded status of the plans								
Qualified plans[5]	**$ 894**	$ 230	**$ (387)**	$ (798)	**$(182)**	$(228)	**$ (126)**	$ (244)
Nonqualified plans[6]	**(683)**	(736)	**—**	—	**—**	—	**—**	—
Funded status of the plans at year end	**$ 211**	$ (506)	**$ (387)**	$ (798)	**$(182)**	$(228)	**$ (126)**	$ (244)
Net amount recognized								
Qualified plans								
Benefit asset	**$ 894**	$ 230	**$ 963**	$ 741	**$ —**	$ —	**$ 165**	$ 25
Benefit liability	**—**	—	**(1,350)**	(1,539)	**(182)**	(228)	**(291)**	(269)
Qualified plans	**$ 894**	$ 230	**$ (387)**	$ (798)	**$(182)**	$(228)	**$ (126)**	$ (244)
Nonqualified plans	**(683)**	(736)	**—**	—	**—**	—	**—**	—
Net amount recognized on the balance sheet	**$ 211**	$ (506)	**$ (387)**	$ (798)	**$(182)**	$(228)	**$ (126)**	$ (244)
Amounts recognized in *AOCI*[7]								
Net transition obligation	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —
Prior service (cost) benefit	**(8)**	(10)	**5**	12	**92**	101	**47**	63
Net actuarial (loss) gain	**(6,575)**	(7,132)	**(1,400)**	(1,863)	**77**	56	**(182)**	(348)
Net amount recognized in equity (pretax)	**$ (6,583)**	$ (7,142)	**$(1,395)**	$(1,851)	**$ 169**	$ 157	**$ (135)**	$ (285)
Accumulated benefit obligation at year end	**$12,765**	$13,812	**$ 7,559**	$ 8,116	**$ 501**	$ 559	**$1,169**	$1,390

(1) The U.S. postretirement benefit plan was amended in 2020 to move grandfathered Medicare-eligible retirees to the Medicare individual marketplace.
(2) During 2021, the actuarial gain was primarily due to the increase in global discount rates partially offset by lower than expected asset returns. During 2020, the actuarial loss was primarily due to the decline in global discount rates partially offset by favorable asset returns.
(3) U.S. postretirement benefit plans were net of Employer Group Waiver Plan subsidies of $11 million and $40 million in 2021 and 2020, respectively.
(4) Curtailment and settlement gains relate to repositioning and divestiture activities.
(5) The U.S. qualified pension plan was fully funded under specified Employee Retirement Income Security Act (ERISA) funding rules as of January 1, 2022 and no minimum required funding is expected for 2022.
(6) The nonqualified plans of the Company are unfunded.
(7) The framework for the Company's pension oversight process includes monitoring of potential settlement charges for all plans. Settlement accounting is triggered when either the sum of all settlements (including lump sum payments) for the year is greater than service plus interest costs or if more than 10% of the plan's projected benefit obligation will be settled. Because some of Citi's significant plans are frozen and have no material service cost, settlement accounting may apply in the future.

The following table shows the change in *AOCI* related to the Company's pension, postretirement and post employment plans:

In millions of dollars	**2021**	2020	2019
Beginning of year balance, net of tax[1][2]	**$(6,864)**	$(6,809)	$(6,257)
Actuarial assumptions changes and plan experience	**963**	(1,464)	(2,300)
Net asset gain (loss) due to difference between actual and expected returns	**(148)**	1,076	1,427
Net amortization	**280**	318	274
Prior service credit (cost)	**(7)**	108	(7)
Curtailment/settlement gain[3]	**11**	(8)	1
Foreign exchange impact and other	**153**	(108)	(66)
Change in deferred taxes, net	**(240)**	23	119
Change, net of tax	**$ 1,012**	$ (55)	$ (552)
End of year balance, net of tax[1][2]	**$(5,852)**	$(6,864)	$(6,809)

(1) See Note 19 to the Consolidated Financial Statements for further discussion of net AOCI balance.
(2) Includes net-of-tax amounts for certain profit-sharing plans outside the U.S.
(3) Curtailment and settlement relate to repositioning and divestiture activities.

At December 31, 2021 and 2020, the aggregate projected benefit obligation (PBO), the aggregate accumulated benefit obligation (ABO) and the aggregate fair value of plan assets are presented for all defined benefit pension plans with a PBO in excess of plan assets and for all defined benefit pension plans with an ABO in excess of plan assets as follows:

	PBO exceeds fair value of plan assets				**ABO exceeds fair value of plan assets**			
	U.S. plans[1]		**Non-U.S. plans**		**U.S. plans[1]**		**Non-U.S. plans**	
In millions of dollars	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Projected benefit obligation	**$683**	$736	**$3,966**	$4,849	**$683**	$736	**$3,809**	$4,723
Accumulated benefit obligation	**682**	734	**3,574**	4,400	**682**	734	**3,477**	4,329
Fair value of plan assets	**—**	—	**2,616**	3,310	**—**	—	**2,486**	3,212

(1) As of December 31, 2021 and 2020, only the nonqualified plans' PBO and ABO exceeded plan assets.

Plan Assumptions

The Company utilizes a number of assumptions to determine plan obligations and expenses. Changes in one or a combination of these assumptions will have an impact on the Company's pension and postretirement PBO, funded status and (benefit) expense. Changes in the plans' funded status resulting from changes in the PBO and fair value of plan assets will have a corresponding impact on *Accumulated other comprehensive income (loss).*

The actuarial assumptions at the respective years ended December 31 in the table below are used to measure the year-end PBO and the net periodic (benefit) expense for the subsequent year (period). Since Citi's Significant Plans are measured on a quarterly basis, the year-end rates for those plans are used to calculate the net periodic (benefit) expense for the subsequent year's first quarter.

As a result of the quarterly measurement process, the net periodic (benefit) expense for the Significant Plans is calculated at each respective quarter end based on the preceding quarter-end rates (as shown below for the U.S. and non-U.S. pension and postretirement plans). The actuarial assumptions for All Other Plans are measured annually.

Certain assumptions used in determining pension and postretirement benefit obligations and net benefit expense for the Company's plans are shown in the following table:

At year end	**2021**	2020
Discount rate		
U.S. plans		
Qualified pension	**2.80%**	2.45%
Nonqualified pension	**2.80**	2.35
Postretirement	**2.75**	2.20
Non-U.S. pension plans		
Range(1)	**-0.10 to 11.95**	-0.25 to 11.15
Weighted average	**3.96**	3.14
Non-U.S. postretirement plans		
Range	**1.05 to 10.00**	0.80 to 8.55
Weighted average	**8.28**	7.42
Future compensation increase rate(2)		
Non-U.S. pension plans		
Range	**1.30 to 11.25**	1.20 to 11.25
Weighted average	**3.10**	3.10
Expected return on assets		
U.S. plans		
Qualified pension	**5.00**	5.80
Postretirement(3)	**5.00/1.50**	5.80/1.50
Non-U.S. pension plans		
Range	**0.00 to 11.50**	0.00 to 11.50
Weighted average	**3.69**	3.39
Non-U.S. postretirement plans		
Range	**6.00 to 8.00**	5.95 to 8.00
Weighted average	**7.99**	7.99

(1) Due to historically low global interest rates, there were negative discount rates for plans with relatively short duration in certain major markets, such as the Eurozone and Switzerland.
(2) Not material for U.S. plans.
(3) For the years ended 2021 and 2020, the expected return on assets for the VEBA Trust was 1.50%.

During the year	**2021**	2020	2019
Discount rate			
U.S. plans			
Qualified pension	**2.45%/3.10%/ 2.75%/2.80%**	3.25%/3.20%/ 2.60%/2.55%	4.25%/3.85%/ 3.45%/3.10%
Nonqualified pension	**2.35/3.00/ 2.70/2.75**	3.25/3.25/ 2.55/2.50	4.25/3.90/ 3.50/3.10
Postretirement	**2.20/2.85/ 2.60/2.65**	3.15/3.20/ 2.45/2.35	4.20/3.80/ 3.35/3.00
Non-U.S. pension plans(1)			
Range(2)	**-0.25 to 11.15**	-0.10 to 11.30	-0.05 to 12.00
Weighted average	**3.14**	3.65	4.47
Non-U.S. postretirement plans(1)			
Range	**0.80 to 9.80**	0.90 to 9.75	1.75 to 10.75
Weighted average	**7.42**	7.76	9.05
Future compensation increase rate(3)			
Non-U.S. pension plans(1)			
Range	**1.20 to 11.25**	1.50 to 11.50	1.30 to 13.67
Weighted average	**3.10**	3.17	3.16
Expected return on assets			
U.S. plans			
Qualified pension(4)	**5.80/5.60/ 5.60/5.00**	6.70	6.70
Postretirement(4)	**5.80/1.50**	6.70/3.00	6.70/3.00
Non-U.S. pension plans(1)			
Range	**0.00 to 11.50**	0.00 to 11.50	1.00 to 11.50
Weighted average	**3.39**	3.95	4.30
Non-U.S. postretirement plans(1)			
Range	**5.95 to 8.00**	6.20 to 8.00	8.00 to 9.20
Weighted average	**7.99**	7.99	8.01

(1) Reflects rates utilized to determine the quarterly expense for Significant non-U.S. pension and postretirement plans.
(2) Due to historically low global interest rates, there were negative discount rates for plans with relatively short duration in certain major markets, such as the Eurozone and Switzerland.
(3) Not material for U.S. plans.
(4) The expected return on assets for the U.S. pension and postretirement plans was lowered from 5.80% to 5.60% effective April 1, 2021 and to 5.00% effective October 1, 2021 to reflect the change in target asset allocation.

Discount Rate

The discount rates for the U.S. pension and postretirement plans were selected by reference to a Citigroup-specific analysis using each plan's specific cash flows and compared with high-quality corporate bond indices for reasonableness. The discount rates for the non-U.S. pension and postretirement plans are selected by reference to high-quality corporate bond rates in countries that have developed corporate bond markets. However, where developed corporate bond markets do not exist, the discount rates are selected by reference to local government bond rates with a premium added to reflect the additional risk for corporate bonds in certain countries. Effective December 31, 2019, the established rounding convention is to the nearest 5 bps for all countries.

Expected Return on Assets

The Company determines its assumptions for the expected return on assets for its U.S. pension and postretirement plans using a "building block" approach, which focuses on ranges of anticipated rates of return for each asset class. A weighted average range of nominal rates is then determined based on target allocations to each asset class. Market performance over a number of earlier years is evaluated covering a wide range of economic conditions to determine whether there are sound reasons for projecting any past trends.

The Company considers the expected return on assets to be a long-term assessment of return expectations and does not anticipate changing this assumption unless there are significant changes in investment strategy or economic conditions. This contrasts with the selection of the discount rate and certain other assumptions, which are reconsidered annually (or quarterly for the Significant Plans) in accordance with GAAP.

The expected return on assets reflects the expected annual appreciation of the plan assets and reduces the Company's annual pension expense. The expected return on assets is deducted from the sum of service cost, interest cost and other components of pension expense to arrive at the net pension (benefit) expense.

The following table shows the expected return on assets used in determining the Company's pension expense compared to the actual return on assets during 2021, 2020 and 2019 for the U.S. pension and postretirement plans:

U.S. plans *(During the year)*	**2021**	2020	2019
Expected return on assets			
U.S. pension and postretirement trust	**5.80%/5.60%/ 5.60%/5.00%**	6.70%	6.70%
VEBA trust	**1.50**	3.00	3.00
Actual return on assets[1]			
U.S. pension and postretirement trust	**5.14**	12.84	15.20
VEBA trust	**1.52**	2.11	1.91 to 2.76

(1) Actual return on assets is presented net of fees.

Sensitivities of Certain Key Assumptions

The following tables summarize the effect on pension expense:

	Discount rate		
	One-percentage-point increase		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$ 35**	$ 34	$ 28
Non-U.S. plans	**(4)**	(16)	(19)

	One-percentage-point decrease		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$(49)**	$(52)	$(44)
Non-U.S. plans	**25**	25	32

The U.S. Qualified Pension Plan was frozen in 2008, and as a result, most service costs have been eliminated. The pension expense for the U.S. Qualified Pension Plan is therefore driven primarily by interest cost rather than by service cost. An increase in the discount rate generally increases pension expense.

For Non-U.S. Pension Plans that are not frozen (in countries such as Mexico, the U.K. and South Korea), there is more service cost. The pension expense for the Non-U.S. Plans is driven by both service cost and interest cost. An increase in the discount rate generally decreases pension expense due to the greater impact on service cost compared to interest cost.

Since the U.S. Qualified Pension Plan was frozen, most of the prospective service cost has been eliminated and the gain/loss amortization period was changed to the life expectancy for inactive participants. As a result, pension expense for the U.S. Qualified Pension Plan is driven more by interest costs than service costs, and an increase in the discount rate would increase pension expense, while a decrease in the discount rate would decrease pension expense.

The following tables summarize the effect on pension expense:

	Expected return on assets		
	One-percentage-point increase		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$(124)**	$(123)	$(123)
Non-U.S. plans	**(70)**	(66)	(64)

	One-percentage-point decrease		
In millions of dollars	**2021**	2020	2019
U.S. plans	**$124**	$123	$123
Non-U.S. plans	**70**	66	64

Health Care Cost Trend Rate

Assumed health care cost trend rates were as follows:

	2021	2020
Health care cost increase rate for U.S. plans		
Following year	**6.25%**	6.50%
Ultimate rate to which cost increase is assumed to decline	**5.00**	5.00
Year in which the ultimate rate is reached	**2027**	2027
Health care cost increase rate for non-U.S. plans (weighted average)		
Following year	**6.92%**	6.85%
Ultimate rate to which cost increase is assumed to decline	**6.92**	6.85
Year in which the ultimate rate is reached	**2022**	2021

Interest Crediting Rate

The Company has cash balance plans and other plans with promised interest crediting rates. For these plans, the interest crediting rates are set in line with plan rules or country legislation and do not change with market conditions.

	Weighted average interest crediting rate		
At year end	**2021**	2020	2019
U.S. plans	**1.80%**	1.45%	2.25%
Non-U.S. plans	**1.61**	1.60	1.61

Plan Assets

Citigroup's pension and postretirement plans' asset allocations for the U.S. plans and the target allocations by asset category based on asset fair values are as follows:

	Target asset allocation	**U.S. pension assets at December 31,**		**U.S. postretirement assets at December 31,**	
Asset category[1]	2022	**2021**	2020	**2021**	2020
Equity securities[2]	0–22%	**7%**	16%	**7%**	16%
Debt securities[3]	55–114	**72**	59	**72**	59
Real estate	0–4	**2**	4	**2**	4
Private equity	0–5	**6**	3	**6**	3
Other investments	0–23	**13**	18	**13**	18
Total		**100%**	100%	**100%**	100%

(1) Asset allocations for the U.S. plans are set by investment strategy, not by investment product. For example, private equities with an underlying investment in real estate are classified in the real estate asset category, not private equity.
(2) Equity securities in the U.S. pension and postretirement plans do not include any Citigroup common stock at the end of 2021 and 2020.
(3) The VEBA Trust for postretirement benefits is primarily invested in cash equivalents and debt securities in 2021 and 2020 and is not reflected in the table above.

Third-party investment managers and advisors provide their services to Citigroup's U.S. pension and postretirement plans. Assets are rebalanced as the Company's Pension Plan Investment Committee deems appropriate. Citigroup's investment strategy, with respect to its assets, is to maintain a globally diversified investment portfolio across several asset classes that, when combined with Citigroup's contributions to the plans, will maintain the plans' ability to meet all required benefit obligations.

Citigroup's pension and postretirement plans' weighted-average asset allocations for the non-U.S. plans and the actual ranges, and the weighted-average target allocations by asset category based on asset fair values, are as follows:

	Non-U.S. pension plans				
	Target asset allocation	**Actual range at December 31,**		**Weighted-average at December 31,**	
Asset category[1]	2022	**2021**	2020	**2021**	2020
Equity securities	0–100%	**0–100%**	0–100%	**16%**	15%
Debt securities	0–100	**0–100**	0–100	**76**	77
Real estate	0–15	**0–14**	0–12	**1**	1
Other investments	0–100	**0–100**	0–100	**7**	7
Total				**100%**	100%

(1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.

Asset category(1)	Non-U.S. postretirement plans				
	Target asset allocation	Actual range at December 31,		Weighted-average at December 31,	
	2022	**2021**	2020	**2021**	2020
Equity securities	0–42%	**0–42%**	0–38%	**41%**	38%
Debt securities	54–100	**53–100**	56–100	**53**	56
Other investments	0–4	**0–6**	0–6	**6**	6
Total				**100%**	100%

(1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.

Fair Value Disclosure

For information on fair value measurements, including descriptions of Levels 1, 2 and 3 of the fair value hierarchy and the valuation methodology utilized by the Company, see Notes 1 and 24 to the Consolidated Financial Statements. Investments measured using the NAV per share practical expedient are excluded from Level 1, Level 2 and Level 3 in the tables below.

Certain investments may transfer between the fair value hierarchy classifications during the year due to changes in valuation methodology and pricing sources.

Plan assets by detailed asset categories and the fair value hierarchy are as follows:

In millions of dollars	U.S. pension and postretirement benefit plans(1)			
	Fair value measurement at December 31, 2021			
Asset categories	**Level 1**	**Level 2**	**Level 3**	**Total**
U.S. equities	**$ 358**	**$ —**	**$—**	**$ 358**
Non-U.S. equities	**460**	**—**	**—**	**460**
Mutual funds and other registered investment companies	**297**	**—**	**—**	**297**
Commingled funds	**—**	**1,143**	**—**	**1,143**
Debt securities	**1,657**	**5,770**	**—**	**7,427**
Annuity contracts	**—**	**—**	**4**	**4**
Derivatives	**2**	**17**	**—**	**19**
Other investments	**13**	**—**	**25**	**38**
Total investments	**$2,787**	**$6,930**	**$29**	**$ 9,746**
Cash and short-term investments	**$ 635**	**$ 75**	**$—**	**$ 710**
Other investment liabilities	**(7)**	**(17)**	**—**	**(24)**
Net investments at fair value	**$3,415**	**$6,988**	**$29**	**$10,432**
Other investment liabilities redeemed at NAV				**$ (87)**
Securities valued at NAV				**2,951**
Total net assets				**$13,296**

(1) The investments of the U.S. pension and postretirement plans are commingled in one trust. At December 31, 2021, the allocable interests of the U.S. pension and postretirement plans were 98.0% and 2.0%, respectively. The investments of the VEBA Trust for postretirement benefits are reflected in the above table.

In millions of dollars	U.S. pension and postretirement benefit plans[1]			
	Fair value measurement at December 31, 2020			
Asset categories	Level 1	Level 2	Level 3	Total
U.S. equities	$ 813	$ —	$ —	$ 813
Non-U.S. equities	725	—	—	725
Mutual funds and other registered investment companies	447	—	—	447
Commingled funds	—	1,056	—	1,056
Debt securities	1,275	4,430	—	5,705
Annuity contracts	—	—	1	1
Derivatives	8	6	—	14
Other investments	16	—	57	73
Total investments	$3,284	$5,492	$ 58	$ 8,834
Cash and short-term investments	$ 72	$1,035	$ —	$ 1,107
Other investment liabilities	(2)	(10)	—	(12)
Net investments at fair value	$3,354	$6,517	$ 58	$ 9,929
Other investment receivables redeemed at NAV				$ 99
Securities valued at NAV				3,612
Total net assets				$13,640

(1) The investments of the U.S. pension and postretirement plans are commingled in one trust. At December 31, 2020, the allocable interests of the U.S. pension and postretirement plans were 98.0% and 2.0%, respectively. The investments of the VEBA Trust for postretirement benefits are reflected in the above table.

In millions of dollars	**Non-U.S. pension and postretirement benefit plans**			
	Fair value measurement at December 31, 2021			
Asset categories	**Level 1**	**Level 2**	**Level 3**	**Total**
U.S. equities	**$ 127**	**$ 19**	**$ —**	**$ 146**
Non-U.S. equities	**713**	**92**	**—**	**805**
Mutual funds and other registered investment companies	**2,888**	**66**	**—**	**2,954**
Commingled funds	**21**	**—**	**—**	**21**
Debt securities	**4,263**	**1,341**	**—**	**5,604**
Real estate	**—**	**3**	**2**	**5**
Annuity contracts	**—**	**—**	**2**	**2**
Derivatives	**—**	**239**	**—**	**239**
Other investments	**—**	**—**	**318**	**318**
Total investments	**$8,012**	**$ 1,760**	**$322**	**$10,094**
Cash and short-term investments	**$ 117**	**$ 5**	**$ —**	**$ 122**
Other investment liabilities	**—**	**(1,578)**	**—**	**(1,578)**
Net investments at fair value	**$8,129**	**$ 187**	**$322**	**$ 8,638**
Securities valued at NAV				**$ 19**
Total net assets				**$ 8,657**

In millions of dollars	Non-U.S. pension and postretirement benefit plans			
	Fair value measurement at December 31, 2020			
Asset categories	Level 1	Level 2	Level 3	Total
U.S. equities	$ 5	$ 16	$ —	$ 21
Non-U.S. equities	105	670	—	775
Mutual funds and other registered investment companies	3,137	73	—	3,210
Commingled funds	24	—	—	24
Debt securities	6,705	1,420	—	8,125
Real estate	—	2	2	4
Annuity contracts	—	—	5	5
Derivatives	—	1,005	—	1,005
Other investments	—	—	312	312
Total investments	$ 9,976	$ 3,186	$319	$13,481
Cash and short-term investments	$ 129	$ 3	$ —	$ 132
Other investment liabilities	—	(4,650)	—	(4,650)
Net investments at fair value	$10,105	$(1,461)	$319	$ 8,963
Securities valued at NAV				$ 14
Total net assets				$ 8,977

Level 3 Rollforward

The reconciliations of the beginning and ending balances during the year for Level 3 assets are as follows:

In millions of dollars

Asset categories	Beginning Level 3 fair value at Dec. 31, 2020	Realized (losses)	Unrealized gains	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2021
	U.S. pension and postretirement benefit plans					
Annuity contracts	$ 1	$—	$—	$ 2	$—	**$ 4**
Other investments	57	(6)	2	(28)	—	**25**
Total investments	$58	$ (6)	$ 2	$(25)	$—	**$29**

In millions of dollars

Asset categories	Beginning Level 3 fair value at Dec. 31, 2019	Realized (losses)	Unrealized (losses)	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2020
	U.S. pension and postretirement benefit plans					
Annuity contracts	$ 1	$—	$ —	$ —	$—	$ 1
Other investments	75	(3)	3	(18)	—	57
Total investments	$76	$ (3)	$ 3	$(18)	$—	$58

In millions of dollars

Asset categories	Beginning Level 3 fair value at Dec. 31, 2020	Unrealized gains	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2021
	Non-U.S. pension and postretirement benefit plans				
Debt securities	$ —	$—	$ —	$—	**$ —**
Real estate	2	—	—	—	**2**
Annuity contracts	5	—	(3)	—	**2**
Other investments	312	4	2	—	**318**
Total investments	$319	$ 4	$ (1)	$—	**$322**

In millions of dollars

Asset categories	Beginning Level 3 fair value at Dec. 31, 2019	Unrealized (losses)	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2020
	Non-U.S. pension and postretirement benefit plans				
Debt securities	$ 10	$—	$(10)	$—	$ —
Real estate	1	1	—	—	2
Annuity contracts	5	—	—	—	5
Other investments	274	23	15	—	312
Total investments	$290	$24	$ 5	$—	$319

Investment Strategy

The Company's global pension and postretirement funds' investment strategy is to invest in a prudent manner for the exclusive purpose of providing benefits to participants. The investment strategies are targeted to produce a total return that, when combined with the Company's contributions to the funds, will maintain the funds' ability to meet all required benefit obligations. Risk is controlled through diversification of asset types and investments in domestic and international equities, fixed income securities and cash and short-term investments. The target asset allocation in most locations outside the U.S. is primarily in equity and debt securities. These allocations may vary by geographic region and country depending on the nature of applicable obligations and various other regional considerations. The wide variation in the actual range of plan asset allocations for the funded non-U.S. plans is a result of differing local statutory requirements and economic conditions. For example, in certain countries local law requires that all pension plan assets must be invested in fixed income investments, government funds or local-country securities.

Significant Concentrations of Risk in Plan Assets

The assets of the Company's pension plans are diversified to limit the impact of any individual investment. The U.S. qualified pension plan is diversified across multiple asset classes, with publicly traded fixed income, publicly traded equity, hedge funds and real estate representing the most significant asset allocations. Investments in these four asset classes are further diversified across funds, managers, strategies, vintages, sectors and geographies, depending on the specific characteristics of each asset class. The pension assets for the Company's non-U.S. Significant Plans are primarily invested in publicly traded fixed income and publicly traded equity securities.

Oversight and Risk Management Practices

The framework for the Company's pension oversight process includes monitoring of retirement plans by plan fiduciaries and/or management at the global, regional or country level, as appropriate. Independent Risk Management contributes to the risk oversight and monitoring for the Company's U.S. qualified pension plan and non-U.S. Significant Pension Plans. Although the specific components of the oversight process are tailored to the requirements of each region, country and plan, the following elements are common to the Company's monitoring and risk management process:

- periodic asset/liability management studies and strategic asset allocation reviews;
- periodic monitoring of funding levels and funding ratios;
- periodic monitoring of compliance with asset allocation guidelines;
- periodic monitoring of asset class and/or investment manager performance against benchmarks; and
- periodic risk capital analysis and stress testing.

Estimated Future Benefit Payments

The Company expects to pay the following estimated benefit payments in future years:

	Pension plans		Postretirement benefit plans	
In millions of dollars	**U.S. plans**	**Non-U.S. plans**[(1)]	**U.S. plans**	**Non-U.S. plans**
2022	$ 956	$ 958	$ 64	$ 71
2023	837	452	50	74
2024	844	460	47	78
2025	846	462	44	82
2026	838	467	41	86
2027–2031	3,946	2,428	164	493

(1) Estimated 2022 benefit payments have increased due to the wind-down of Citi's consumer banking business in Korea, as it is expected that employees who elected the VERP plan will be withdrawing their pension plan assets. See Note 2 to the Consolidated Financial Statements for additional information.

Post Employment Plans

The Company sponsors U.S. post employment plans that provide income continuation and health and welfare benefits to certain eligible U.S. employees on long-term disability.

The following table summarizes the funded status and amounts recognized on the Company's Consolidated Balance Sheet:

In millions of dollars	**2021**	2020
Funded status of the plan at year end	**$(41)**	$(40)
Net amount recognized in *AOCI* (pretax)	**$(15)**	$(17)

The following table summarizes the net expense recognized in the Consolidated Statement of Income for the Company's U.S. post employment plans:

In millions of dollars	**2021**	2020	2019
Net expense	**$10**	$ 9	$ 9

Defined Contribution Plans

The Company sponsors defined contribution plans in the U.S. and in certain non-U.S. locations, all of which are administered in accordance with local laws. The most significant defined contribution plan is the Citi Retirement Savings Plan sponsored by the Company in the U.S.

Under the Citi Retirement Savings Plan, eligible U.S. employees received matching contributions of up to 6% of their eligible compensation for 2021 and 2020, subject to statutory limits. In addition, for eligible employees whose eligible compensation is $100,000 or less, a fixed contribution of up to 2% of eligible compensation is provided. All Company contributions are invested according to participants' individual elections. The following tables summarize the Company contributions for the defined contribution plans:

	U.S. plans		
In millions of dollars	**2021**	2020	2019
Company contributions	**$436**	$414	$404

	Non-U.S. plans		
In millions of dollars	**2021**	2020	2019
Company contributions	**$364**	$304	$281

9. INCOME TAXES

Income Tax Provision

Details of the Company's income tax provision are presented below:

In millions of dollars	**2021**	2020	2019
Current			
Federal	**$ 522**	$ 305	$ 365
Non-U.S.	**3,288**	4,113	4,352
State	**228**	440	323
Total current income taxes	**$ 4,038**	$ 4,858	$5,040
Deferred			
Federal	**$ 1,059**	$(1,430)	$ (907)
Non-U.S.	**8**	(690)	10
State	**346**	(213)	287
Total deferred income taxes	**$ 1,413**	$(2,333)	$ (610)
Provision for income tax on continuing operations before noncontrolling interests[(1)]	**$ 5,451**	$ 2,525	$4,430
Provision (benefit) for income taxes on discontinued operations	**—**	—	(27)
Income tax expense (benefit) reported in stockholders' equity related to:			
FX translation	**(146)**	23	(11)
Investment securities	**(1,367)**	1,214	648
Employee stock plans	**(6)**	(4)	(16)
Cash flow hedges	**(476)**	455	269
Benefit plans	**240**	(23)	(119)
FVO DVA	**64**	(141)	(337)
Excluded fair value hedges	**2**	(8)	8
Retained earnings[(2)]	**—**	(911)	46
Income taxes before noncontrolling interests	**$ 3,762**	$ 3,130	$4,891

(1) Includes the tax on realized investment gains and impairment losses resulting in a provision (benefit) of $169 million and $(57) million in 2021, $454 million and $(14) million in 2020 and $373 million and $(9) million in 2019, respectively.

(2) 2020 reflects the tax effect of ASU 2016-13 for current expected credit losses (CECL). 2019 reflects the tax effect of the accounting change for ASU 2016-02 for lease transactions.

Tax Rate

The reconciliation of the federal statutory income tax rate to the Company's effective income tax rate applicable to income from continuing operations (before noncontrolling interests and the cumulative effect of accounting changes) for each of the periods indicated is as follows:

	2021	2020	2019
Federal statutory rate	**21.0%**	21.0%	21.0%
State income taxes, net of federal benefit	**2.1**	1.3	1.9
Non-U.S. income tax rate differential	**1.6**	3.5	1.3
Nondeductible FDIC premiums	**0.6**	1.3	0.4
Tax advantaged investments	**(2.3)**	(4.4)	(2.3)
Valuation allowance releases[(1)]	**(1.7)**	(4.4)	(3.0)
Other, net	**(1.5)**	0.2	(0.8)
Effective income tax rate	**19.8%**	18.5%	18.5%

(1) See "Deferred Tax Assets" below for a description of the components.

As set forth in the table above, Citi's effective tax rate for 2021 was 19.8%, compared to 18.5% in 2020, primarily due to the reduced effect of permanent differences, including the valuation allowance releases, on a much higher level of pretax income.

Deferred Income Taxes

Deferred income taxes at December 31 related to the following:

In millions of dollars	**2021**	2020
Deferred tax assets		
Credit loss deduction	**$ 5,330**	$ 6,791
Deferred compensation and employee benefits	**2,335**	2,510
U.S. tax on non-U.S. earnings	**1,138**	1,195
Investment and loan basis differences	**2,970**	1,486
Tax credit and net operating loss carry-forwards	**15,620**	17,416
Fixed assets and leases	**3,064**	2,935
Other deferred tax assets	**3,549**	3,832
Gross deferred tax assets	**$34,006**	$36,165
Valuation allowance	**$ 4,194**	$ 5,177
Deferred tax assets after valuation allowance	**$29,812**	$30,988
Deferred tax liabilities		
Intangibles and leases	**$ (2,446)**	$ (2,526)
Non-U.S. withholding taxes	**(987)**	(921)
Interest-related items	**—**	(597)
Other deferred tax liabilities	**(1,590)**	(2,104)
Gross deferred tax liabilities	**$ (5,023)**	$ (6,148)
Net deferred tax assets	**$24,789**	$24,840

Unrecognized Tax Benefits

The following is a rollforward of the Company's unrecognized tax benefits:

In millions of dollars	**2021**	2020	2019
Total unrecognized tax benefits at January 1	**$ 861**	$721	$607
Net amount of increases for current year's tax positions	**97**	51	50
Gross amount of increases for prior years' tax positions	**515**	217	151
Gross amount of decreases for prior years' tax positions	**(107)**	(74)	(44)
Amounts of decreases relating to settlements	**(64)**	(40)	(21)
Reductions due to lapse of statutes of limitation	**(2)**	(13)	(23)
Foreign exchange, acquisitions and dispositions	**(4)**	(1)	1
Total unrecognized tax benefits at December 31	**$1,296**	$861	$721

The portions of the total unrecognized tax benefits at December 31, 2021, 2020 and 2019 that, if recognized, would affect Citi's tax expense are $1.0 billion, $0.7 billion and $0.6 billion, respectively. The remaining uncertain tax positions have offsetting amounts in other jurisdictions or are temporary differences.

Interest and penalties (not included in unrecognized tax benefits above) are a component of *Provision for income taxes*.

	2021		2020		2019	
In millions of dollars	**Pretax**	**Net of tax**	Pretax	Net of tax	Pretax	Net of tax
Total interest and penalties on the Consolidated Balance Sheet at January 1	**$118**	**$ 96**	$100	$82	$103	$85
Total interest and penalties in the Consolidated Statement of Income	**32**	**24**	14	10	(4)	(4)
Total interest and penalties on the Consolidated Balance Sheet at December 31(1)	**214**	**164**	118	96	100	82

(1) Includes $3 million, $4 million and $3 million for non-U.S. penalties in 2021, 2020 and 2019, respectively. Also includes $0 million, $1 million and $1 million for state penalties in 2021, 2020 and 2019, respectively.

As of December 31, 2021, Citi was under audit by the Internal Revenue Service and other major taxing jurisdictions around the world. It is thus reasonably possible that significant changes in the gross balance of unrecognized tax benefits may occur within the next 12 months. The potential range of amounts that could affect Citi's effective tax rate is between $0 and $500 million.

The following are the major tax jurisdictions in which the Company and its affiliates operate and the earliest tax year subject to examination:

Jurisdiction	**Tax year**
United States	2016
Mexico	2016
New York State and City	2009
United Kingdom	2016
India	2017
Singapore	2019
Hong Kong	2015
Ireland	2017

Non-U.S. Earnings

Non-U.S. pretax earnings approximated $12.9 billion in 2021, $13.8 billion in 2020 and $16.7 billion in 2019. As a U.S. corporation, Citigroup and its U.S. subsidiaries are currently subject to U.S. taxation on all non-U.S. pretax earnings of non-U.S. branches. Beginning in 2018, there is a separate foreign tax credit (FTC) basket for branches. Also, dividends from a non-U.S. subsidiary or affiliate are effectively exempt from U.S. taxation. The Company provides income taxes on the book over tax basis differences of non-U.S. subsidiaries except to the extent that such differences are indefinitely reinvested outside the U.S.

At December 31, 2021, $6.5 billion of basis differences of non-U.S. entities was indefinitely invested. At the existing tax rates (including withholding taxes), additional taxes (net of U.S. FTCs and valuation allowances) of $1.8 billion would have to be provided if such assertions were reversed.

Income taxes are not provided for the Company's "savings bank base year bad debt reserves" that arose before 1988, because under current U.S. tax rules, such taxes will become payable only to the extent that such amounts are distributed in excess of limits prescribed by federal law. At December 31, 2021, the amount of the base year reserves totaled approximately $358 million (subject to a tax of $75 million).

Deferred Tax Assets

As of December 31, 2021, Citi had a valuation allowance of $4.2 billion, composed of valuation allowances of $0.8 billion on its general basket FTC carry-forwards, $1.7 billion on its branch basket FTC carry-forwards, $1.0 billion on its U.S. residual DTA related to its non-U.S. branches, $0.6 billion on local non-U.S. DTAs and $0.1 billion on state net operating loss carry-forwards. There was a decrease of $1.0 billion from the December 31, 2020 balance of $5.2 billion. The amount of Citi's valuation allowances (VA) may change in future years.

In 2021, Citi's VA for carry-forward FTCs in its branch basket decreased by $0.7 billion and the related VA for the U.S. tax effect on non-U.S. branch temporary differences was unchanged. Of this total branch-related change of $0.7 billion, $0.3 billion impacted the tax provision as discussed below. The remainder of the branch basket-related VA decrease of $0.4 billion was primarily due to carry-forward expirations.

The level of branch pretax income, the local branch tax rate and the allocations of overall domestic losses (ODL) and expenses for U.S. tax purposes to the branch basket are the main factors in determining the branch VA. The allocated ODL was enhanced by significant taxable income generated in the current year. In addition, the global interest rate environment and balance sheet requirements in non-U.S. branches resulted in a lower relative allocation of interest expense to non-U.S. branches. The combination of the factors enumerated resulted in a VA release of $0.2 billion in Citi's full-year effective tax rate. Citi also released branch basket VA of $0.1 billion with respect to future years, based upon Citi's Operating Plan and estimates of future branch basket factors, as outlined above.

In Citi's general basket for FTCs, changes in the forecasted amount of income in U.S. locations derived from sources outside the U.S., in addition to tax examination changes from prior years, could alter the amount of VA that is needed against such FTCs. The VA for the general basket decreased by $0.2 billion to $0.8 billion, primarily due to audit adjustments. Citi continues to look for additional actions that may become prudent and feasible, taking into account client, regulatory and operational considerations.

The VA for U.S. residual DTA related to its non-U.S. branches was unchanged at $1.0 billion. In addition, the non-U.S. local VA was unchanged at $0.6 billion.

The following table summarizes Citi's DTAs:

In billions of dollars

Jurisdiction/component(1)	DTAs balance December 31, 2021	DTAs balance December 31, 2020
U.S. federal(2)		
Net operating losses (NOLs)(3)	**$ 3.2**	$ 3.0
Foreign tax credits (FTCs)	**2.8**	4.4
General business credits (GBCs)	**4.5**	3.6
Future tax deductions and credits	**8.4**	7.9
Total U.S. federal	**$18.9**	$18.9
State and local		
New York NOLs	**$ 1.2**	$ 1.5
Other state NOLs	**0.2**	0.1
Future tax deductions	**1.8**	1.7
Total state and local	**$ 3.2**	$ 3.3
Non-U.S.		
NOLs	**$ 0.5**	$ 0.6
Future tax deductions	**2.2**	2.0
Total non-U.S.	**$ 2.7**	$ 2.6
Total	**$24.8**	$24.8

(1) All amounts are net of valuation allowances.
(2) Included in the net U.S. federal DTAs of $18.9 billion as of December 31, 2021 were deferred tax liabilities of $2.7 billion that will reverse in the relevant carry-forward period and may be used to support the DTAs.
(3) Consists of non-consolidated tax return NOL carry-forwards that are eventually expected to be utilized in Citigroup's consolidated tax return.

The following table summarizes the amounts of tax carry-forwards and their expiration dates:

In billions of dollars

Year of expiration	December 31, 2021	December 31, 2020
U.S. tax return general basket foreign tax credit carry-forwards[1]		
2022	**$ 0.5**	$ 2.3
2023	**0.4**	0.4
2025	**1.5**	1.4
2027	**1.1**	1.2
Total U.S. tax return general basket foreign tax credit carry-forwards	**$ 3.5**	$ 5.3
U.S. tax return branch basket foreign tax credit carry-forwards[1]		
2021	**$ —**	$ 0.7
2022	**1.0**	1.0
2028	**0.6**	0.6
2029	**0.2**	0.2
Total U.S. tax return branch basket foreign tax credit carry-forwards	**$ 1.8**	$ 2.5
U.S. tax return general business credit carry-forwards		
2032	**$ 0.4**	$ 0.3
2033	**0.3**	0.3
2034	**0.2**	0.2
2035	**0.2**	0.2
2036	**0.2**	0.2
2037	**0.5**	0.5
2038	**0.5**	0.5
2039	**0.7**	0.7
2040	**0.7**	0.7
2041	**0.8**	—
Total U.S. tax return general business credit carry-forwards	**$ 4.5**	$ 3.6
U.S. subsidiary separate federal NOL carry-forwards		
2027	**$ 0.1**	$ 0.1
2028	**0.1**	0.1
2030	**0.3**	0.3
2033	**1.6**	1.5
2034	**2.0**	2.0
2035	**3.3**	3.3
2036	**2.1**	2.1
2037	**1.0**	1.0
Unlimited carry-forward period	**4.6**	3.9
Total U.S. subsidiary separate federal NOL carry-forwards[2]	**$15.1**	$14.3
New York State NOL carry-forwards[2]		
2034	**$ 6.6**	$ 8.1
New York City NOL carry-forwards[2]		
2034	**$ 7.2**	$ 8.7
Non-U.S. NOL carry-forwards[1]		
Various	**$ 1.1**	$ 1.2

(1) Before valuation allowance.
(2) Pretax.

The time remaining for utilization of the FTC component has shortened, given the passage of time. Although realization is not assured, Citi believes that the realization of the recognized net DTAs of $24.8 billion at December 31, 2021 is more-likely-than-not, based upon expectations as to future taxable income in the jurisdictions in which the DTAs arise and consideration of available tax planning strategies (as defined in ASC 740, *Income Taxes*).

The majority of Citi's U.S. federal net operating loss carry-forward and all of its New York State and City net operating loss carry-forwards are subject to a carry-forward period of 20 years. This provides enough time to fully utilize the DTAs pertaining to these existing NOL carry-forwards. This is due to Citi's forecast of sufficient U.S. taxable income and because New York State and City continue to tax Citi's non-U.S. income.

With respect to the FTCs component of the DTAs, the carry-forward period is 10 years. Utilization of FTCs in any year is generally limited to 21% of foreign source taxable income in that year. However, ODL that Citi has incurred of approximately $15 billion as of December 31, 2021 are allowed to be reclassified as foreign source income to the extent of 50%–100% (at taxpayer's election) of domestic source income produced in subsequent years. Such resulting foreign source income would support the realization of the FTC carry-forwards after VA. As noted in the tables above, Citi's FTC carry-forwards were $2.8 billion ($5.3 billion before VA) as of December 31, 2021, compared to $4.4 billion as of December 31, 2020. Citi believes that it will more-likely-than-not generate sufficient U.S. taxable income within the 10-year carry-forward period to be able to utilize the net FTCs after the VA, after considering any FTCs produced in the tax return for such period, which must be used prior to any carry-forward utilization.

10. EARNINGS PER SHARE

The following table reconciles the income and share data used in the basic and diluted earnings per share (EPS) computations:

In millions of dollars, except per share amounts	**2021**	2020	2019
Earnings per common share			
Income from continuing operations before attribution of noncontrolling interests	**$ 22,018**	$ 11,107	$ 19,471
Less: Noncontrolling interests from continuing operations	**73**	40	66
Net income from continuing operations (for EPS purposes)	**$ 21,945**	$ 11,067	$ 19,405
Loss from discontinued operations, net of taxes	**7**	(20)	(4)
Citigroup's net income	**$ 21,952**	$ 11,047	$ 19,401
Less: Preferred dividends[1]	**1,040**	1,095	1,109
Net income available to common shareholders	**$ 20,912**	$ 9,952	$ 18,292
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with rights to dividends, applicable to basic EPS	**154**	73	121
Net income allocated to common shareholders for basic EPS	**$ 20,758**	$ 9,879	$ 18,171
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**2,033.0**	2,085.8	2,249.2
Basic earnings per share[2]			
Income from continuing operations	**$ 10.21**	$ 4.75	$ 8.08
Discontinued operations	**—**	(0.01)	—
Net income per share—basic	**$ 10.21**	$ 4.74	$ 8.08
Diluted earnings per share			
Net income allocated to common shareholders for basic EPS	**$ 20,758**	$ 9,879	$ 18,171
Add back: Dividends allocated to employee restricted and deferred shares with rights to dividends that are forfeitable	**31**	30	33
Net income allocated to common shareholders for diluted EPS	**$ 20,789**	$ 9,909	$ 18,204
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**$2,033.0**	$2,085.8	$2,249.2
Effect of dilutive securities			
Options[3]	**—**	0.1	0.1
Other employee plans	**16.4**	13.1	16.0
Adjusted weighted-average common shares outstanding applicable to diluted EPS *(in millions)*[4]	**2,049.4**	2,099.0	2,265.3
Diluted earnings per share[2]			
Income from continuing operations	**$ 10.14**	$ 4.73	$ 8.04
Discontinued operations	**—**	(0.01)	—
Net income per share—diluted	**$ 10.14**	$ 4.72	$ 8.04

(1) See Note 20 to the Consolidated Financial Statements for the potential future impact of preferred stock dividends.
(2) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.
(3) During 2021, there were no weighted-average options outstanding. During 2021, no significant options to purchase shares of common stock were outstanding. During 2020, weighted-average options to purchase 0.1 million shares of common stock were outstanding but not included in the computation of earnings per share because the weighted-average exercise price of $56.25 per share was anti-dilutive.
(4) Due to rounding, weighted-average common shares outstanding applicable to basic EPS and the effect of dilutive securities may not sum to weighted-average common shares outstanding applicable to diluted EPS.

11. SECURITIES BORROWED, LOANED AND SUBJECT TO REPURCHASE AGREEMENTS

Securities borrowed and purchased under agreements to resell, at their respective carrying values, consisted of the following:

In millions of dollars	December 31, 2021	2020
Securities purchased under agreements to resell	**$236,252**	$204,655
Deposits paid for securities borrowed	**91,042**	90,067
Total, net[(1)]	**$327,294**	$294,722
Allowance for credit losses on securities purchased and borrowed[(2)]	**(6)**	(10)
Total, net of allowance	**$327,288**	$294,712

Securities loaned and sold under agreements to repurchase, at their respective carrying values, consisted of the following:

In millions of dollars	December 31, 2021	2020
Securities sold under agreements to repurchase	**$174,255**	$181,194
Deposits received for securities loaned	**17,030**	18,331
Total, net[(1)]	**$191,285**	$199,525

(1) The above tables do not include securities-for-securities lending transactions of $3.6 billion and $6.8 billion at December 31, 2021 and 2020, respectively, where the Company acts as lender and receives securities that can be sold or pledged as collateral. In these transactions, the Company recognizes the securities received at fair value within *Other assets* and the obligation to return those securities as a liability within *Brokerage payables*.

(2) See Note 15 to the Consolidated Financial Statements for further information.

The resale and repurchase agreements represent collateralized financing transactions. Citi executes these transactions primarily through its broker-dealer subsidiaries to facilitate customer matched-book activity and to efficiently fund a portion of Citi's trading inventory. Transactions executed by Citi's bank subsidiaries primarily facilitate customer financing activity.

To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and stipulating financing tenor. Citi manages the risks in its collateralized financing transactions by conducting daily stress tests to account for changes in capacity, tenors, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress.

It is the Company's policy to take possession of the underlying collateral, monitor its market value relative to the amounts due under the agreements and, when necessary, require prompt transfer of additional collateral in order to maintain contractual margin protection. For resale and repurchase agreements, when necessary, the Company posts additional collateral in order to maintain contractual margin protection.

Collateral typically consists of government and government-agency securities, corporate and municipal bonds, equities and mortgage- and other asset-backed securities.

The resale and repurchase agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other type of default under the relevant master agreement. Events of default generally include (i) failure to deliver cash or securities as required under the transaction, (ii) failure to provide or return cash or securities as used for margining purposes, (iii) breach of representation, (iv) cross-default to another transaction entered into among the parties, or, in some cases, their affiliates and (v) a repudiation of obligations under the agreement. The counterparty that receives the securities in these transactions is generally unrestricted in its use of the securities, with the exception of transactions executed on a tri-party basis, where the collateral is maintained by a custodian and operational limitations may restrict its use of the securities.

A substantial portion of the resale and repurchase agreements is recorded at fair value, as described in Notes 24 and 25 to the Consolidated Financial Statements. The remaining portion is carried at the amount of cash initially advanced or received, plus accrued interest, as specified in the respective agreements.

The securities borrowing and lending agreements also represent collateralized financing transactions similar to the resale and repurchase agreements. Collateral typically consists of government and government-agency securities and corporate debt and equity securities.

Similar to the resale and repurchase agreements, securities borrowing and lending agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other default by the other party under the relevant master agreement. Events of default and rights to use securities under the securities borrowing and lending agreements are similar to the resale and repurchase agreements referenced above.

A substantial portion of securities borrowing and lending agreements is recorded at the amount of cash advanced or received. The remaining portion is recorded at fair value as the Company elected the fair value option for certain securities borrowed and loaned portfolios, as described in Note 25 to the Consolidated Financial Statements. With respect to securities loaned, the Company receives cash collateral in an amount generally in excess of the market value of the securities loaned. The Company monitors the market value of securities borrowed and securities loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

The enforceability of offsetting rights incorporated in the master netting agreements for resale and repurchase agreements, and securities borrowing and lending agreements, is evidenced to the extent that (i) a supportive legal opinion has been obtained from counsel of recognized standing that provides the requisite level of certainty regarding the enforceability of these agreements and (ii) the exercise of rights by the non-defaulting party to terminate and close out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default including bankruptcy, insolvency or similar proceeding.

A legal opinion may not have been sought or obtained for certain jurisdictions where local law is silent or sufficiently ambiguous to determine the enforceability of offsetting rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law for a particular counterparty type may be nonexistent or unclear as overlapping regimes may exist. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

The following tables present the gross and net resale and repurchase agreements and securities borrowing and lending agreements and the related offsetting amounts permitted under ASC 210-20-45. The tables also include amounts related to financial instruments that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting rights has been obtained. Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

	As of December 31, 2021				
In millions of dollars	**Gross amounts of recognized assets**	**Gross amounts offset on the Consolidated Balance Sheet(1)**	**Net amounts of assets included on the Consolidated Balance Sheet**	**Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default(2)**	**Net amounts(3)**
Securities purchased under agreements to resell	**$367,594**	**$131,342**	**$236,252**	**$205,349**	**$ 30,903**
Deposits paid for securities borrowed	**107,041**	**15,999**	**91,042**	**17,326**	**73,716**
Total	**$474,635**	**$147,341**	**$327,294**	**$222,675**	**$104,619**

In millions of dollars	**Gross amounts of recognized liabilities**	**Gross amounts offset on the Consolidated Balance Sheet(1)**	**Net amounts of liabilities included on the Consolidated Balance Sheet**	**Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default(2)**	**Net amounts(3)**
Securities sold under agreements to repurchase	**$305,597**	**$131,342**	**$174,255**	**$85,184**	**$ 89,071**
Deposits received for securities loaned	**33,029**	**15,999**	**17,030**	**2,868**	**14,162**
Total	**$338,626**	**$147,341**	**$191,285**	**$88,052**	**$103,233**

	As of December 31, 2020				
In millions of dollars	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet(1)	Net amounts of assets included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default(2)	Net amounts(3)
Securities purchased under agreements to resell	$362,025	$157,370	$204,655	$159,232	$ 45,423
Deposits paid for securities borrowed	96,425	6,358	90,067	13,474	76,593
Total	$458,450	$163,728	$294,722	$172,706	$122,016

In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet(1)	Net amounts of liabilities included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default(2)	Net amounts(3)
Securities sold under agreements to repurchase	$338,564	$157,370	$181,194	$ 95,563	$85,631
Deposits received for securities loaned	24,689	6,358	18,331	7,982	10,349
Total	$363,253	$163,728	$199,525	$103,545	$95,980

(1) Includes financial instruments subject to enforceable master netting agreements that are permitted to be offset under ASC 210-20-45.
(2) Includes financial instruments subject to enforceable master netting agreements that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting right has been obtained.
(3) Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by remaining contractual maturity:

	As of December 31, 2021				
In millions of dollars	**Open and overnight**	**Up to 30 days**	**31–90 days**	**Greater than 90 days**	**Total**
Securities sold under agreements to repurchase	**$127,679**	**$93,257**	**$32,908**	**$51,753**	**$305,597**
Deposits received for securities loaned	**23,387**	**6**	**1,392**	**8,244**	**33,029**
Total	**$151,066**	**$93,263**	**$34,300**	**$59,997**	**$338,626**

	As of December 31, 2020				
In millions of dollars	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
Securities sold under agreements to repurchase	$160,754	$98,226	$41,679	$37,905	$338,564
Deposits received for securities loaned	17,038	3	2,770	4,878	24,689
Total	$177,792	$98,229	$44,449	$42,783	$363,253

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by class of underlying collateral:

	As of December 31, 2021		
In millions of dollars	**Repurchase agreements**	**Securities lending agreements**	**Total**
U.S. Treasury and federal agency securities	**$ 85,861**	**$ 90**	**$ 85,951**
State and municipal securities	**1,053**	**—**	**1,053**
Foreign government securities	**133,352**	**212**	**133,564**
Corporate bonds	**20,398**	**152**	**20,550**
Equity securities	**25,653**	**32,517**	**58,170**
Mortgage-backed securities	**33,573**	**—**	**33,573**
Asset-backed securities	**1,681**	**—**	**1,681**
Other	**4,026**	**58**	**4,084**
Total	**$305,597**	**$33,029**	**$338,626**

	As of December 31, 2020		
In millions of dollars	Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$112,437	$ —	$112,437
State and municipal securities	664	2	666
Foreign government securities	130,017	194	130,211
Corporate bonds	20,149	78	20,227
Equity securities	21,497	24,149	45,646
Mortgage-backed securities	45,566	—	45,566
Asset-backed securities	3,307	—	3,307
Other	4,927	266	5,193
Total	$338,564	$24,689	$363,253

12. BROKERAGE RECEIVABLES AND BROKERAGE PAYABLES

The Company has receivables and payables for financial instruments sold to and purchased from brokers, dealers and customers, which arise in the ordinary course of business. Citi is exposed to risk of loss from the inability of brokers, dealers or customers to pay for purchases or to deliver the financial instruments sold, in which case Citi would have to sell or purchase the financial instruments at prevailing market prices. Credit risk is reduced to the extent that an exchange or clearing organization acts as a counterparty to the transaction and replaces the broker, dealer or customer in question.

Citi seeks to protect itself from the risks associated with customer activities by requiring customers to maintain margin collateral in compliance with regulatory and internal guidelines. Margin levels are monitored daily, and customers deposit additional collateral as required. Where customers cannot meet collateral requirements, Citi may liquidate sufficient underlying financial instruments to bring the customer into compliance with the required margin level.

Exposure to credit risk is impacted by market volatility, which may impair the ability of clients to satisfy their obligations to Citi. Credit limits are established and closely monitored for customers and for brokers and dealers engaged in forwards, futures and other transactions deemed to be credit sensitive.

Brokerage receivables and *Brokerage payables* consisted of the following:

	December 31,	
In millions of dollars	**2021**	2020
Receivables from customers, net	**$26,403**	$18,097
Receivables from brokers, dealers and clearing organizations	**27,937**	26,709
Total brokerage receivables[1]	**$54,340**	$44,806
Payables to customers	**$52,158**	$39,319
Payables to brokers, dealers and clearing organizations	**9,272**	11,165
Total brokerage payables[1]	**$61,430**	$50,484

(1) Includes brokerage receivables and payables recorded by Citi broker-dealer entities that are accounted for in accordance with the AICPA Accounting Guide for Brokers and Dealers in Securities as codified in ASC 940-320.

13. INVESTMENTS

The following table presents Citi's investments by category:

In millions of dollars	December 31, 2021	2020
Debt securities available-for-sale (AFS)	**$288,522**	$335,084
Debt securities held-to-maturity (HTM)[1]	**216,963**	104,943
Marketable equity securities carried at fair value[2]	**543**	515
Non-marketable equity securities carried at fair value[2]	**489**	551
Non-marketable equity securities measured using the measurement alternative[3]	**1,413**	962
Non-marketable equity securities carried at cost[4]	**4,892**	5,304
Total investments	**$512,822**	$447,359

(1) Carried at adjusted amortized cost basis, net of any ACL.
(2) Unrealized gains and losses are recognized in earnings.
(3) Impairment losses and adjustments to the carrying value as a result of observable price changes are recognized in earnings. See "Non-Marketable Equity Securities Not Carried at Fair Value" below.
(4) Represents shares issued by the Federal Reserve Bank, Federal Home Loan Banks and certain exchanges of which Citigroup is a member.

The following table presents interest and dividend income on investments:

In millions of dollars	2021	2020	2019
Taxable interest	**$6,975**	$7,554	$9,269
Interest exempt from U.S. federal income tax	**279**	301	404
Dividend income	**134**	134	187
Total interest and dividend income on investments	**$7,388**	$7,989	$9,860

The following table presents realized gains and losses on the sales of investments, which exclude impairment losses:

In millions of dollars	2021	2020	2019
Gross realized investment gains	**$ 860**	$1,895	$1,599
Gross realized investment losses	**(195)**	(139)	(125)
Net realized gains on sales of investments	**$ 665**	$1,756	$1,474

Debt Securities Available-for-Sale

The amortized cost and fair value of AFS debt securities were as follows:

In millions of dollars	December 31, 2021 Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value	December 31, 2020 Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value
Debt securities AFS										
Mortgage-backed securities[1]										
U.S. government-sponsored agency guaranteed	**$ 33,064**	**$ 453**	**$ 301**	**$—**	**$ 33,216**	$ 42,836	$1,134	$ 52	$—	$ 43,918
Non-U.S. residential	**380**	**1**	**1**	**—**	**380**	568	3	—	—	571
Commercial	**25**	**—**	**—**	**—**	**25**	49	1	—	—	50
Total mortgage-backed securities	**$ 33,469**	**$ 454**	**$ 302**	**$—**	**$ 33,621**	$ 43,453	$1,138	$ 52	$—	$ 44,539
U.S. Treasury and federal agency securities										
U.S. Treasury	**$122,669**	**$ 615**	**$ 844**	**$—**	**$122,440**	$144,094	$2,108	$ 49	$—	$146,153
Agency obligations	**—**	**—**	**—**	**—**	**—**	50	1	—	—	51
Total U.S. Treasury and federal agency securities	**$122,669**	**$ 615**	**$ 844**	**$—**	**$122,440**	$144,144	$2,109	$ 49	$—	$146,204
State and municipal	**$ 2,643**	**$ 79**	**$ 101**	**$—**	**$ 2,621**	$ 3,753	$ 123	$ 157	$—	$ 3,719
Foreign government	**119,426**	**337**	**1,023**	**—**	**118,740**	123,467	1,623	122	—	124,968
Corporate	**5,972**	**33**	**77**	**8**	**5,920**	10,444	152	91	5	10,500
Asset-backed securities[1]	**304**	**—**	**1**	**—**	**303**	277	5	4	—	278
Other debt securities	**4,880**	**1**	**4**	**—**	**4,877**	4,871	5	—	—	4,876
Total debt securities AFS	**$289,363**	**$1,519**	**$2,352**	**$ 8**	**$288,522**	$330,409	$5,155	$ 475	$ 5	$335,084

(1) The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage- and asset-backed securitizations in which the Company has other involvement, see Note 21 to the Consolidated Financial Statements.

At December 31, 2021, the amortized cost of fixed income securities exceeded their fair value by $2,352 million. Of the $2,352 million, $1,895 million represented unrealized losses on fixed income investments that have been in a gross-unrealized-loss position for less than a year and, of these, 77% were rated investment grade; and $457 million represented unrealized losses on fixed income investments that have been in a gross-unrealized-loss position for a year or more and, of these, 99% were rated investment grade. Of the $457 million, $197 million represents foreign government securities.

The following table shows the fair value of AFS debt securities that have been in an unrealized loss position:

In millions of dollars	Less than 12 months		12 months or longer		Total	
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
December 31, 2021						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	**$ 17,039**	**$ 270**	**$ 698**	**$ 31**	**$ 17,737**	**$ 301**
Non-U.S. residential	**96**	**1**	**1**	**—**	**97**	**1**
Commercial	**—**	**—**	**—**	**—**	**—**	**—**
Total mortgage-backed securities	**$ 17,135**	**$ 271**	**$ 699**	**$ 31**	**$ 17,834**	**$ 302**
U.S. Treasury and federal agency securities						
U.S. Treasury	**$ 56,448**	**$ 713**	**$ 6,310**	**$131**	**$ 62,758**	**$ 844**
Agency obligations	**—**	**—**	**—**	**—**	**—**	**—**
Total U.S. Treasury and federal agency securities	**$ 56,448**	**$ 713**	**$ 6,310**	**$131**	**$ 62,758**	**$ 844**
State and municipal	**$ 229**	**$ 3**	**$ 874**	**$ 98**	**$ 1,103**	**$ 101**
Foreign government	**64,319**	**826**	**9,924**	**197**	**74,243**	**1,023**
Corporate	**2,655**	**77**	**22**	**—**	**2,677**	**77**
Asset-backed securities	**108**	**1**	**—**	**—**	**108**	**1**
Other debt securities	**3,439**	**4**	**—**	**—**	**3,439**	**4**
Total debt securities AFS	**$144,333**	**$1,895**	**$17,829**	**$457**	**$162,162**	**$2,352**
December 31, 2020						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ 3,588	$ 30	$ 298	$ 22	$ 3,886	$ 52
Non-U.S. residential	1	—	—	—	1	—
Commercial	7	—	4	—	11	—
Total mortgage-backed securities	$ 3,596	$ 30	$ 302	$ 22	$ 3,898	$ 52
U.S. Treasury and federal agency securities						
U.S. Treasury	$ 25,031	$ 49	$ —	$ —	$ 25,031	$ 49
Agency obligations	50	—	—	—	50	—
Total U.S. Treasury and federal agency securities	$ 25,081	$ 49	$ —	$ —	$ 25,081	$ 49
State and municipal	$ 836	$ 34	$ 893	$123	$ 1,729	$ 157
Foreign government	29,344	61	3,502	61	32,846	122
Corporate	1,083	90	24	1	1,107	91
Asset-backed securities	194	3	39	1	233	4
Other debt securities	182	—	—	—	182	—
Total debt securities AFS	$ 60,316	$ 267	$ 4,760	$208	$ 65,076	$ 475

The following table presents the amortized cost and fair value of AFS debt securities by contractual maturity dates:

	December 31,				
	2021			2020	
In millions of dollars	**Amortized cost**	**Fair value**	**Weighted average yield**[1]	Amortized cost	Fair value
Mortgage-backed securities[2]					
Due within 1 year	**$ 188**	**$ 189**	**0.79%**	$ 27	$ 27
After 1 but within 5 years	**211**	**211**	**1.07**	567	571
After 5 but within 10 years	**523**	**559**	**3.41**	688	757
After 10 years	**32,547**	**32,662**	**2.73**	42,171	43,184
Total	**$ 33,469**	**$ 33,621**	**2.72%**	$ 43,453	$ 44,539
U.S. Treasury and federal agency securities					
Due within 1 year	**$ 34,321**	**$ 34,448**	**1.05%**	$ 34,834	$ 34,951
After 1 but within 5 years	**87,987**	**87,633**	**0.81**	108,160	110,091
After 5 but within 10 years	**361**	**359**	**1.42**	1,150	1,162
After 10 years	**—**	**—**	**—**	—	—
Total	**$122,669**	**$122,440**	**0.87%**	$144,144	$146,204
State and municipal					
Due within 1 year	**$ 40**	**$ 40**	**2.09%**	$ 427	$ 428
After 1 but within 5 years	**121**	**124**	**3.16**	189	198
After 5 but within 10 years	**156**	**161**	**3.18**	276	267
After 10 years	**2,326**	**2,296**	**3.15**	2,861	2,826
Total	**$ 2,643**	**$ 2,621**	**3.14%**	$ 3,753	$ 3,719
Foreign government					
Due within 1 year	**$ 49,263**	**$ 49,223**	**2.53%**	$ 48,133	$ 48,258
After 1 but within 5 years	**64,555**	**63,961**	**3.14**	67,365	68,586
After 5 but within 10 years	**3,736**	**3,656**	**1.72**	5,908	6,011
After 10 years	**1,872**	**1,900**	**1.52**	2,061	2,113
Total	**$119,426**	**$118,740**	**2.82%**	$123,467	$124,968
All other[3]					
Due within 1 year	**$ 5,175**	**$ 5,180**	**0.94%**	$ 6,661	$ 6,665
After 1 but within 5 years	**5,177**	**5,149**	**1.91**	7,814	7,891
After 5 but within 10 years	**750**	**750**	**2.08**	1,018	1,034
After 10 years	**54**	**21**	**4.28**	99	64
Total	**$ 11,156**	**$ 11,100**	**1.48%**	$ 15,592	$ 15,654
Total debt securities AFS	**$289,363**	**$288,522**	**1.94%**	$330,409	$335,084

(1) Weighted average yields are weighted based on the amortized cost of each security. The average yield considers the contractual coupon, amortization of premiums and accretion of discounts and excludes the effects of any related hedging derivatives.
(2) Includes mortgage-backed securities of U.S. government-sponsored agencies. The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions.
(3) Includes corporate, asset-backed and other debt securities.

Debt Securities Held-to-Maturity

The carrying value and fair value of debt securities HTM were as follows:

In millions of dollars	Amortized cost, net[1]	Gross unrealized gains	Gross unrealized losses	Fair value
December 31, 2021				
Debt securities HTM				
Mortgage-backed securities[2]				
U.S. government-sponsored agency guaranteed	**$ 63,885**	**$1,076**	**$ 925**	**$ 64,036**
Non-U.S. residential	**736**	**3**	**—**	**739**
Commercial	**1,070**	**4**	**2**	**1,072**
Total mortgage-backed securities	**$ 65,691**	**$1,083**	**$ 927**	**$ 65,847**
U.S. Treasury securities	**$111,819**	**$ 30**	**$1,632**	**$110,217**
State and municipal[3]	**8,923**	**589**	**12**	**9,500**
Foreign government	**1,651**	**4**	**36**	**1,619**
Asset-backed securities[2]	**28,879**	**8**	**32**	**28,855**
Total debt securities HTM, net	**$216,963**	**$1,714**	**$2,639**	**$216,038**
December 31, 2020				
Debt securities HTM				
Mortgage-backed securities[2]				
U.S. government-sponsored agency guaranteed	$ 49,004	$2,162	$ 15	$ 51,151
Non-U.S. residential	1,124	3	1	1,126
Commercial	825	1	1	825
Total mortgage-backed securities	$ 50,953	$2,166	$ 17	$ 53,102
U.S. Treasury securities[4]	$ 21,293	$ 4	$ 55	$ 21,242
State and municipal	9,185	755	11	9,929
Foreign government	1,931	91	—	2,022
Asset-backed securities[2]	21,581	6	92	21,495
Total debt securities HTM	$104,943	$3,022	$ 175	$107,790

(1) Amortized cost is reported net of ACL of $87 million and $86 million at December 31, 2021 and December 31, 2020, respectively.

(2) The Company invests in mortgage- and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage- and asset-backed securitizations in which the Company has other involvement, see Note 21 to the Consolidated Financial Statements.

(3) In February 2021, the Company transferred $237 million of state and municipal bonds from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized gain position of $14 million. The gain amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

(4) In August 2020, Citibank transferred $13.1 billion of investments in U.S. Treasury securities from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized gain position of $144 million. The gain amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

The Company has the positive intent and ability to hold these securities to maturity or, where applicable, until the exercise of any issuer call option, absent any unforeseen significant changes in circumstances, including deterioration in credit or changes in regulatory capital requirements.

The net unrealized losses classified in *AOCI* for HTM debt securities primarily relate to debt securities previously classified as AFS that were transferred to HTM, and include any cumulative fair value hedge adjustments. The net unrealized loss amount also includes any non-credit-related changes in fair value of HTM debt securities that have suffered credit impairment recorded in earnings. The *AOCI* balance related to HTM debt securities is amortized as an adjustment of yield, in a manner consistent with the accretion of any difference between the carrying value at the transfer date and par value of the same debt securities.

The following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

	December 31,				
	2021			2020	
In millions of dollars	**Amortized cost[(1)]**	**Fair value**	**Weighted average yield[(2)]**	Amortized cost[(1)]	Fair value
Mortgage-backed securities					
Due within 1 year	**$ 152**	**$ 151**	**1.70%**	$ 81	$ 81
After 1 but within 5 years	**684**	**725**	**3.01**	463	477
After 5 but within 10 years	**1,655**	**1,739**	**2.74**	1,699	1,873
After 10 years	**63,200**	**63,232**	**2.55**	48,710	50,671
Total	**$ 65,691**	**$ 65,847**	**2.56%**	$ 50,953	$ 53,102
U.S. Treasury securities					
After 1 but within 5 years	**$ 65,498**	**$ 64,516**	**0.69%**	$ 18,955	$ 19,127
After 5 but within 10 years	**46,321**	**45,701**	**1.15**	2,338	2,115
After 10 years	**—**	**—**	**—**	—	—
Total	**$111,819**	**$110,217**	**0.88%**	$ 21,293	$ 21,242
State and municipal					
Due within 1 year	**$ 51**	**$ 50**	**3.82%**	$ 6	$ 6
After 1 but within 5 years	**166**	**170**	**2.82**	139	142
After 5 but within 10 years	**908**	**951**	**3.23**	818	869
After 10 years	**7,798**	**8,329**	**2.65**	8,222	8,912
Total	**$ 8,923**	**$ 9,500**	**2.72%**	$ 9,185	$ 9,929
Foreign government					
Due within 1 year	**$ 292**	**$ 291**	**7.86%**	$ 361	$ 360
After 1 but within 5 years	**1,359**	**1,328**	**6.30**	1,570	1,662
After 5 but within 10 years	**—**	**—**	**—**	—	—
After 10 years	**—**	**—**	**—**	—	—
Total	**$ 1,651**	**$ 1,619**	**6.58%**	$ 1,931	$ 2,022
All other[(3)]					
Due within 1 year	**$ —**	**$ —**	**—%**	$ —	$ —
After 1 but within 5 years	**—**	**—**	**—**	—	—
After 5 but within 10 years	**11,520**	**11,515**	**2.78**	11,795	15,020
After 10 years	**17,359**	**17,340**	**1.34**	9,786	6,475
Total	**$ 28,879**	**$ 28,855**	**1.92%**	$ 21,581	$ 21,495
Total debt securities HTM	**$216,963**	**$216,038**	**1.65%**	$104,943	$107,790

(1) Amortized cost is reported net of ACL of $87 million and $86 million at December 31, 2021 and December 30, 2020, respectively.
(2) Weighted average yields are weighted based on the amortized cost of each security. The average yield considers the contractual coupon, amortization of premiums and accretion of discounts and excludes the effects of any related hedging derivatives.
(3) Includes corporate and asset-backed securities.

HTM Debt Securities Delinquency and Non-Accrual Details

Citi did not have any HTM debt securities that were delinquent or on non-accrual status at December 31, 2021 and 2020.

There were no purchased credit-deteriorated HTM debt securities held by the Company as of December 31, 2021 and 2020.

Evaluating Investments for Impairment

AFS Debt Securities

Overview—AFS Debt Securities
The Company conducts periodic reviews of all AFS debt securities with unrealized losses to evaluate whether the impairment resulted from expected credit losses or from other factors and to evaluate the Company's intent to sell such securities.

An AFS debt security is impaired when the current fair value of an individual AFS debt security is less than its amortized cost basis.

The Company recognizes the entire difference between amortized cost basis and fair value in earnings for impaired AFS debt securities that Citi has an intent to sell or for which Citi believes it will more-likely-than-not be required to sell prior to recovery of the amortized cost basis. However, for those AFS debt securities that the Company does not intend to sell and is not likely to be required to sell, only the credit-related impairment is recognized in earnings by recording an allowance for credit losses. Any remaining fair value decline for such securities is recorded in *AOCI*. The Company does not consider the length of time that the fair value of a security is below its amortized cost when determining if a credit loss exists.

For AFS debt securities, credit losses exist where Citi does not expect to receive contractual principal and interest cash flows sufficient to recover the entire amortized cost basis of a security. The allowance for credit losses is limited to the amount by which the AFS debt security's amortized cost basis exceeds its fair value. The allowance is increased or decreased if credit conditions subsequently worsen or improve. Reversals of credit losses are recognized in earnings.

The Company's review for impairment of AFS debt securities generally entails:

- identification and evaluation of impaired investments;
- consideration of evidential matter, including an evaluation of factors or triggers that could cause individual positions to qualify as credit impaired and those that would not support credit impairment; and
- documentation of the results of these analyses, as required under business policies.

The sections below describe the Company's process for identifying expected credit impairments for debt security types that have the most significant unrealized losses as of December 31, 2021.

Mortgage-Backed Securities
Citi records no allowances for credit losses on U.S. government-agency-guaranteed mortgage-backed securities, because the Company expects to incur no credit losses in the event of default due to a history of incurring no credit losses and due to the nature of the counterparties.

State and Municipal Securities
The process for estimating credit losses in Citigroup's AFS state and municipal bonds is primarily based on a credit analysis that incorporates third-party credit ratings. Citi monitors the bond issuers and any insurers providing default protection in the form of financial guarantee insurance. The average external credit rating, disregarding any insurance, is Aa2/AA. In the event of an external rating downgrade or other indicator of credit impairment (i.e., based on instrument-specific estimates of cash flows or probability of issuer default), the subject bond is specifically reviewed for adverse changes in the amount or timing of expected contractual principal and interest payments.

For AFS state and municipal bonds with unrealized losses that Citi plans to sell or would more-likely-than-not be required to sell, the full impairment is recognized in earnings. For AFS state and municipal bonds where Citi has no intent to sell and it is more-likely-than-not that the Company will not be required to sell, Citi records an allowance for expected credit losses for the amount it expects not to collect, capped at the difference between the bond's amortized cost basis and fair value.

Equity Method Investments
Management assesses equity method investments that have fair values that are less than their respective carrying values for other-than-temporary impairment (OTTI). Fair value is measured as price multiplied by quantity if the investee has publicly listed securities. If the investee is not publicly listed, other methods are used (see Note 24 to the Consolidated Financial Statements).

For impaired equity method investments that Citi plans to sell prior to recovery of value or would more-likely-than-not be required to sell, with no expectation that the fair value will recover prior to the expected sale date, the full impairment is recognized as OTTI in *Other revenue* regardless of severity and duration. The measurement of the OTTI does not include partial projected recoveries subsequent to the balance sheet date.

For impaired equity method investments that management does not plan to sell and is not more-likely-than-not to be required to sell prior to recovery of value, the evaluation of whether an impairment is other-than-temporary is based on (i) whether and when an equity method investment will recover in value and (ii) whether the investor has the intent and ability to hold that investment for a period of time sufficient to recover the value. The determination of whether the impairment is considered other-than-temporary considers the following indicators:

- the cause of the impairment and the financial condition and near-term prospects of the issuer, including any specific events that may influence the operations of the issuer;
- the intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value; and
- the length of time and extent to which fair value has been less than the carrying value.

Recognition and Measurement of Impairment

The following tables present total impairment on *Investments* recognized in earnings:

In millions of dollars	Year ended December 31, 2021 AFS	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:			
Total impairment losses recognized during the period	**$ —**	**$—**	**$ —**
Less: portion of impairment loss recognized in *AOCI* (before taxes)	**—**	**—**	**—**
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	**$ —**	**$—**	**$ —**
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	**181**	**—**	**181**
Total impairment losses recognized in earnings	**$181**	**$—**	**$181**

In millions of dollars	Year ended December 31, 2020 AFS	HTM	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:				
Total impairment losses recognized during the period	$ —	$—	$—	$ —
Less: portion of impairment loss recognized in *AOCI* (before taxes)	—	—	—	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	$ —	$—	$—	$ —
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	109	—	—	109
Total impairment losses recognized in earnings	$109	$—	$—	$109

In millions of dollars	Year ended December 31, 2019 AFS	HTM	Other assets	Total
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:				
Total impairment losses recognized during the period	$ 1	$—	$ 1	$ 2
Less: portion of impairment loss recognized in *AOCI* (before taxes)	—	—	—	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	$ 1	$—	$ 1	$ 2
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	20	—	1	21
Total impairment losses recognized in earnings	$21	$—	$ 2	$23

The following presents the credit-related impairments recognized in earnings for AFS securities held that the Company does not intend to sell nor will likely be required to sell at December 31, 2021 and 2020:

Allowance for Credit Losses on AFS Debt Securities

	Year ended December 31, 2021					
In millions of dollars	**Mortgage-backed**	**U.S. Treasury and federal agency**	**State and municipal**	**Foreign government**	**Corporate**	**Total AFS**
Allowance for credit losses at beginning of year	**$—**	**$—**	**$—**	**$—**	**$ 5**	**$ 5**
Gross write-offs	**—**	**—**	**—**	**—**	**—**	**—**
Gross recoveries	**—**	**—**	**—**	**—**	**—**	**—**
Net credit losses (NCLs)	**$—**	**$—**	**$—**	**$—**	**$—**	**$—**
NCLs	**$—**	**$—**	**$—**	**$—**	**$—**	**$—**
Credit losses on securities without previous credit losses	**—**	**—**	**—**	**—**	**3**	**3**
Net reserve builds (releases) on securities with previous credit losses	**—**	**—**	**—**	**—**	**—**	**—**
Total provision for credit losses	**$—**	**$—**	**$—**	**$—**	**$ 3**	**$ 3**
Initial allowance on newly purchased credit-deteriorated securities during the year	**—**	**—**	**—**	**—**	**—**	**—**
Allowance for credit losses at end of year	**$—**	**$—**	**$—**	**$—**	**$ 8**	**$ 8**

	Year ended December 31, 2020					
In millions of dollars	Mortgage-backed	U.S. Treasury and federal agency	State and municipal	Foreign government	Corporate	Total AFS
Allowance for credit losses at beginning of year	$—	$—	$—	$—	$—	$—
Gross write-offs	—	—	—	—	—	—
Gross recoveries	—	—	—	—	2	2
Net credit losses (NCLs)	$—	$—	$—	$—	$ 2	$ 2
NCLs	$—	$—	$—	$—	$ (2)	$ (2)
Credit losses on securities without previous credit losses	—	—	—	3	5	8
Net reserve builds (releases) on securities with previous credit losses	—	—	—	(3)	—	(3)
Total provision for credit losses	$—	$—	$—	$—	$ 3	$ 3
Initial allowance on newly purchased credit-deteriorated securities during the year	—	—	—	—	—	—
Allowance for credit losses at end of year	$—	$—	$—	$—	$ 5	$ 5

Non-Marketable Equity Securities Not Carried at Fair Value

Non-marketable equity securities are required to be measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost.

The election to measure a non-marketable equity security using the measurement alternative is made on an instrument-by-instrument basis. Under the measurement alternative, an equity security is carried at cost plus or minus changes resulting from observable prices in orderly transactions for the identical or a similar investment of the same issuer. The carrying value of the equity security is adjusted to fair value on the date of an observed transaction. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Equity securities under the measurement alternative are also assessed for impairment. On a quarterly basis, management qualitatively assesses whether each equity security under the measurement alternative is impaired. Impairment indicators that are considered include, but are not limited to, the following:

- a significant deterioration in the earnings performance, credit rating, asset quality or business prospects of the investee;
- a significant adverse change in the regulatory, economic or technological environment of the investee;
- a significant adverse change in the general market condition of either the geographical area or the industry in which the investee operates;
- a bona fide offer to purchase, an offer by the investee to sell or a completed auction process for the same or similar investment for an amount less than the carrying amount of that investment; and
- factors that raise significant concerns about the investee's ability to continue as a going concern, such as negative cash flows from operations, working capital deficiencies or noncompliance with statutory capital requirements or debt covenants.

When the qualitative assessment indicates that impairment exists, the investment is written down to fair value, with the full difference between the fair value of the investment and its carrying amount recognized in earnings.

Below is the carrying value of non-marketable equity securities measured using the measurement alternative at December 31, 2021 and 2020:

In millions of dollars	**December 31, 2021**	December 31, 2020
Measurement alternative:		
Carrying value	**$1,413**	$962

Below are amounts recognized in earnings and life-to-date amounts for non-marketable equity securities measured using the measurement alternative:

	Years ended December 31,	
In millions of dollars	**2021**	2020
Measurement alternative[(1)]:		
Impairment losses	**$ 25**	$ 56
Downward changes for observable prices	**—**	19
Upward changes for observable prices	**406**	144

(1) See Note 24 to the Consolidated Financial Statements for additional information on these nonrecurring fair value measurements.

In millions of dollars	**Life-to-date amounts on securities still held December 31, 2021**
Measurement alternative:	
Impairment losses	**$ 87**
Downward changes for observable prices	**3**
Upward changes for observable prices	**699**

A similar impairment analysis is performed for non-marketable equity securities carried at cost. For the years ended December 31, 2021 and 2020, there was no impairment loss recognized in earnings for non-marketable equity securities carried at cost.

Investments in Alternative Investment Funds That Calculate Net Asset Value

The Company holds investments in certain alternative investment funds that calculate net asset value (NAV), or its equivalent, including private equity funds, funds of funds and real estate funds, as provided by third-party asset managers. Investments in such funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV of the Company's ownership interest in the funds. Some of these investments are in "covered funds" for purposes of the Volcker Rule, which prohibits certain proprietary investment activities and limits the ownership of, and relationships with, covered funds. On April 21, 2017, Citi's request for extension of the permitted holding period under the Volcker Rule for certain of its investments in illiquid funds was approved, allowing the Company to hold such investments until the earlier of five years from the July 21, 2017 expiration date of the general conformance period or the date such investments mature or are otherwise conformed with the Volcker Rule.

	Fair value		**Unfunded commitments**		**Redemption frequency (if currently eligible) monthly, quarterly, annually**	**Redemption notice period**
In millions of dollars	**December 31, 2021**	December 31, 2020	**December 31, 2021**	December 31, 2020		
Private equity funds[1][2]	**$123**	$123	**$60**	$62	—	—
Real estate funds[2][3]	**2**	9	**1**	20	—	—
Mutual/collective investment funds	**20**	20	**—**	—		
Total	**$145**	$152	**$61**	$82	—	—

(1) Private equity funds include funds that invest in infrastructure, emerging markets and venture capital.

(2) With respect to the Company's investments in private equity funds and real estate funds, distributions from each fund will be received as the underlying assets held by these funds are liquidated. It is estimated that the underlying assets of these funds will be liquidated over a period of several years as market conditions allow. Private equity and real estate funds do not allow redemption of investments by their investors. Investors are permitted to sell or transfer their investments, subject to the approval of the general partner or investment manager of these funds, which generally may not be unreasonably withheld.

(3) Includes several real estate funds that invest primarily in commercial real estate in the U.S., Europe and Asia.

14. LOANS

Citigroup loans are reported in two categories: consumer and corporate. These categories are classified primarily according to the operating segment and business that manage the loans.

Consumer Loans

Consumer loans represent loans and leases managed primarily by *GCB* and *Corporate/Other*.

Citigroup has established a risk management process to monitor, evaluate and manage the principal risks associated with its consumer loan portfolio. Credit quality indicators that are actively monitored include delinquency status, consumer credit scores under Fair Isaac Corporation (FICO) and loan to value (LTV) ratios, each as discussed in more detail below.

Delinquency Status

Delinquency status is monitored and considered a key indicator of credit quality of consumer loans. Principally, the U.S. residential first mortgage loans use the Mortgage Bankers Association (MBA) method of reporting delinquencies, which considers a loan delinquent if a monthly payment has not been received by the end of the day immediately preceding the loan's next due date. All other loans use a method of reporting delinquencies that considers a loan delinquent if a monthly payment has not been received by the close of business on the loan's next due date.

As a general policy, residential first mortgages, home equity loans and installment loans are classified as non-accrual when loan payments are 90 days contractually past due. Credit cards and unsecured revolving loans generally accrue interest until payments are 180 days past due. Home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Mortgage loans, other than Federal Housing Administration (FHA)-insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy.

The policy for re-aging modified U.S. consumer loans to current status varies by product. Generally, one of the conditions to qualify for these modifications is that a minimum number of payments (typically ranging from one to three) be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for a loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years).

Furthermore, FHA and Department of Veterans Affairs (VA) loans are modified under those respective agencies' guidelines and payments are not always required in order to re-age a modified loan to current.

The following tables provide Citi's consumer loans by type:

Consumer Loans, Delinquencies and Non-Accrual Status at December 31, 2021

In millions of dollars	Total current[(1)(2)]	30–89 days past due[(3)(4)]	≥ 90 days past due[(3)(4)]	Past due government guaranteed[(5)]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[(6)]									
Residential first mortgages[(7)]	$ 42,894	$ 245	$ 280	$394	$ 43,813	$134	$ 339	$ 473	$ 282
Home equity loans[(8)(9)]	4,899	43	159	—	5,101	63	206	269	—
Credit cards	132,050	947	871	—	133,868	—	—	—	871
Personal, small business and other	3,091	19	10	38	3,158	2	15	17	28
Total	$182,934	$1,254	$1,320	$432	$185,940	$199	$ 560	$ 759	$1,181
In offices outside North America[(6)]									
Residential mortgages[(7)]	$ 34,289	$ 159	$ 153	$ —	$ 34,601	$ —	$ 403	$ 403	$ —
Credit cards	17,428	192	188	—	17,808	—	140	140	120
Personal, small business and other	32,662	144	81	—	32,887	—	200	200	22
Total	$ 84,379	$ 495	$ 422	$ —	$ 85,296	$ —	$ 743	$ 743	$ 142
Total Citigroup[(10)]	$267,313	$1,749	$1,742	$432	$271,236	$199	$1,303	$1,502	$1,323

Consumer Loans, Delinquencies and Non-Accrual Status at December 31, 2020

In millions of dollars	Total current[(1)(2)]	30–89 days past due[(3)(4)]	≥ 90 days past due[(3)(4)]	Past due government guaranteed[(5)]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[(6)]									
Residential first mortgages[(7)]	$ 46,471	$ 402	$ 381	$524	$ 47,778	$136	$ 509	$ 645	$ 332
Home equity loans[(8)(9)]	6,829	78	221	—	7,128	72	307	379	—
Credit cards	127,827	1,228	1,330	—	130,385	—	—	—	1,330
Personal, small business and other	4,472	27	10	—	4,509	2	33	35	—
Total	$185,599	$1,735	$1,942	$524	$189,800	$210	$ 849	$1,059	$1,662
In offices outside North America[(6)]									
Residential mortgages[(7)]	$ 39,557	$ 213	$ 199	$ —	$ 39,969	$ —	$ 486	$ 486	$ —
Credit cards	21,718	429	545	—	22,692	—	384	384	324
Personal, small business and other	35,925	319	134	—	36,378	—	212	212	52
Total	$ 97,200	$ 961	$ 878	$ —	$ 99,039	$ —	$1,082	$1,082	$ 376
Total Citigroup[(10)]	$282,799	$2,696	$2,820	$524	$288,839	$210	$1,931	$2,141	$2,038

(1) Loans less than 30 days past due are presented as current.
(2) Includes $12 million and $14 million at December 31, 2021 and 2020, respectively, of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies.
(4) Loans modified under Citi's consumer relief programs continue to be reported in the same delinquency bucket they were in at the time of modification. Most modified loans in North America would not be reported as 30–89 or 90+ days past due for the duration of the programs (which have various durations, and certain of which may be renewed by the customer). Consumer relief programs in Asia and Mexico largely expired during the fourth quarter of 2020 and began to age at that time.
(5) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of $0.1 billion and $0.2 billion and 90 days or more past due of $0.3 billion and $0.3 billion at December 31, 2021 and 2020, respectively.
(6) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(7) Includes approximately $0.1 billion and $0.1 billion at December 31, 2021 and 2020, respectively, of residential first mortgage loans in process of foreclosure.
(8) Includes approximately $0.1 billion and $0.1 billion at December 31, 2021 and 2020, respectively, of home equity loans in process of foreclosure.
(9) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(10) Consumer loans are net of unearned income of $659 million and $749 million at December 31, 2021 and 2020, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

Interest Income Recognized for Non-Accrual Consumer Loans

In millions of dollars	For the years ended December 31, 2021	December 31, 2020
In North America offices[1]		
Residential first mortgages	**$13**	$15
Home equity loans	**7**	8
Credit cards	**—**	—
Personal, small business and other	**—**	—
Total	**$20**	$23
In offices outside North America[1]		
Residential mortgages	**$ 1**	$—
Credit cards	**—**	—
Personal, small business and other	**—**	—
Total	**$ 1**	$—
Total Citigroup	**$21**	$23

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

During the years ended December 31, 2021 and 2020, the Company sold and/or reclassified to HFS $1,473 million and $414 million of consumer loans, respectively. Loans of businesses that are HFS are not included in the above. For additional information, see Note 2 to the Consolidated Financial Statements.

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Consumer Credit Scores (FICO)

In the U.S., independent credit agencies rate an individual's risk for assuming debt based on the individual's credit history and assign every consumer a Fair Isaac Corporation (FICO) credit score. These scores are continually updated by the agencies based upon an individual's credit actions (e.g., taking out a loan or missed or late payments).

The following tables provide details on the FICO scores for Citi's U.S. consumer loan portfolio based on end-of-period receivables by year of origination. FICO scores are updated monthly for substantially all of the portfolio or, otherwise, on a quarterly basis for the remaining portfolio.

FICO score distribution in U.S. portfolio[1][2]	December 31, 2021				
In millions of dollars	Less than 680	680 to 760	Greater than 760	FICO not available	Total loans
Residential first mortgages					
2021	$ 201	$ 3,415	$ 7,363		
2020	200	2,732	7,339		
2019	140	1,178	3,082		
2018	196	431	747		
2017	240	625	1,143		
Prior	1,507	3,817	7,903		
Total residential first mortgages	$ 2,484	$12,198	$27,577	$1,554	$ 43,813
Home equity loans (pre-reset)	$ 222	$ 836	$ 1,309		
Home equity loans (post-reset)	609	989	1,095		
Total home equity loans	$ 831	$ 1,825	$ 2,404	$ 41	$ 5,101
Credit cards[3]	$23,115	$52,907	$55,137	$2,192	$133,351
Personal, small business and other					
2021	$ 59	$ 201	$ 319		
2020	22	41	64		
2019	42	53	68		
2018	34	35	37		
2017	7	8	9		
Prior	120	179	143		
Total personal, small business and other	$ 284	$ 517	$ 640	$1,717	$ 3,158
Total	$26,714	$67,447	$85,758	$5,504	$185,423

See footnotes on next page.

FICO score distribution in U.S. portfolio[1][2]	December 31, 2020				
In millions of dollars	Less than 680	680 to 760	Greater than 760	FICO not available	Total loans
Residential first mortgages					
2020	$ 187	$ 3,741	$ 9,052		
2019	150	1,857	5,384		
2018	246	655	1,227		
2017	298	846	1,829		
2016	323	1,368	3,799		
Prior	1,708	4,133	9,105		
Total residential first mortgages	$ 2,912	$12,600	$30,396	$1,870	$ 47,778
Home equity loans (pre-reset)	$ 292	$ 1,014	$ 1,657		
Home equity loans (post-reset)	1,055	1,569	1,524		
Total home equity loans	$ 1,347	$ 2,583	$ 3,181	$ 17	$ 7,128
Credit cards[3]	$26,227	$52,778	$49,767	$1,041	$129,813
Personal, small business and other					
2020	$ 23	$ 58	$ 95		
2019	79	106	134		
2018	82	80	84		
2017	26	27	30		
2016	10	9	8		
Prior	214	393	529		
Total personal, small business and other	$ 434	$ 673	$ 880	$2,522	$ 4,509
Total	$30,920	$68,634	$84,224	$5,450	$189,228

(1) The FICO bands in the tables are consistent with general industry peer presentations.
(2) FICO scores are updated on either a monthly or quarterly basis. For updates that are made only quarterly, certain current-period loans by year of origination are greater than those disclosed in the prior periods. Loans that did not have FICO scores as of the prior period have been updated with FICO scores as they become available.
(3) Excludes $517 million and $572 million of balances related to Canada for December 31, 2021 and December 31, 2020, respectively.

Loan to Value (LTV) Ratios

LTV ratios (loan balance divided by appraised value) are calculated at origination and updated by applying market price data.

The following tables provide details on the LTV ratios for Citi's U.S. consumer mortgage portfolios by year of origination. LTV ratios are updated monthly using the most recent Core Logic Home Price Index data available for substantially all of the portfolio applied at the Metropolitan Statistical Area level, if available, or the state level if not. The remainder of the portfolio is updated in a similar manner using the Federal Housing Finance Agency indices.

LTV distribution in U.S. portfolio	**December 31, 2021**				
In millions of dollars	**Less than or equal to 80%**	**> 80% but less than or equal to 100%**	**Greater than 100%**	**LTV not available**	**Total**
Residential first mortgages					
2021	**$10,515**	**$ 474**	**$ 1**		
2020	**10,206**	**75**	**—**		
2019	**4,372**	**35**	**1**		
2018	**1,300**	**74**	**5**		
2017	**1,986**	**27**	**2**		
Prior	**13,271**	**34**	**8**		
Total residential first mortgages	**$41,650**	**$ 719**	**$ 17**	**$1,427**	**$43,813**
Home equity loans (pre-reset)	**$ 2,315**	**$ 26**	**$ 9**		
Home equity loans (post-reset)	**2,608**	**48**	**25**		
Total home equity loans	**$ 4,923**	**$ 74**	**$ 34**	**$ 70**	**$ 5,101**
Total	**$46,573**	**$ 793**	**$ 51**	**$1,497**	**$48,914**

LTV distribution in U.S. portfolio	December 31, 2020				
In millions of dollars	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available	Total
Residential first mortgages					
2020	$11,447	$1,543	$ —		
2019	7,029	376	2		
2018	1,617	507	11		
2017	2,711	269	4		
2016	5,423	84	2		
Prior	14,966	66	16		
Total residential first mortgages	$43,193	$2,845	$ 35	$1,705	$47,778
Home equity loans (pre-reset)	$ 2,876	$ 50	$ 16		
Home equity loans (post-reset)	3,782	290	58		
Total home equity loans	$ 6,658	$ 340	$ 74	$ 56	$ 7,128
Total	$49,851	$3,185	$109	$1,761	$54,906

Impaired Consumer Loans

A loan is considered impaired when Citi believes it is probable that all amounts due according to the original contractual terms of the loan will not be collected. Impaired consumer loans include non-accrual loans, as well as smaller-balance homogeneous loans whose terms have been modified due to the borrower's financial difficulties and where Citi has granted a concession to the borrower. These modifications may include interest rate reductions and/or principal forgiveness. Impaired consumer loans exclude smaller-balance homogeneous loans that have not been modified and are carried on a non-accrual basis.

The following tables present information about impaired consumer loans and interest income recognized on impaired consumer loans:

	At and for the year ended December 31, 2021				
In millions of dollars	**Recorded investment(1)(2)**	**Unpaid principal balance**	**Related specific allowance(3)(4)**	**Average carrying value(5)**	**Interest income recognized(6)**
Mortgage and real estate					
Residential first mortgages	**$1,457**	**$1,531**	**$ 87**	**$1,548**	**$ 87**
Home equity loans	**188**	**342**	**(1)**	**335**	**9**
Credit cards	**1,582**	**1,609**	**594**	**1,795**	**116**
Personal, small business and other	**454**	**461**	**120**	**505**	**52**
Total	**$3,681**	**$3,943**	**$800**	**$4,183**	**$264**

	At and for the year ended December 31, 2020				
In millions of dollars	Recorded investment(1)(2)	Unpaid principal balance	Related specific allowance(3)	Average carrying value(5)	Interest income recognized(6)
Mortgage and real estate					
Residential first mortgages	$1,787	$1,962	$ 157	$1,661	$ 68
Home equity loans	478	651	60	527	13
Credit cards	1,982	2,135	918	1,926	106
Personal, small business and other	552	552	210	463	63
Total	$4,799	$5,300	$1,345	$4,577	$250

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount and direct write-downs and includes accrued interest only on credit card loans.
(2) For December 31, 2021, $190 million of residential first mortgages and $94 million of home equity loans do not have a specific allowance. For December 31, 2020, $211 million of residential first mortgages and $147 million of home equity loans do not have a specific allowance.
(3) Included in the *Allowance for credit losses on loans.*
(4) The negative allowance on home equity loans resulted from expected recoveries on previously written-off accounts.
(5) Average carrying value represents the average recorded investment ending balance for the last four quarters and does not include the related specific allowance.
(6) Includes amounts recognized on both an accrual and cash basis.

Consumer Troubled Debt Restructurings[1]

In millions of dollars, except number of loans modified	For the year ended December 31, 2021[1] Number of loans modified	Post-modification recorded investment[2][3]	Deferred principal[4]	Contingent principal forgiveness[5]	Principal forgiveness[6]	Average interest rate reduction
North America						
Residential first mortgages	**1,333**	**$ 227**	**$—**	**$—**	**$—**	**1%**
Home equity loans	**187**	**12**	**—**	**—**	**—**	**1**
Credit cards	**165,098**	**794**	**—**	**—**	**—**	**18**
Personal, small business and other	**1,000**	**13**	**—**	**—**	**—**	**3**
Total[7]	**167,618**	**$1,046**	**$—**	**$—**	**$—**	
International						
Residential mortgages	**1,975**	**$ 86**	**$—**	**$—**	**$—**	**—%**
Credit cards	**74,202**	**339**	**—**	**—**	**13**	**13**
Personal, small business and other	**28,206**	**201**	**—**	**—**	**7**	**10**
Total[7]	**104,383**	**$ 626**	**$—**	**$—**	**$20**	

In millions of dollars, except number of loans modified	For the year ended December 31, 2020[1] Number of loans modified	Post-modification recorded investment[2][8]	Deferred principal[4]	Contingent principal forgiveness[5]	Principal forgiveness[6]	Average interest rate reduction
North America						
Residential first mortgages	1,225	$ 209	$—	$—	$—	—%
Home equity loans	296	27	—	—	—	1
Credit cards	215,466	1,038	—	—	—	17
Personal, small business and other	2,452	28	—	—	—	5
Total[7]	219,439	$1,302	$—	$—	$—	
International						
Residential mortgages	2,542	$ 141	$ 3	$—	$—	2%
Credit cards	90,694	401	—	—	12	15
Personal, small business and other	41,079	301	—	—	8	10
Total[7]	134,315	$ 843	$ 3	$—	$20	

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) or the interagency guidance.
(2) Post-modification balances include past-due amounts that are capitalized at the modification date.
(3) Post-modification balances in *North America* include $15 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2021. These amounts include $5 million of residential first mortgages that were newly classified as TDRs during 2021, based on previously received OCC guidance.
(4) Represents the portion of contractual loan principal that is non-interest bearing, but still due from the borrower. Such deferred principal is charged off at the time of permanent modification to the extent that the related loan balance exceeds the underlying collateral value.
(5) Represents the portion of contractual loan principal that is non-interest bearing and, depending upon borrower performance, eligible for forgiveness.
(6) Represents the portion of contractual loan principal that was forgiven at the time of permanent modification.
(7) The above tables reflect activity for restructured loans that were considered TDRs during the year.
(8) Post-modification balances in *North America* include $13 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2020. These amounts include $9 million of residential first mortgages that were newly classified as TDRs during 2020, based on previously received OCC guidance.

The following table presents consumer TDRs that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due.

In millions of dollars	Years ended December 31, 2021	2020
North America		
Residential first mortgages	**$ 57**	$ 71
Home equity loans	**8**	14
Credit cards	**252**	317
Personal, small business and other	**4**	4
Total	**$321**	$406
International		
Residential mortgages	**$ 38**	$ 26
Credit cards	**152**	178
Personal, small business and other	**96**	78
Total	**$286**	$282

Purchased Credit-Deteriorated Assets

	Years ended December 31,					
	2021			2020		
In millions of dollars	**Credit cards**	**Mortgages(1)**	**Installment and other**	Credit cards	Mortgages(1)	Installment and other
Purchase price	**$—**	**$23**	**$—**	$ 4	$49	$—
Allowance for credit losses at acquisition date	**—**	**—**	**—**	4	—	—
Discount or premium attributable to non-credit factors	**—**	**—**	**—**	—	—	—
Par value (amortized cost basis)	**$—**	**$23**	**$—**	$ 8	$49	$—

(1) Includes loans sold to agencies that were bought back at par due to repurchase agreements.

Corporate Loans

Corporate loans represent loans and leases managed by *ICG*. The following table presents information by corporate loan type:

In millions of dollars	**December 31, 2021**	December 31, 2020
In North America offices[1]		
Commercial and industrial	**$ 51,999**	$ 57,731
Financial institutions	**66,936**	55,809
Mortgage and real estate[2]	**63,357**	60,675
Installment and other	**29,143**	26,744
Lease financing	**413**	673
Total	**$211,848**	$201,632
In offices outside North America[1]		
Commercial and industrial	**$103,167**	$104,072
Financial institutions	**32,203**	32,334
Mortgage and real estate[2]	**10,412**	11,371
Installment and other	**34,436**	33,759
Lease financing	**42**	65
Governments and official institutions	**4,423**	3,811
Total	**$184,683**	$185,412
Corporate loans, net of unearned income[3]	**$396,531**	$387,044

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.
(2) Loans secured primarily by real estate.
(3) Corporate loans are net of unearned income of ($799) million and ($844) million at December 31, 2021 and 2020, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

The Company sold and/or reclassified to held-for-sale $5.9 billion and $2.2 billion of corporate loans during the years ended December 31, 2021 and 2020, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the years ended December 31, 2021 or 2020.

Lease financing

Citi is a lessor in the power, railcars, shipping and aircraft sectors, where the Company has executed operating, direct financing and leveraged leases. Citi's $0.5 billion of lease financing receivables, as of December 31, 2021, is composed of approximately equal balances of direct financing lease receivables and net investments in leveraged leases. Citi uses the interest rate implicit in the lease to determine the present value of its lease financing receivables. Interest income on direct financing and leveraged leases during the year ended December 31, 2021 was not material.

The Company's leases have an average remaining maturity of approximately three and a half years. In certain cases, Citi obtains residual value insurance from third parties and/or the lessee to manage the risk associated with the residual value of the leased assets. The receivable related to the residual value of the leased assets is $0.2 billion as of December 31, 2021, while the amount covered by residual value guarantees is nil.

The Company's operating leases, where Citi is a lessor, are not significant to the Consolidated Financial Statements.

Delinquency Status

Citi generally does not manage corporate loans on a delinquency basis. Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectability of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan. While corporate loans are generally managed based on their internally assigned risk rating (see further discussion below), the following tables present delinquency information by corporate loan type.

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2021

In millions of dollars	30–89 days past due and accruing(1)	≥ 90 days past due and accruing(1)	Total past due and accruing	Total non-accrual(2)	Total current(3)	Total loans(4)
Commercial and industrial	**$1,100**	**$249**	**$1,349**	**$1,264**	**$148,459**	**$151,072**
Financial institutions	**505**	**233**	**738**	**33**	**98,172**	**98,943**
Mortgage and real estate	**283**	**1**	**284**	**419**	**73,066**	**73,769**
Lease financing	**—**	**—**	**—**	**14**	**441**	**455**
Other	**128**	**26**	**154**	**147**	**65,921**	**66,222**
Loans at fair value						**6,070**
Total	**$2,016**	**$509**	**$2,525**	**$1,877**	**$386,059**	**$396,531**

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2020

In millions of dollars	30–89 days past due and accruing(1)	≥ 90 days past due and accruing(1)	Total past due and accruing	Total non-accrual(2)	Total current(3)	Total loans(4)
Commercial and industrial	$ 400	$109	$ 509	$2,795	$153,036	$156,340
Financial institutions	668	65	733	92	86,864	87,689
Mortgage and real estate	450	247	697	505	70,836	72,038
Lease financing	62	12	74	24	640	738
Other	112	19	131	111	63,157	63,399
Loans at fair value						6,840
Total	$1,692	$452	$2,144	$3,527	$374,533	$387,044

(1) Corporate loans that are 90 days past due are generally classified as non-accrual. Corporate loans are considered past due when principal or interest is contractually due but unpaid.
(2) Non-accrual loans generally include those loans that are 90 days or more past due or those loans for which Citi believes, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful.
(3) Loans less than 30 days past due are presented as current.
(4) Total loans include loans at fair value, which are not included in the various delinquency columns.

Citigroup has a risk management process to monitor, evaluate and manage the principal risks associated with its corporate loan portfolio. As part of its risk management process, Citi assigns numeric risk ratings to its corporate loan facilities based on quantitative and qualitative assessments of the obligor and facility. These risk ratings are reviewed at least annually or more often if material events related to the obligor or facility warrant. Factors considered in assigning the risk ratings include financial condition of the obligor, qualitative assessment of management and strategy, amount and sources of repayment, amount and type of collateral and guarantee arrangements, amount and type of any contingencies associated with the obligor and the obligor's industry and geography.

The obligor risk ratings are defined by ranges of default probabilities. The facility risk ratings are defined by ranges of loss norms, which are the product of the probability of default and the loss given default. The investment-grade rating categories are similar to the category BBB-/Baa3 and above as defined by S&P and Moody's. Loans classified according to the bank regulatory definitions as special mention, substandard, doubtful and loss will have risk ratings within the non-investment-grade categories.

Corporate Loans Credit Quality Indicators

	Recorded investment in loans[1]							
	Term loans by year of origination						Revolving line of credit arrangements[2]	December 31, 2021
In millions of dollars	2021	2020	2019	2018	2017	Prior		
Investment grade[3]								
Commercial and industrial[4]	$ 42,730	$ 5,744	$ 4,762	$ 3,825	$ 3,060	$ 8,928	$ 32,894	$101,943
Financial institutions[4]	14,096	1,985	1,290	1,118	599	2,536	67,184	88,808
Mortgage and real estate	4,423	6,013	5,421	3,630	1,801	3,561	1,341	26,190
Other[5]	11,928	3,993	1,392	2,974	524	6,321	32,807	59,939
Total investment grade	$ 73,177	$17,735	$12,865	$11,547	$ 5,984	$21,346	$134,226	$276,880
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 16,814	$ 2,313	$ 2,466	$ 2,024	$ 1,412	$ 3,987	$ 18,849	$ 47,865
Financial institutions[4]	4,471	399	571	107	74	586	3,894	10,102
Mortgage and real estate	1,819	980	1,842	1,163	640	761	644	7,849
Other[5]	1,517	399	594	384	148	383	3,152	6,577
Non-accrual								
Commercial and industrial[4]	54	119	64	104	94	117	712	1,264
Financial institutions	—	—	—	—	—	—	33	33
Mortgage and real estate	13	10	2	49	10	25	310	419
Other[5]	19	5	19	19	—	90	9	161
Total non-investment grade	$ 24,707	$ 4,225	$ 5,558	$ 3,850	$ 2,378	$ 5,949	$ 27,603	$ 74,270
Non-rated private bank loans managed on a delinquency basis[3][6]	$ 9,984	$ 8,901	$ 5,926	$ 2,895	$ 2,925	$ 8,680	$ —	$ 39,311
Loans at fair value[7]								6,070
Corporate loans, net of unearned income	$107,868	$30,861	$24,349	$18,292	$11,287	$35,975	$161,829	$396,531

In millions of dollars	Recorded investment in loans(1)							
	Term loans by year of origination						Revolving line of credit arrangements(2)	December 31, 2020
	2020	2019	2018	2017	2016	Prior		
Investment grade(3)								
Commercial and industrial(4)	$ 38,398	$ 7,607	$ 5,929	$ 3,909	$ 2,094	$ 8,670	$ 25,819	$ 92,426
Financial institutions(4)	10,560	2,964	2,106	782	681	2,030	56,239	75,362
Mortgage and real estate	6,793	6,714	5,174	2,568	1,212	1,719	1,557	25,737
Other(5)	10,874	3,566	4,597	952	780	5,290	31,696	57,755
Total investment grade	$ 66,625	$20,851	$17,806	$ 8,211	$ 4,767	$17,709	$115,311	$251,280
Non-investment grade(3)								
Accrual								
Commercial and industrial(4)	$ 19,683	$ 4,794	$ 4,645	$ 2,883	$ 1,182	$ 4,533	$ 23,400	$ 61,120
Financial institutions(4)	7,413	700	654	274	141	197	2,855	12,234
Mortgage and real estate	1,882	1,919	2,058	1,457	697	837	551	9,401
Other(5)	1,407	918	725	370	186	657	1,986	6,249
Non-accrual								
Commercial and industrial(4)	260	203	192	143	57	223	1,717	2,795
Financial institutions	1	—	—	—	—	—	91	92
Mortgage and real estate	13	4	3	18	8	32	427	505
Other(5)	15	3	12	29	2	65	9	135
Total non-investment grade	$ 30,674	$ 8,541	$ 8,289	$ 5,174	$ 2,273	$ 6,544	$ 31,036	$ 92,531
Non-rated private bank loans managed on a delinquency basis(3)(6)	$ 9,823	$ 7,121	$ 3,533	$ 3,674	$ 4,300	$ 7,942	$ —	$ 36,393
Loans at fair value(7)								6,840
Corporate loans, net of unearned income	$107,122	$36,513	$29,628	$17,059	$11,340	$32,195	$146,347	$387,044

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
(2) There were no significant revolving line of credit arrangements that converted to term loans during the year.
(3) Held-for-investment loans are accounted for on an amortized cost basis.
(4) Includes certain short-term loans with less than one year in tenor.
(5) Other includes installment and other, lease financing and loans to government and official institutions.
(6) Non-rated private bank loans mainly include mortgage and real estate loans to private banking clients.
(7) Loans at fair value include loans to commercial and industrial, financial institutions, mortgage and real estate and other.

Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral with no other available and reliable sources of repayment, are written down to the lower of carrying value or collateral value, less cost to sell. Cash-basis loans are returned to an accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance, generally six months, in accordance with the contractual terms of the loan.

Non-Accrual Corporate Loans

The following tables present non-accrual loan information by corporate loan type and interest income recognized on non-accrual corporate loans:

In millions of dollars	At and for the year ended December 31, 2021 Recorded investment[1]	Unpaid principal balance	Related specific allowance	Average carrying value[2]	Interest income recognized[3]
Non-accrual corporate loans					
Commercial and industrial	**$1,264**	**$1,863**	**$198**	**$1,840**	**$37**
Financial institutions	**33**	**98**	**4**	**40**	**—**
Mortgage and real estate	**419**	**582**	**15**	**448**	**—**
Lease financing	**14**	**14**	**—**	**20**	**—**
Other	**147**	**241**	**8**	**142**	**18**
Total non-accrual corporate loans	**$1,877**	**$2,798**	**$225**	**$2,490**	**$55**

In millions of dollars	At and for the year ended December 31, 2020 Recorded investment[1]	Unpaid principal balance	Related specific allowance	Average carrying value[2]	Interest income recognized[3]
Non-accrual corporate loans					
Commercial and industrial	$2,795	$3,664	$442	$2,649	$14
Financial institutions	92	181	17	132	—
Mortgage and real estate	505	803	38	413	—
Lease financing	24	24	—	34	—
Other	111	235	18	174	21
Total non-accrual corporate loans	$3,527	$4,907	$515	$3,402	$35

	December 31, 2021		December 31, 2020	
In millions of dollars	**Recorded investment[1]**	**Related specific allowance**	Recorded investment[1]	Related specific allowance
Non-accrual corporate loans with specific allowances				
Commercial and industrial	**$638**	**$198**	$1,523	$442
Financial institutions	**27**	**4**	90	17
Mortgage and real estate	**294**	**15**	246	38
Lease financing	**—**	**—**	—	—
Other	**37**	**8**	68	18
Total non-accrual corporate loans with specific allowances	**$996**	**$225**	$1,927	$515
Non-accrual corporate loans without specific allowances				
Commercial and industrial	**$626**		$1,272	
Financial institutions	**6**		2	
Mortgage and real estate	**125**		259	
Lease financing	**14**		24	
Other	**110**		43	
Total non-accrual corporate loans without specific allowances	**$881**	**N/A**	$1,600	N/A

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
(2) Average carrying value represents the average recorded investment balance and does not include related specific allowances.
(3) Interest income recognized for the year ended December 31, 2019 was $42 million.
N/A Not applicable

Corporate Troubled Debt Restructurings[1]

For the year ended December 31, 2021

In millions of dollars	**Carrying value of TDRs modified during the year**	**TDRs involving changes in the amount and/or timing of principal payments**[2]	**TDRs involving changes in the amount and/or timing of interest payments**[3]	**TDRs involving changes in the amount and/or timing of both principal and interest payments**
Commercial and industrial	**$ 82**	**$—**	**$—**	**$82**
Mortgage and real estate	**8**	**—**	**—**	**8**
Other	**10**	**1**		**9**
Total	**$100**	**$ 1**	**$—**	**$99**

For the year ended December 31, 2020

In millions of dollars	Carrying value of TDRs modified during the year	TDRs involving changes in the amount and/or timing of principal payments[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$247	$—	$—	$247
Mortgage and real estate	19	—	—	19
Other	19	6	—	13
Total	$285	$ 6	$—	$279

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the CARES Act or the interagency guidance.

(2) TDRs involving changes in the amount or timing of principal payments may involve principal forgiveness or deferral of periodic and/or final principal payments. Because forgiveness of principal is rare for corporate loans, modifications typically have little to no impact on the loans' projected cash flows and thus little to no impact on the allowance established for the loans. Charge-offs for amounts deemed uncollectible may be recorded at the time of the restructuring or may have already been recorded in prior periods such that no charge-off is required at the time of the modification.

(3) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.

The following table presents total corporate loans modified in a TDR as well as those TDRs that defaulted and for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due, except for classifiably managed commercial banking loans, where default is defined as 90 days past due.

In millions of dollars	**TDR balances at December 31, 2021**	**TDR loans that re-defaulted in 2021 within one year of modification**	TDR balances at December 31, 2020	TDR loans that re-defaulted in 2020 within one year of modification
Commercial and industrial	**$236**	**$—**	$325	$—
Financial institutions	**—**	**—**	—	—
Mortgage and real estate	**73**	**—**	92	—
Lease financing	**—**	**—**	—	—
Other	**41**	**—**	33	—
Total[1]	**$350**	**$—**	$450	$—

(1) The above table reflects activity for loans outstanding that were considered TDRs as of the end of the reporting period.

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15. ALLOWANCE FOR CREDIT LOSSES

In millions of dollars	**2021**	2020	2019
Allowance for credit losses on loans (ACLL) at beginning of year	**$24,956**	$12,783	$12,315
Adjustments to opening balance[1]:			
Financial instruments—credit losses (CECL) adoption	**—**	4,201	—
Variable post-charge-off third-party collection costs	**—**	(443)	—
Adjusted ACLL at beginning of year	**$24,956**	$16,541	$12,315
Gross credit losses on loans	**$ (6,720)**	$ (9,263)	$ (9,341)
Gross recoveries on loans	**1,825**	1,652	1,573
Net credit losses on loans (NCLs)	**$ (4,895)**	$ (7,611)	$ (7,768)
Replenishment of NCLs	**$ 4,895**	$ 7,611	$ 7,768
Net reserve builds (releases) for loans	**(7,283)**	7,635	364
Net specific reserve builds (releases) for loans	**(715)**	676	86
Total provision for credit losses on loans (PCLL)	**$ (3,103)**	$15,922	$ 8,218
Initial allowance for credit losses on newly purchased credit-deteriorated assets during the period	**—**	4	—
Other, net (see table below)	**(503)**	100	18
ACLL at end of year	**$16,455**	$24,956	$12,783
Allowance for credit losses on unfunded lending commitments (ACLUC) at beginning of year[2]	**$ 2,655**	$ 1,456	$ 1,367
Adjustment to opening balance for CECL adoption[1]	**—**	(194)	—
Provision (release) for credit losses on unfunded lending commitments	**(788)**	1,446	92
Other, net[3]	**4**	(53)	(3)
ACLUC at end of year[2]	**$ 1,871**	$ 2,655	$ 1,456
Total allowance for credit losses on loans, leases and unfunded lending commitments	**$18,326**	$27,611	$14,239

Other, net details

In millions of dollars	**2021**	2020	2019
Sales or transfers of various consumer loan portfolios to HFS			
Reclass of Australia consumer ACLL to HFS	**$(280)**	$ —	$ —
Reclass of the Philippines consumer ACLL to HFS	**(90)**	—	—
Transfer of real estate loan portfolios	**—**	(4)	(42)
Sales or transfers of various consumer loan portfolios to HFS	**$(370)**	$ (4)	$(42)
FX translation and other	**(133)**	104	60
Other, net	**$(503)**	$100	$ 18

(1) See "Accounting Changes" in Note 1 to the Consolidated Financial Statements for additional details.
(2) Represents additional credit loss reserves for unfunded lending commitments and letters of credit recorded in *Other liabilities* on the Consolidated Balance Sheet.
(3) 2020 includes a non-provision transfer of $68 million, representing reserves on performance guarantees. The reserves on these contracts have been reclassified out of the allowance for credit losses on unfunded lending commitments and into *Other liabilities* on the Consolidated Balance Sheet beginning in 2020.

Allowance for Credit Losses on Loans and End-of-Period Loans at December 31, 2021

In millions of dollars	Corporate	Consumer	Total
ACLL at beginning of year	**$ 5,402**	**$ 19,554**	**$ 24,956**
Gross credit losses on loans	**(522)**	**(6,198)**	**(6,720)**
Gross recoveries on loans	**127**	**1,698**	**1,825**
Replenishment of NCLs	**395**	**4,500**	**4,895**
Net reserve builds (releases)	**(2,254)**	**(5,029)**	**(7,283)**
Net specific reserve builds (releases)	**(278)**	**(437)**	**(715)**
Initial allowance for credit losses on newly purchased credit-deteriorated assets during the year	**—**	**—**	**—**
Other	**(31)**	**(472)**	**(503)**
Ending balance	**$ 2,839**	**$ 13,616**	**$ 16,455**
ACLL			
Collectively evaluated	**$ 2,614**	**$ 12,816**	**$ 15,430**
Individually evaluated	**225**	**800**	**1,025**
Purchased credit deteriorated	**—**	**—**	**—**
Total ACLL	**$ 2,839**	**$ 13,616**	**$ 16,455**
Loans, net of unearned income			
Collectively evaluated	**$388,584**	**$267,424**	**$656,008**
Individually evaluated	**1,877**	**3,681**	**5,558**
Purchased credit deteriorated	**—**	**119**	**119**
Held at fair value	**6,070**	**12**	**6,082**
Total loans, net of unearned income	**$396,531**	**$271,236**	**$667,767**

Allowance for Credit Losses on Loans and End-of-Period Loans at December 31, 2020

In millions of dollars	Corporate	Consumer	Total
ACLL at beginning of year	$ 2,886	$ 9,897	$ 12,783
Adjustments to opening balance:			
Financial instruments—credit losses (CECL)(1)	(721)	4,922	4,201
Variable post-charge-off third-party collection costs(1)	—	(443)	(443)
Adjusted ACLL at beginning of year	$ 2,165	$ 14,376	$ 16,541
Gross credit losses on loans	$ (1,072)	$ (8,191)	$ (9,263)
Gross recoveries on loans	86	1,566	1,652
Replenishment of NCLs	986	6,625	7,611
Net reserve builds (releases)	2,890	4,745	7,635
Net specific reserve builds (releases)	282	394	676
Initial allowance for credit losses on newly purchased credit-deteriorated assets during the year	—	4	4
Other	65	35	100
Ending balance	$ 5,402	$ 19,554	$ 24,956
ACLL			
Collectively evaluated	$ 4,887	$ 18,207	$ 23,094
Individually evaluated	515	1,345	1,860
Purchased credit deteriorated	—	2	2
Total ACLL	$ 5,402	$ 19,554	$ 24,956
Loans, net of unearned income			
Collectively evaluated	$376,677	$283,885	$660,562
Individually evaluated	3,527	4,799	8,326
Purchased credit deteriorated	—	141	141
Held at fair value	6,840	14	6,854
Total loans, net of unearned income	$387,044	$288,839	$675,883

(1) See "Accounting Changes" in Note 1 to the Consolidated Financial Statements for additional details.

Allowance for Credit Losses on Loans at December 31, 2019

In millions of dollars	Corporate	Consumer	Total
ACLL at beginning of year	$2,811	$ 9,504	$12,315
Gross credit losses on loans	(487)	(8,854)	(9,341)
Gross recoveries on loans	95	1,478	1,573
Replenishment of NCLs	392	7,376	7,768
Net reserve builds (releases)	96	268	364
Net specific reserve builds (releases)	(21)	107	86
Other	—	18	18
Ending balance	$2,886	$ 9,897	$12,783

Allowance for Credit Losses on HTM Debt Securities

	Year ended December 31, 2021					
In millions of dollars	**Mortgage-backed**	**State and municipal**	**Foreign government**	**Asset-backed**	**All other debt securities**	**Total HTM**
Allowance for credit losses on HTM debt securities at beginning of year	**$ 3**	**$74**	**$ 6**	**$ 3**	**$—**	**$86**
Gross credit losses	**—**	**—**	**—**	**—**	**—**	**—**
Gross recoveries	**3**	**—**	**—**	**—**	**—**	**3**
Net credit losses (NCLs)	**$ 3**	**$—**	**$—**	**$—**	**$—**	**$ 3**
Replenishment of NCLs	**$ (3)**	**$—**	**$—**	**$—**	**$—**	**$ (3)**
Net reserve builds (releases)	**7**	**1**	**(2)**	**(2)**	**—**	**4**
Net specific reserve builds (releases)	**(4)**	**—**	**—**	**—**	**—**	**(4)**
Total provision for credit losses on HTM debt securities	**$—**	**$ 1**	**$ (2)**	**$ (2)**	**$—**	**$ (3)**
Other, net	**$—**	**$—**	**$—**	**$ 1**	**$—**	**$ 1**
Initial allowance for credit losses on newly purchased credit-deteriorated securities during the year	**—**	**—**	**—**	**—**	**—**	**—**
Allowance for credit losses on HTM debt securities at end of year	**$ 6**	**$75**	**$ 4**	**$ 2**	**$—**	**$87**

Allowance for Credit Losses on HTM Debt Securities

	Year ended December 31, 2020					
In millions of dollars	Mortgage-backed	State and municipal	Foreign government	Asset-backed	All other debt securities	Total HTM
Allowance for credit losses on HTM debt securities at beginning of year	$—	$—	$—	$—	$—	$—
Adjustment to opening balance for CECL adoption	—	61	4	5		70
Gross credit losses	—	—	—	—	—	—
Gross recoveries	—	—	—	—	—	—
Net credit losses (NCLs)	$—	$—	$—	$—	$—	$—
Replenishment of NCLs	$—	$—	$—	$—	$—	$—
Net reserve builds (releases)	(2)	10	(2)	1	—	7
Net specific reserve builds (releases)	—	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ (2)	$10	$ (2)	$ 1	$—	$ 7
Other, net	$ 5	$ 3	$ 4	$ (3)	$—	$ 9
Initial allowance for credit losses on newly purchased credit-deteriorated securities during the year	—	—	—	—	—	—
Allowance for credit losses on HTM debt securities at end of year	$ 3	$74	$ 6	$ 3	$—	$86

Allowance for Credit Losses on Other Assets

In millions of dollars	Year ended December 31, 2021 Cash and due from banks	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets(1)	Total
Allowance for credit losses on other assets at beginning of year	**$—**	**$20**	**$10**	**$—**	**$25**	**$55**
Gross credit losses	**—**	**—**	**—**	**—**	**(2)**	**(2)**
Gross recoveries	**—**	**—**	**—**	**—**	**—**	**—**
Net credit losses (NCLs)	**$—**	**$—**	**$—**	**$—**	**$ (2)**	**$ (2)**
Replenishment of NCLs	**$—**	**$—**	**$—**	**$—**	**$ 2**	**$ 2**
Net reserve builds (releases)	**—**	**2**	**(4)**	**—**	**—**	**(2)**
Total provision for credit losses	**$—**	**$ 2**	**$ (4)**	**$—**	**$ 2**	**$—**
Other, net	**$—**	**$ (1)**	**$—**	**$—**	**$ 1**	**$—**
Allowance for credit losses on other assets at end of year	**$—**	**$21**	**$ 6**	**$—**	**$26**	**$53**

(1) Primarily accounts receivable.

Allowance for Credit Losses on Other Assets

In millions of dollars	Year ended December 31, 2020 Cash and due from banks	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets(1)	Total
Allowance for credit losses on other assets at beginning of year	$—	$—	$—	$—	$—	$—
Adjustment to opening balance for CECL adoption	6	14	2	1	3	26
Gross credit losses	—	—	—	—	—	—
Gross recoveries	—	—	—	—	—	—
Net credit losses (NCLs)	$—	$—	$—	$—	$—	$—
Replenishment of NCLs	$—	$—	$—	$—	$—	$—
Net reserve builds (releases)	(6)	5	8	(1)	1	7
Total provision for credit losses	$ (6)	$ 5	$ 8	$ (1)	$ 1	$ 7
Other, net	$—	$ 1	$—	$—	$21	$22
Allowance for credit losses on other assets at end of year	$—	$20	$10	$—	$25	$55

(1) Primarily accounts receivable.

For ACL on AFS debt securities, see Note 13 to the Consolidated Financial Statements.

16. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in *Goodwill* were as follows:

In millions of dollars	Institutional Clients Group	Global Consumer Banking	Total
Balance at December 31, 2018	$ 9,959	$12,087	$22,046
Foreign exchange translation	65	15	80
Balance at December 31, 2019	$10,024	$12,102	$22,126
Foreign exchange translation	(4)	40	36
Balance at December 31, 2020	$10,020	$12,142	$22,162
Foreign exchange translation	(267)	(116)	(383)
Divestitures(1)	—	(480)	(480)
Balance at December 31, 2021	**$ 9,753**	**$11,546**	**$21,299**

(1) Goodwill allocated primarily to the Australia and the Philippines consumer banking businesses, which were reclassified as HFS during 2021. See Note 2 to the Consolidated Financial Statements.

The Company performed its annual goodwill impairment test using data as of July 1, 2021, at the level below each operating segment (referred to as a reporting unit). The fair values of the Company's reporting units as a percentage of their carrying values ranged from approximately 125% to 153%, resulting in no impairment. While the inherent risk related to uncertainty is embedded in the key assumptions used in the valuations, the economic and business environments continue to evolve as management implements its strategic refresh, which includes, among others, the exits of consumer businesses in 13 markets in *Asia* and *EMEA*, as well as the exit of the Mexico consumer, small business and middle-market banking operations, and Citi's implementation of its new operating segment and reporting unit structure in the first quarter of 2022. If management's future estimate of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future. Citi expects that the implementation of its new operating segments and reporting units in the first quarter of 2022, as well as the timing and sequencing of the sales of its *Asia* consumer banking businesses, may result in goodwill impairment.

For additional information regarding Citi's goodwill impairment testing process, see the following Notes to the Consolidated Financial Statements: Note 1 for Citi's accounting policy for goodwill, and Note 3 for a description of Citi's operating segments.

Intangible Assets

The components of intangible assets were as follows:

In millions of dollars	**December 31, 2021** Gross carrying amount	Accumulated amortization	Net carrying amount	December 31, 2020 Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships	**$ 5,579**	**$4,348**	**$1,231**	$ 5,648	$4,229	$1,419
Credit card contract-related intangibles[1]	**3,912**	**1,372**	**2,540**	3,929	1,276	2,653
Core deposit intangibles	**39**	**39**	**—**	45	44	1
Other customer relationships	**429**	**305**	**124**	455	314	141
Present value of future profits	**31**	**29**	**2**	32	30	2
Indefinite-lived intangible assets	**183**	**—**	**183**	190	—	190
Other	**37**	**26**	**11**	72	67	5
Intangible assets (excluding MSRs)	**$10,210**	**$6,119**	**$4,091**	$10,371	$5,960	$4,411
Mortgage servicing rights (MSRs)[2]	**404**	**—**	**404**	336	—	336
Total intangible assets	**$10,614**	**$6,119**	**$4,495**	$10,707	$5,960	$4,747

(1) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represented 97% of the aggregate net carrying amount as of December 31, 2021.
(2) For additional information on Citi's MSRs, see Note 21 to the Consolidated Financial Statements.

Intangible assets amortization expense was $360 million, $419 million and $564 million for 2021, 2020 and 2019, respectively. Intangible assets amortization expense is estimated to be $345 million in 2022, $347 million in 2023, $367 million in 2024, $371 million in 2025 and $342 million in 2026.

The changes in intangible assets were as follows:

In millions of dollars	Net carrying amount at December 31, 2020	**Acquisitions/ renewals/ divestitures**	**Amortization**	**Impairments**	**FX translation and other**	**Net carrying amount at December 31, 2021**
Purchased credit card relationships[1]	$1,419	**$(15)**	**$(171)**	**$ —**	**$ (2)**	**$1,231**
Credit card contract-related intangibles[2]	2,653	**29**	**(140)**	**(1)**	**(1)**	**2,540**
Core deposit intangibles	1	**—**	**(1)**	**—**	**—**	**—**
Other customer relationships	141	**20**	**(24)**	**—**	**(13)**	**124**
Present value of future profits	2	**—**	**—**	**—**	**—**	**2**
Indefinite-lived intangible assets	190	**—**	**—**	**—**	**(7)**	**183**
Other	5	**29**	**(24)**	**—**	**1**	**11**
Intangible assets (excluding MSRs)	$4,411	**$ 63**	**$(360)**	**$ (1)**	**$(22)**	**$4,091**
Mortgage servicing rights (MSRs)[3]	336					**404**
Total intangible assets	$4,747					**$4,495**

(1) Reflects intangibles for the value of cardholder relationships, which are discrete from partner contract-related intangibles, and includes credit card accounts primarily in the Costco, Macy's and Sears portfolios.
(2) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represent 97% and 96% of the aggregate net carrying amount at December 31, 2021 and 2020, respectively.
(3) For additional information on Citi's MSRs, including the rollforward from 2020 to 2021, see Note 21 to the Consolidated Financial Statements.

17. DEBT

Short-Term Borrowings

	December 31,			
	2021		2020	
In millions of dollars	**Balance**	**Weighted average coupon**	Balance	Weighted average coupon
Commercial paper				
Bank[1]	**$ 9,026**		$10,022	
Broker-dealer and other[2]	**6,992**		7,988	
Total commercial paper	**$16,018**	**0.22%**	$18,010	0.24%
Other borrowings[3]	**11,955**	**0.91**	11,504	0.48
Total	**$27,973**		$29,514	

(1) Represents Citibank entities as well as other bank entities.
(2) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company.
(3) Includes borrowings from Federal Home Loan Banks and other market participants. At December 31, 2021 and 2020, collateralized short-term advances from Federal Home Loan Banks were $0.0 billion and $4.0 billion, respectively.

Borrowings under bank lines of credit may be at interest rates based on LIBOR, CD rates, the prime rate or bids submitted by the banks. Citigroup pays commitment fees for its lines of credit.

Some of Citigroup's non-bank subsidiaries have credit facilities with Citigroup's subsidiary depository institutions, including Citibank. Borrowings under these facilities are secured in accordance with Section 23A of the Federal Reserve Act.

Citigroup Global Markets Holdings Inc. (CGMHI) has borrowing agreements consisting of facilities that CGMHI has been advised are available, but where no contractual lending obligation exists. These arrangements are reviewed on an ongoing basis to ensure flexibility in meeting CGMHI's short-term requirements.

Long-Term Debt

			Balances at December 31,	
In millions of dollars	**Weighted average coupon[1]**	**Maturities**	**2021**	2020
Citigroup Inc.[2]				
Senior debt	2.88%	2022–2098	**$137,651**	$142,197
Subordinated debt[3]	4.65	2022–2046	**25,560**	26,636
Trust preferred securities	6.30	2036–2067	**1,734**	1,730
Bank[4]				
Senior debt	1.54	2022–2039	**23,567**	44,742
Broker-dealer[5]				
Senior debt	0.84	2022–2070	**65,652**	55,896
Subordinated debt[3]	—	2022–2046	**210**	485
Total	2.94%		**$254,374**	$271,686
Senior debt			**$226,870**	$242,835
Subordinated debt[3]			**25,770**	27,121
Trust preferred securities			**1,734**	1,730
Total			**$254,374**	$271,686

(1) The weighted average coupon excludes structured notes accounted for at fair value.
(2) Represents the parent holding company.
(3) Includes notes that are subordinated within certain countries, regions or subsidiaries.
(4) Represents Citibank entities as well as other bank entities. At December 31, 2021 and 2020, collateralized long-term advances from Federal Home Loan Banks were $5.3 billion and $10.9 billion, respectively.
(5) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company. Certain Citigroup consolidated hedging activities are also included in this line.

The Company issues both fixed- and variable-rate debt in a range of currencies. It uses derivative contracts, primarily interest rate swaps, to effectively convert a portion of its fixed-rate debt to variable-rate debt. The maturity structure of the derivatives generally corresponds to the maturity structure of the debt being hedged. In addition, the Company uses other derivative contracts to manage the foreign exchange impact of certain debt issuances. At December 31, 2021, the Company's overall weighted average interest rate for long-term debt, excluding structured notes accounted for at fair value, was 2.94% on a contractual basis and 3.12% including the effects of derivative contracts.

Aggregate annual maturities of long-term debt obligations (based on final maturity dates) including trust preferred securities are as follows:

In millions of dollars	2022	2023	2024	2025	2026	Thereafter	Total
Citigroup Inc.	$ 9,955	$14,440	$12,475	$16,798	$21,483	$ 89,794	$164,945
Bank	9,839	4,227	5,028	473	68	3,932	23,567
Broker-dealer	13,199	11,813	8,066	3,995	5,499	23,290	65,862
Total	$32,993	$30,480	$25,569	$21,266	$27,050	$117,016	$254,374

The following table summarizes Citi's outstanding trust preferred securities at December 31, 2021:

						Junior subordinated debentures owned by trust		
Trust	**Issuance date**	**Securities issued**	**Liquidation value**[(1)]	**Coupon rate**[(2)]	**Common shares issued to parent**	**Amount**	**Maturity**	**Redeemable by issuer beginning**
In millions of dollars, except securities and share amounts								
Citigroup Capital III	Dec. 1996	194,053	$ 194	7.625%	6,003	$ 200	Dec. 1, 2036	Not redeemable
Citigroup Capital XIII	Sept. 2010	89,840,000	2,246	3 mo LIBOR + 637 bps	1,000	2,246	Oct. 30, 2040	Oct. 30, 2015
Citigroup Capital XVIII	June 2007	99,901	135	3 mo sterling LIBOR + 88.75 bps	50	135	June 28, 2067	June 28, 2017
Total obligated			**$2,575**			**$2,581**		

Note: Distributions on the trust preferred securities and interest on the subordinated debentures are payable semiannually for Citigroup Capital III and Citigroup Capital XVIII and quarterly for Citigroup Capital XIII.

(1) Represents the notional value received by outside investors from the trusts at the time of issuance. This differs from Citi's balance sheet carrying value due primarily to unamortized discount and issuance costs.

(2) In each case, the coupon rate on the subordinated debentures is the same as that on the trust preferred securities.

18. REGULATORY CAPITAL

Citigroup is subject to risk-based capital and leverage standards issued by the Federal Reserve Board, which constitute the U.S. Basel III rules. Citi's U.S.-insured depository institution subsidiaries, including Citibank, are subject to similar standards issued by their respective primary bank regulatory agencies. These standards are used to evaluate capital adequacy and include the required minimums shown in the following table. The regulatory agencies are required by law to take specific, prompt corrective actions with respect to institutions that do not meet minimum capital standards.

The following table sets forth for Citigroup and Citibank the regulatory capital tiers, total risk-weighted assets, quarterly adjusted average total assets, Total Leverage Exposure, risk-based capital ratios and leverage ratios:

		Citigroup(4)			Citibank(4)		
In millions of dollars, except ratios	**Stated minimum**	**Well-capitalized minimum**	**December 31, 2021**	December 31, 2020	**Well-capitalized minimum**	**December 31, 2021**	December 31, 2020
Common Equity Tier 1 Capital			**$ 149,305**	$ 147,274		**$ 148,548**	$ 142,854
Tier 1 Capital			**169,568**	167,053		**150,679**	144,962
Total Capital (Tier 1 Capital + Tier 2 Capital)—Standardized Approach			**203,838**	205,002		**175,427**	169,449
Total Capital (Tier 1 Capital + Tier 2 Capital)—Advanced Approaches			**194,006**	196,051		**166,921**	161,447
Total risk-weighted assets—Standardized Approach			**1,219,175**	1,242,381		**1,066,015**	1,054,056
Total risk-weighted assets—Advanced Approaches			**1,209,374**	1,278,977		**1,017,774**	1,047,088
Quarterly adjusted average total assets(1)			**2,351,434**	2,265,615		**1,716,596**	1,667,105
Total Leverage Exposure(2)			**2,957,764**	2,391,033		**2,236,839**	2,172,052
Common Equity Tier 1 Capital ratio(3)	**4.5%**	**N/A**	**12.25%**	11.51%	**6.5%**	**13.93%**	13.55%
Tier 1 Capital ratio(3)	**6.0**	**6.0%**	**13.91**	13.06	**8.0**	**14.13**	13.75
Total Capital ratio(3)	**8.0**	**10.0**	**16.04**	15.33	**10.0**	**16.40**	15.42
Tier 1 Leverage ratio	**4.0**	**N/A**	**7.21**	7.37	**5.0**	**8.78**	8.70
Supplementary Leverage ratio	**3.0**	**N/A**	**5.73**	6.99	**6.0**	**6.74**	6.67

(1) Tier 1 Leverage ratio denominator.
(2) Supplementary Leverage ratio denominator.
(3) Citigroup's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach and the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework as of December 31, 2021, whereas Citigroup's reportable Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios as of December 31, 2020 were the lower derived under the Basel III Advanced Approaches framework. As of December 31, 2021 and 2020, Citibank's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas the Total Capital ratios were the lower derived under the Basel III Advanced Approaches framework.
(4) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.
N/A Not applicable

As indicated in the table above, Citigroup and Citibank were "well capitalized" under the current federal bank regulatory agency definitions as of December 31, 2021 and 2020.

Banking Subsidiaries—Constraints on Dividends

There are various legal limitations on the ability of Citigroup's subsidiary depository institutions to extend credit, pay dividends or otherwise supply funds to Citigroup and its non-bank subsidiaries. The approval of the Office of the Comptroller of the Currency is required if total dividends declared in any calendar year were to exceed amounts specified by the agency's regulations.

In determining the dividends, each subsidiary depository institution must also consider its effect on applicable risk-based capital and leverage ratio requirements, as well as policy statements of the federal bank regulatory agencies that indicate that banking organizations should generally pay dividends out of current operating earnings. Citigroup received $6.2 billion and $2.3 billion in dividends from Citibank during 2021 and 2020, respectively.

19. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

Changes in each component of Citigroup's *Accumulated other comprehensive income (loss)* were as follows:

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)(1)	Cash flow hedges(2)	Benefit plans(3)	Foreign currency translation adjustment (CTA), net of hedges(4)(5)	Excluded component of fair value hedges	Accumulated other comprehensive income (loss)
Balance, December 31, 2018	$(2,250)	$ 192	$ (728)	$(6,257)	$(28,070)	$(57)	$(37,170)
Other comprehensive income before reclassifications	3,065	(1,151)	549	(758)	(321)	25	1,409
Increase (decrease) due to amounts reclassified from *AOCI*	(1,080)	15	302	206	—	—	(557)
Change, net of taxes	$ 1,985	$(1,136)	$ 851	$ (552)	$ (321)	$ 25	$ 852
Balance, December 31, 2019	$ (265)	$ (944)	$ 123	$(6,809)	$(28,391)	$(32)	$(36,318)
Other comprehensive income before reclassifications	4,837	(490)	2,027	(287)	(250)	(15)	5,822
Increase (decrease) due to amounts reclassified from *AOCI*	(1,252)	15	(557)	232	—	—	(1,562)
Change, net of taxes	$ 3,585	$ (475)	$ 1,470	$ (55)	$ (250)	$(15)	$ 4,260
Balance, December 31, 2020	$ 3,320	$(1,419)	$ 1,593	$(6,864)	$(28,641)	$(47)	$(32,058)
Other comprehensive income before reclassifications	**(3,556)**	**121**	**(679)**	**797**	**(2,537)**	**(11)**	**(5,865)**
Increase (decrease) due to amounts reclassified from *AOCI*	**(378)**	**111**	**(813)**	**215**	**12**	**11**	**(842)**
Change, net of taxes	**$(3,934)**	**$ 232**	**$(1,492)**	**$ 1,012**	**$ (2,525)**	**$ —**	**$ (6,707)**
Balance, December 31, 2021	**$ (614)**	**$(1,187)**	**$ 101**	**$(5,852)**	**$(31,166)**	**$(47)**	**$(38,765)**

(1) Reflects the after-tax valuation of Citi's fair value option liabilities. See "Market Valuation Adjustments" in Note 24 to the Consolidated Financial Statements.
(2) Primarily driven by Citi's pay fixed/receive floating interest rate swap programs that hedge the floating rates on liabilities.
(3) Primarily reflects adjustments based on the quarterly actuarial valuations of the Company's significant pension and postretirement plans, annual actuarial valuations of all other plans and amortization of amounts previously recognized in other comprehensive income.
(4) Primarily reflects the movements in (by order of impact) the Mexican peso, Euro, South Korean won, Chilean peso and Japanese yen against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2021. Primarily reflects the movements in (by order of impact) the Mexican peso, Brazilian real, South Korean won and Euro against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2020. Primarily reflects the movements in (by order of impact) the Indian rupee, Brazilian real, Chilean peso and Euro against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2019. Amounts recorded in the CTA component of *AOCI* remain in *AOCI* until the sale or substantial liquidation of the foreign entity, at which point such amounts related to the foreign entity are reclassified into earnings.
(5) December 31, 2021 includes an approximate $475 million (after-tax) ($625 million pretax) currency translation adjustment (CTA) loss (net of hedges) associated with Citi's agreement to sell its consumer banking business in Australia (see Note 2 to the Consolidated Financial Statements). The loss on sale primarily reflects the impact of the CTA loss (net of hedges) already reflected in *AOCI*. Upon closing, the CTA-related balance will be removed from *AOCI*, resulting in a neutral impact from CTA to Citi's Common Equity Tier 1 Capital.

The pretax and after-tax changes in each component of *Accumulated other comprehensive income (loss)* were as follows:

In millions of dollars	**Pretax**	**Tax effect**	**After-tax**
Balance, December 31, 2018	$ (44,082)	$ 6,912	$ (37,170)
Change in net unrealized gains (losses) on debt securities	2,633	(648)	1,985
Debt valuation adjustment (DVA)	(1,473)	337	(1,136)
Cash flow hedges	1,120	(269)	851
Benefit plans	(671)	119	(552)
Foreign currency translation adjustment	(332)	11	(321)
Excluded component of fair value hedges	33	(8)	25
Change	$ 1,310	$ (458)	$ 852
Balance, December 31, 2019	$ (42,772)	$ 6,454	$ (36,318)
Change in net unrealized gains (losses) on debt securities	4,799	(1,214)	3,585
Debt valuation adjustment (DVA)	(616)	141	(475)
Cash flow hedges	1,925	(455)	1,470
Benefit plans	(78)	23	(55)
Foreign currency translation adjustment	(227)	(23)	(250)
Excluded component of fair value hedges	(23)	8	(15)
Change	$ 5,780	$ (1,520)	$ 4,260
Balance, December 31, 2020	$ (36,992)	$ 4,934	$ (32,058)
Change in net unrealized gains (losses) on debt securities	**(5,301)**	**1,367**	**(3,934)**
Debt valuation adjustment (DVA)	**296**	**(64)**	**232**
Cash flow hedges	**(1,969)**	**477**	**(1,492)**
Benefit plans	**1,252**	**(240)**	**1,012**
Foreign currency translation adjustment	**(2,671)**	**146**	**(2,525)**
Excluded component of fair value hedges	**2**	**(2)**	**—**
Change	**$ (8,391)**	**$ 1,684**	**$ (6,707)**
Balance, December 31, 2021	**$ (45,383)**	**$ 6,618**	**$ (38,765)**

The Company recognized pretax (gains) losses related to amounts in *AOCI* reclassified to the Consolidated Statement of Income as follows:

	Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income		
	Year ended December 31,		
In millions of dollars	**2021**	2020	2019
Realized (gains) losses on sales of investments	**$ (665)**	$(1,756)	$(1,474)
Gross impairment losses	**181**	109	23
Subtotal, pretax	**$ (484)**	$(1,647)	$(1,451)
Tax effect	**106**	395	371
Net realized (gains) losses on investments, after-tax[(1)]	**$ (378)**	$(1,252)	$(1,080)
Realized DVA (gains) losses on fair value option liabilities, pretax	**$ 144**	$ 20	$ 20
Tax effect	**(33)**	(5)	(5)
Net realized DVA, after-tax	**$ 111**	$ 15	$ 15
Interest rate contracts	**$(1,075)**	$ (734)	$ 384
Foreign exchange contracts	**4**	4	7
Subtotal, pretax	**$(1,071)**	$ (730)	$ 391
Tax effect	**258**	173	(89)
Amortization of cash flow hedges, after-tax[(2)]	**$ (813)**	$ (557)	$ 302
Amortization of unrecognized:			
Prior service cost (benefit)	**$ (23)**	$ (5)	$ (12)
Net actuarial loss	**302**	322	286
Curtailment/settlement impact[(3)]	**11**	(8)	1
Subtotal, pretax	**$ 290**	$ 309	$ 275
Tax effect	**(75)**	(77)	(69)
Amortization of benefit plans, after-tax[(3)]	**$ 215**	$ 232	$ 206
Excluded component of fair value hedges, pretax	**$ 15**	$ —	$ —
Tax effect	**(4)**	—	—
Excluded component of fair value hedges, after-tax	**$ 11**	$ —	$ —
Foreign currency translation adjustment, pretax	**$ 19**	$ —	$ —
Tax effect	**(7)**	—	—
Foreign currency translation adjustment, after-tax	**$ 12**	$ —	$ —
Total amounts reclassified out of *AOCI*, pretax	**$(1,087)**	$(2,048)	$ (765)
Total tax effect	**245**	486	208
Total amounts reclassified out of *AOCI*, after-tax	**$ (842)**	$(1,562)	$ (557)

(1) The pretax amount is reclassified to *Realized gains (losses) on sales of investments, net* and *Gross impairment losses* in the Consolidated Statement of Income. See Note 13 to the Consolidated Financial Statements for additional details.
(2) See Note 22 to the Consolidated Financial Statements for additional details.
(3) See Note 8 to the Consolidated Financial Statements for additional details.

20. PREFERRED STOCK

The following table summarizes the Company's preferred stock outstanding:

	Issuance date	Redeemable by issuer beginning	Dividend rate	Redemption price per depositary share/preference share	Number of depositary shares	Carrying value in millions of dollars December 31, 2021	December 31, 2020
Series A(1)	October 29, 2012	January 30, 2023	5.950%	$1,000	1,500,000	**$ 1,500**	$ 1,500
Series B(2)	December 13, 2012	February 15, 2023	5.900	1,000	750,000	**750**	750
Series D(3)	April 30, 2013	May 15, 2023	5.350	1,000	1,250,000	**1,250**	1,250
Series J(4)	September 19, 2013	September 30, 2023	7.125	25	38,000,000	**950**	950
Series K(5)	October 31, 2013	November 15, 2023	6.875	25	59,800,000	**1,495**	1,495
Series M(6)	April 30, 2014	May 15, 2024	6.300	1,000	1,750,000	**1,750**	1,750
Series P(7)	April 24, 2015	May 15, 2025	5.950	1,000	2,000,000	**2,000**	2,000
Series Q(8)	August 12, 2015	August 15, 2020	4.316	1,000	1,250,000	**—**	1,250
Series R(9)	November 13, 2015	November 15, 2020	4.699	1,000	1,500,000	**—**	1,500
Series S(10)	February 2, 2016	February 12, 2021	6.300	25	41,400,000	**—**	1,035
Series T(11)	April 25, 2016	August 15, 2026	6.250	1,000	1,500,000	**1,500**	1,500
Series U(12)	September 12, 2019	September 12, 2024	5.000	1,000	1,500,000	**1,500**	1,500
Series V(13)	January 23, 2020	January 30, 2025	4.700	1,000	1,500,000	**1,500**	1,500
Series W(14)	December 10, 2020	December 10, 2025	4.000	1,000	1,500,000	**1,500**	1,500
Series X(15)	February 18, 2021	February 18, 2026	3.875	1,000	2,300,000	**2,300**	—
Series Y(16)	October 20, 2021	October 20, 2026	4.150	1,000	1,000,000	**1,000**	—
						$18,995	$19,480

(1) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on January 30 and July 30 at a fixed rate until, but excluding, January 30, 2023, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(2) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on February 15 and August 15 at a fixed rate until, but excluding, February 15, 2023, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(3) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2023, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(4) Issued as depositary shares, each representing a 1/1,000th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on March 30, June 30, September 30 and December 30 at a fixed rate until, but excluding, September 30, 2023, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(5) Issued as depositary shares, each representing a 1/1,000th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, November 15, 2023, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(6) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2024, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(7) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2025, and thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(8) The Series Q preferred stock was redeemed in full on May 17, 2021.

(9) The Series R preferred stock was redeemed in full on May 17, 2021.

(10) The Series S preferred stock was redeemed in full on February 12, 2021.

(11) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on February 15 and August 15 at a fixed rate until, but excluding, August 15, 2026, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(12) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on March 12 and September 12 at a fixed rate until, but excluding, September 12, 2024, thereafter payable quarterly on March 12, June 12, September 12 and December 12 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(13) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on January 30 and July 30 at a fixed rate until, but excluding, January 30, 2025, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(14) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on March 10, June 10, September 10 and December 10 at a fixed rate until, but excluding, December 10, 2025, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(15) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 18, May 18, August 18 and November 18 at a fixed rate until, but excluding, February 18, 2026, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

(16) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, November 15, 2026, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

21. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

Uses of Special Purpose Entities

A special purpose entity (SPE) is an entity designed to fulfill a specific limited need of the company that organized it. The principal uses of SPEs by Citi are to assist clients in securitizing their financial assets and to create investment products for clients and to obtain liquidity and optimize capital efficiency by securitizing certain of Citi's financial assets. SPEs may be organized in various legal forms, including trusts, partnerships or corporations. In a securitization, through the SPE's issuance of debt and equity instruments, certificates, commercial paper or other notes of indebtedness, the company transferring assets to the SPE converts all (or a portion) of those assets into cash before they would have been realized in the normal course of business. These issuances are recorded on the balance sheet of the SPE, which may or may not be consolidated onto the balance sheet of the company that organized the SPE.

Investors usually have recourse only to the assets in the SPE, but may also benefit from other credit enhancements, such as a collateral account, a line of credit or a liquidity facility, such as a liquidity put option or asset purchase agreement. Because of these enhancements, the SPE issuances typically obtain a more favorable credit rating than the transferor could obtain for its own debt issuances. This results in less expensive financing costs than unsecured debt. The SPE may also enter into derivative contracts in order to convert the yield or currency of the underlying assets to match the needs of the SPE investors or to limit or change the credit risk of the SPE. Citigroup may be the provider of certain credit enhancements as well as the counterparty to any related derivative contracts.

Most of Citigroup's SPEs are variable interest entities (VIEs).

Variable Interest Entities

VIEs are described in Note 1 to the Consolidated Financial Statements. Investors that finance the VIE through debt or equity interests or other counterparties providing other forms of support, such as guarantees, certain fee arrangements or certain types of derivative contracts, are variable interest holders in the entity.

The variable interest holder, if any, that has a controlling financial interest in a VIE is deemed to be the primary beneficiary and must consolidate the VIE.

The Company must evaluate each VIE to understand the purpose and design of the entity, the role the Company had in the entity's design and its involvement in the VIE's ongoing activities. The Company then must evaluate which activities most significantly impact the economic performance of the VIE and who has the power to direct such activities.

For those VIEs where the Company determines that it has the power to direct the activities that most significantly impact the VIE's economic performance, the Company must then evaluate its economic interests, if any, and determine whether it could absorb losses or receive benefits that could potentially be significant to the VIE. When evaluating whether the Company has an obligation to absorb losses that could potentially be significant, it considers the maximum exposure to such loss without consideration of probability. Such obligations could be in various forms, including, but not limited to, debt and equity investments, guarantees, liquidity agreements and certain derivative contracts.

In various other transactions, the Company may (i) act as a derivative counterparty (e.g., interest rate swap, cross-currency swap or purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE), (ii) act as underwriter or placement agent, (iii) provide administrative, trustee or other services or (iv) make a market in debt securities or other instruments issued by VIEs. The Company generally considers such involvement, by itself, not to be variable interests and thus not an indicator of power or potentially significant benefits or losses.

Citigroup's involvement with consolidated and unconsolidated VIEs with which the Company holds significant variable interests or has continuing involvement through servicing a majority of the assets in a VIE is presented below:

	As of December 31, 2021							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	**Total involvement with SPE assets**	**Consolidated VIE/SPE assets**	**Significant unconsolidated VIE assets[3]**	**Debt investments**	**Equity investments**	**Funding commitments**	**Guarantees and derivatives**	**Total**
Credit card securitizations	**$ 31,518**	**$31,518**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Mortgage securitizations[4]								
U.S. agency-sponsored	**113,641**	**—**	**113,641**	**1,582**	**—**	**—**	**43**	**1,625**
Non-agency-sponsored	**60,851**	**632**	**60,219**	**2,479**	**—**	**5**	**—**	**2,484**
Citi-administered asset-backed commercial paper conduits	**14,018**	**14,018**	**—**	**—**	**—**	**—**	**—**	**—**
Collateralized loan obligations (CLOs)	**8,302**	**—**	**8,302**	**2,636**	**—**	**—**	**—**	**2,636**
Asset-based financing[5]	**246,632**	**11,085**	**235,547**	**32,242**	**1,139**	**12,189**	**—**	**45,570**
Municipal securities tender option bond trusts (TOBs)	**3,251**	**905**	**2,346**	**2**	**—**	**1,498**	**—**	**1,500**
Municipal investments	**20,597**	**3**	**20,594**	**2,512**	**3,617**	**3,562**	**—**	**9,691**
Client intermediation	**904**	**297**	**607**	**75**	**—**	**—**	**224**	**299**
Investment funds	**498**	**179**	**319**	**—**	**—**	**12**	**1**	**13**
Other	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total	**$500,212**	**$58,637**	**$441,575**	**$41,528**	**$4,756**	**$17,266**	**$268**	**$63,818**

	As of December 31, 2020							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets[3]	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$ 32,423	$32,423	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations[4]								
U.S. agency-sponsored	123,999	—	123,999	1,948	—	—	61	2,009
Non-agency-sponsored	46,132	939	45,193	2,550	—	2	1	2,553
Citi-administered asset-backed commercial paper conduits	16,730	16,730	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	18,332	—	18,332	4,273	—	—	—	4,273
Asset-based financing[5]	222,274	8,069	214,205	25,153	1,587	9,114	—	35,854
Municipal securities tender option bond trusts (TOBs)	3,349	835	2,514	0	—	1,611	—	1,611
Municipal investments	20,335	—	20,335	2,569	4,056	3,041	—	9,666
Client intermediation	1,352	910	442	88	—	—	56	144
Investment funds	488	153	335	—	—	15	—	15
Other	0	0	0	0	—	—	—	0
Total	$ 485,414	$60,059	$425,355	$36,581	$5,643	$13,783	$118	$56,125

(1) The definition of maximum exposure to loss is included in the text that follows this table.
(2) Included on Citigroup's December 31, 2021 and 2020 Consolidated Balance Sheet.
(3) A significant unconsolidated VIE is an entity in which the Company has any variable interest or continuing involvement considered to be significant, regardless of the likelihood of loss.
(4) Citigroup mortgage securitizations also include agency and non-agency (private label) re-securitization activities. These re-securitization SPEs are not consolidated. See "Re-securitizations" below for further discussion.
(5) Included within this line are loans to third-party sponsored private equity funds, which represent $100 billion and $78 billion in unconsolidated VIE assets and $497 million and $425 million in maximum exposure to loss as of December 31, 2021 and 2020, respectively.

The previous tables do not include:

- certain venture capital investments made by some of the Company's private equity subsidiaries, as the Company accounts for these investments in accordance with the Investment Company Audit Guide (codified in ASC 946);
- certain investment funds for which the Company provides investment management services and personal estate trusts for which the Company provides administrative, trustee and/or investment management services;
- certain third-party sponsored private equity funds to which the Company provides secured credit facilities. The Company has no decision-making power and does not consolidate these funds, some of which may meet the definition of a VIE. The Company's maximum exposure to loss is generally limited to a loan or lending-related commitment. As of December 31, 2021 and 2020, the Company's maximum exposure to loss related to these deals was $55.6 billion and $57.0 billion, respectively (for more information on these positions, see Notes 14 and 26 to the Consolidated Financial Statements);
- certain VIEs structured by third parties in which the Company holds securities in inventory, as these investments are made on arm's-length terms;
- certain positions in mortgage- and asset-backed securities held by the Company, which are classified as *Trading account assets* or *Investments*, in which the Company has no other involvement with the related securitization entity deemed to be significant (for more information on these positions, see Notes 13 and 24 to the Consolidated Financial Statements);
- certain representations and warranties exposures in Citigroup residential mortgage securitizations, in which the original mortgage loan balances are no longer outstanding; and
- VIEs such as trust preferred securities trusts used in connection with the Company's funding activities. The Company does not have a variable interest in these trusts.

The asset balances for consolidated VIEs represent the carrying amounts of the assets consolidated by the Company. The carrying amount may represent the amortized cost or the current fair value of the assets depending on the classification of the asset (e.g., loan or security) and the associated accounting model ascribed to that classification.

The asset balances for unconsolidated VIEs in which the Company has significant involvement represent the most current information available to the Company. In most cases, the asset balances represent an amortized cost basis without regard to impairments, unless fair value information is readily available to the Company.

The maximum funded exposure represents the balance sheet carrying amount of the Company's investment in the VIE. It reflects the initial amount of cash invested in the VIE, adjusted for any accrued interest and cash principal payments received. The carrying amount may also be adjusted for increases or declines in fair value or any impairment in value recognized in earnings. The maximum exposure of unfunded positions represents the remaining undrawn committed amount, including liquidity and credit facilities provided by the Company or the notional amount of a derivative instrument considered to be a variable interest. In certain transactions, the Company has entered into derivative instruments or other arrangements that are not considered variable interests in the VIE (e.g., interest rate swaps, cross-currency swaps or where the Company is the purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE). Receivables under such arrangements are not included in the maximum exposure amounts.

Funding Commitments for Significant Unconsolidated VIEs—Liquidity Facilities and Loan Commitments

The following table presents the notional amount of liquidity facilities and loan commitments that are classified as funding commitments in the VIE tables above:

	December 31, 2021		December 31, 2020	
In millions of dollars	**Liquidity facilities**	**Loan/equity commitments**	Liquidity facilities	Loan/equity commitments
Non-agency-sponsored mortgage securitizations	**$ —**	**$ 5**	$ —	$ 2
Asset-based financing	**—**	**12,189**	—	9,114
Municipal securities tender option bond trusts (TOBs)	**1,498**	**—**	1,611	—
Municipal investments	**—**	**3,562**	—	3,041
Investment funds	**—**	**12**	—	15
Other	**—**	**—**	—	—
Total funding commitments	**$1,498**	**$15,768**	$1,611	$12,172

Consolidated VIEs

The Company engages in on-balance sheet securitizations, which are securitizations that do not qualify for sales treatment; thus, the assets remain on Citi's Consolidated Balance Sheet, and any proceeds received are recognized as secured liabilities. In general, the third-party investors in the obligations of consolidated VIEs have legal recourse only to the assets of the respective VIEs and do not have such recourse to the Company, except where Citi has provided a guarantee to the investors or is the counterparty to certain derivative transactions involving the VIE. Thus, Citigroup's maximum legal exposure to loss related to consolidated VIEs is significantly less than the carrying value of the consolidated VIE assets due to outstanding third-party financing. Intercompany assets and liabilities are excluded from Citi's Consolidated Balance Sheet. All VIE assets are restricted from being sold or pledged as collateral. The cash flows from these assets are the only source used to pay down the associated liabilities, which are non-recourse to Citi's general assets. See the Consolidated Balance Sheet for more information about these Consolidated VIE assets and liabilities.

Significant Interests in Unconsolidated VIEs—Balance Sheet Classification

The following table presents the carrying amounts and classification of significant variable interests in unconsolidated VIEs:

In billions of dollars	**December 31, 2021**	December 31, 2020
Cash	**$ —**	$ —
Trading account assets	**1.4**	2.0
Investments	**8.8**	10.6
Total loans, net of allowance	**35.4**	29.3
Other	**0.8**	0.3
Total assets	**$46.4**	$42.2

Credit Card Securitizations

The Company securitizes credit card receivables through trusts established to purchase the receivables. Citigroup transfers receivables into the trusts on a non-recourse basis. Credit card securitizations are revolving securitizations: as customers pay their credit card balances, the cash proceeds are used to purchase new receivables and replenish the receivables in the trust.

Substantially all of the Company's credit card securitization activity is through two trusts—Citibank Credit Card Master Trust (Master Trust) and Citibank Omni Trust (Omni Trust), with the substantial majority through the Master Trust. These trusts are consolidated entities because, as servicer, Citigroup has the power to direct the activities that most significantly impact the economic performance of the trusts. Citigroup holds a seller's interest and certain securities issued by the trusts, which could result in exposure to potentially significant losses or benefits from the trusts. Accordingly, the transferred credit card receivables remain on Citi's Consolidated Balance Sheet with no gain or loss recognized. The debt issued by the trusts to third parties is included on Citi's Consolidated Balance Sheet.

Citi utilizes securitizations as one of the sources of funding for its business in *North America*. The following table reflects amounts related to the Company's securitized credit card receivables:

In billions of dollars	**December 31, 2021**	December 31, 2020
Ownership interests in principal amount of trust credit card receivables		
Sold to investors via trust-issued securities	**$ 9.7**	$15.7
Retained by Citigroup as trust-issued securities	**7.2**	7.9
Retained by Citigroup via non-certificated interests	**16.1**	11.1
Total	**$33.0**	$34.7

The following table summarizes selected cash flow information related to Citigroup's credit card securitizations:

In billions of dollars	**2021**	2020	2019
Proceeds from new securitizations	**$ —**	$ 0.3	$ —
Pay down of maturing notes	**(6.0)**	(4.3)	(7.6)

Managed Loans

After securitization of credit card receivables, the Company continues to maintain credit card customer account relationships and provides servicing for receivables transferred to the trusts. As a result, the Company considers the securitized credit card receivables to be part of the business it manages. As Citigroup consolidates the credit card trusts, all managed securitized card receivables are on-balance sheet.

Funding, Liquidity Facilities and Subordinated Interests

As noted above, Citigroup securitizes credit card receivables through two securitization trusts—Master Trust and Omni Trust. The liabilities of the trusts are included on the Consolidated Balance Sheet, excluding those retained by Citigroup.

Master Trust Liabilities (at Par Value)

The Master Trust issues fixed- and floating-rate term notes. Some of the term notes may be issued to multi-seller commercial paper conduits. The weighted average maturity of the third-party term notes issued by the Master Trust was 3.6 years as of December 31, 2021 and 2.9 years as of December 31, 2020.

In billions of dollars	**Dec. 31, 2021**	Dec. 31, 2020
Term notes issued to third parties	**$ 8.4**	$13.9
Term notes retained by Citigroup affiliates	**2.2**	2.7
Total Master Trust liabilities	**$10.6**	$16.6

Omni Trust Liabilities (at Par Value)

The Omni Trust issues fixed- and floating-rate term notes, some of which are purchased by multi-seller commercial paper conduits. The weighted average maturity of the third-party term notes issued by the Omni Trust was 1.6 years as of December 31, 2021 and 1.1 years as of December 31, 2020.

In billions of dollars	**Dec. 31, 2021**	Dec. 31, 2020
Term notes issued to third parties	**$1.3**	$1.8
Term notes retained by Citigroup affiliates	**5.0**	5.2
Total Omni Trust liabilities	**$6.3**	$7.0

Mortgage Securitizations

Citigroup provides a wide range of mortgage loan products to a diverse customer base. Once originated, the Company often securitizes these loans through the use of VIEs. These VIEs are funded through the issuance of trust certificates backed solely by the transferred assets. These certificates have the same life as the transferred assets. In addition to providing a source of liquidity and less expensive funding, securitizing these assets also reduces Citi's credit exposure to the borrowers. These mortgage loan securitizations are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of the securities issued by the trust.

Citi's U.S. consumer mortgage business generally retains the servicing rights and in certain instances retains investment securities, interest-only strips and residual interests in future cash flows from the trusts and also provides servicing for a limited number of *ICG* securitizations. Citi's *ICG* business may hold investment securities pursuant to credit risk retention rules or in connection with secondary market-making activities.

The Company securitizes mortgage loans generally through either a U.S. government-sponsored agency, such as Ginnie Mae, Fannie Mae or Freddie Mac (U.S. agency-sponsored mortgages), or private label (non-agency-sponsored mortgages) securitization. Citi is not the primary beneficiary of its U.S. agency-sponsored mortgage securitization entities because Citigroup does not have the power to direct the activities of the VIEs that most significantly impact the entities' economic performance. Therefore, Citi does not consolidate these U.S. agency-sponsored mortgage securitization entities. Substantially all of the consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated agency-sponsored mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Other assets* on Citigroup's Consolidated Balance Sheet.

Citigroup does not consolidate certain non-agency-sponsored mortgage securitization entities because Citi is either not the servicer with the power to direct the significant activities of the entity or Citi is the servicer, but the servicing relationship is deemed to be a fiduciary relationship; therefore, Citi is not deemed to be the primary beneficiary of the entity.

In certain instances, the Company has (i) the power to direct the activities that most significantly impact the entities' economic performance and (ii) the obligation to either absorb losses or the right to receive benefits that could be potentially significant to its non-agency-sponsored mortgage securitization entities and, therefore, is the primary beneficiary and, thus, consolidates the VIE.

The following tables summarize selected cash flow information and retained interests related to Citigroup mortgage securitizations:

	2021		2020		2019	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$6.1**	**$25.2**	$ 9.4	$11.3	$5.3	$15.6
Proceeds from new securitizations[1]	**6.4**	**25.4**	10.0	11.4	5.5	15.5
Contractual servicing fees received	**0.1**	**—**	0.1	—	0.1	—
Cash flows received on retained interests and other net cash flows	**—**	**0.1**	—	—	—	—
Purchases of previously transferred financial assets	**0.2**	**—**	0.4	—	0.2	—

Note: Excludes re-securitization transactions.
(1) The proceeds from new securitizations in 2019 include $0.2 billion related to personal loan securitizations.

For non-consolidated mortgage securitization entities where the transfer of loans to the VIE meets the conditions for sale accounting, Citi recognizes a gain or loss based on the difference between the carrying value of the transferred assets and the proceeds received (generally cash but may be beneficial interests or servicing rights).

Agency and non-agency securitization gains for the year ended December 31, 2021 were $3.9 million and $493.4 million, respectively.

Agency and non-agency securitization gains for the year ended December 31, 2020 were $88.4 million and $139.4 million, respectively, and $16 million and $73.4 million, respectively, for the year ended December 31, 2019.

	2021			2020		
		Non-agency-sponsored mortgages[1]			Non-agency-sponsored mortgages[1]	
In millions of dollars	**U.S. agency-sponsored mortgages**	**Senior interests[2]**	**Subordinated interests**	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Carrying value of retained interests[3]	**$374**	**$1,452**	**$955**	$315	$1,210	$145

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Senior interests in non-agency-sponsored mortgages include $73 million related to personal loan securitizations at December 31, 2021.
(3) Retained interests consist of Level 2 and Level 3 assets depending on the observability of significant inputs. See Note 24 to the Consolidated Financial Statements for more information about fair value measurements.

Key assumptions used in measuring the fair value of retained interests at the date of sale or securitization of mortgage receivables were as follows:

	December 31, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	**Senior interests**	**Subordinated interests**
Weighted average discount rate	**8.7%**	**2.2%**	**2.8%**
Weighted average constant prepayment rate	**5.5%**	**6.3%**	**11.0%**
Weighted average anticipated net credit losses[2]	**NM**	**1.8%**	**1.0%**
Weighted average life	**7.4 years**	**3.9 years**	**5.4 years**

	December 31, 2020		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	5.4%	1.7%	3.0%
Weighted average constant prepayment rate	25.8%	3.4%	25.0%
Weighted average anticipated net credit losses[2]	NM	1.7%	0.5%
Weighted average life	4.8 years	3.8 years	2.3 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.
NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The interests retained by the Company range from highly rated and/or senior in the capital structure to unrated and/or residual interests. Key assumptions used in measuring the fair value of retained interests in securitizations of mortgage receivables at period end were as follows:

	December 31, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	**Senior interests**	**Subordinated interests**
Weighted average discount rate	**3.7%**	**16.2%**	**4.0%**
Weighted average constant prepayment rate	**14.5%**	**6.8%**	**9.0%**
Weighted average anticipated net credit losses[2]	**NM**	**1.0%**	**2.0%**
Weighted average life	**5.1 years**	**8.8 years**	**18.0 years**

	December 31, 2020		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	5.9%	7.2%	4.3%
Weighted average constant prepayment rate	22.7%	5.3%	4.7%
Weighted average anticipated net credit losses[2]	NM	1.2%	1.4%
Weighted average life	4.5 years	5.3 years	4.7 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.
NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The sensitivity of the fair value to adverse changes of 10% and 20% in each of the key assumptions is presented in the tables below. The negative effect of each change is calculated independently, holding all other assumptions constant. Because the key assumptions may not be independent, the net effect of simultaneous adverse changes in the key assumptions may be less than the sum of the individual effects shown below.

	December 31, 2021		
		Non-agency-sponsored mortgages	
In millions of dollars	**U.S. agency-sponsored mortgages**	**Senior interests**	**Subordinated interests**
Discount rate			
Adverse change of 10%	**$ (6)**	**$ (1)**	**$—**
Adverse change of 20%	**(11)**	**(1)**	**—**
Constant prepayment rate			
Adverse change of 10%	**(19)**	**—**	**—**
Adverse change of 20%	**(37)**	**—**	**—**
Anticipated net credit losses			
Adverse change of 10%	**NM**	**—**	**—**
Adverse change of 20%	**NM**	**—**	**—**

	December 31, 2020		
		Non-agency-sponsored mortgages	
In millions of dollars	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	$ (8)	$—	$ (1)
Adverse change of 20%	(15)	(1)	(1)
Constant prepayment rate			
Adverse change of 10%	(21)	—	—
Adverse change of 20%	(40)	—	—
Anticipated net credit losses			
Adverse change of 10%	NM	—	—
Adverse change of 20%	NM	—	—

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The following table includes information about loan delinquencies and liquidation losses for assets held in non-consolidated, non-agency-sponsored securitization entities:

	Securitized assets		**90 days past due**		**Liquidation losses**	
In billions of dollars, except liquidation losses in millions	**2021**	2020	**2021**	2020	**2021**	2020
Securitized assets						
Residential mortgages[1]	**$29.2**	$16.9	**$0.4**	$0.5	**$10.6**	$26.2
Commercial and other	**26.2**	23.9	**—**	—	**—**	—
Total	**$55.4**	$40.8	**$0.4**	$0.5	**$10.6**	$26.2

(1) Securitized assets include $0.2 billion of personal loan securitizations as of December 31, 2021.

Mortgage Servicing Rights (MSRs)

In connection with the securitization of mortgage loans, Citi's U.S. consumer mortgage business generally retains the servicing rights, which entitle the Company to a future stream of cash flows based on the outstanding principal balances of the loans and the contractual servicing fee. Failure to service the loans in accordance with contractual requirements may lead to a termination of the servicing rights and the loss of future servicing fees.

These transactions create intangible assets referred to as MSRs, which are recorded at fair value on Citi's Consolidated Balance Sheet. The fair value of Citi's capitalized MSRs was $404 million and $336 million at December 31, 2021 and 2020, respectively. The MSRs correspond to principal loan balances of $47 billion and $53 billion as of December 31, 2021 and 2020, respectively.

The following table summarizes the changes in capitalized MSRs:

In millions of dollars	**2021**	2020
Balance, beginning of year	**$ 336**	$ 495
Originations	**92**	123
Changes in fair value of MSRs due to changes in inputs and assumptions	**43**	(204)
Other changes[1]	**(67)**	(78)
Sales of MSRs	**—**	—
Balance, as of December 31	**$ 404**	$ 336

(1) Represents changes due to customer payments and passage of time.

The fair value of the MSRs is primarily affected by changes in prepayments of mortgages that result from shifts in mortgage interest rates. Specifically, higher interest rates tend to lead to declining prepayments, which causes the fair value of the MSRs to increase. In managing this risk, Citigroup economically hedges a significant portion of the value of its MSRs through the use of interest rate derivative contracts, forward purchase and sale commitments of mortgage-backed securities and purchased securities, all classified as *Trading account assets*.

The Company receives fees during the course of servicing previously securitized mortgages. The amounts of these fees were as follows:

In millions of dollars	**2021**	2020	2019
Servicing fees	**$131**	$142	$148
Late fees	**3**	5	8
Ancillary fees	**—**	—	1
Total MSR fees	**$134**	$147	$157

In the Consolidated Statement of Income these fees are primarily classified as *Commissions and fees*, and changes in MSR fair values are classified as *Other revenue*.

Re-securitizations

The Company engages in re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. Citi did not transfer non-agency (private label) securities to re-securitization entities during the years ended December 31, 2021 and 2020. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of December 31, 2021 and December 31, 2020, Citi held no retained interests in private label re-securitization transactions structured by Citi.

The Company also re-securitizes U.S. government-agency-guaranteed mortgage-backed (agency) securities. During the years ended December 31, 2021 and 2020, Citi transferred agency securities with a fair value of approximately $46.6 billion and $42.8 billion, respectively, to re-securitization entities.

As of December 31, 2021, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately $1.2 billion (including $641 million related to re-securitization transactions executed in 2021) compared to $1.6 billion as of December 31, 2020 (including $916 million related to re-securitization transactions executed in 2020), which is recorded in *Trading account assets*. The original fair values of agency re-securitization transactions in which Citi holds a retained interest as of December 31, 2021 and 2020 were approximately $78.4 billion and $83.6 billion, respectively.

As of December 31, 2021 and 2020, the Company did not consolidate any private label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

The Company is active in the asset-backed commercial paper conduit business as administrator of several multi-seller commercial paper conduits and also as a service provider to single-seller and other commercial paper conduits sponsored by third parties.

Citi's multi-seller commercial paper conduits are designed to provide the Company's clients access to low-cost funding in the commercial paper markets. The conduits purchase assets from or provide financing facilities to clients and are funded by issuing commercial paper to third-party investors. The conduits generally do not purchase assets originated by Citi. The funding of the conduits is facilitated by the liquidity support and credit enhancements provided by the Company.

As administrator to Citi's conduits, the Company is generally responsible for selecting and structuring assets purchased or financed by the conduits, making decisions regarding the funding of the conduits, including determining the tenor and other features of the commercial paper issued, monitoring the quality and performance of the conduits' assets and facilitating the operations and cash flows of the conduits. In return, the Company earns structuring fees from customers for individual transactions and earns an administration fee from the conduit, which is equal to the income from the client program and liquidity fees of the conduit after payment of conduit expenses. This administration fee is fairly stable, since most risks and rewards of the underlying assets are passed back to the clients. Once the asset pricing is negotiated, most ongoing income, costs and fees are relatively stable as a percentage of the conduit's size.

The conduits administered by Citi do not generally invest in liquid securities that are formally rated by third parties. The assets are privately negotiated and structured transactions that are generally designed to be held by the conduit, rather than actively traded and sold. The yield earned by the conduit on each asset is generally tied to the rate on the commercial paper issued by the conduit, thus passing interest rate risk to the client. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on Citi's internal risk ratings. At December 31, 2021 and 2020, the commercial paper conduits administered by Citi had approximately $14.0 billion and $16.7 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately $18.3 billion and $17.1 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At December 31, 2021 and 2020, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 70 and 54 days, respectively.

The primary credit enhancement provided to the conduit investors is in the form of transaction-specific credit enhancements described above. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on Citi's internal risk ratings. In addition to the transaction-specific credit enhancements, the conduits, other than the government- guaranteed loan conduit, have obtained letters of credit from the Company, which equal at least 8% to 10% of the conduit's assets with a minimum of $200 million. The letters of credit provided by the Company to the conduits total approximately $1.3 billion as of December 31, 2021 and $1.5 billion as of December 31, 2020. The net result across multi-seller conduits administered by the Company is that, in the event that defaulted assets exceed the transaction-specific credit enhancements described above, any losses in each conduit are allocated first to the Company and then to the commercial paper investors.

Citigroup also provides the conduits with two forms of liquidity agreements that are used to provide funding to the conduits in the event of a market disruption, among other events. Each asset of the conduits is supported by a transaction-specific liquidity facility in the form of an asset purchase agreement (APA). Under the APA, the Company has generally agreed to purchase non-defaulted eligible receivables from the conduit at par. The APA is not designed to provide credit support to the conduit, as it generally does not permit the purchase of defaulted or impaired assets. Any funding under the APA will likely subject the underlying conduit clients to increased interest costs. In addition, the Company provides the conduits with program-wide liquidity in the form of short-term lending commitments. Under these commitments, the Company has agreed to lend to the conduits in the event of a short-term disruption in the commercial paper market, subject to specified conditions. The Company receives fees for providing both types of liquidity agreements and considers these fees to be on fair market terms.

Finally, Citi is one of several named dealers in the commercial paper issued by the conduits and earns a market-based fee for providing such services. Along with third-party dealers, the Company makes a market in the commercial paper and may from time to time fund commercial paper pending sale to a third party. On specific dates with less liquidity in the market, the Company may hold in inventory commercial paper issued by conduits administered by the Company, as well as conduits administered by third parties. Separately, in the normal course of business, Citi purchases commercial paper, including commercial paper issued by Citigroup's conduits. At December 31, 2021 and 2020, the Company owned $4.9 billion and $6.6 billion, respectively, of the commercial paper issued by its administered conduits. The Company's investments were not driven by market illiquidity and the Company is not obligated under any agreement to purchase the commercial paper issued by the conduits.

The asset-backed commercial paper conduits are consolidated by Citi. The Company has determined that, through its roles as administrator and liquidity provider, it has the power to direct the activities that most significantly impact the entities' economic performance. These powers include its ability to structure and approve the assets purchased by the conduits, its ongoing surveillance and credit mitigation activities, its ability to sell or repurchase assets out of the conduits and its liability management. In addition, as a result of all the Company's involvement described above, it was concluded that Citi has an economic interest that could potentially be significant. However, the assets and liabilities of the conduits are separate and apart from those of Citigroup. No assets of any conduit are available to satisfy the creditors of Citigroup or any of its other subsidiaries.

Collateralized Loan Obligations (CLOs)

A collateralized loan obligation (CLO) is a VIE that purchases a portfolio of assets consisting primarily of non-investment grade corporate loans. CLOs issue multiple tranches of debt and equity to investors to fund the asset purchases and pay upfront expenses associated with forming the CLO. A third-party asset manager is contracted by the CLO to purchase the underlying assets from the open market and monitor the credit risk associated with those assets. Over the term of a CLO, the asset manager directs purchases and sales of assets in a manner consistent with the CLO's asset management agreement and indenture. In general, the CLO asset manager will have the power to direct the activities of the entity that most significantly impact the economic performance of the CLO. Investors in a CLO, through their ownership of debt and/or equity in it, can also direct certain activities of the CLO, including removing its asset manager under limited circumstances, optionally redeeming the notes, voting on amendments to the CLO's operating documents and other activities. A CLO has a finite life, typically 12 years.

Citi serves as a structuring and placement agent with respect to the CLOs. Typically, the debt and equity of the CLOs are sold to third-party investors. On occasion, certain Citi entities may purchase some portion of a CLO's liabilities for investment purposes. In addition, Citi may purchase, typically in the secondary market, certain securities issued by the CLOs to support its market-making activities.

The Company generally does not have the power to direct the activities that most significantly impact the economic performance of the CLOs, as this power is generally held by a third-party asset manager of the CLO. As such, those CLOs are not consolidated.

The following tables summarize selected cash flow information and retained interests related to Citigroup CLOs:

In billions of dollars	**2021**	2020	2019
Principal securitized	**$ —**	$0.1	$ —
Proceeds from new securitizations	**—**	0.1	—
Cash flows received on retained interests and other net cash flows	**1.1**	—	—
Purchases of previously transferred financial assets	**0.2**	—	—

In millions of dollars	**Dec. 31, 2021**	Dec. 31, 2020	Dec. 31, 2019
Carrying value of retained interests	**$921**	$1,611	$1,404

All of Citi's retained interests were held-to-maturity securities as of December 31, 2021 and 2020.

Asset-Based Financing

The Company provides loans and other forms of financing to VIEs that hold assets. Those loans are subject to the same credit approvals as all other loans originated or purchased by the Company. Financings in the form of debt securities or derivatives are, in most circumstances, reported in *Trading account assets* and accounted for at fair value through earnings. The Company generally does not have the power to direct the activities that most significantly impact these VIEs' economic performance; thus, it does not consolidate them.

The primary types of Citi's asset-based financings, total assets of the unconsolidated VIEs with significant involvement and Citi's maximum exposure to loss are shown below. For Citi to realize the maximum loss, the VIE (borrower) would have to default with no recovery from the assets held by the VIE.

	December 31, 2021	
In millions of dollars	**Total unconsolidated VIE assets**	**Maximum exposure to unconsolidated VIEs**
Type		
Commercial and other real estate	**$ 32,932**	**$ 7,461**
Corporate loans	**18,257**	**12,581**
Other (including investment funds, airlines and shipping)	**184,358**	**25,528**
Total	**$235,547**	**$45,570**

	December 31, 2020	
In millions of dollars	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type		
Commercial and other real estate	$ 34,570	$ 7,758
Corporate loans	12,022	7,654
Other (including investment funds, airlines and shipping)	167,613	20,442
Total	$214,205	$35,854

Municipal Securities Tender Option Bond (TOB) Trusts

Municipal TOB trusts may hold fixed- or floating-rate, taxable or tax-exempt securities issued by state and local governments and municipalities. TOB trusts are typically structured as single-issuer entities whose assets are purchased from either the Company or from other investors in the municipal securities market. TOB trusts finance the purchase of their municipal assets by issuing two classes of certificates: long-dated, floating rate certificates ("Floaters") that are putable pursuant to a liquidity facility and residual interest certificates ("Residuals"). The Floaters are purchased by third-party investors, typically tax-exempt money market funds. The Residuals are purchased by the original owner of the municipal securities that are being financed.

From Citigroup's perspective, there are two types of TOB trusts: customer and non-customer. Customer TOB trusts are those trusts utilized by customers of the Company to finance their securities, generally municipal securities. The Residuals issued by these trusts are purchased by the customer being financed. Non-customer TOB trusts are generally used by the Company to finance its own municipal securities investments; the Residuals issued by non-customer TOB trusts are purchased by the Company.

With respect to both customer and non-customer TOB trusts, Citi may provide remarketing agent services. If Floaters are optionally tendered and the Company, in its role as remarketing agent, is unable to find a new investor to purchase the optionally tendered Floaters within a specified period of time, Citigroup may, but is not obligated to, purchase the tendered Floaters into its own inventory. The level of the Company's inventory of such Floaters fluctuates.

For certain customer TOB trusts, Citi may also serve as a voluntary advance provider. In this capacity, the Company may, but is not obligated to, make loan advances to customer TOB trusts to purchase optionally tendered Floaters that have not otherwise been successfully remarketed to new investors. Such loans are secured by pledged Floaters. As of December 31, 2021, Citi had no outstanding voluntary advances to customer TOB trusts.

For certain non-customer trusts, the Company also provides credit enhancement. At December 31, 2021 and 2020, none of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

Citigroup also provides liquidity services to many customer and non-customer trusts. If a trust is unwound early due to an event other than a credit event on the underlying municipal bonds, the underlying municipal bonds are sold out of the trust and bond sale proceeds are used to redeem the outstanding trust certificates. If this results in a shortfall between the bond sale proceeds and the redemption price of the tendered Floaters, the Company, pursuant to the liquidity agreement, would be obligated to make a payment to the trust to satisfy that shortfall. For certain customer TOB trusts, Citigroup has also executed a reimbursement agreement with the holder of the Residual, pursuant to which the Residual holder is obligated to reimburse the Company for any payment the Company makes under the liquidity arrangement. These reimbursement agreements may be subject to daily margining based on changes in the market value of the underlying municipal bonds. In cases where a third party provides liquidity to a non-customer TOB trust, a similar reimbursement arrangement may be executed, whereby the Company (or a consolidated subsidiary of the Company), as Residual holder, would absorb any losses incurred by the liquidity provider.

For certain other non-customer TOB trusts, Citi serves as tender option provider. The tender option provider arrangement allows Floater holders to put their interests directly to the Company at any time, subject to the requisite notice period requirements, at a price of par.

At December 31, 2021 and 2020, liquidity agreements provided with respect to customer TOB trusts totaled $1.5 billion and $1.6 billion, respectively, of which $0.6 billion and $0.8 billion, respectively, were offset by reimbursement agreements. For the remaining exposure related to TOB transactions, where the residual owned by the customer was at least 25% of the bond value at the inception of the transaction, no reimbursement agreement was executed.

Citi considers both customer and non-customer TOB trusts to be VIEs. Customer TOB trusts are not consolidated by the Company, as the power to direct the activities that most significantly impact the trust's economic performance rests with the customer Residual holder, which may unilaterally cause the sale of the trust's bonds.

Non-customer TOB trusts generally are consolidated because the Company holds the Residual interest and thus has the unilateral power to cause the sale of the trust's bonds.

The Company also provides other liquidity agreements or letters of credit to customer-sponsored municipal investment funds, which are not variable interest entities, and municipality-related issuers that totaled $2 billion as of December 31, 2021 and $3.6 billion as of December 31, 2020. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

Municipal Investments

Municipal investment transactions include debt and equity interests in partnerships that finance the construction and rehabilitation of low-income housing, facilitate lending in new or underserved markets or finance the construction or operation of renewable municipal energy facilities. Citi generally invests in these partnerships as a limited partner and earns a return primarily through the receipt of tax credits and grants earned from the investments made by the partnership. The Company may also provide construction loans or permanent loans for the development or operation of real estate properties held by partnerships. These entities are generally considered VIEs. The power to direct the activities of these entities is typically held by the general partner. Accordingly, these entities are not consolidated by Citigroup.

Client Intermediation

Client intermediation transactions represent a range of transactions designed to provide investors with specified returns based on the returns of an underlying security, referenced asset or index. These transactions include credit-linked notes and equity-linked notes. In these transactions, the VIE typically obtains exposure to the underlying security, referenced asset or index through a derivative instrument, such as a total-return swap or a credit-default swap. In turn, the VIE issues notes to investors that pay a return based on the specified underlying security, referenced asset or index. The VIE invests the proceeds in a financial asset or a guaranteed insurance contract that serves as collateral for the derivative contract over the term of the transaction. The Company's involvement in these transactions includes being the counterparty to the VIE's derivative instruments and investing in a portion of the notes issued by the VIE. In certain transactions, the investor's maximum risk of loss is limited and the Company absorbs risk of loss above a specified level. Citi does not have the power to direct the activities of the VIEs that most significantly impact their economic performance and thus it does not consolidate them.

Citi's maximum risk of loss in these transactions is defined as the amount invested in notes issued by the VIE and the notional amount of any risk of loss absorbed by Citi through a separate instrument issued by the VIE. The derivative instrument held by the Company may generate a receivable from the VIE (e.g., where the Company purchases credit protection from the VIE in connection with the VIE's issuance of a credit-linked note), which is collateralized by the assets owned by the VIE. These derivative instruments are not considered variable interests and any associated receivables are not included in the calculation of maximum exposure to the VIE.

Investment Funds

The Company is the investment manager for certain investment funds and retirement funds that invest in various asset classes including private equity, hedge funds, real estate, fixed income and infrastructure. Citigroup earns a management fee, which is a percentage of capital under management, and may earn performance fees. In addition, for some of these funds the Company has an ownership interest in the investment funds. Citi has also established a number of investment funds as opportunities for qualified colleagues to invest in private equity investments. The Company acts as investment manager for these funds and may provide colleagues with financing on both recourse and non-recourse bases for a portion of the colleagues' investment commitments.

22. DERIVATIVES

In the ordinary course of business, Citigroup enters into various types of derivative transactions, which include:

- *Futures and forward contracts*, which are commitments to buy or sell at a future date a financial instrument, commodity or currency at a contracted price that may be settled in cash or through delivery of an item readily convertible to cash.
- *Swap contracts*, which are commitments to settle in cash at a future date or dates that may range from a few days to a number of years, based on differentials between specified indices or financial instruments, as applied to a notional principal amount.
- *Option contracts*, which give the purchaser, for a premium, the right, but not the obligation, to buy or sell within a specified time a financial instrument, commodity or currency at a contracted price that may also be settled in cash, based on differentials between specified indices or prices.

Swaps, forwards and some option contracts are over-the-counter (OTC) derivatives that are bilaterally negotiated with counterparties and settled with those counterparties, except for swap contracts that are novated and "cleared" through central counterparties (CCPs). Futures contracts and other option contracts are standardized contracts that are traded on an exchange with a CCP as the counterparty from the inception of the transaction. Citigroup enters into derivative contracts relating to interest rate, foreign currency, commodity and other market/credit risks for the following reasons:

- *Trading Purposes*: Citigroup trades derivatives as an active market maker. Citigroup offers its customers derivatives in connection with their risk management actions to transfer, modify or reduce their interest rate, foreign exchange and other market/credit risks or for their own trading purposes. Citigroup also manages its derivative risk positions through offsetting trade activities, controls focused on price verification and daily reporting of positions to senior managers.
- *Hedging*: Citigroup uses derivatives in connection with its own risk management activities to hedge certain risks or reposition the risk profile of the Company. Hedging may be accomplished by applying hedge accounting in accordance with ASC 815, *Derivatives and Hedging*, or by an economic hedge. For example, Citigroup issues fixed-rate long-term debt and then enters into a receive-fixed, pay-variable-rate interest rate swap with the same tenor and notional amount to synthetically convert the interest payments to a net variable-rate basis. This strategy is the most common form of an interest rate hedge, as it minimizes net interest cost in certain yield curve environments. Derivatives are also used to manage market risks inherent in specific groups of on-balance sheet assets and liabilities, including AFS securities, commodities and borrowings, as well as other interest-sensitive assets and liabilities. In addition, foreign exchange contracts are used to hedge non-U.S.-dollar-denominated debt, foreign currency-denominated AFS securities and net investment exposures.

Derivatives may expose Citigroup to market, credit or liquidity risks in excess of the amounts recorded on the Consolidated Balance Sheet. Market risk on a derivative product is the exposure created by potential fluctuations in interest rates, market prices, foreign exchange rates and other factors and is a function of the type of product, the volume of transactions, the tenor and terms of the agreement and the underlying volatility. Credit risk is the exposure to loss in the event of nonperformance by the other party to satisfy a derivative liability where the value of any collateral held by Citi is not adequate to cover such losses. The recognition in earnings of unrealized gains on derivative transactions is subject to management's assessment of the probability of counterparty default. Liquidity risk is the potential exposure that arises when the size of a derivative position may affect the ability to monetize the position in a reasonable period of time and at a reasonable cost in periods of high volatility and financial stress.

Derivative transactions are customarily documented under industry standard master netting agreements, which provide that following an event of default, the non-defaulting party may promptly terminate all transactions between the parties and determine the net amount due to be paid to, or by, the defaulting party. Events of default include (i) failure to make a payment on a derivative transaction that remains uncured following applicable notice and grace periods, (ii) breach of agreement that remains uncured after applicable notice and grace periods, (iii) breach of a representation, (iv) cross default, either to third-party debt or to other derivative transactions entered into between the parties, or, in some cases, their affiliates, (v) the occurrence of a merger or consolidation that results in the creditworthiness of a party becoming materially weaker and (vi) the cessation or repudiation of any applicable guarantee or other credit support document. Obligations under master netting agreements are often secured by collateral posted under an industry standard credit support annex to the master netting agreement. An event of default may also occur under a credit support annex if a party fails to make a collateral delivery that remains uncured following applicable notice and grace periods.

The netting and collateral rights incorporated in the master netting agreements are considered to be legally enforceable if a supportive legal opinion has been obtained from counsel of recognized standing that provides (i) the requisite level of certainty regarding enforceability and (ii) that the exercise of rights by the non-defaulting party to terminate and close-out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default, including bankruptcy, insolvency or similar proceeding.

A legal opinion may not be sought for certain jurisdictions where local law is silent or unclear as to the enforceability of such rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law may not provide the requisite level of certainty. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

Exposure to credit risk on derivatives is affected by market volatility, which may impair the ability of counterparties to satisfy their obligations to the Company. Credit limits are established and closely monitored for customers engaged in derivatives transactions. Citi considers the level of legal certainty regarding enforceability of its offsetting rights under master netting agreements and credit support annexes to be an important factor in its risk management process. Specifically, Citi generally transacts much lower volumes of derivatives under master netting agreements where Citi does not have the requisite level of legal certainty regarding enforceability, because such derivatives consume greater amounts of single counterparty credit limits than those executed under enforceable master netting agreements.

Cash collateral and security collateral in the form of G10 government debt securities are often posted by a party to a master netting agreement to secure the net open exposure of the other party; the receiving party is free to commingle/rehypothecate such collateral in the ordinary course of its business. Nonstandard collateral such as corporate bonds, municipal bonds, U.S. agency securities and/or MBS may also be pledged as collateral for derivative transactions. Security collateral posted to open and maintain a master netting agreement with a counterparty, in the form of cash and/or securities, may from time to time be segregated in an account at a third-party custodian pursuant to a tri-party account control agreement.

Information pertaining to Citigroup's derivatives activities, based on notional amounts, is presented in the table below. Derivative notional amounts are reference amounts from which contractual payments are derived and do not represent a complete measure of Citi's exposure to derivative transactions. Citi's derivative exposure arises primarily from market fluctuations (i.e., market risk), counterparty failure (i.e., credit risk) and/or periods of high volatility or financial stress (i.e., liquidity risk), as well as any market valuation adjustments that may be required on the transactions. Moreover, notional amounts do not reflect the netting of offsetting trades. For example, if Citi enters into a receive-fixed interest rate swap with $100 million notional, and offsets this risk with an identical but opposite pay-fixed position with a different counterparty, $200 million in derivative notionals is reported, although these offsetting positions may result in de minimis overall market risk.

In addition, aggregate derivative notional amounts can fluctuate from period to period in the normal course of business based on Citi's market share, levels of client activity and other factors. All derivatives are recorded in *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet.

Derivative Notionals

	Hedging instruments under ASC 815		Trading derivative instruments	
In millions of dollars	**December 31, 2021**	December 31, 2020	**December 31, 2021**	December 31, 2020
Interest rate contracts				
Swaps	**$267,035**	$334,351	**$21,873,538**	$17,724,147
Futures and forwards	**—**	—	**2,383,702**	4,142,514
Written options	**—**	—	**1,584,451**	1,573,483
Purchased options	**—**	—	**1,428,376**	1,418,255
Total interest rate contracts	**$267,035**	$334,351	**$27,270,067**	$24,858,399
Foreign exchange contracts				
Swaps	**$ 47,298**	$ 65,709	**$ 6,288,193**	$ 6,567,304
Futures, forwards and spot	**50,926**	37,080	**4,316,242**	3,945,391
Written options	**—**	47	**664,942**	907,338
Purchased options	**—**	53	**651,958**	900,626
Total foreign exchange contracts	**$ 98,224**	$102,889	**$11,921,335**	$12,320,659
Equity contracts				
Swaps	**$ —**	$ —	**$ 269,062**	$ 274,098
Futures and forwards	**—**	—	**71,363**	67,025
Written options	**—**	—	**492,433**	441,003
Purchased options	**—**	—	**398,129**	328,202
Total equity contracts	**$ —**	$ —	**$ 1,230,987**	$ 1,110,328
Commodity and other contracts				
Swaps	**$ —**	$ —	**$ 91,962**	$ 80,127
Futures and forwards	**2,096**	924	**157,195**	143,175
Written options	**—**	—	**51,224**	71,376
Purchased options	**—**	—	**47,868**	67,849
Total commodity and other contracts	**$ 2,096**	$ 924	**$ 348,249**	$ 362,527
Credit derivatives[(1)]				
Protection sold	**$ —**	$ —	**$ 572,486**	$ 543,607
Protection purchased	**—**	—	**645,996**	612,770
Total credit derivatives	**$ —**	$ —	**$ 1,218,482**	$ 1,156,377
Total derivative notionals	**$367,355**	$438,164	**$41,989,120**	$39,808,290

(1) Credit derivatives are arrangements designed to allow one party (protection purchaser) to transfer the credit risk of a "reference asset" to another party (protection seller). These arrangements allow a protection seller to assume the credit risk associated with the reference asset without directly purchasing that asset. The Company enters into credit derivative positions for purposes such as risk management, yield enhancement, reduction of credit concentrations and diversification of overall risk.

The following tables present the gross and net fair values of the Company's derivative transactions and the related offsetting amounts as of December 31, 2021 and 2020. Gross positive fair values are offset against gross negative fair values by counterparty, pursuant to enforceable master netting agreements. Under ASC 815-10-45, payables and receivables in respect of cash collateral received from or paid to a given counterparty pursuant to a credit support annex are included in the offsetting amount if a legal opinion supporting the enforceability of netting and collateral rights has been obtained. GAAP does not permit similar offsetting for security collateral.

In addition, the following tables reflect rules adopted by clearing organizations that require or allow entities to treat certain derivative assets, liabilities and the related variation margin as settlement of the related derivative fair values for legal and accounting purposes, as opposed to presenting gross derivative assets and liabilities that are subject to collateral, whereby the counterparties would also record a related collateral payable or receivable. As a result, the tables reflect a reduction of approximately \$340 billion and \$280 billion as of December 31, 2021 and 2020, respectively, of derivative assets and derivative liabilities that previously would have been reported on a gross basis, but are now legally settled and not subject to collateral. The tables also present amounts that are not permitted to be offset, such as security collateral or cash collateral posted at third-party custodians, but which would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the netting and collateral rights has been obtained.

Derivative Mark-to-Market (MTM) Receivables/Payables

In millions of dollars at December 31, 2021	Derivatives classified in Trading account assets/liabilities[1][2]	
Derivatives instruments designated as ASC 815 hedges	**Assets**	**Liabilities**
Over-the-counter	$ 1,167	$ 6
Cleared	122	89
Interest rate contracts	**$ 1,289**	**$ 95**
Over-the-counter	$ 1,338	$ 1,472
Cleared	6	—
Foreign exchange contracts	**$ 1,344**	**$ 1,472**
Total derivatives instruments designated as ASC 815 hedges	**$ 2,633**	**$ 1,567**
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 152,524	$ 138,114
Cleared	11,579	11,821
Exchange traded	96	44
Interest rate contracts	**$ 164,199**	**$ 149,979**
Over-the-counter	$ 133,357	$ 133,548
Cleared	848	278
Foreign exchange contracts	**$ 134,205**	**$ 133,826**
Over-the-counter	$ 23,452	$ 28,352
Cleared	19	—
Exchange traded	21,781	21,332
Equity contracts	**$ 45,252**	**$ 49,684**
Over-the-counter	$ 29,279	$ 29,833
Exchange traded	1,065	1,546
Commodity and other contracts	**$ 30,344**	**$ 31,379**
Over-the-counter	$ 6,896	$ 6,959
Cleared	3,322	4,056
Credit derivatives	**$ 10,218**	**$ 11,015**
Total derivatives instruments not designated as ASC 815 hedges	**$ 384,218**	**$ 375,883**
Total derivatives	**$ 386,851**	**$ 377,450**
Less: Netting agreements[3]	$(292,628)	$(292,628)
Less: Netting cash collateral received/paid[4]	(24,447)	(29,306)
Net receivables/payables included on the Consolidated Balance Sheet[5]	**$ 69,776**	**$ 55,516**
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	**$ (907)**	**$ (538)**
Less: Non-cash collateral received/paid	**(5,777)**	**(13,607)**
Total net receivables/payables[5]	**$ 63,092**	**$ 41,371**

(1) The derivatives fair values are also presented in Note 24 to the Consolidated Financial Statements.
(2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.
(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately $259 billion, $14 billion and $20 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.
(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
(5) The net receivables/payables include approximately $10 billion of derivative asset and $11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

In millions of dollars at December 31, 2020	Derivatives classified in Trading account assets/liabilities[1][2]	
Derivatives instruments designated as ASC 815 hedges	Assets	Liabilities
Over-the-counter	$ 1,781	$ 161
Cleared	74	319
Interest rate contracts	$ 1,855	$ 480
Over-the-counter	$ 2,037	$ 2,042
Foreign exchange contracts	$ 2,037	$ 2,042
Total derivatives instruments designated as ASC 815 hedges	$ 3,892	$ 2,522
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 228,519	$ 209,330
Cleared	11,041	12,563
Exchange traded	46	38
Interest rate contracts	$ 239,606	$ 221,931
Over-the-counter	$ 153,791	$ 152,784
Cleared	842	1,239
Exchange traded	—	1
Foreign exchange contracts	$ 154,633	$ 154,024
Over-the-counter	$ 29,244	$ 41,036
Cleared	1	18
Exchange traded	21,274	22,515
Equity contracts	$ 50,519	$ 63,569
Over-the-counter	$ 13,659	$ 17,076
Exchange traded	879	1,017
Commodity and other contracts	$ 14,538	$ 18,093
Over-the-counter	$ 7,826	$ 7,951
Cleared	1,963	2,178
Credit derivatives	$ 9,789	$ 10,129
Total derivatives instruments not designated as ASC 815 hedges	$ 469,085	$ 467,746
Total derivatives	$ 472,977	$ 470,268
Less: Netting agreements[3]	$ (364,879)	$ (364,879)
Less: Netting cash collateral received/paid[4]	(31,137)	(37,432)
Net receivables/payables included on the Consolidated Balance Sheet[5]	$ 76,961	$ 67,957
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	$ (1,567)	$ (473)
Less: Non-cash collateral received/paid	(7,408)	(13,087)
Total net receivables/payables[5]	$ 67,986	$ 54,397

(1) The derivatives fair values are also presented in Note 24 to the Consolidated Financial Statements.
(2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.
(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately $336 billion, $9 billion and $20 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.
(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
(5) The net receivables/payables include approximately $6 billion of derivative asset and $8 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

For the years ended December 31, 2021, 2020 and 2019, amounts recognized in *Principal transactions* in the Consolidated Statement of Income include certain derivatives not designated in a qualifying hedging relationship. Citigroup presents this disclosure by business classification, showing derivative gains and losses related to its trading activities together with gains and losses related to non-derivative instruments within the same trading portfolios, as this represents how these portfolios are risk managed. See Note 6 to the Consolidated Financial Statements for further information.

The amounts recognized in *Other revenue* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship are shown below. The table below does not include any offsetting gains (losses) on the economically hedged items to the extent that such amounts are also recorded in *Other revenue*.

	Gains (losses) included in Other revenue		
	Year ended December 31,		
In millions of dollars	**2021**	2020	2019
Interest rate contracts	**$ (70)**	$ 63	$ 57
Foreign exchange	**(102)**	(57)	(29)
Total	**$(172)**	$ 6	$ 28

Accounting for Derivative Hedging

Citigroup accounts for its hedging activities in accordance with ASC 815, *Derivatives and Hedging*. As a general rule, hedge accounting is permitted where the Company is exposed to a particular risk, such as interest rate or foreign exchange risk, that causes changes in the fair value of an asset or liability or variability in the expected future cash flows of an existing asset, liability or a forecasted transaction that may affect earnings.

Derivative contracts hedging the risks associated with changes in fair value are referred to as fair value hedges, while contracts hedging the variability of expected future cash flows are cash flow hedges. Hedges that utilize derivatives or debt instruments to manage the foreign exchange risk associated with equity investments in non-U.S.-dollar-functional-currency foreign subsidiaries (net investment in a foreign operation) are net investment hedges.

To qualify as an accounting hedge under the hedge accounting rules (versus an economic hedge where hedge accounting is not applied), a hedging relationship must be highly effective in offsetting the risk designated as being hedged. The hedging relationship must be formally documented at inception, detailing the particular risk management objective and strategy for the hedge. This includes the item and risk(s) being hedged, the hedging instrument being used and how effectiveness will be assessed. The effectiveness of these hedging relationships is evaluated at hedge inception and on an ongoing basis both on a retrospective and prospective basis, typically using quantitative measures of correlation, with hedge ineffectiveness measured and recorded in current earnings. Hedge effectiveness assessment methodologies are performed in a similar manner for similar hedges, and are used consistently throughout the hedging relationships. The assessment of effectiveness may exclude changes in the value of the hedged item that are unrelated to the risks being hedged and the changes in fair value of the derivative associated with time value. Citi excludes changes in the cross-currency basis associated with cross-currency swaps from the assessment of hedge effectiveness and records it in *Other comprehensive income*.

Discontinued Hedge Accounting

A hedging instrument must be highly effective in accomplishing the hedge objective of offsetting either changes in the fair value or cash flows of the hedged item for the risk being hedged. Management may voluntarily de-designate an accounting hedge at any time, but if a hedging relationship is not highly effective, it no longer qualifies for hedge accounting and must be de-designated. Subsequent changes in the fair value of the derivative are recognized in *Other revenue* or *Principal transactions*, similar to trading derivatives, with no offset recorded related to the hedged item.

For fair value hedges, any changes in the fair value of the hedged item remain as part of the basis of the asset or liability and are ultimately realized as an element of the yield on the item. For cash flow hedges, changes in fair value of the end-user derivative remain in *Accumulated other comprehensive income (loss) (AOCI)* and are included in the earnings of future periods when the forecasted hedged cash flows impact earnings. However, if it becomes probable that some or all of the hedged forecasted transactions will not occur, any amounts that remain in *AOCI* related to these transactions must be immediately reflected in *Other revenue*.

The foregoing criteria are applied on a decentralized basis, consistent with the level at which market risk is managed, but are subject to various limits and controls. The underlying asset, liability or forecasted transaction may be an individual item or a portfolio of similar items.

Fair Value Hedges

Hedging of Benchmark Interest Rate Risk

Citigroup's fair value hedges are primarily hedges of fixed-rate long-term debt or assets, such as available-for-sale debt securities or loans.

For qualifying fair value hedges of interest rate risk, the changes in the fair value of the derivative and the change in the fair value of the hedged item attributable to the hedged risk are presented within *Interest revenue* or *Interest expense* based on whether the hedged item is an asset or a liability.

Citigroup has executed a last-of-layer hedge, which permits an entity to hedge the interest rate risk of a stated portion of a closed portfolio of prepayable financial assets that are expected to remain outstanding for the designated tenor of the hedge. In accordance with ASC 815, an entity may exclude prepayment risk when measuring the change in fair value of the hedged item attributable to interest rate risk under the last-of-layer approach. Similar to other fair value hedges, where the hedged item is an asset, the fair value of the hedged item attributable to interest rate risk will be presented in *Interest revenue* along with the change in the fair value of the hedging instrument.

Hedging of Foreign Exchange Risk

Citigroup hedges the change in fair value attributable to foreign exchange rate movements in available-for-sale debt securities and long-term debt that are denominated in currencies other than the functional currency of the entity holding the securities or issuing the debt. The hedging instrument is generally a forward foreign exchange contract or a cross-currency swap contract. Citigroup considers the premium associated with forward contracts (i.e., the differential between the spot and contractual forward rates) as the cost of hedging; this amount is excluded from the assessment of hedge effectiveness and is generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in cross-currency basis associated with cross-currency swaps from the assessment of hedge effectiveness and records it in *Other comprehensive income.*

Hedging of Commodity Price Risk

Citigroup hedges the change in fair value attributable to spot price movements in physical commodities inventories. The hedging instrument is a futures contract to sell the underlying commodity. In this hedge, the change in the value of the hedged inventory is reflected in earnings, which offsets the change in the fair value of the futures contract that is also reflected in earnings. Although the change in the fair value of the hedging instrument recorded in earnings includes changes in forward rates, Citigroup excludes the differential between the spot and the contractual forward rates under the futures contract from the assessment of hedge effectiveness, and it is generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in forward rates from the assessment of hedge effectiveness and records it in *Other comprehensive income.*

The following table summarizes the gains (losses) on the Company's fair value hedges:

	Gains (losses) on fair value hedges[1]					
	Year ended December 31,					
	2021		2020		2019	
In millions of dollars	**Other revenue**	**Net interest income**	Other revenue	Net interest income	Other revenue	Net interest income
Gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges						
Interest rate hedges	**$ —**	**$(5,425)**	$ —	$ 4,189	$ —	$ 2,273
Foreign exchange hedges	**(627)**	**—**	1,442	—	337	—
Commodity hedges	**(3,983)**	**—**	(164)	—	(33)	—
Total gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges	**$(4,610)**	**$(5,425)**	$ 1,278	$ 4,189	$ 304	$ 2,273
Gain (loss) on the hedged item in designated and qualifying fair value hedges						
Interest rate hedges	**$ —**	**$ 5,043**	$ —	$(4,537)	$ —	$(2,085)
Foreign exchange hedges	**628**	**—**	(1,442)	—	(337)	—
Commodity hedges	**3,973**	**—**	164	—	33	—
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	**$ 4,601**	**$ 5,043**	$(1,278)	$(4,537)	$ (304)	$(2,085)
Net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges						
Interest rate hedges	**$ —**	**$ (9)**	$ —	$ (23)	$ —	$ 3
Foreign exchange hedges[2]	**79**	**—**	(73)	—	(109)	—
Commodity hedges	**5**	**—**	131	—	41	—
Total net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges	**$ 84**	**$ (9)**	$ 58	$ (23)	$ (68)	$ 3

(1) Gain (loss) amounts for interest rate risk hedges are included in *Interest revenue/Interest expense*. The accrued interest income on fair value hedges is recorded in *Net interest income* and is excluded from this table.
(2) Amounts relate to the premium associated with forward contracts (differential between spot and contractual forward rates) that are excluded from the assessment of hedge effectiveness and are generally reflected directly in earnings. Amounts related to cross-currency basis, which are recognized in *AOCI*, are not reflected in the table above. The amount of cross-currency basis included in *AOCI* was $2 million and $(23) million for the years ended December 31, 2021 and 2020, respectively.

Cumulative Basis Adjustment

Upon electing to apply ASC 815 fair value hedge accounting, the carrying value of the hedged item is adjusted to reflect the cumulative changes in the hedged risk. This cumulative hedge basis adjustment becomes part of the carrying value of the hedged item until the hedged item is derecognized from the balance sheet. The table below presents the carrying amount of Citi's hedged assets and liabilities under qualifying fair value hedges at December 31, 2021 and 2020, along with the cumulative hedge basis adjustments included in the carrying value of those hedged assets and liabilities, that would reverse through earnings in future periods.

In millions of dollars

Balance sheet line item in which hedged item is recorded	Carrying amount of hedged asset/ liability	Cumulative fair value hedging adjustment increasing (decreasing) the carrying amount	
		Active	De-designated
As of December 31, 2021			
Debt securities AFS[(1)(3)]	**$ 62,733**	**$ 149**	**$ 212**
Long-term debt	**149,305**	**623**	**3,936**
As of December 31, 2020			
Debt securities AFS[(2)(3)]	$ 81,082	$ 28	$ 342
Long-term debt	169,026	5,554	4,989

(1) These amounts include a cumulative basis adjustment of $24 million for active hedges and $(92) million for de-designated hedges as of December 31, 2021, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $6 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $25 billion as of December 31, 2021) in a last-of-layer hedging relationship.

(2) These amounts include a cumulative basis adjustment of $(18) million for active hedges and $62 million for de-designated hedges as of December 31, 2020, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $3 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $19 billion as of December 31, 2020) in a last-of-layer hedging relationship.

(3) Carrying amount represents the amortized cost.

Cash Flow Hedges

Citigroup hedges the variability of forecasted cash flows due to changes in contractually specified interest rates associated with floating-rate assets/liabilities and other forecasted transactions. Variable cash flows from those liabilities are synthetically converted to fixed-rate cash flows by entering into receive-variable, pay-fixed interest rate swaps and receive-variable, pay-fixed forward-starting interest rate swaps. Variable cash flows associated with certain assets are synthetically converted to fixed-rate cash flows by entering into receive-fixed, pay-variable interest rate swaps. These cash flow hedging relationships use either regression analysis or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

Citigroup hedges the variability from changes in a contractually specified rate and recognizes the entire change in fair value of the cash flow hedging instruments in *AOCI*. The full change in the value of the hedging instrument is required to be recognized in *AOCI*, and then recognized in earnings in the same period that the cash flows impact earnings. The pretax change in *AOCI* from cash flow hedges is presented below:

In millions of dollars	**2021**		2020		2019	
Amount of gain (loss) recognized in *AOCI* on derivatives						
Interest rate contracts		**$ (847)**		$2,670		$ 746
Foreign exchange contracts		**(51)**		(15)		(17)
Total gain (loss) recognized in *AOCI*		**$ (898)**		$2,655		$ 729
	Other revenue	**Net interest income**	Other revenue	Net interest income	Other revenue	Net interest income
Amount of gain (loss) reclassified from *AOCI* to earnings(1)						
Interest rate contracts	**$ —**	**$ 1,075**	$ —	$ 734	$ —	$ (384)
Foreign exchange contracts	**(4)**	**—**	(4)	—	(7)	—
Total gain (loss) reclassified from *AOCI* into earnings	**$ (4)**	**$ 1,075**	$ (4)	$ 734	$ (7)	$ (384)
Net pretax change in cash flow hedges included within *AOCI*		**$(1,969)**		$1,925		$1,120

(1) All amounts reclassified into earnings for interest rate contracts are included in *Interest revenue/Interest expense (Net interest income)*. For all other hedges, the amounts reclassified to earnings are included primarily in *Other revenue* and *Net interest income* in the Consolidated Statement of Income.

For cash flow hedges, the entire change in the fair value of the hedging derivative is recognized in *AOCI* and then reclassified to earnings in the same period that the forecasted hedged cash flows impact earnings. The net gain (loss) associated with cash flow hedges expected to be reclassified from *AOCI* within 12 months of December 31, 2021 is approximately $614 million. The maximum length of time over which forecasted cash flows are hedged is 10 years.

The after-tax impact of cash flow hedges on *AOCI* is shown in Note 19 to the Consolidated Financial Statements.

Net Investment Hedges

Consistent with ASC 830-20, *Foreign Currency Matters—Foreign Currency Transactions*, ASC 815 allows the hedging of the foreign currency risk of a net investment in a foreign operation. Citigroup uses foreign currency forwards, cross-currency swaps, options and foreign currency-denominated debt instruments to manage the foreign exchange risk associated with Citigroup's equity investments in several non-U.S.-dollar-functional-currency foreign subsidiaries. Citigroup records the change in the carrying amount of these investments in *Foreign currency translation adjustment* within *AOCI*. Simultaneously, the effective portion of the hedge of this exposure is also recorded in *Foreign currency translation adjustment* and any ineffective portion is immediately recorded in earnings.

For derivatives designated as net investment hedges, Citigroup follows the forward-rate method outlined in ASC 815-35-35. According to that method, all changes in fair value, including changes related to the forward-rate component of the foreign currency forward contracts and the time value of foreign currency options, are recorded in *Foreign currency translation adjustment* within *AOCI*.

For foreign currency-denominated debt instruments that are designated as hedges of net investments, the translation gain or loss that is recorded in *Foreign currency translation adjustment* is based on the spot exchange rate between the functional currency of the respective subsidiary and the U.S. dollar, which is the functional currency of Citigroup. To the extent that the notional amount of the hedging instrument exactly matches the hedged net investment, and the underlying exchange rate of the derivative hedging instrument relates to the exchange rate between the functional currency of the net investment and Citigroup's functional currency (or, in the case of a non-derivative debt instrument, such instrument is denominated in the functional currency of the net investment), no ineffectiveness is recorded in earnings.

The pretax gain (loss) recorded in *Foreign currency translation adjustment* within *AOCI*, related to net investment hedges, was $855 million, $(600) million and $(569) million for the years ended December 31, 2021, 2020 and 2019, respectively.

Economic Hedges

Citigroup often uses economic hedges when hedge accounting would be too complex or operationally burdensome. End-user derivatives that are economic hedges are carried at fair value, with changes in value included in either *Principal transactions* or *Other revenue*.

For asset/liability management hedging, fixed-rate long-term debt is recorded at amortized cost under GAAP.

For other hedges that either do not meet the ASC 815 hedging criteria or for which management decides not to apply ASC 815 hedge accounting, the derivative is recorded at fair value on the balance sheet with the associated changes in fair value recorded in earnings, while the debt continues to be carried at amortized cost. Therefore, current earnings are affected by the interest rate shifts and other factors that cause a change in the swap's value, but for which no offsetting change in value is recorded on the debt.

Citigroup may alternatively elect to account for the debt at fair value under the fair value option. Once the irrevocable election is made upon issuance of the debt, the full change in fair value of the debt is reported in earnings. The changes in fair value of the related interest rate swap are also reflected in earnings, which provides a natural offset to the debt's fair value change. To the extent that the two amounts differ because the full change in the fair value of the debt includes risks not offset by the interest rate swap, the difference is automatically captured in current earnings.

Additional economic hedges include hedges of the credit risk component of commercial loans and loan commitments. Citigroup periodically evaluates its hedging strategies in other areas and may designate either an accounting hedge or an economic hedge after considering the relative costs and benefits. Economic hedges are also employed when the hedged item itself is marked to market through current earnings, such as hedges of commitments to originate one- to four-family mortgage loans to be HFS and MSRs.

Credit Derivatives

Citi is a market maker and trades a range of credit derivatives. Through these contracts, Citi either purchases or writes protection on either a single name or a portfolio of reference credits. Citi also uses credit derivatives to help mitigate credit risk in its corporate and consumer loan portfolios and other cash positions and to facilitate client transactions.

Citi monitors its counterparty credit risk in credit derivative contracts. As of December 31, 2021 and 2020, approximately 99% and 97%, respectively, of the gross receivables are from counterparties with which Citi maintains master netting agreements, collateral agreements or settles daily. A majority of Citi's top 15 counterparties (by receivable balance owed to Citi) are central clearing houses, banks, financial institutions or other dealers. Contracts with these counterparties do not include ratings-based termination events. However, counterparty ratings downgrades may have an incremental effect by lowering the threshold at which Citi may call for additional collateral.

The range of credit derivatives entered into includes credit default swaps, total return swaps, credit options and credit-linked notes.

A credit default swap is a contract in which, for a fee, a protection seller agrees to reimburse a protection buyer for any losses that occur due to a predefined credit event on a reference entity. These credit events are defined by the terms of the derivative contract and the reference entity and are generally limited to the market standard of failure to pay on indebtedness and bankruptcy of the reference entity and, in a more limited range of transactions, debt restructuring. Credit derivative transactions that reference emerging market entities also typically include additional credit events to cover the acceleration of indebtedness and the risk of repudiation or a payment moratorium. In certain transactions, protection may be provided on a portfolio of reference entities or asset-backed securities. If there is no credit event, as defined by the specific derivative contract, then the protection seller makes no payments to the protection buyer and receives only the contractually specified fee. However, if a credit event occurs as defined in the specific derivative contract sold, the protection seller will be required to make a payment to the protection buyer. Under certain contracts, the seller of protection may not be required to make a payment until a specified amount of losses has occurred with respect to the portfolio and/or may only be required to pay for losses up to a specified amount.

A total return swap typically transfers the total economic performance of a reference asset, which includes all associated cash flows, as well as capital appreciation or depreciation. The protection buyer receives a floating rate of interest and any depreciation on the reference asset from the protection seller and, in return, the protection seller receives the cash flows associated with the reference asset plus any appreciation. Thus, according to the total return swap agreement, the protection seller will be obligated to make a payment any time the floating interest rate payment plus any depreciation of the reference asset exceeds the cash flows associated with the underlying asset. A total return swap may terminate upon a default of the reference asset or a credit event with respect to the reference entity, subject to the provisions of the related total return swap agreement between the protection seller and the protection buyer.

A credit option is a credit derivative that allows investors to trade or hedge changes in the credit quality of a reference entity. For example, in a credit spread option, the option writer assumes the obligation to purchase or sell credit protection on the reference entity at a specified "strike" spread level. The option purchaser buys the right to sell credit default protection on the reference entity to, or purchase it from, the option writer at the strike spread level. The payments on credit spread options depend either on a particular credit spread or the price of the underlying credit-sensitive asset or other reference entity. The options usually terminate if a credit event occurs with respect to the underlying reference entity.

A credit-linked note is a form of credit derivative structured as a debt security with an embedded credit default swap. The purchaser of the note effectively provides credit protection to the issuer by agreeing to receive a return that could be negatively affected by credit events on the underlying reference entity. If the reference entity defaults, the note may be cash settled or physically settled by delivery of a debt security of the reference entity. Thus, the maximum amount of the note purchaser's exposure is the amount paid for the credit-linked note.

The following tables summarize the key characteristics of Citi's credit derivatives portfolio by counterparty and derivative form:

	Fair values		Notionals	
In millions of dollars at December 31, 2021	**Receivable[(1)]**	**Payable[(2)]**	**Protection purchased**	**Protection sold**
By industry of counterparty				
Banks	**$ 2,375**	**$ 3,031**	**$108,415**	**$103,756**
Broker-dealers	**1,962**	**1,139**	**44,364**	**40,068**
Non-financial	**113**	**306**	**2,785**	**2,728**
Insurance and other financial institutions	**5,768**	**6,539**	**490,432**	**425,934**
Total by industry of counterparty	**$10,218**	**$11,015**	**$645,996**	**$572,486**
By instrument				
Credit default swaps and options	**$ 9,923**	**$10,234**	**$628,136**	**$565,131**
Total return swaps and other	**295**	**781**	**17,860**	**7,355**
Total by instrument	**$10,218**	**$11,015**	**$645,996**	**$572,486**
By rating of reference entity				
Investment grade	**$ 4,149**	**$ 4,258**	**$511,652**	**$448,944**
Non-investment grade	**6,069**	**6,757**	**134,344**	**123,542**
Total by rating of reference entity	**$10,218**	**$11,015**	**$645,996**	**$572,486**
By maturity				
Within 1 year	**$ 878**	**$ 1,462**	**$133,866**	**$115,603**
From 1 to 5 years	**6,674**	**6,638**	**454,617**	**413,174**
After 5 years	**2,666**	**2,915**	**57,513**	**43,709**
Total by maturity	**$10,218**	**$11,015**	**$645,996**	**$572,486**

(1) The fair value amount receivable is composed of $3,705 million under protection purchased and $6,513 million under protection sold.
(2) The fair value amount payable is composed of $7,354 million under protection purchased and $3,661 million under protection sold.

	Fair values		Notionals	
In millions of dollars at December 31, 2020	Receivable[(1)]	Payable[(2)]	Protection purchased	Protection sold
By industry of counterparty				
Banks	$ 2,902	$ 3,187	$117,685	$120,739
Broker-dealers	1,770	1,215	46,928	44,692
Non-financial	109	90	5,740	2,217
Insurance and other financial institutions	5,008	5,637	442,417	375,959
Total by industry of counterparty	$ 9,789	$10,129	$612,770	$543,607
By instrument				
Credit default swaps and options	$ 9,254	$ 9,254	$599,633	$538,426
Total return swaps and other	535	875	13,137	5,181
Total by instrument	$ 9,789	$10,129	$612,770	$543,607
By rating of reference entity				
Investment grade	$ 4,136	$ 4,037	$478,643	$418,147
Non-investment grade	5,653	6,092	134,127	125,460
Total by rating of reference entity	$ 9,789	$10,129	$612,770	$543,607
By maturity				
Within 1 year	$ 914	$ 1,355	$134,080	$125,464
From 1 to 5 years	6,022	5,991	421,682	374,376
After 5 years	2,853	2,783	57,008	43,767
Total by maturity	$ 9,789	$10,129	$612,770	$543,607

(1) The fair value amount receivable is composed of $3,514 million under protection purchased and $6,275 million under protection sold.
(2) The fair value amount payable is composed of $7,037 million under protection purchased and $3,092 million under protection sold.

Fair values included in the above tables are prior to application of any netting agreements and cash collateral. For notional amounts, Citi generally has a mismatch between the total notional amounts of protection purchased and sold, and it may hold the reference assets directly rather than entering into offsetting credit derivative contracts as and when desired. The open risk exposures from credit derivative contracts are largely matched after certain cash positions in reference assets are considered and after notional amounts are adjusted, either to a duration-based equivalent basis or to reflect the level of subordination in tranched structures. The ratings of the credit derivatives portfolio presented in the tables and used to evaluate payment/performance risk are based on the assigned internal or external ratings of the reference asset or entity. Where external ratings are used, investment-grade ratings are considered to be "Baa/BBB" and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system.

Citigroup evaluates the payment/performance risk of the credit derivatives for which it stands as a protection seller based on the credit rating assigned to the underlying reference credit. Credit derivatives written on an underlying non-investment-grade reference entity represent greater payment risk to the Company. The non-investment-grade category in the table above also includes credit derivatives where the underlying reference entity has been downgraded subsequent to the inception of the derivative.

The maximum potential amount of future payments under credit derivative contracts presented in the table above is based on the notional value of the derivatives. The Company believes that the notional amount for credit protection sold is not representative of the actual loss exposure based on historical experience. This amount has not been reduced by the value of the reference assets and the related cash flows. In accordance with most credit derivative contracts, should a credit event occur, the Company usually is liable for the difference between the protection sold and the value of the reference assets. Furthermore, the notional amount for credit protection sold has not been reduced for any cash collateral paid to a given counterparty, as such payments would be calculated after netting all derivative exposures, including any credit derivatives with that counterparty in accordance with a related master netting agreement. Due to such netting processes, determining the amount of collateral that corresponds to credit derivative exposures alone is not possible. The Company actively monitors open credit-risk exposures and manages this exposure by using a variety of strategies, including purchased credit derivatives, cash collateral or direct holdings of the referenced assets. This risk mitigation activity is not captured in the table above.

Credit Risk-Related Contingent Features in Derivatives

Certain derivative instruments contain provisions that require the Company to either post additional collateral or immediately settle any outstanding liability balances upon the occurrence of a specified event related to the credit risk of the Company. These events, which are defined by the existing derivative contracts, are primarily downgrades in the credit ratings of the Company and its affiliates.

The fair value (excluding CVA) of all derivative instruments with credit risk-related contingent features that were in a net liability position at December 31, 2021 and 2020 was $19 billion and $25 billion, respectively. The Company posted $16 billion and $22 billion as collateral for this exposure in the normal course of business as of December 31, 2021 and 2020, respectively.

A downgrade could trigger additional collateral or cash settlement requirements for the Company and certain affiliates. In the event that Citigroup and Citibank were downgraded a single notch by all three major rating agencies as of December 31, 2021, the Company could be required to post an additional $1.3 billion as either collateral or settlement of the derivative transactions. In addition, the Company could be required to segregate with third-party custodians collateral previously received from existing derivative counterparties in the amount of $0.1 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately $1.4 billion.

Derivatives Accompanied by Financial Asset Transfers

The Company executes total return swaps that provide it with synthetic exposure to substantially all of the economic return of the securities or other financial assets referenced in the contract. In certain cases, the derivative transaction is accompanied by the Company's transfer of the referenced financial asset to the derivative counterparty, most typically in response to the derivative counterparty's desire to hedge, in whole or in part, its synthetic exposure under the derivative contract by holding the referenced asset in funded form. In certain jurisdictions these transactions qualify as sales, resulting in derecognition of the securities transferred (see Note 1 to the Consolidated Financial Statements for further discussion of the related sale conditions for transfers of financial assets). For a significant portion of the transactions, the Company has also executed another total return swap where the Company passes on substantially all of the economic return of the referenced securities to a different third party seeking the exposure. In those cases, the Company is not exposed, on a net basis, to changes in the economic return of the referenced securities.

These transactions generally involve the transfer of the Company's liquid government bonds, convertible bonds or publicly traded corporate equity securities from the trading portfolio and are executed with third-party financial institutions. The accompanying derivatives are typically total return swaps. The derivatives are cash settled and subject to ongoing margin requirements.

When the conditions for sale accounting are met, the Company reports the transfer of the referenced financial asset as a sale and separately reports the accompanying derivative transaction. These transactions generally do not result in a gain or loss on the sale of the security, because the transferred security was held at fair value in the Company's trading portfolio. For transfers of financial assets accounted for as a sale by the Company, and for which the Company has retained substantially all of the economic exposure to the transferred asset through a total return swap executed with the same counterparty in contemplation of the initial sale (and still outstanding), both the asset amounts derecognized and the gross cash proceeds received as of the date of derecognition were $2.9 billion and $2.0 billion as of December 31, 2021 and 2020, respectively.

At December 31, 2021, the fair value of these previously derecognized assets was $2.9 billion. The fair value of the total return swaps as of December 31, 2021 was $13 million recorded as gross derivative assets and $58 million recorded as gross derivative liabilities. At December 31, 2020, the fair value of these previously derecognized assets was $2.2 billion, and the fair value of the total return swaps was $135 million recorded as gross derivative assets and $7 million recorded as gross derivative liabilities.

The balances for the total return swaps are on a gross basis, before the application of counterparty and cash collateral netting, and are included primarily as equity derivatives in the tabular disclosures in this Note.

23. CONCENTRATIONS OF CREDIT RISK

Concentrations of credit risk exist when changes in economic, industry or geographic factors similarly affect groups of counterparties whose aggregate credit exposure is material in relation to Citigroup's total credit exposure. Although Citigroup's portfolio of financial instruments is broadly diversified along industry, product and geographic lines, material transactions are completed with other financial institutions, particularly in the securities trading, derivatives and foreign exchange businesses.

In connection with the Company's efforts to maintain a diversified portfolio, the Company limits its exposure to any one geographic region, country or individual creditor and monitors this exposure on a continuous basis. At December 31, 2021, Citigroup's most significant concentration of credit risk was with the U.S. government and its agencies. The Company's exposure, which primarily results from trading assets and investments issued by the U.S. government and its agencies, amounted to $414.5 billion and $370.1 billion at December 31, 2021 and 2020, respectively. The German, United Kingdom and Japanese governments and their agencies, which are rated investment grade by both Moody's and S&P, were the next largest exposures. The Company's exposure to Germany amounted to $48.9 billion and $51.8 billion at December 31, 2021 and 2020, respectively. The Company's exposure to the United Kingdom amounted to $31.1 billion and $26.0 billion at December 31, 2021 and 2020, respectively. The Company's exposure to Japan amounted to $30.1 billion and $35.5 billion at December 31, 2021 and 2020, respectively. The foreign government exposures are composed of investment securities, loans and trading assets.

The Company's exposure to states and municipalities amounted to $22.0 billion and $26.1 billion at December 31, 2021 and 2020, respectively, and was composed of trading assets, investment securities, derivatives and lending activities.

24. FAIR VALUE MEASUREMENT

ASC 820-10, *Fair Value Measurement*, defines fair value, establishes a consistent framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, and therefore represents an exit price. Among other things, the standard requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

Under ASC 820-10, the probability of counterparty default is factored into the valuation of derivative and other positions, and the impact of Citigroup's own credit risk is also factored into the valuation of derivatives and other liabilities that are measured at fair value.

Fair Value Hierarchy

ASC 820-10 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs are developed using market data and reflect market participant assumptions, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for *identical* instruments in active markets.
- Level 2: Quoted prices for *similar* instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations in which all significant inputs and significant value drivers are *observable* in the market.
- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are *unobservable*.

As required under the fair value hierarchy, the Company considers relevant and observable market inputs in its valuations where possible.

The fair value hierarchy classification approach typically utilizes rules-based and data driven selection criteria to determine whether an instrument is classified as Level 1, Level 2, or Level 3:

- The determination of whether an instrument is quoted in an active market and therefore considered a Level 1 instrument is based upon the frequency of observed transactions and the quality of independent market data available on the measurement date.
- A Level 2 classification is assigned where there is observability of prices / market inputs to models, or where any unobservable inputs are not significant to the valuation. The determination of whether an input is considered observable is based on the availability of independent market data and its corroboration, for example through observed transactions in the market.
- Otherwise, an instrument is classified as Level 3.

Determination of Fair Value

For assets and liabilities carried at fair value, the Company measures fair value using the procedures set out below, irrespective of whether the assets and liabilities are measured at fair value as a result of an election, a non-recurring lower-of-cost-or-market (LOCOM) adjustment, or because they are required to be measured at fair value.

When available, the Company uses quoted market prices from active markets to determine fair value and classifies such items as Level 1. In some specific cases where a market price is available, the Company will apply practical expedients (such as matrix pricing) to calculate fair value, in which case the items may be classified as Level 2.

The Company may also apply a price-based methodology that utilizes, where available, quoted prices or other market information obtained from recent trading activity in positions with the same or similar characteristics to the position being valued. If relevant and observable prices are available, those valuations may be classified as Level 2. However, when there are one or more significant unobservable "price" inputs, those valuations will be classified as Level 3. Furthermore, when a quoted price is considered stale, a significant adjustment to the price of a similar security may be necessary to reflect differences in the terms of the actual security or loan being valued, or alternatively, when prices from independent sources may be insufficient to corroborate a valuation, the "price" inputs are considered unobservable and the fair value measurements are classified as Level 3.

If quoted market prices are not available, fair value is based upon internally developed valuation techniques that use, where possible, current market-based parameters, such as interest rates, currency rates and option volatilities. Items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified as Level 3 even though there may be some significant inputs that are readily observable.

Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendors' and brokers' valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models, and the Company assesses the quality and relevance of this information in determining the estimate of fair value. The following section describes the valuation methodologies used by the Company to measure various financial instruments at fair value. Where appropriate, the description includes details of the valuation models, the key inputs to those models and any significant assumptions.

Market Valuation Adjustments

Generally, the unit of account for a financial instrument is the individual financial instrument. The Company applies market valuation adjustments that are consistent with the unit of account, which does not include adjustment due to the size of the Company's position, except as follows. ASC 820-10 permits an exception, through an accounting policy election, to measure the fair value of a portfolio of financial assets and financial liabilities on the basis of the net open risk position when certain criteria are met. Citi has elected to measure certain portfolios of financial instruments that meet those criteria, such as derivatives, on the basis of the net open risk position. The Company applies market valuation adjustments, including adjustments to account for the size of the net open risk position, consistent with market participant assumptions.

Valuation adjustments are applied to items classified as Level 2 or Level 3 in the fair value hierarchy to ensure that the fair value reflects the price at which the net open risk position could be exited. These valuation adjustments are based on the bid/offer spread for an instrument in the market. When Citi has elected to measure certain portfolios of financial investments, such as derivatives, on the basis of the net open risk position, the valuation adjustment may take into account the size of the position.

Credit valuation adjustments (CVA) and funding valuation adjustments (FVA) are applied to the relevant population of over-the-counter (OTC) derivative instruments where adjustments to reflect counterparty credit risk, own credit risk and term funding risk are required to estimate fair value. This principally includes derivatives with a base valuation (e.g., discounted using overnight indexed swap (OIS)) requiring adjustment for these effects, such as uncollateralized interest rate swaps. The CVA represents a portfolio-level adjustment to reflect the risk premium associated with the counterparty's (assets) or Citi's (liabilities) non-performance risk.

The FVA represents a market funding risk premium inherent in the uncollateralized portion of a derivative portfolio and in certain collateralized derivative portfolios that do not include standard credit support annexes (CSAs), such as where the CSA does not permit the reuse of collateral received. Citi's FVA methodology leverages the existing CVA methodology to estimate a funding exposure profile. The calculation of this exposure profile considers collateral agreements in which the terms do not permit the Company to reuse the collateral received, including where counterparties post collateral to third-party custodians. Citi's CVA and FVA methodologies consist of two steps:

- First, the exposure profile for each counterparty is determined using the terms of all individual derivative positions and a Monte Carlo simulation or other quantitative analysis to generate a series of expected cash flows at future points in time. The calculation of this exposure profile considers the effect of credit risk mitigants and sources of funding, including pledged cash or other collateral and any legal right of offset that exists with a counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated as a netting set for this purpose, since it is those aggregate net cash flows that are subject to nonperformance risk. This process identifies specific, point-in-time future cash flows that are subject to nonperformance and term funding risk, rather than using the current recognized net asset or liability as a basis to measure the CVA and FVA.
- Second, for CVA, market-based views of default probabilities derived from observed credit spreads in the credit default swap (CDS) market are applied to the expected future cash flows determined in step one. Citi's own credit CVA is determined using Citi-specific CDS spreads for the relevant tenor. Generally, counterparty CVA is determined using CDS spread indices for each credit rating and tenor. For certain identified netting sets where individual analysis is practicable (e.g., exposures to counterparties with liquid CDSs), counterparty-specific CDS spreads are used. For FVA, a term structure of spreads is applied to the expected funding exposures (e.g., the market liquidity spread used to represent the term funding premium associated with certain OTC derivatives).

The CVA and FVA are designed to incorporate a market view of the credit and funding risk, respectively, inherent in the derivative portfolio. However, most unsecured derivative instruments are negotiated bilateral contracts and are not commonly transferred to third parties. Derivative instruments are normally settled contractually or, if terminated early, are terminated at a value negotiated bilaterally between the counterparties. Thus, the CVA and FVA may not be realized upon a settlement or termination in the normal course of business. In addition, all or a portion of these adjustments may be reversed or otherwise adjusted in future periods in the event of changes in the credit or funding risk associated with the derivative instruments.

The table below summarizes the CVA and FVA applied to the fair value of derivative instruments at December 31, 2021 and 2020:

	Credit and funding valuation adjustments contra-liability (contra-asset)	
In millions of dollars	**December 31, 2021**	December 31, 2020
Counterparty CVA	**$(705)**	$(800)
Asset FVA	**(433)**	(525)
Citigroup (own credit) CVA	**379**	403
Liability FVA	**110**	67
Total CVA and FVA —derivative instruments	**$(649)**	$(855)

The table below summarizes pretax gains (losses) related to changes in CVA on derivative instruments, net of hedges, FVA on derivatives and debt valuation adjustments (DVA) on Citi's own fair value option (FVO) liabilities for the years indicated:

	Credit/funding/debt valuation adjustments gain (loss)		
In millions of dollars	**2021**	2020	2019
Counterparty CVA	**$ 79**	$ (101)	$ 149
Asset FVA	**96**	(95)	13
Own credit CVA	**(33)**	133	(131)
Liability FVA	**(22)**	(6)	(63)
Total CVA and FVA —derivative instruments	**$ 120**	$ (69)	$ (32)
DVA related to own FVO liabilities(1)	**$ 296**	$ (616)	$(1,473)
Total CVA, FVA and FVO DVA	**$ 416**	$ (685)	$(1,505)

(1) See Notes 1, 17 and 19 to the Consolidated Financial Statements.

Securities Purchased Under Agreements to Resell and Securities Sold Under Agreements to Repurchase

No quoted prices exist for these instruments, since fair value is determined using a discounted cash flow technique. Cash flows are estimated based on the terms of the contract, taking into account any embedded derivative or other features. These cash flows are discounted using interest rates appropriate to the maturity of the instrument as well as the nature of the underlying collateral. Generally, when such instruments are recorded at fair value, they are classified within Level 2 of the fair value hierarchy, as the inputs used in the valuation are readily observable. However, certain long-dated positions are classified within Level 3 of the fair value hierarchy.

Trading Account Assets and Liabilities—Trading Securities and Trading Loans

When available, the Company uses quoted market prices in active markets to determine the fair value of trading securities; such items are classified as Level 1 of the fair value hierarchy. Examples include government securities and exchange-traded equity securities.

For bonds and secondary market loans traded over the counter, the Company generally determines fair value utilizing various valuation techniques, including discounted cash flows, price-based and internal models. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors. A price-based methodology utilizes, where available, quoted prices or other market information obtained from recent trading activity of assets with similar characteristics to the bond or loan being valued. The yields used in discounted cash flow models are derived from the same price information. Trading securities and loans priced using such methods are generally classified as Level 2. However, when the primary inputs to the valuation are unobservable, or prices from independent sources are insufficient to corroborate valuation, a loan or security is generally classified as Level 3. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors.

When the Company's principal exit market for a portfolio of loans is through securitization, the Company uses the securitization price as a key input into the fair value of the loan portfolio. The securitization price is determined from the assumed proceeds of a hypothetical securitization within the current market environment. Where such a price verification is possible, loan portfolios are typically classified as Level 2 in the fair value hierarchy.

For most of the subprime mortgage backed security (MBS) exposures, fair value is determined utilizing observable transactions where available, or other valuation techniques such as discounted cash flow analysis utilizing valuation assumptions derived from similar, more observable securities as market proxies. The valuation of certain asset-backed security (ABS) CDO positions is inferred through the net asset value of the underlying assets of the ABS CDO.

Trading Account Assets and Liabilities—Derivatives

Exchange-traded derivatives, measured at fair value using quoted (i.e., exchange) prices in active markets, where available, are classified as Level 1 of the fair value hierarchy.

Derivatives without a quoted price in an active market and derivatives executed over the counter are valued using internal valuation techniques. These derivative instruments are classified as either Level 2 or Level 3 depending on the observability of the significant inputs to the model.

The valuation techniques depend on the type of derivative and the nature of the underlying instrument. The principal techniques used to value these instruments are discounted cash flows and internal models, such as derivative pricing models (e.g., Black-Scholes and Monte Carlo simulations).

The key inputs depend upon the type of derivative and the nature of the underlying instrument and include interest rate yield curves, foreign exchange rates, volatilities and correlation.

Investments

The investments category includes available-for-sale debt and marketable equity securities whose fair values are generally determined by utilizing similar procedures described for trading securities above or, in some cases, using vendor pricing as the primary source.

Also included in investments are nonpublic investments in private equity and real estate entities. Determining the fair value of nonpublic securities involves a significant degree of management's judgment, as no quoted prices exist and such securities are not generally traded. In addition, there may be transfer restrictions on private equity securities. The Company's process for determining the fair value of such securities utilizes commonly accepted valuation techniques, including guideline public company analysis and comparable transactions. In determining the fair value of nonpublic securities, the Company also considers events such as a proposed sale of the investee company, initial public offerings, equity issuances or other observable transactions. Private equity securities are generally classified as Level 3 of the fair value hierarchy.

In addition, the Company holds investments in certain alternative investment funds that calculate NAV per share, including hedge funds, private equity funds and real estate funds. Investments in funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV per share of the Company's ownership interest in the funds where it is not probable that the investment will be realized at a price other than the NAV. Consistent with the provisions of ASU 2015-07, these investments are categorized within the fair value hierarchy and are not included in the tables below. See Note 13 to the Consolidated Financial Statements for additional information.

Short-Term Borrowings and Long-Term Debt

Where fair value accounting has been elected, the fair value of non-structured liabilities is determined by utilizing internal models using the appropriate discount rate for the applicable maturity. Such instruments are classified as Level 2 of the fair value hierarchy when all significant inputs are readily observable.

The Company determines the fair value of hybrid financial instruments, including structured liabilities, using the appropriate derivative valuation methodology (described above in "Trading Account Assets and Liabilities—Derivatives") given the nature of the embedded risk profile. Such instruments are classified as Level 2 or Level 3 depending on the observability of significant inputs to the model.

Items Measured at Fair Value on a Recurring Basis

The following tables present for each of the fair value hierarchy levels the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31, 2021 and 2020. The Company may hedge positions that have been classified in the Level 3 category with other financial instruments (hedging instruments) that may be classified as Level 3, but also with financial instruments classified as Level 1 or Level 2. The effects of these hedges are presented gross in the following tables:

Fair Value Levels

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$342,030	$ 231	$342,261	$(125,795)	$216,466
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	34,534	496	35,030	—	35,030
Residential	1	643	104	748	—	748
Commercial	—	778	81	859	—	859
Total trading mortgage-backed securities	$ 1	$ 35,955	$ 681	$ 36,637	$ —	$ 36,637
U.S. Treasury and federal agency securities	$ 44,900	$ 3,230	$ 4	$ 48,134	$ —	$ 48,134
State and municipal	—	1,995	37	2,032	—	2,032
Foreign government	39,176	31,485	23	70,684	—	70,684
Corporate	1,544	16,156	412	18,112	—	18,112
Equity securities	53,833	10,047	174	64,054	—	64,054
Asset-backed securities	—	981	613	1,594	—	1,594
Other trading assets[2]	—	20,346	576	20,922	—	20,922
Total trading non-derivative assets	$139,454	$120,195	$ 2,520	$262,169	$ —	$262,169
Trading derivatives						
Interest rate contracts	$ 90	$161,500	$ 3,898	$165,488		
Foreign exchange contracts	—	134,912	637	135,549		
Equity contracts	41	43,904	1,307	45,252		
Commodity contracts	—	28,547	1,797	30,344		
Credit derivatives	—	9,299	919	10,218		
Total trading derivatives—before netting and collateral	$ 131	$378,162	$ 8,558	$386,851		
Netting agreements					$(292,628)	
Netting of cash collateral received[3]					(24,447)	
Total trading derivatives—after netting and collateral	$ 131	$378,162	$ 8,558	$386,851	$(317,075)	$ 69,776
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 33,165	$ 51	$ 33,216	$ —	$ 33,216
Residential	—	286	94	380	—	380
Commercial	—	25	—	25	—	25
Total investment mortgage-backed securities	$ —	$ 33,476	$ 145	$ 33,621	$ —	$ 33,621
U.S. Treasury and federal agency securities	$122,271	$ 168	$ 1	$122,440	$ —	$122,440
State and municipal	—	1,849	772	2,621	—	2,621
Foreign government	56,842	61,112	786	118,740	—	118,740
Corporate	2,861	2,871	188	5,920	—	5,920
Marketable equity securities	350	177	16	543	—	543
Asset-backed securities	—	300	3	303	—	303
Other debt securities	—	4,877	—	4,877	—	4,877
Non-marketable equity securities[4]	—	28	316	344	—	344
Total investments	$182,324	$104,858	$ 2,227	$289,409	$ —	$289,409

Table continues on the next page.

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Loans	$ —	$ 5,371	$ 711	$ 6,082	$ —	$ 6,082
Mortgage servicing rights	—	—	404	404	—	404
Non-trading derivatives and other financial assets measured on a recurring basis	$ 4,075	$ 8,194	$ 73	$ 12,342	$ —	$ 12,342
Total assets	$325,984	$ 958,810	$14,724	$1,299,518	$(442,870)	$856,648
Total as a percentage of gross assets[5]	25.1%	73.8%	1.1%			
Liabilities						
Interest-bearing deposits	$ —	$ 1,483	$ 183	$ 1,666	$ —	$ 1,666
Securities loaned and sold under agreements to repurchase	—	174,318	643	174,961	(118,267)	56,694
Trading account liabilities						
Securities sold, not yet purchased	82,675	23,268	65	106,008	—	106,008
Other trading liabilities	—	5	—	5	—	5
Total trading liabilities	$ 82,675	$ 23,273	$ 65	$ 106,013	$ —	$106,013
Trading derivatives						
Interest rate contracts	$ 56	$ 147,846	$ 2,172	$ 150,074		
Foreign exchange contracts	—	134,572	726	135,298		
Equity contracts	60	46,177	3,447	49,684		
Commodity contracts	—	30,004	1,375	31,379		
Credit derivatives	—	10,065	950	11,015		
Total trading derivatives—before netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450		
Netting agreements					$(292,628)	
Netting of cash collateral paid[3]					(29,306)	
Total trading derivatives—after netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450	$(321,934)	$ 55,516
Short-term borrowings	$ —	$ 7,253	$ 105	$ 7,358	$ —	$ 7,358
Long-term debt	—	57,100	25,509	82,609	—	82,609
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$ 3,574	$ —	$ 1	$ 3,575	$ —	$ 3,575
Total liabilities	$ 86,365	$ 632,091	$35,176	$ 753,632	$(440,201)	$313,431
Total as a percentage of gross liabilities[5]	11.5%	83.9%	4.7%			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 25 to the Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(3) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(4) Amounts exclude $0.1 billion of investments measured at net asset value (NAV) in accordance with ASU No. 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*

(5) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Fair Value Levels

In millions of dollars at December 31, 2020	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 335,073	$ 320	$ 335,393	$(150,189)	$185,204
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	42,903	27	42,930	—	42,930
Residential	—	391	340	731	—	731
Commercial	—	893	136	1,029	—	1,029
Total trading mortgage-backed securities	$ —	$ 44,187	$ 503	$ 44,690	$ —	$ 44,690
U.S. Treasury and federal agency securities	$ 64,529	$ 2,269	$ —	$ 66,798	$ —	$ 66,798
State and municipal	—	1,224	94	1,318	—	1,318
Foreign government	68,195	15,143	51	83,389	—	83,389
Corporate	1,607	18,840	375	20,822	—	20,822
Equity securities	54,117	12,289	73	66,479	—	66,479
Asset-backed securities	—	776	1,606	2,382	—	2,382
Other trading assets[2]	—	11,295	945	12,240	—	12,240
Total trading non-derivative assets	$188,448	$ 106,023	$ 3,647	$ 298,118	$ —	$298,118
Trading derivatives						
Interest rate contracts	$ 42	$ 238,026	$ 3,393	$ 241,461		
Foreign exchange contracts	2	155,994	674	156,670		
Equity contracts	66	48,362	2,091	50,519		
Commodity contracts	—	13,546	992	14,538		
Credit derivatives	—	8,634	1,155	9,789		
Total trading derivatives—before netting and collateral	$ 110	$ 464,562	$ 8,305	$ 472,977		
Netting agreements					$(364,879)	
Netting of cash collateral received[3]					(31,137)	
Total trading derivatives—after netting and collateral	$ 110	$ 464,562	$ 8,305	$ 472,977	$(396,016)	$ 76,961
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 43,888	$ 30	$ 43,918	$ —	$ 43,918
Residential	—	571	—	571	—	571
Commercial	—	50	—	50	—	50
Total investment mortgage-backed securities	$ —	$ 44,509	$ 30	$ 44,539	$ —	$ 44,539
U.S. Treasury and federal agency securities	$146,032	$ 172	$ —	$ 146,204	$ —	$146,204
State and municipal	—	2,885	834	3,719	—	3,719
Foreign government	77,056	47,644	268	124,968	—	124,968
Corporate	6,326	4,114	60	10,500	—	10,500
Marketable equity securities	287	228	—	515	—	515
Asset-backed securities	—	277	1	278	—	278
Other debt securities	—	4,876	—	4,876	—	4,876
Non-marketable equity securities[4]	—	50	349	399	—	399
Total investments	$229,701	$ 104,755	$ 1,542	$ 335,998	$ —	$335,998

Table continues on the next page.

In millions of dollars at December 31, 2020	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Loans	$ —	$ 4,869	$ 1,985	$ 6,854	$ —	$ 6,854
Mortgage servicing rights	—	—	336	336	—	336
Non-trading derivatives and other financial assets measured on a recurring basis	$ 6,230	$ 8,383	$ —	$ 14,613	$ —	$ 14,613
Total assets	$424,489	$1,023,665	$16,135	$1,464,289	$(546,205)	$918,084
Total as a percentage of gross assets[5]	29.0%	69.9%	1.1%			
Liabilities						
Interest-bearing deposits	$ —	$ 1,752	$ 206	$ 1,958	$ —	$ 1,958
Securities loaned and sold under agreements to repurchase	—	156,644	631	157,275	(97,069)	60,206
Trading account liabilities						
Securities sold, not yet purchased	85,353	14,477	214	100,044	—	100,044
Other trading liabilities	—	—	26	26	—	26
Total trading account liabilities	$ 85,353	$ 14,477	$ 240	$ 100,070	$ —	$100,070
Trading derivatives						
Interest rate contracts	$ 25	$ 220,607	$ 1,779	$ 222,411		
Foreign exchange contracts	3	155,441	622	156,066		
Equity contracts	53	58,212	5,304	63,569		
Commodity contracts	—	17,393	700	18,093		
Credit derivatives	—	9,022	1,107	10,129		
Total trading derivatives—before netting and collateral	$ 81	$ 460,675	$ 9,512	$ 470,268		
Netting agreements					$(364,879)	
Netting of cash collateral paid[3]					(37,432)	
Total trading derivatives—after netting and collateral	$ 81	$ 460,675	$ 9,512	$ 470,268	$(402,311)	$ 67,957
Short-term borrowings	$ —	$ 4,464	$ 219	$ 4,683	$ —	$ 4,683
Long-term debt	—	41,853	25,210	67,063	—	67,063
Non-trading derivatives and other financial liabilities measured on a recurring basis	$ 6,762	$ 72	$ 1	$ 6,835	$ —	$ 6,835
Total liabilities	$ 92,196	$ 679,937	$36,019	$ 808,152	$(499,380)	$308,772
Total as a percentage of gross liabilities[5]	11.4%	84.1%	4.5%			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 25 to the Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(3) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(4) Amounts exclude $0.2 billion of investments measured at NAV in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*

(5) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the years ended December 31, 2021 and 2020. The gains and losses presented below include changes in the fair value related to both observable and unobservable inputs.

The Company often hedges positions with offsetting positions that are classified in a different level. For example, the gains and losses for assets and liabilities in the Level 3 category presented in the tables below do not reflect the effect of offsetting losses and gains on hedging instruments that may be classified in the Level 1 and Level 2 categories. In addition, the Company hedges items classified in the Level 3 category with instruments also classified in Level 3 of the fair value hierarchy. The hedged items and related hedges are presented gross in the following tables:

Level 3 Fair Value Rollforward

		Net realized/unrealized gains (losses) included in[1]		Transfers							Unrealized gains
In millions of dollars	Dec. 31, 2020	Principal transactions	Other[1][2]	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2021	(losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 320	$ (36)	$ —	$ 45	$ (49)	$ 362	$ —	$ —	$ (411)	$ 231	$ —
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	27	8	—	355	(131)	447	—	(210)	—	496	11
Residential	340	25	—	89	(96)	282	—	(536)	—	104	13
Commercial	136	23	—	96	(58)	62	—	(178)	—	81	—
Total trading mortgage-backed securities	$ 503	$ 56	$ —	$ 540	$ (285)	$ 791	$ —	$ (924)	$ —	$ 681	$ 24
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ 4	$ —	$ —	$ —	$ —	$ —	$ 4	$ —
State and municipal	94	(4)	—	20	(29)	17	—	(61)	—	37	(6)
Foreign government	51	29	—	143	(129)	83	—	(154)	—	23	(2)
Corporate	375	74	—	461	(384)	867	—	(981)	—	412	(38)
Equity securities	73	67	—	156	(52)	118	—	(188)	—	174	23
Asset-backed securities	1,606	371	—	173	(297)	1,313	—	(2,553)	—	613	(43)
Other trading assets	945	97	—	158	(457)	980	4	(1,147)	(4)	576	(37)
Total trading non-derivative assets	$ 3,647	$ 690	$ —	$ 1,655	$(1,633)	$4,169	$ 4	$(6,008)	$ (4)	$ 2,520	$ (79)
Trading derivatives, net[4]											
Interest rate contracts	$ 1,614	$ (376)	$ —	$ 102	$ 562	$ 27	$ (84)	$ —	$ (119)	$ 1,726	$ 4
Foreign exchange contracts	52	(8)	—	(57)	104	220	—	(326)	(74)	(89)	7
Equity contracts	(3,213)	964	—	(1,101)	1,923	364	—	(364)	(713)	(2,140)	(729)
Commodity contracts	292	474	—	174	(454)	162	—	(238)	12	422	261
Credit derivatives	48	(136)	—	(96)	40	—	—	—	113	(31)	(130)
Total trading derivatives, net[4]	$(1,207)	$ 918	$ —	$ (978)	$ 2,175	$ 773	$ (84)	$ (928)	$ (781)	$ (112)	$ (587)

Table continues on the next page.

In millions of dollars	Dec. 31, 2020	Net realized/unrealized gains (losses) included in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2021	Unrealized gains (losses) still held[3]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 30	**$ —**	**$ 2**	**$ 42**	**$ (10)**	**$ 3**	**$ —**	**$ (16)**	**$ —**	**$ 51**	**$ 2**
Residential	—	**—**	**—**	**54**	**(12)**	**52**	**—**	**—**	**—**	**94**	**(1)**
Commercial	—	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total investment mortgage-backed securities	$ 30	**$ —**	**$ 2**	**$ 96**	**$ (22)**	**$ 55**	**$ —**	**$ (16)**	**$ —**	**$ 145**	**$ 1**
U.S. Treasury and federal agency securities	$ —	**$ —**	**$ —**	**$ 1**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 1**	**$ —**
State and municipal	834	**—**	**(21)**	**58**	**(108)**	**49**	**—**	**(40)**	**—**	**772**	**(12)**
Foreign government	268	**—**	**(49)**	**512**	**(565)**	**871**	**—**	**(251)**	**—**	**786**	**(2)**
Corporate	60	**—**	**(14)**	**183**	**(44)**	**37**	**—**	**(34)**	**—**	**188**	**2**
Marketable equity securities	—	**—**	**—**	**16**	**—**	**—**	**—**	**—**	**—**	**16**	**—**
Asset-backed securities	1	**—**	**(21)**	**36**	**—**	**—**	**—**	**(13)**	**—**	**3**	**(2)**
Other debt securities	—	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Non-marketable equity securities	349	**—**	**(27)**	**2**	**—**	**—**	**—**	**(8)**	**—**	**316**	**(6)**
Total investments	$ 1,542	**$ —**	**$(130)**	**$ 904**	**$ (739)**	**$1,012**	**$ —**	**$ (362)**	**$ —**	**$ 2,227**	**$ (19)**
Loans	$ 1,985	**$ —**	**$ 90**	**$ 311**	**$(2,071)**	**$ —**	**$ 529**	**$ —**	**$ (133)**	**$ 711**	**$ (77)**
Mortgage servicing rights	336	**—**	**43**	**—**	**—**	**—**	**92**	**—**	**(67)**	**404**	**52**
Other financial assets measured on a recurring basis	—	**—**	**6**	**65**	**(27)**	**58**	**—**	**(26)**	**(3)**	**73**	**—**
Liabilities											
Interest-bearing deposits	$ 206	**$ —**	**$ (18)**	**$ —**	**$ (44)**	**$ —**	**$ 38**	**$ —**	**$ (35)**	**$ 183**	**$ (19)**
Securities loaned and sold under agreements to repurchase	631	**(9)**	**—**	**183**	**(483)**	**488**	**—**	**—**	**(185)**	**643**	**32**
Trading account liabilities											
Securities sold, not yet purchased	214	**48**	**—**	**87**	**(34)**	**59**	**—**	**—**	**(213)**	**65**	**(4)**
Other trading liabilities	26	**26**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Short-term borrowings	219	**43**	**—**	**137**	**(57)**	**—**	**49**	**—**	**(200)**	**105**	**(2)**
Long-term debt	25,210	**2,774**	**—**	**8,611**	**(9,771)**	**—**	**10,262**	**—**	**(6,029)**	**25,509**	**1,756**
Other financial liabilities measured on a recurring basis	1	**—**	**(3)**	**—**	**(4)**	**—**	**14**	**—**	**(13)**	**1**	**—**

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.

(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at December 31, 2021.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2019	Net realized/unrealized gains (losses) included in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2020	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 303	$ 23	$ —	$ —	$ —	$ 194	$ —	$ —	$ (200)	$ 320	$ 43
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	10	(79)	—	21	(11)	392	—	(306)	—	27	(1)
Residential	123	79	—	234	(68)	486	—	(514)	—	340	(20)
Commercial	61	—	—	162	(35)	174	—	(226)	—	136	(14)
Total trading mortgage-backed securities	$ 194	$ —	$ —	$ 417	$ (114)	$1,052	$ —	$(1,046)	$ —	$ 503	$ (35)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	64	2	—	33	(3)	62	—	(64)	—	94	4
Foreign government	52	(35)	—	9	(1)	169	—	(143)	—	51	(7)
Corporate	313	246	—	211	(136)	770	—	(1,023)	(6)	375	(37)
Marketable equity securities	100	(16)	—	43	(2)	240	—	(292)	—	73	(11)
Asset-backed securities	1,177	(105)	—	677	(131)	1,406	—	(1,418)	—	1,606	(248)
Other trading assets	555	315	—	471	(343)	387	19	(440)	(19)	945	(56)
Total trading non-derivative assets	$ 2,455	$ 407	$ —	$1,861	$ (730)	$4,086	$ 19	$(4,426)	$ (25)	$ 3,647	$ (390)
Trading derivatives, net[4]											
Interest rate contracts	$ 1	$ 429	$ —	$1,644	$ 16	$ 41	$ 134	$ (34)	$ (617)	$ 1,614	$ 161
Foreign exchange contracts	(5)	105	—	(61)	48	74	—	(55)	(54)	52	130
Equity contracts	(1,596)	(536)	—	(519)	378	35	—	(886)	(89)	(3,213)	(3,868)
Commodity contracts	(59)	(1)	—	99	(108)	101	—	(61)	321	292	407
Credit derivatives	(56)	123	—	173	(334)	—	—	—	142	48	(136)
Total trading derivatives, net[4]	$ (1,715)	$ 120	$ —	$1,336	$ —	$ 251	$ 134	$(1,036)	$ (297)	$ (1,207)	$(3,306)
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 32	$ —	$ (5)	$ 2	$ —	$ 1	$ —	$ —	$ —	$ 30	$ (104)
Residential	—	—	76	—	—	—	—	(76)	—	—	5
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 32	$ —	$ 71	$ 2	$ —	$ 1	$ —	$ (76)	$ —	$ 30	$ (99)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	623	—	(3)	322	(131)	121	—	(98)	—	834	(20)
Foreign government	96	—	11	27	(64)	381	—	(183)	—	268	(4)
Corporate	45	—	6	49	(152)	162	—	(50)	—	60	—
Marketable equity securities	—	—	(1)	1	—	—	—	—	—	—	—
Asset-backed securities	22	—	(1)	—	—	—	—	(20)	—	1	(4)
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	441	—	(35)	—	(2)	2	3	(3)	(57)	349	10
Total investments	$ 1,259	$ —	$ 48	$ 401	$ (349)	$ 667	$ 3	$ (430)	$ (57)	$ 1,542	$ (117)

Table continues on the next page.

In millions of dollars	Dec. 31, 2019	Net realized/unrealized gains (losses) included in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Dec. 31, 2020	Unrealized gains (losses) still held[3]
Loans	$ 402	$ —	$ 1,143	$ 451	$ (6)	$ —	$ —	$ —	$ (5)	$ 1,985	$ 1,424
Mortgage servicing rights	495	—	(204)	—	—	—	123	—	(78)	336	(180)
Other financial assets measured on a recurring basis	1	—	—	—	—	—	—	(1)	—	—	—
Liabilities											
Interest-bearing deposits	$ 215	$ —	$ 11	$ 278	$ (152)	$ —	$ 34	$ —	$ (158)	$ 206	$ (142)
Securities loaned and sold under agreements to repurchase	757	5	—	—	—	—	—	—	(121)	631	(18)
Trading account liabilities											
Securities sold, not yet purchased	48	(102)	—	271	(17)	—	—	10	(200)	214	(163)
Other trading liabilities	—	9	—	35	—	—	—	—	—	26	23
Short-term borrowings	13	78	—	220	(6)	—	86	—	(16)	219	(91)
Long-term debt	17,169	(1,489)	—	6,553	(2,615)	—	10,270	—	(7,656)	25,210	(1,679)
Other financial liabilities measured on a recurring basis	—	—	—	—	—	—	3	—	(2)	1	—

(1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.
(2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.
(3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at December 31, 2020.
(4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

Level 3 Fair Value Rollforward

The following were the significant Level 3 transfers for the period December 31, 2020 to December 31, 2021:

- During the 12 months ended December 31, 2021, transfers of *Loans* of $2.1 billion from Level 3 to Level 2 were primarily driven by equity forward and volatility inputs that have been assessed as not significant to the overall valuation of certain hybrid loan instruments, including equity options and long dated equity call spreads.
- During the 12 months ended December 31, 2021, transfers of *Equity contracts* of $1.1 billion from Level 2 to Level 3 were due to equity forward and volatility inputs becoming an unobservable and/or significant input relative to the overall valuation of equity options and equity swaps. In other instances, market changes have resulted in observable equity forward and volatility inputs becoming an insignificant input to the overall valuation of the instrument (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $1.9 billion of certain Equity contracts being transferred from Level 3 to Level 2.
- During the 12 months ended December 31, 2021, transfers of *Long-term debt* were $8.6 billion from Level 2 to Level 3. Of the $8.6 billion transfer in, approximately $7.2 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $1.0 billion related to equity volatility inputs (in addition to other volatility inputs, e.g., interest rate volatility inputs) becoming unobservable and/or significant to their overall valuation. In other instances, market changes have resulted in some inputs becoming more observable, and some unobservable inputs becoming less significant to the overall valuation of the instruments (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $9.8 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the 12 months ended December 31, 2021.

The following were the significant Level 3 transfers for the period December 31, 2019 to December 31, 2020:

- During the 12 months ended December 31, 2020, transfers of *Interest rate contracts* of $1.6 billion from Level 2 to Level 3 were due to interest rate option volatility becoming an unobservable and/or significant input relative to the overall valuation of inflation and other interest rate derivatives.
- During the 12 months ended December 31, 2020, $6.6 billion of *Long-term debt* containing embedded derivatives was transferred from Level 2 to Level 3, as a result of interest rate option volatility, equity correlation and credit derivative inputs becoming unobservable and/or significant input relative to the overall valuation of certain structured long-term debt products. In other instances, market changes resulted in unobservable volatility inputs becoming insignificant to the overall valuation of the instrument (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $2.6 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the 12 months ended December 31, 2020.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The Company's Level 3 inventory consists of both cash instruments and derivatives of varying complexity.

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements. Differences between this table and amounts presented in the Level 3 Fair Value Rollforward table represent individually immaterial items that have been measured using a variety of valuation techniques other than those listed.

As of December 31, 2021	Fair value[1] *(in millions)*	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Assets						
Securities borrowed and purchased under agreements to resell	**$ 231**	Model-based	Credit spread	**15bps**	**15bps**	**15bps**
			Interest rate	**0.26%**	**0.72%**	**0.50%**
Mortgage-backed securities	**$ 279**	Price-based	Price	**$ 4**	**$ 118**	**$ 79**
	526	Yield analysis	Yield	**1.43%**	**23.79%**	**7.25%**
State and municipal, foreign government, corporate and other debt securities	**$ 2,264**	Price-based	Price	**$ —**	**$ 995**	**$ 193**
	415	Model-based	Equity volatility	**0.08%**	**290.64%**	**53.94%**
Marketable equity securities[5]	**$ 128**	Price-based	Price	**$ —**	**$ 73,000**	**$ 6,477**
	43	Model-based	WAL	**1.73 years**	**1.73 years**	**1.73 years**
			Recovery *(in millions)*	**$ 7,148**	**$ 7,148**	**$ 7,148**
Asset-backed securities	**$ 386**	Price-based	Price	**$ 5**	**$ 754**	**$ 87**
	208	Yield analysis	Yield	**2.43%**	**19.35%**	**8.18%**
Non-marketable equities	**$ 121**	Price-based	Illiquidity discount	**10.00%**	**36.00%**	**26.43%**
	112	Comparables analysis	PE ratio	**11.00x**	**29.00x**	**15.42x**
	83	Model-based	Price	**$ 3**	**$ 2,601**	**$ 2,029**
			Adjustment factor	**0.33x**	**0.44x**	**0.34x**
			Revenue multiple	**19.80x**	**30.00x**	**20.48x**
			Cost of capital	**17.50%**	**20.00%**	**17.57%**
Derivatives—gross[6]						
Interest rate contracts (gross)	**$ 6,054**	Model-based	IR normal volatility	**0.24%**	**0.94%**	**0.70%**
Foreign exchange contracts (gross)	**$ 1,364**	Model-based	IR Normal volatility	**0.24%**	**0.74%**	**0.58%**
			FX volatility	**2.13%**	**107.42%**	**11.21%**
			Credit spread	**140bps**	**696bps**	**639bps**
Equity contracts (gross)[7]	**$ 4,690**	Model-based	Equity volatility	**0.08%**	**290.64%**	**47.67%**
			Equity forward	**57.99%**	**165.83%**	**89.45%**
			Equity-FX correlation	**(95.00)%**	**80.00%**	**(16.00)%**
			Equity-Equity correlation	**(6.49)%**	**99.00%**	**85.61%**
Commodity and other contracts (gross)	**$ 3,172**	Model-based	Forward price	**8.00%**	**599.44%**	**123.22%**
			Commodity volatility	**10.87%**	**188.30%**	**26.85%**
			Commodity correlation	**(50.52)%**	**89.83%**	**(7.11)%**
Credit derivatives (gross)	**$ 1,480**	Model-based	Credit spread	**1.00bps**	**874.72bps**	**68.83bps**
	427	Price-based	Recovery rate	**20.00%**	**75.00%**	**44.72%**
			Upfront points	**2.74%**	**99.96%**	**59.37%**
			Price	**$ 40**	**$ 103**	**$ 80**
			Credit correlation	**30.00%**	**80.00%**	**54.57%**

Table continues on the next page.

As of December 31, 2021	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	**$ 69**	Price-based	Price	**$ 94**	**$ 2,598**	**$ 591**
Loans and leases	**$ 691**	Model-based	Equity volatility	**22.48%**	**85.44%**	**50.56%**
			Forward price	**26.95%**	**333.08%**	**106.97%**
			Commodity volatility	**10.87%**	**188.30%**	**26.85%**
			Commodity correlation	**(50.52)%**	**89.83%**	**(7.11)%**
Mortgage servicing rights	**$ 331**	Cash flow	Yield	**(1.20)%**	**12.10%**	**4.51%**
	73	Model-based	WAL	**2.75 years**	**5.86 years**	**5.14 years**
Liabilities						
Interest-bearing deposits	**$ 183**	Model-based	IR Normal volatility	**0.34%**	**0.88%**	**0.68%**
			Equity volatility	**0.08%**	**290.64%**	**54.05%**
			Equity forward	**57.99%**	**165.83%**	**89.39%**
Securities loaned and sold under agreements to repurchase	**$ 643**	Model-based	Interest rate	**0.12%**	**1.95%**	**1.47%**
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	**$ 63**	Price-based	Price	**$ —**	**$ 12,875**	**$ 1,707**
Short-term borrowings and long-term debt	**$25,514**	Model-based	IR Normal volatility	**0.07%**	**0.88%**	**0.60%**
			Equity volatility	**0.08%**	**290.64%**	**53.21%**
			Equity-IR correlation	**(3.53)%**	**60.00%**	**32.12%**
			Equity-FX correlation	**(95.00)%**	**80.00%**	**(15.98)%**
			FX volatility	**0.06%**	**41.76%**	**9.38%**

As of December 31, 2020	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Securities borrowed and purchased under agreements to resell	$ 320	Model-based	Credit spread	15bps	15bps	15bps
			Interest rate	0.30%	0.35%	0.32%
Mortgage-backed securities	$ 344	Price-based	Price	$ 30	$ 111	$ 80
	168	Yield analysis	Yield	2.63%	21.80%	10.13%
State and municipal, foreign government, corporate and other debt securities	$ 1,566	Price-based	Price	$ —	$ 2,265	$ 90
	852	Model-based	Credit spread	35bps	375bps	226bps
Marketable equity securities[5]	$ 36	Model-based	Price	$ —	$ 31,000	$ 5,132
	36	Price-based	WAL	1.48 years	1.48 years	1.48 years
			Recovery *(in millions)*	$ 5,733	$ 5,733	$ 5,733
Asset-backed securities	$ 863	Price-based	Price	$ 2	$ 157	$ 59
	744	Yield analysis	Yield	3.77%	21.77%	9.01%
Non-marketable equities	$ 205	Comparables analysis	Illiquidity discount	10.00%	45.00%	25.29%
			PE ratio	13.60x	28.00x	22.83x
	142	Price-based	Price	$ 136	$ 2,041	$ 1,647
			EBITDA multiples	3.30x	36.70x	15.10x
			Adjustment factor	0.20x	0.61x	0.25x
			Appraised value *(in thousands)*	$ 287	$ 39,745	$ 21,754
			Revenue multiple	2.70x	28.00x	8.92x

Table continues on the next page.

As of December 31, 2020	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 5,143	Model-based	Inflation volatility	0.27%	2.36%	0.78%
			IR normal volatility	0.11%	0.73%	0.52%
Foreign exchange contracts (gross)	$ 1,296	Model-based	FX volatility	1.70%	12.63%	5.41%
			Contingent event	100.00%	100.00%	100.00%
			Interest rate	0.84%	84.09%	17.55%
			IR normal volatility	0.11%	0.52%	0.46%
			IR-FX correlation	40.00%	60.00%	50.00%
			IR-IR correlation	(21.71)%	40.00%	38.09%
Equity contracts (gross)[7]	$ 7,330	Model-based	Equity volatility	5.00%	91.43%	42.74%
			Forward price	65.88%	105.20%	91.82%
Commodity and other contracts (gross)	$ 1,636	Model-based	Commodity correlation	(44.92)%	95.91%	70.60%
			Commodity volatility	0.16%	80.17%	23.72%
			Forward price	15.40%	262.00%	98.53%
Credit derivatives (gross)	$ 1,854	Model-based	Credit spread	3.50bps	352.35bps	99.89bps
	408	Price-based	Recovery rate	20.00%	60.00%	41.60%
			Credit correlation	25.00%	80.00%	43.36%
			Upfront points	—%	107.20%	48.10%
Loans and leases	$ 1,804	Model-based	Equity volatility	24.65%	83.09%	58.23%
Mortgage servicing rights	$ 258	Cash flow	Yield	2.86%	16.00%	6.32%
	78	Model-based	WAL	2.66 years	5.40 years	4.46 years
Liabilities						
Interest-bearing deposits	$ 206	Model-based	IR Normal volatility	0.11%	0.73%	0.54%
Securities loaned and sold under agreements to repurchase	$ 631	Model-based	Interest rate	0.08%	1.86%	0.71%
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	$ 178	Model-based	IR lognormal volatility	52.06%	128.87%	89.82%
	$ 62	Price-based	Price	$ —	$ 866	$ 80
			Interest rate	10.03%	20.07%	13.70%
Short-term borrowings and long-term debt	$24,827	Model-based	IR normal volatility	0.11%	0.73%	0.51%
			Forward price	15.40%	262.00%	92.48%

(1) The tables above include the fair values for the items listed and may not foot to the total population for each category.
(2) Some inputs are shown as zero due to rounding.
(3) When the low and high inputs are the same, there is either a constant input applied to all positions, or the methodology involving the input applies to only one large position.
(4) Weighted averages are calculated based on the fair values of the instruments.
(5) For equity securities, the price inputs are expressed on an absolute basis, not as a percentage of the notional amount.
(6) Both trading and non-trading account derivatives—assets and liabilities—are presented on a gross absolute value basis.
(7) Includes hybrid products.

Uncertainty of Fair Value Measurements Relating to Unobservable Inputs

Valuation uncertainty arises when there is insufficient or disperse market data to allow a precise determination of the exit value of a fair-valued position or portfolio in today's market. This is especially prevalent in Level 3 fair value instruments, where uncertainty exists in valuation inputs that may be both unobservable and significant to the instrument's (or portfolio's) overall fair value measurement. The uncertainties associated with key unobservable inputs on the Level 3 fair value measurements may not be independent of one another. In addition, the amount and direction of the uncertainty on a fair value measurement for a given change in an unobservable input depends on the nature of the instrument as well as whether the Company holds the instrument as an asset or a liability. For certain instruments, the pricing, hedging and risk management are sensitive to the correlation between various inputs rather than on the analysis and aggregation of the individual inputs.

The following section describes some of the most significant unobservable inputs used by the Company in Level 3 fair value measurements.

Correlation

Correlation is a measure of the extent to which two or more variables change in relation to each other. A variety of correlation-related assumptions are required for a wide range of instruments, including equity and credit baskets, foreign exchange options, Credit Index Tranches and many other instruments. For almost all of these instruments, correlations are not directly observable in the market and must be calculated using alternative sources, including historical information. Estimating correlation can be especially difficult where it may vary over time, and calculating correlation information from market data requires significant assumptions regarding the informational efficiency of the market (e.g., swaption markets). Uncertainty therefore exists when an estimate of the appropriate level of correlation as an input into some fair value measurements is required.

Changes in correlation levels can have a substantial impact, favorable or unfavorable, on the value of an instrument, depending on its nature. A change in the default correlation of the fair value of the underlying bonds comprising a CDO structure would affect the fair value of the senior tranche. For example, an increase in the default correlation of the underlying bonds would reduce the fair value of the senior tranche, because highly correlated instruments produce greater losses in the event of default and a portion of these losses would become attributable to the senior tranche. That same change in default correlation would have a different impact on junior tranches of the same structure.

Volatility

Volatility represents the speed and severity of market price changes and is a key factor in pricing options. Volatility generally depends on the tenor of the underlying instrument and the strike price or level defined in the contract. Volatilities for certain combinations of tenor and strike are not observable and need to be estimated using alternative methods, such as comparable instruments, historical analysis or other sources of market information. This leads to uncertainty around the final fair value measurement of instruments with unobservable volatilities.

The general relationship between changes in the value of an instrument (or a portfolio) to changes in volatility also depends on changes in interest rates and the level of the underlying index. Generally, long option positions (assets) benefit from increases in volatility, whereas short option positions (liabilities) will suffer losses. Some instruments are more sensitive to changes in volatility than others. For example, an at-the-money option would experience a greater percentage change in its fair value than a deep-in-the-money option. In addition, the fair value of an option with more than one underlying security (e.g., an option on a basket of equities) depends on the volatility of the individual underlying securities as well as their correlations.

Yield

In some circumstances, the yield of an instrument is not observable in the market and must be estimated from historical data or from yields of similar securities. This estimated yield may need to be adjusted to capture the characteristics of the security being valued. Whenever the amount of the adjustment is significant to the value of the security, the fair value measurement is classified as Level 3.

Adjusted yield is generally used to discount the projected future principal and interest cash flows on instruments, such as asset-backed securities. Adjusted yield is impacted by changes in the interest rate environment and relevant credit spreads.

Prepayment

Voluntary unscheduled payments (prepayments) change the future cash flows for the investor and thereby change the fair value of the security. The effect of prepayments is more pronounced for residential mortgage-backed securities. Prepayment is generally negatively correlated with delinquency and interest rate. A combination of low prepayments and high delinquencies amplifies each input's negative impact on a mortgage securities' valuation. As prepayment speeds change, the weighted average life of the security changes, which impacts the valuation either positively or negatively, depending upon the nature of the security and the direction of the change in the weighted average life.

Recovery

Recovery is the proportion of the total outstanding balance of a bond or loan that is expected to be collected in a liquidation scenario. For many credit securities (e.g., commercial mortgage backed securities), the expected recovery amount of a defaulted property is typically unknown until a liquidation of the property is imminent. The assumed recovery of a security may differ from its actual recovery that will be observable in the future. Generally, an increase in the recovery rate assumption increases the fair value of the security. An increase in loss severity, the inverse of the recovery rate, reduces the amount of principal available for distribution and, as a result, decreases the fair value of the security.

Credit Spread

Credit spread is a component of the security representing its credit quality. Credit spread reflects the market perception of changes in prepayment, delinquency and recovery rates, therefore capturing the impact of other variables on the fair value. Changes in credit spread affect the fair value of securities differently depending on the characteristics and maturity profile of the security. For example, credit spread is a more significant driver of the fair value measurement of a high yield bond as compared to an investment grade bond. Generally, the credit spread for an investment grade bond is also more observable and less volatile than its high yield counterpart.

Items Measured at Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis and, therefore, are not included in the tables above. These include assets measured at cost that have been written down to fair value during the periods as a result of an impairment. These also include non-marketable equity securities that have been measured using the measurement alternative and are either (i) written down to fair value during the periods as a result of an impairment or (ii) adjusted upward or downward to fair value as a result of a transaction observed during the periods for the identical or similar investment of the same issuer. In addition, these assets include loans held-for-sale and other real estate owned that are measured at the lower of cost or market value.

The following tables present the carrying amounts of all assets that were still held for which a nonrecurring fair value measurement was recorded:

In millions of dollars	**Fair value**	**Level 2**	**Level 3**
December 31, 2021			
Loans HFS(1)	**$2,298**	**$ 986**	**$1,312**
Other real estate owned	**11**	**—**	**11**
Loans(2)	**144**	**—**	**144**
Non-marketable equity securities measured using the measurement alternative	**655**	**104**	**551**
Total assets at fair value on a nonrecurring basis	**$3,108**	**$1,090**	**$2,018**

In millions of dollars	Fair value	Level 2	Level 3
December 31, 2020			
Loans HFS(1)	$2,430	$ 207	$2,223
Other real estate owned	17	4	13
Loans(2)	703	—	703
Non-marketable equity securities measured using the measurement alternative	458	403	55
Total assets at fair value on a nonrecurring basis	$3,608	$ 614	$2,994

(1) Net of fair value amounts on the unfunded portion of loans HFS recognized as *Other liabilities* on the Consolidated Balance Sheet.
(2) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

The fair value of loans HFS is determined where possible using quoted secondary-market prices. If no such quoted price exists, the fair value of a loan is determined using quoted prices for a similar asset or assets, adjusted for the specific attributes of that loan. Fair value for the other real estate owned is based on appraisals. For loans whose carrying amount is based on the fair value of the underlying collateral, the fair values depend on the type of collateral. Fair value of the collateral is typically estimated based on quoted market prices if available, appraisals or other internal valuation techniques.

Where the fair value of the related collateral is based on an appraised value, the loan is generally classified as Level 3. In addition, for corporate loans, appraisals of the collateral are often based on sales of similar assets; however, because the prices of similar assets require significant adjustments to reflect the unique features of the underlying collateral, these fair value measurements are generally classified as Level 3.

The fair value of non-marketable equity securities under the measurement alternative is based on observed transaction prices for the identical or similar investment of the same issuer, or an internal valuation technique in the case of an impairment. Where there are insufficient market observations to conclude the inputs are observable, where significant adjustments are made to the observed transaction prices or when an internal valuation technique is used, the security is classified as Level 3. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Valuation Techniques and Inputs for Level 3 Nonrecurring Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 nonrecurring fair value measurements and the most significant unobservable inputs used in those measurements:

As of December 31, 2021	**Fair value**[1] *(in millions)*	**Methodology**	**Input**	**Low**[2]	**High**	**Weighted average**[3]
Loans HFS	**$1,312**	Price-based	Price	**$ 89**	**$ 100**	**$ 99**
Other real estate owned	**$ 4**	Price-based	Appraised value[4]	**$14,000**	**$2,392,464**	**$1,660,120**
	5	Recovery analysis				
Loans[5]	**$ 120**	Recovery analysis	Appraised value[4]	**$10,000**	**$3,900,000**	**$ 247,018**
	24	Price-based	Price	**$ 3**	**$ 75**	**$ 35**
			Recovery rate	**84.00%**	**100.00%**	**84.00%**
Non-marketable equity securities measured using the measurement alternative	**$ 551**	Price-based	Price	**$ 6**	**$ 1,339**	**$ 52**

As of December 31, 2020	Fair value[1] *(in millions)*	Methodology	Input	Low[2]	High	Weighted average[3]
Loans HFS	$2,182	Price-based	Price	$ 78	$ 100	$ 97
Other real estate owned	$ 7	Price-based	Appraised value[4]	$3,110,711	$ 4,241,357	$3,586,975
	4	Recovery analysis	Price	51	51	51
Loans[5]	$ 96	Price-based	Price	$ 2	$ 49	$ 23
	429	Recovery analysis	Appraised value[4]	$ 95	$43,646,426	$1,698,938
Non-marketable equity securities measured using the measurement alternative	$ 36	Comparable analysis	Revenue multiple	1.70x	15.10x	10.88x
	18	Net asset approach	Illiquidity discount	20.00%	20.00%	20.00%
			Price	$ —	$ 17	$ 6

(1) The table above includes the fair values for the items listed and may not foot to the total population for each category.
(2) Some inputs are shown as zero due to rounding.
(3) Weighted averages are calculated based on the fair values of the instruments.
(4) Appraised values are disclosed in whole dollars.
(5) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Nonrecurring Fair Value Changes

The following tables present total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that were still held:

In millions of dollars	**Year ended December 31, 2021**
Loans HFS	**$ (31)**
Other real estate owned	**—**
Loans[1]	**9**
Non-marketable equity securities measured using the measurement alternative	**468**
Total nonrecurring fair value gains (losses)	**$ 446**

In millions of dollars	Year ended December 31, 2020
Loans HFS	$ (93)
Other real estate owned	(1)
Loans[1]	109
Non-marketable equity securities measured using the measurement alternative	221
Total nonrecurring fair value gains (losses)	$ 236

(1) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

The following tables present the carrying value and fair value of Citigroup's financial instruments that are not carried at fair value. The tables below therefore exclude items measured at fair value on a recurring basis presented in the tables above.

The disclosure also excludes leases, affiliate investments, pension and benefit obligations, certain insurance contracts and tax-related items. Also, as required, the disclosure excludes the effect of taxes, any premium or discount that could result from offering for sale at one time the entire holdings of a particular instrument, excess fair value associated with deposits with no fixed maturity and other expenses that would be incurred in a market transaction. In addition, the tables exclude the values of non-financial assets and liabilities, as well as a wide range of franchise, relationship and intangible values, which are integral to a full assessment of Citigroup's financial position and the value of its net assets.

Fair values vary from period to period based on changes in a wide range of factors, including interest rates, credit quality and market perceptions of value, and as existing assets and liabilities run off and new transactions are entered into.

	December 31, 2021		**Estimated fair value**		
In billions of dollars	**Carrying value**	**Estimated fair value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Investments, net of allowance	**$ 221.9**	**$ 221.0**	**$111.8**	**$ 106.4**	**$ 2.8**
Securities borrowed and purchased under agreements to resell	**110.8**	**110.8**	**—**	**106.4**	**4.4**
Loans(1)(2)	**644.8**	**659.6**	**—**	**—**	**659.6**
Other financial assets(2)(3)	**351.9**	**351.9**	**242.1**	**19.9**	**89.9**
Liabilities					
Deposits	**$1,315.6**	**$1,316.2**	**$ —**	**$1,153.9**	**$162.3**
Securities loaned and sold under agreements to repurchase	**134.6**	**134.6**	**—**	**134.5**	**0.1**
Long-term debt(4)	**171.8**	**184.6**	**—**	**171.9**	**12.7**
Other financial liabilities(5)	**111.1**	**111.1**	**—**	**17.0**	**94.1**

	December 31, 2020		Estimated fair value		
In billions of dollars	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments, net of allowance	$ 110.3	$ 113.2	$ 23.3	$ 87.0	$ 2.9
Securities borrowed and purchased under agreements to resell	109.5	109.5	—	109.5	—
Loans(1)(2)	643.3	663.9	—	0.6	663.3
Other financial assets(2)(3)	383.2	383.2	291.5	18.1	73.6
Liabilities					
Deposits	$1,278.7	$1,278.8	$ —	$1,093.3	$185.5
Securities loaned and sold under agreements to repurchase	139.3	139.3	—	139.3	—
Long-term debt(4)	204.6	221.2	—	197.8	23.4
Other financial liabilities(5)	102.4	102.4	—	19.2	83.2

(1) The carrying value of loans is net of the *Allowance for credit losses on loans* of $16.5 billion for December 31, 2021 and $25.0 billion for December 31, 2020. In addition, the carrying values exclude $0.5 billion and $0.7 billion of lease finance receivables at December 31, 2021 and 2020, respectively.
(2) Includes items measured at fair value on a nonrecurring basis.
(3) Includes cash and due from banks, deposits with banks, brokerage receivables, reinsurance recoverables and other financial instruments included in *Other assets* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.
(4) The carrying value includes long-term debt balances under qualifying fair value hedges.
(5) Includes brokerage payables, separate and variable accounts, short-term borrowings (carried at cost) and other financial instruments included in *Other liabilities* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

The estimated fair values of the Company's corporate unfunded lending commitments at December 31, 2021 and 2020 were off-balance liabilities of $8.1 billion and $7.3 billion, respectively, substantially all of which are classified as Level 3. The Company does not estimate the fair values of consumer unfunded lending commitments, which are generally cancellable by providing notice to the borrower.

25. FAIR VALUE ELECTIONS

The Company may elect to report most financial instruments and certain other items at fair value on an instrument-by-instrument basis with changes in fair value reported in earnings, other than DVA (see below). The election is made upon the initial recognition of an eligible financial asset, financial liability or firm commitment or when certain specified reconsideration events occur. The fair value election may not otherwise be revoked once an election is made. The changes in fair value are recorded in current earnings. Movements in DVA are reported as a component of *AOCI*. Additional discussion regarding the applicable areas in which fair value elections were made is presented in Note 24 to the Consolidated Financial Statements.

The Company has elected fair value accounting for its mortgage servicing rights (MSRs). See Note 21 to the Consolidated Financial Statements for additional details on Citi's MSRs.

The following table presents the changes in fair value of those items for which the fair value option has been elected:

	Changes in fair value—gains (losses) for the years ended December 31,	
In millions of dollars	**2021**	2020
Assets		
Securities borrowed and purchased under agreements to resell	**$ (87)**	$ —
Trading account assets	**59**	(136)
Investments	**—**	—
Loans		
Certain corporate loans	**(171)**	2,486
Certain consumer loans	**—**	1
Total loans	**$ (171)**	$ 2,487
Other assets		
MSRs	**$ 43**	$ (204)
Certain mortgage loans HFS[(1)]	**70**	299
Total other assets	**$ 113**	$ 95
Total assets	**$ (86)**	$ 2,446
Liabilities		
Interest-bearing deposits	**$ (118)**	$ (154)
Securities loaned and sold under agreements to repurchase	**66**	(559)
Trading account liabilities	**17**	(1)
Short-term borrowings[(2)]	**675**	802
Long-term debt[(2)]	**386**	(2,700)
Total liabilities	**$1,026**	$(2,612)

(1) Includes gains (losses) associated with interest rate lock commitments for those loans that have been originated and elected under the fair value option.
(2) Includes DVA that is included in *AOCI*. See Notes 19 and 24 to the Consolidated Financial Statements.

Own Debt Valuation Adjustments (DVA)

Own debt valuation adjustments are recognized on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Changes in fair value of fair value option liabilities related to changes in Citigroup's own credit spreads (DVA) are reflected as a component of *AOCI*. See Note 1 to the Consolidated Financial Statements for additional information.

Among other variables, the fair value of liabilities for which the fair value option has been elected (other than non-recourse debt and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

The estimated changes in the fair value of these non-derivative liabilities due to such changes in the Company's own credit spread (or instrument-specific credit risk) were a gain of $296 million and a loss of $616 million for the years ended December 31, 2021 and 2020, respectively. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current credit spreads observable in the bond market into the relevant valuation technique used to value each liability as described above.

The Fair Value Option for Financial Assets and Financial Liabilities

Selected Portfolios of Securities Purchased Under Agreements to Resell, Securities Borrowed, Securities Sold Under Agreements to Repurchase, Securities Loaned and Certain Uncollateralized Short-Term Borrowings

The Company elected the fair value option for certain portfolios of fixed income securities purchased under agreements to resell and fixed income securities sold under agreements to repurchase, securities borrowed, securities loaned and certain uncollateralized short-term borrowings held primarily by broker-dealer entities in the United States, the United Kingdom and Japan. In each case, the election was made because the related interest rate risk is managed on a portfolio basis, primarily with offsetting derivative instruments that are accounted for at fair value through earnings.

Changes in fair value for transactions in these portfolios are recorded in *Principal transactions*. The related interest revenue and interest expense are measured based on the contractual rates specified in the transactions and are reported as *Interest revenue* and *Interest expense* in the Consolidated Statement of Income.

Certain Loans and Other Credit Products

Citigroup has also elected the fair value option for certain other originated and purchased loans, including certain unfunded loan products, such as guarantees and letters of credit, executed by Citigroup's lending and trading businesses. None of these credit products are highly leveraged financing commitments. Significant groups of transactions include loans and unfunded loan products that are expected to be either sold or securitized in the near term, or transactions where the economic risks are hedged with derivative instruments, such as purchased credit default swaps or total return swaps where the Company pays the total return on the underlying loans to a third party. Citigroup has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications. Fair value was not elected for most lending transactions across the Company.

The following table provides information about certain credit products carried at fair value:

	December 31, 2021		December 31, 2020	
In millions of dollars	**Trading assets**	**Loans**	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	**$9,530**	**$6,082**	$8,063	$6,854
Aggregate unpaid principal balance in excess of (less than) fair value	**(100)**	**226**	(915)	(14)
Balance of non-accrual loans or loans more than 90 days past due	**—**	**1**	—	4
Aggregate unpaid principal balance in excess of (less than) fair value for non-accrual loans or loans more than 90 days past due	**—**	**—**	—	—

In addition to the amounts reported above, $719 million and $1,068 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of December 31, 2021 and 2020, respectively.

Changes in the fair value of funded and unfunded credit products are classified in *Principal transactions* in Citi's Consolidated Statement of Income. Related interest revenue is measured based on the contractual interest rates and reported as *Interest revenue* on *Trading account assets* or loan interest depending on the balance sheet classifications of the credit products. The changes in fair value for the years ended December 31, 2021 and 2020 due to instrument-specific credit risk totaled to a loss of $21 million and a loss of $16 million, respectively.

Certain Investments in Unallocated Precious Metals

Citigroup invests in unallocated precious metals accounts (gold, silver, platinum and palladium) as part of its commodity and foreign currency trading activities or to economically hedge certain exposures from issuing structured liabilities. Under ASC 815, the investment is bifurcated into a debt host contract and a commodity forward derivative instrument. Citigroup elects the fair value option for the debt host contract, and reports the debt host contract within *Trading account assets* on the Company's Consolidated Balance Sheet. The total carrying amount of debt host contracts across unallocated precious metals accounts was approximately $0.3 billion and $0.5 billion at December 31, 2021 and 2020, respectively. The amounts are expected to fluctuate based on trading activity in future periods.

As part of its commodity and foreign currency trading activities, Citi trades unallocated precious metals investments and executes forward purchase and forward sale derivative contracts with trading counterparties. When Citi sells an unallocated precious metals investment, Citi's receivable from its depository bank is repaid and Citi derecognizes its investment in the unallocated precious metal. The forward purchase or sale contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings. As of December 31, 2021, there were approximately $15.2 billion and $10.5 billion of notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively.

Certain Investments in Private Equity and Real Estate Ventures

Citigroup invests in private equity and real estate ventures for the purpose of earning investment returns and for capital appreciation. The Company has elected the fair value option for certain of these ventures, because such investments are considered similar to many private equity or hedge fund activities in Citi's investment companies, which are reported at fair value. The fair value option brings consistency in the accounting and evaluation of these investments. All investments (debt and equity) in such private equity and real estate entities are accounted for at fair value. These investments are classified as *Investments* on Citigroup's Consolidated Balance Sheet.

Changes in the fair values of these investments are classified in *Other revenue* in the Company's Consolidated Statement of Income.

Certain Mortgage Loans Held-for-Sale (HFS)

Citigroup has elected the fair value option for certain purchased and originated prime fixed-rate and conforming adjustable-rate first mortgage loans HFS. These loans are intended for sale or securitization and are hedged with derivative instruments. The Company has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications.

The following table provides information about certain mortgage loans HFS carried at fair value:

In millions of dollars	**December 31, 2021**	December 31, 2020
Carrying amount reported on the Consolidated Balance Sheet	**$3,035**	$1,742
Aggregate fair value in excess of (less than) unpaid principal balance	**70**	91
Balance of non-accrual loans or loans more than 90 days past due	**1**	—
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	**—**	—

The changes in the fair values of these mortgage loans are reported in *Other revenue* in the Company's Consolidated Statement of Income. There was no net change in fair value during the years ended December 31, 2021 and 2020 due to instrument-specific credit risk. Related interest income continues to be measured based on the contractual interest rates and reported as *Interest revenue* in the Consolidated Statement of Income.

Certain Debt Liabilities

The Company has elected the fair value option for certain debt liabilities. The Company elected the fair value option because these exposures are considered to be trading-related positions and, therefore, they are managed on a fair value basis. These positions will continue to be classified as debt, deposits or derivatives classified as *Trading account liabilities* on the Company's Consolidated Balance Sheet according to their legal form.

The following table provides information about the carrying value of notes carried at fair value, disaggregated by type of risk:

In billions of dollars	**December 31, 2021**	December 31, 2020
Interest rate linked	**$38.9**	$34.5
Foreign exchange linked	**—**	1.2
Equity linked	**36.1**	27.3
Commodity linked	**3.9**	1.4
Credit linked	**3.7**	2.6
Total	**$82.6**	$67.0

The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (i.e., DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*. Changes in the fair value of these liabilities include accrued interest, which is also included in the change in fair value reported in *Principal transactions*.

Certain Non-Structured Liabilities

The Company has elected the fair value option for certain non-structured liabilities with fixed and floating interest rates. The Company has elected the fair value option where the interest rate risk of such liabilities may be economically hedged with derivative contracts or the proceeds are used to purchase financial assets that will also be accounted for at fair value through earnings. The elections have been made to mitigate accounting mismatches and to achieve operational simplifications. These positions are reported in *Short-term borrowings* and *Long-term debt* on the Company's Consolidated Balance Sheet. The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (i.e., DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*.

Interest expense on non-structured liabilities is measured based on the contractual interest rates and reported as *Interest expense* in the Consolidated Statement of Income.

The following table provides information about long-term debt carried at fair value:

In millions of dollars	**December 31, 2021**	December 31, 2020
Carrying amount reported on the Consolidated Balance Sheet	**$82,609**	$67,063
Aggregate unpaid principal balance in excess of (less than) fair value	**(2,459)**	(5,130)

The following table provides information about short-term borrowings carried at fair value:

In millions of dollars	**December 31, 2021**	December 31, 2020
Carrying amount reported on the Consolidated Balance Sheet	**$7,358**	$4,683
Aggregate unpaid principal balance in excess of (less than) fair value	**(644)**	68

26. PLEDGED ASSETS, COLLATERAL, GUARANTEES AND COMMITMENTS

Pledged Assets

In connection with Citi's financing and trading activities, Citi has pledged assets to collateralize its obligations under repurchase agreements, secured financing agreements, secured liabilities of consolidated VIEs and other borrowings. The approximate carrying values of the significant components of pledged assets recognized on Citi's Consolidated Balance Sheet included the following:

In millions of dollars	**December 31, 2021**	December 31, 2020
Investment securities	**$252,192**	$231,696
Loans	**232,319**	239,699
Trading account assets	**140,980**	174,717
Total	**$625,491**	$646,112

Restricted Cash

Citigroup defines restricted cash (as cash subject to withdrawal restrictions) to include cash deposited with central banks that must be maintained to meet minimum regulatory requirements, and cash set aside for the benefit of customers or for other purposes such as compensating balance arrangements or debt retirement. Restricted cash includes minimum reserve requirements with the Federal Reserve Bank and certain other central banks and cash segregated to satisfy rules regarding the protection of customer assets as required by Citigroup broker-dealers' primary regulators, including the United States Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission and the United Kingdom's Prudential Regulation Authority.

Restricted cash is included on the Consolidated Balance Sheet within the following balance sheet lines:

In millions of dollars	**December 31, 2021**	December 31, 2020
Cash and due from banks	**$ 2,786**	$ 3,774
Deposits with banks, net of allowance	**10,636**	14,203
Total	**$13,422**	$17,977

In addition, included in *Cash and due from banks* and *Deposits with banks* at December 31, 2021 and 2020 were $13.7 billion and $9.4 billion, respectively, of cash segregated under federal and other brokerage regulations or deposited with clearing organizations.

Collateral

At December 31, 2021 and 2020, the approximate fair value of collateral received by Citi that may be resold or repledged, excluding the impact of allowable netting, was $650.8 billion and $671.6 billion, respectively. This collateral was received in connection with resale agreements, securities borrowings and loans, securities for securities lending transactions, derivative transactions and margined broker loans.

At December 31, 2021 and 2020, a substantial portion of the collateral received by Citi had been sold or repledged in connection with repurchase agreements, securities sold, not yet purchased, securities lendings, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

In addition, at December 31, 2021 and 2020, Citi had pledged $481.0 billion and $470.7 billion, respectively, of collateral that may not be sold or repledged by the secured parties.

Leases

The Company's operating leases, where Citi is a lessee, include real estate such as office space and branches and various types of equipment. These leases may contain renewal and extension options and early termination features. However, these options do not impact the lease term unless the Company is reasonably certain that it will exercise the options. These leases have a weighted-average remaining lease term of approximately six years as of December 31, 2021 and 2020. The operating lease ROU asset was $2.9 billion and $2.8 billion, as of December 31, 2021 and 2020, respectively. The operating lease ROU liability was $3.1 billion and $3.1 billion, as of December 31, 2021 and 2020, respectively. The Company recognizes fixed lease costs on a straight-line basis throughout the lease term in the Consolidated Statement of Income. In addition, variable lease costs are recognized in the period in which the obligation for those payments is incurred. The total operating lease expense (principally for offices, branches and equipment), net of $12 million and $27 million of sublease income, was $1,061 million and $1,054 million for the years ended December 31, 2021 and 2020, respectively.

The table below provides the Cash Flow Statement Supplemental Information:

In millions of dollars	**December 31, 2021**	December 31, 2020
Cash paid for amounts included in the measurement of lease liabilities	**$806**	$814
Right-of-use assets obtained in exchange for new operating lease liabilities(1)(2)	**845**	447

(1) Represents non-cash activity and, accordingly, is not reflected in the Consolidated Statement of Cash Flows.
(2) Excludes the decrease in the right-of-use assets related to the purchase of a previously leased property.

Citi's future lease payments are as follows:

In millions of dollars	
2022	$ 763
2023	648
2024	542
2025	445
2026	346
Thereafter	753
Total future lease payments	$3,497
Less imputed interest (based on weighted-average discount rate of 3.0%)	$ (381)
Lease liability	$3,116

Operating lease expense was $1.1 billion for the year ended December 31, 2019.

Guarantees

Citi provides a variety of guarantees and indemnifications to its customers to enhance their credit standing and enable them to complete a wide variety of business transactions. For certain contracts meeting the definition of a guarantee, the guarantor must recognize, at inception, a liability for the fair value of the obligation undertaken in issuing the guarantee.

In addition, the guarantor must disclose the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, if there were a total default by the guaranteed parties. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

The following tables present information about Citi's guarantees:

In billions of dollars at December 31, 2021	**Maximum potential amount of future payments**			
	Expire within 1 year	**Expire after 1 year**	**Total amount outstanding**	**Carrying value** *(in millions of dollars)*
Financial standby letters of credit	**$ 34.3**	**$ 58.4**	**$ 92.7**	**$ 791**
Performance guarantees	**6.6**	**6.4**	**13.0**	**47**
Derivative instruments considered to be guarantees	**14.6**	**48.9**	**63.5**	**514**
Loans sold with recourse	**—**	**1.7**	**1.7**	**15**
Securities lending indemnifications[1]	**121.9**	**—**	**121.9**	**—**
Credit card merchant processing[2]	**119.4**	**—**	**119.4**	**1**
Credit card arrangements with partners	**—**	**0.8**	**0.8**	**7**
Other	**2.0**	**12.0**	**14.0**	**34**
Total	**$298.8**	**$128.2**	**$427.0**	**$1,409**

In billions of dollars at December 31, 2020	Maximum potential amount of future payments			
	Expire within 1 year	Expire after 1 year	Total amount outstanding	Carrying value *(in millions of dollars)*
Financial standby letters of credit	$ 25.3	$ 68.4	$ 93.7	$1,407
Performance guarantees	7.3	6.0	13.3	72
Derivative instruments considered to be guarantees	20.0	60.9	80.9	671
Loans sold with recourse	—	1.2	1.2	9
Securities lending indemnifications[1]	112.2	—	112.2	—
Credit card merchant processing[2]	101.9	—	101.9	3
Credit card arrangements with partners	0.2	0.8	1.0	7
Other	—	12.0	12.0	35
Total	$266.9	$149.3	$416.2	$2,204

(1) The carrying values of securities lending indemnifications were not material for either period presented, as the probability of potential liabilities arising from these guarantees is minimal.
(2) At December 31, 2021 and 2020, this maximum potential exposure was estimated to be $119 billion and $102 billion, respectively. However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants.

Financial Standby Letters of Credit

Citi issues standby letters of credit, which substitute its own credit for that of the borrower. If a letter of credit is drawn down, the borrower is obligated to repay Citi. Standby letters of credit protect a third party from defaults on contractual obligations. Financial standby letters of credit include (i) guarantees of payment of insurance premiums and reinsurance risks that support industrial revenue bond underwriting, (ii) settlement of payment obligations to clearing houses, including futures and over-the-counter derivatives clearing (see further discussion below), (iii) support options and purchases of securities in lieu of escrow deposit accounts and (iv) letters of credit that backstop loans, credit facilities, promissory notes and trade acceptances.

Performance Guarantees

Performance guarantees and letters of credit are issued to guarantee a customer's tender bid on a construction or systems-installation project or to guarantee completion of such projects in accordance with contract terms. They are also issued to support a customer's obligation to supply specified products, commodities or maintenance or warranty services to a third party.

Derivative Instruments Considered to Be Guarantees

Derivatives are financial instruments whose cash flows are based on a notional amount and an underlying instrument, reference credit or index, where there is little or no initial investment, and whose terms require or permit net settlement. For a discussion of Citi's derivatives activities, see Note 22 to the Consolidated Financial Statements.

Derivative instruments considered to be guarantees include only those instruments that require Citi to make payments to the counterparty based on changes in an underlying instrument that is related to an asset, a liability or an equity security held by the guaranteed party. More specifically, derivative instruments considered to be guarantees include certain over-the-counter written put options where the counterparty is not a bank, hedge fund or broker-dealer (such counterparties are considered to be dealers in these markets and may, therefore, not hold the underlying instruments). Credit derivatives sold by Citi are excluded from the tables above as they are disclosed separately in Note 22 to the Consolidated Financial Statements. In instances where Citi's maximum potential future payment is unlimited, the notional amount of the contract is disclosed.

Loans Sold with Recourse

Loans sold with recourse represent Citi's obligations to reimburse the buyers for loan losses under certain circumstances. Recourse refers to the clause in a sales agreement under which a seller/lender will fully reimburse the buyer/investor for any losses resulting from the purchased loans. This may be accomplished by the sellers taking back any loans that become delinquent.

In addition to the amounts shown in the tables above, Citi has recorded a repurchase reserve for its potential repurchases or make-whole liability regarding residential mortgage representation and warranty claims related to its whole loan sales to U.S. government-sponsored agencies and, to a lesser extent, private investors. The repurchase reserve was approximately $19 million and $31 million at December 31, 2021 and 2020, respectively, and these amounts are included in *Other liabilities* on the Consolidated Balance Sheet.

Securities Lending Indemnifications

Owners of securities frequently lend those securities for a fee to other parties who may sell them short or deliver them to another party to satisfy some other obligation. Banks may administer such securities lending programs for their clients. Securities lending indemnifications are issued by the bank to guarantee that a securities lending customer will be made whole in the event that the security borrower does not return the security subject to the lending agreement and collateral held is insufficient to cover the market value of the security.

Credit Card Merchant Processing

Credit card merchant processing guarantees represent the Company's indirect obligations in connection with (i) providing transaction processing services to various merchants with respect to its private label cards and (ii) potential liability for bank card transaction processing services. The nature of the liability in either case arises as a result of a billing dispute between a merchant and a cardholder that is ultimately resolved in the cardholder's favor. The merchant is liable to refund the amount to the cardholder. In general, if the credit card processing company is unable to collect this amount from the merchant, the credit card processing company bears the loss for the amount of the credit or refund paid to the cardholder.

With regard to (i) above, Citi has the primary contingent liability with respect to its portfolio of private label merchants. The risk of loss is mitigated as the cash flows between Citi and the merchant are settled on a net basis, and Citi has the right to offset any payments with cash flows otherwise due to the merchant. To further mitigate this risk, Citi may delay settlement, require a merchant to make an escrow deposit, include event triggers to provide Citi with more financial and operational control in the event of the financial deterioration of the merchant or require various credit enhancements (including letters of credit and bank guarantees). In the unlikely event that a private label merchant is unable to deliver products, services or a refund to its private label cardholders, Citi is contingently liable to credit or refund cardholders.

With regard to (ii) above, Citi has a potential liability for bank card transactions where Citi provides the transaction processing services as well as those where a third party provides the services and Citi acts as a secondary guarantor, should that processor fail to perform.

Citi's maximum potential contingent liability related to both bank card and private label merchant processing services is estimated to be the total volume of credit card transactions that meet the requirements to be valid charge-back transactions at any given time. At December 31, 2021 and 2020, this maximum potential exposure was estimated to be $119.4 billion and $101.9 billion, respectively.

However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants. Citi assesses the probability and amount of its contingent liability related to merchant processing based on the financial strength of the primary guarantor, the extent and nature of unresolved charge-backs and its historical loss experience. At December 31, 2021 and 2020, the losses incurred and the carrying amounts of Citi's contingent obligations related to merchant processing activities were immaterial.

Credit Card Arrangements with Partners

Citi, in one of its credit card partner arrangements, provides guarantees to the partner regarding the volume of certain customer originations during the term of the agreement. To the extent that such origination targets are not met, the guarantees serve to compensate the partner for certain payments that otherwise would have been generated in connection with such originations.

Other Guarantees and Indemnifications

Credit Card Protection Programs

Citi, through its credit card businesses, provides various cardholder protection programs on several of its card products, including programs that provide coverage for certain losses associated with purchased products, and protection for certain travel-related purchases. These guarantees are not included in the table, since the total outstanding amount of the guarantees and Citi's maximum exposure to loss cannot be quantified. The protection is limited to certain types of purchases and losses, and it is not possible to quantify the purchases that would qualify for these benefits at any given time. Citi assesses the probability and amount of its potential liability related to these programs based on the extent and nature of its historical loss experience. At December 31, 2021 and 2020, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were immaterial.

Other Representation and Warranty Indemnifications

In the normal course of business, Citi provides standard representations and warranties to counterparties in contracts in connection with numerous transactions and also provides indemnifications, including indemnifications that protect the counterparties to the contracts in the event that additional taxes are owed, due either to a change in the tax law or an adverse interpretation of the tax law. Counterparties to these transactions provide Citi with comparable indemnifications. While such representations, warranties and indemnifications are essential components of many contractual relationships, they do not represent the underlying business purpose for the transactions. The indemnification clauses are often standard contractual terms related to Citi's own performance under the terms of a contract and are entered into in the normal course of business based on an assessment that the risk of loss is remote. Often these clauses are intended to ensure that terms of a contract are met at inception. No compensation is received for these standard representations and warranties, and it is not possible to determine their fair value because they rarely, if ever, result in a payment. In many cases, there are no stated or notional amounts included in the indemnification clauses, and the contingencies potentially triggering the obligation to indemnify have not occurred and are not expected to occur. As a result, these indemnifications are not included in the tables above.

Value-Transfer Networks (Including Exchanges and Clearing Houses) (VTNs)

Citi is a member of, or shareholder in, hundreds of value-transfer networks (VTNs) (payment, clearing and settlement systems as well as exchanges) around the world. As a condition of membership, many of these VTNs require that members stand ready to pay a pro rata share of the losses incurred by the organization due to another member's default on its obligations. Citi's potential obligations may be limited to its membership interests in the VTNs, contributions to the VTN's funds, or, in certain narrow cases, to the full pro rata share. The maximum exposure is difficult to estimate as this would require an assessment of claims that have not yet occurred; however, Citi believes the risk of loss is remote given historical experience with the VTNs. Accordingly, Citi's participation in VTNs is not reported in the guarantees tables above, and there are no amounts reflected on the Consolidated Balance Sheet as of December 31, 2021 or 2020 for potential obligations that could arise from Citi's involvement with VTN associations.

Long-Term Care Insurance Indemnification

In 2000, Travelers Life & Annuity (Travelers), then a subsidiary of Citi, entered into a reinsurance agreement to transfer the risks and rewards of its long-term care (LTC) business to GE Life (now Genworth Financial Inc., or Genworth), then a subsidiary of the General Electric Company (GE). As part of this transaction, the reinsurance obligations were provided by two regulated insurance subsidiaries of GE Life, which funded two collateral trusts with securities. Presently, as discussed below, the trusts are referred to as the Genworth Trusts.

As part of GE's spin-off of Genworth in 2004, GE retained the risks and rewards associated with the 2000 Travelers reinsurance agreement by providing a reinsurance contract to Genworth through GE's Union Fidelity Life Insurance Company (UFLIC) subsidiary that covers the Travelers LTC policies. In addition, GE provided a capital maintenance agreement in favor of UFLIC that is designed to assure that UFLIC will have the funds to pay its reinsurance obligations. As a result of these reinsurance agreements and the spin-off of Genworth, Genworth has reinsurance protection from UFLIC (supported by GE) and has reinsurance obligations in connection with the Travelers LTC policies. As noted below, the Genworth reinsurance obligations now benefit Brighthouse Financial, Inc. (Brighthouse). While neither Brighthouse nor Citi are direct beneficiaries of the capital maintenance agreement between GE and UFLIC, Brighthouse and Citi benefit indirectly from the existence of the capital maintenance agreement, which helps assure that UFLIC will continue to have funds necessary to pay its reinsurance obligations to Genworth.

In connection with Citi's 2005 sale of Travelers to MetLife Inc. (MetLife), Citi provided an indemnification to MetLife for losses (including policyholder claims) relating to the LTC business for the entire term of the Travelers LTC policies, which, as noted above, are reinsured by subsidiaries of Genworth. In 2017, MetLife spun off its retail insurance business to Brighthouse. As a result, the Travelers LTC policies now reside with Brighthouse. The original reinsurance agreement between Travelers (now Brighthouse) and Genworth remains in place and Brighthouse is the sole beneficiary of the Genworth Trusts. The Genworth Trusts are designed to provide collateral to Brighthouse in an amount equal to the statutory liabilities of Brighthouse in respect of the

Travelers LTC policies. The assets in the Genworth Trusts are evaluated and adjusted periodically to ensure that the fair value of the assets continues to provide collateral in an amount equal to these estimated statutory liabilities, as the liabilities change over time.

If both (i) Genworth fails to perform under the original Travelers/GE Life reinsurance agreement for any reason, including its insolvency or the failure of UFLIC to perform under its reinsurance contract or GE to perform under the capital maintenance agreement, and (ii) the assets of the two Genworth Trusts are insufficient or unavailable, then Citi, through its LTC reinsurance indemnification, must reimburse Brighthouse for any losses incurred in connection with the LTC policies. Since both events would have to occur before Citi would become responsible for any payment to Brighthouse pursuant to its indemnification obligation, and the likelihood of such events occurring is currently not probable, there is no liability reflected on the Consolidated Balance Sheet as of December 31, 2021 and 2020 related to this indemnification. However, if both events become reasonably possible (meaning more than remote but less than probable), Citi will be required to estimate and disclose a reasonably possible loss or range of loss to the extent that such an estimate could be made. In addition, if both events become probable, Citi will be required to accrue for such liability in accordance with applicable accounting principles.

Futures and Over-the-Counter Derivatives Clearing

Citi provides clearing services on central clearing parties (CCP) for clients that need to clear exchange-traded and over-the-counter (OTC) derivatives contracts with CCPs. Based on all relevant facts and circumstances, Citi has concluded that it acts as an agent for accounting purposes in its role as clearing member for these client transactions. As such, Citi does not reflect the underlying exchange-traded or OTC derivatives contracts in its Consolidated Financial Statements. See Note 22 for a discussion of Citi's derivatives activities that are reflected in its Consolidated Financial Statements.

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers.

There are two types of margin: initial and variation. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP or depository institutions is reflected within *Brokerage payables* (payables to customers) and *Brokerage receivables* (receivables from brokers, dealers and clearing organizations) or *Cash and due from banks*, respectively.

However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin, (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets, (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately $18.7 billion and $16.6 billion as of December 31, 2021 and 2020, respectively.

Variation margin due from clients to the respective CCP, or from the CCP to clients, reflects changes in the value of the client's derivative contracts for each trading day. As a clearing member, Citi is exposed to the risk of non-performance by clients (e.g., failure of a client to post variation margin to the CCP for negative changes in the value of the client's derivative contracts). In the event of non-performance by a client, Citi would move to close out the client's positions. The CCP would typically utilize initial margin posted by the client and held by the CCP, with any remaining shortfalls required to be paid by Citi as clearing member. Citi generally holds incremental cash or securities margin posted by the client, which would typically be expected to be sufficient to mitigate Citi's credit risk in the event that the client fails to perform.

As required by ASC 860-30-25-5, securities collateral posted by clients is not recognized on Citi's Consolidated Balance Sheet.

Carrying Value—Guarantees and Indemnifications

At December 31, 2021 and 2020, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately $1.4 billion and $2.2 billion, respectively. The carrying value of financial and performance guarantees is included in *Other liabilities*. For loans sold with recourse, the carrying value of the liability is included in *Other liabilities*.

Collateral

Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to $56.5 billion and $51.6 billion at December 31, 2021 and 2020, respectively. Securities and other marketable assets held as collateral amounted to $84.2 billion and $80.1 billion at December 31, 2021 and 2020, respectively. The majority of collateral is held to reimburse losses realized under securities lending indemnifications. In addition, letters of credit in favor of Citi held as collateral amounted to $4.1 billion and $6.6 billion at December 31, 2021 and 2020, respectively. Other property may also be available to Citi to cover losses under certain guarantees and indemnifications; however, the value of such property has not been determined.

Performance Risk

Citi evaluates the performance risk of its guarantees based on the assigned referenced counterparty internal or external ratings. Where external ratings are used, investment-grade ratings are considered to be Baa/BBB and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system. On certain underlying referenced assets or entities, ratings are not available. Such referenced assets are included in the "not rated" category. The maximum potential amount of the future payments related to the outstanding guarantees is determined to be the notional amount of these contracts, which is the par amount of the assets guaranteed.

Presented in the tables below are the maximum potential amounts of future payments that are classified based on internal and external credit ratings. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	**Investment grade**	**Non-investment grade**	**Not rated**	**Total**
Financial standby letters of credit	**$81.4**	**$11.3**	**$ —**	**$ 92.7**
Performance guarantees	**10.5**	**2.5**	**—**	**13.0**
Derivative instruments deemed to be guarantees	**—**	**—**	**63.5**	**63.5**
Loans sold with recourse	**—**	**—**	**1.7**	**1.7**
Securities lending indemnifications	**—**	**—**	**121.9**	**121.9**
Credit card merchant processing	**—**	**—**	**119.4**	**119.4**
Credit card arrangements with partners	**—**	**—**	**0.8**	**0.8**
Other	**—**	**12.0**	**2.0**	**14.0**
Total	**$91.9**	**$25.8**	**$309.3**	**$427.0**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2020	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	$78.5	$14.6	$ 0.6	$ 93.7
Performance guarantees	9.8	3.0	0.5	13.3
Derivative instruments deemed to be guarantees	—	—	80.9	80.9
Loans sold with recourse	—	—	1.2	1.2
Securities lending indemnifications	—	—	112.2	112.2
Credit card merchant processing	—	—	101.9	101.9
Credit card arrangements with partners	—	—	1.0	1.0
Other	—	12.0	—	12.0
Total	$88.3	$29.6	$298.3	$416.2

Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

In millions of dollars	U.S.	Outside of U.S.	December 31, 2021	December 31, 2020
Commercial and similar letters of credit	$ 654	$ 5,256	$ 5,910	$ 5,221
One- to four-family residential mortgages	1,752	2,599	4,351	5,002
Revolving open-end loans secured by one- to four-family residential properties	6,790	1,123	7,913	9,626
Commercial real estate, construction and land development	15,877	1,966	17,843	12,867
Credit card lines	601,018	99,541	700,559	710,399
Commercial and other consumer loan commitments	207,234	113,322	320,556	322,458
Other commitments and contingencies	5,276	373	5,649	5,715
Total	$838,601	$224,180	$1,062,781	$1,071,288

The majority of unused commitments are contingent upon customers maintaining specific credit standards. Commercial commitments generally have floating interest rates and fixed expiration dates and may require payment of fees. Such fees (net of certain direct costs) are deferred and, upon exercise of the commitment, amortized over the life of the loan or, if exercise is deemed remote, amortized over the commitment period.

Commercial and Similar Letters of Credit

A commercial letter of credit is an instrument by which Citigroup substitutes its credit for that of a customer to enable the customer to finance the purchase of goods or to incur other commitments. Citigroup issues a letter on behalf of its client to a supplier and agrees to pay the supplier upon presentation of documentary evidence that the supplier has performed in accordance with the terms of the letter of credit. When a letter of credit is drawn, the customer is then required to reimburse Citigroup.

One- to Four-Family Residential Mortgages

A one- to four-family residential mortgage commitment is a written confirmation from Citigroup to a seller of a property that the bank will advance the specified sums enabling the buyer to complete the purchase.

Revolving Open-End Loans Secured by One- to Four-Family Residential Properties

Revolving open-end loans secured by one- to four-family residential properties are essentially home equity lines of credit. A home equity line of credit is a loan secured by a primary residence or second home to the extent of the excess of fair market value over the debt outstanding for the first mortgage.

Commercial Real Estate, Construction and Land Development

Commercial real estate, construction and land development include unused portions of commitments to extend credit for the purpose of financing commercial and multifamily residential properties as well as land development projects.

Both secured-by-real-estate and unsecured commitments are included in this line, as well as undistributed loan proceeds, where there is an obligation to advance for construction progress payments. However, this line only includes those extensions of credit that, once funded, will be classified as *Total loans, net* on the Consolidated Balance Sheet.

Credit Card Lines

Citigroup provides credit to customers by issuing credit cards. The credit card lines are cancelable by providing notice to the cardholder or without such notice as permitted by local law.

Commercial and Other Consumer Loan Commitments

Commercial and other consumer loan commitments include overdraft and liquidity facilities as well as commercial commitments to make or purchase loans, purchase third-party receivables, provide note issuance or revolving underwriting facilities and invest in the form of equity.

Other Commitments and Contingencies

Other commitments and contingencies include all other transactions related to commitments and contingencies not reported on the lines above.

Unsettled Reverse Repurchase and Securities Borrowing Agreements and Unsettled Repurchase and Securities Lending Agreements

In addition, in the normal course of business, Citigroup enters into reverse repurchase and securities borrowing agreements, as well as repurchase and securities lending agreements, which settle at a future date. At December 31, 2021 and 2020, Citigroup had approximately $126.6 billion and $71.8 billion of unsettled reverse repurchase and securities borrowing agreements, and approximately $41.1 billion and $62.5 billion of unsettled repurchase and securities lending agreements, respectively. For a further discussion of securities purchased under agreements to resell and securities borrowed, and securities sold under agreements to repurchase and securities loaned, including the Company's policy for offsetting repurchase and reverse repurchase agreements, see Note 11 to the Consolidated Financial Statements.

27. CONTINGENCIES

Accounting and Disclosure Framework

ASC 450 governs the disclosure and recognition of loss contingencies, including potential losses from litigation, regulatory, tax and other matters. ASC 450 defines a "loss contingency" as "an existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an entity that will ultimately be resolved when one or more future events occur or fail to occur." It imposes different requirements for the recognition and disclosure of loss contingencies based on the likelihood of occurrence of the contingent future event or events. It distinguishes among degrees of likelihood using the following three terms: "probable," meaning that "the future event or events are likely to occur"; "remote," meaning that "the chance of the future event or events occurring is slight"; and "reasonably possible," meaning that "the chance of the future event or events occurring is more than remote but less than likely." These three terms are used below as defined in ASC 450.

Accruals. ASC 450 requires accrual for a loss contingency when it is "probable that one or more future events will occur confirming the fact of loss" *and* "the amount of the loss can be reasonably estimated." In accordance with ASC 450, Citigroup establishes accruals for contingencies, including any litigation, regulatory or tax matters disclosed herein, when Citigroup believes it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. When the reasonable estimate of the loss is within a range of amounts, the minimum amount of the range is accrued, unless some higher amount within the range is a better estimate than any other amount within the range. Once established, accruals are adjusted from time to time, as appropriate, in light of additional information. The amount of loss ultimately incurred in relation to those matters may be substantially higher or lower than the amounts accrued for those matters.

Disclosure. ASC 450 requires disclosure of a loss contingency if "there is at least a reasonable possibility that a loss or an additional loss may have been incurred" *and* there is no accrual for the loss because the conditions described above are not met or an exposure to loss exists in excess of the amount accrued. In accordance with ASC 450, if Citigroup has not accrued for a matter because Citigroup believes that a loss is reasonably possible but not probable, or that a loss is probable but not reasonably estimable, and the reasonably possible loss is material, it discloses the loss contingency. In addition, Citigroup discloses matters for which it has accrued if it believes a reasonably possible exposure to material loss exists in excess of the amount accrued. In accordance with ASC 450, Citigroup's disclosure includes an estimate of the reasonably possible loss or range of loss for those matters as to which an estimate can be made. ASC 450 does not require disclosure of an estimate of the reasonably possible loss or range of loss where an estimate cannot be made. Neither accrual nor disclosure is required for losses that are deemed remote.

Litigation, Regulatory and Other Contingencies

Overview. In addition to the matters described below, in the ordinary course of business, Citigroup, its affiliates and subsidiaries, and current and former officers, directors and employees (for purposes of this section, sometimes collectively referred to as Citigroup and Related Parties) routinely are named as defendants in, or as parties to, various legal actions and proceedings. Certain of these actions and proceedings assert claims or seek relief in connection with alleged violations of consumer protection, fair lending, securities, banking, antifraud, antitrust, anti-money laundering, employment and other statutory and common laws. Certain of these actual or threatened legal actions and proceedings include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief, and in some instances seek recovery on a class-wide basis.

In the ordinary course of business, Citigroup and Related Parties also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, restitution, disgorgement, injunctions or other relief. In addition, certain affiliates and subsidiaries of Citigroup are banks, registered broker-dealers, futures commission merchants, investment advisors or other regulated entities and, in those capacities, are subject to regulation by various U.S., state and foreign securities, banking, commodity futures, consumer protection and other regulators. In connection with formal and informal inquiries by these regulators, Citigroup and such affiliates and subsidiaries receive numerous requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of their regulated activities. From time to time Citigroup and Related Parties also receive grand jury subpoenas and other requests for information or assistance, formal or informal, from federal or state law enforcement agencies including, among others, various United States Attorneys' Offices, the Asset Forfeiture and Money Laundering Section and other divisions of the Department of Justice, the Financial Crimes Enforcement Network of the United States Department of the Treasury, and the Federal Bureau of Investigation relating to Citigroup and its customers.

Because of the global scope of Citigroup's operations and its presence in countries around the world, Citigroup and Related Parties are subject to litigation and governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal) in multiple jurisdictions with legal, regulatory and tax regimes that may differ substantially, and present substantially different risks, from those Citigroup and Related Parties are subject to in the United States. In some instances, Citigroup and Related Parties may be involved in proceedings involving the same subject matter in multiple jurisdictions, which may result in overlapping, cumulative or inconsistent outcomes.

Citigroup seeks to resolve all litigation, regulatory, tax and other matters in the manner management believes is in the best interests of Citigroup and its shareholders, and contests liability, allegations of wrongdoing and, where applicable, the amount of damages or scope of any penalties or other relief sought as appropriate in each pending matter.

Inherent Uncertainty of the Matters Disclosed. Certain of the matters disclosed below involve claims for substantial or indeterminate damages. The claims asserted in these matters typically are broad, often spanning a multiyear period and sometimes a wide range of business activities, and the plaintiffs' or claimants' alleged damages frequently are not quantified or factually supported in the complaint or statement of claim. Other matters relate to regulatory investigations or proceedings, as to which there may be no objective basis for quantifying the range of potential fine, penalty or other remedy. As a result, Citigroup is often unable to estimate the loss in such matters, even if it believes that a loss is probable or reasonably possible, until developments in the case, proceeding or investigation have yielded additional information sufficient to support a quantitative assessment of the range of reasonably possible loss. Such developments may include, among other things, discovery from adverse parties or third parties, rulings by the court on key issues, analysis by retained experts and engagement in settlement negotiations. Depending on a range of factors, such as the complexity of the facts, the novelty of the legal theories, the pace of discovery, the court's scheduling order, the timing of court decisions and the adverse party's, regulator's or other authority's willingness to negotiate in good faith toward a resolution, it may be months or years after the filing of a case or commencement of a proceeding or an investigation before an estimate of the range of reasonably possible loss can be made.

Matters as to Which an Estimate Can Be Made. For some of the matters disclosed below, Citigroup is currently able to estimate a reasonably possible loss or range of loss in excess of amounts accrued (if any). For some of the matters included within this estimation, an accrual has been made because a loss is believed to be both probable and reasonably estimable, but an exposure to loss exists in excess of the amount accrued. In these cases, the estimate reflects the reasonably possible range of loss in excess of the accrued amount. For other matters included within this estimation, no accrual has been made because a loss, although estimable, is believed to be reasonably possible, but not probable; in these cases, the estimate reflects the reasonably possible loss or range of loss. As of December 31, 2021, Citigroup estimates that the reasonably possible unaccrued loss for these matters ranges up to approximately $1.5 billion in the aggregate.

These estimates are based on currently available information. As available information changes, the matters for which Citigroup is able to estimate will change, and the estimates themselves will change. In addition, while many estimates presented in financial statements and other financial disclosures involve significant judgment and may be subject to significant uncertainty, estimates of the range of reasonably possible loss arising from litigation, regulatory and tax proceedings are subject to particular uncertainties. For example, at the time of making an estimate, (i) Citigroup may have only preliminary, incomplete or inaccurate information about the facts underlying the claim, (ii) its assumptions about the future rulings of the court, other tribunal or authority on significant issues, or the behavior and incentives of adverse parties, regulators or other authorities, may prove to be wrong and (iii) the outcomes it is attempting to predict are often not amenable to the use of statistical or other quantitative analytical tools. In addition, from time to time an outcome may occur that Citigroup had not accounted for in its estimate because it had deemed such an outcome to be remote. For all of these reasons, the amount of loss in excess of amounts accrued in relation to matters for which an estimate has been made could be substantially higher or lower than the range of loss included in the estimate.

Matters as to Which an Estimate Cannot Be Made. For other matters disclosed below, Citigroup is not currently able to estimate the reasonably possible loss or range of loss. Many of these matters remain in very preliminary stages (even in some cases where a substantial period of time has passed since the commencement of the matter), with few or no substantive legal decisions by the court, tribunal or other authority defining the scope of the claims, the class (if any) or the potentially available damages or other exposure, and fact discovery is still in progress or has not yet begun. In many of these matters, Citigroup has not yet answered the complaint or statement of claim or asserted its defenses, nor has it engaged in any negotiations with the adverse party (whether a regulator, taxing authority or a private party). For all these reasons, Citigroup cannot at this time estimate the reasonably possible loss or range of loss, if any, for these matters.

Opinion of Management as to Eventual Outcome. Subject to the foregoing, it is the opinion of Citigroup's management, based on current knowledge and after taking into account its current accruals, that the eventual outcome of all matters described in this Note would not likely have a material adverse effect on the consolidated financial condition of Citigroup. Nonetheless, given the substantial or indeterminate amounts sought in certain of these matters, and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could, from time to time, have a material adverse effect on Citigroup's consolidated results of operations or cash flows in particular quarterly or annual periods.

ANZ Underwriting Matter

On February 11, 2022, the Australian Commonwealth Director of Public Prosecutions discontinued the prosecution of charges that were brought against Citigroup Global Markets Australia Pty Limited (CGMA) and two Citi employees for alleged criminal cartel offenses in relation to CGMA's role as a joint underwriter and lead manager with other banks in the 2015 institutional share placement by Australia and New Zealand Banking Group Limited (ANZ). The case, captioned R v. CITIGROUP GLOBAL MARKETS AUSTRALIA PTY LIMITED is before the Federal Court in New South Wales, Australia. Additional information concerning this action is publicly available in court filings under the docket number NSD 1316–NSD 1324/2020.

Facilitation Trading Matters

On January 28, 2022, the Securities and Futures Commission of Hong Kong (SFC) entered into a resolution with Citigroup Global Markets Asia Limited (CGMAL) of the SFC's investigation into CGMAL's equity sales trading desks in connection with facilitation trades. As part of the resolution, CGMAL agreed to pay a civil penalty of $44.6 million. Citigroup is cooperating with related investigations and inquiries by other government and regulatory agencies in Asia Pacific countries and elsewhere.

Foreign Exchange Matters

Regulatory Actions: Government and regulatory agencies in the U.S. and other jurisdictions are conducting investigations or making inquiries regarding Citigroup's foreign exchange business. Citigroup is cooperating with these and related investigations and inquiries.

Antitrust and Other Litigation: In 2018, a number of institutional investors who opted out of the previously disclosed August 2018 final settlement filed an action against Citigroup, Citibank, Citigroup Global Markets Inc. (CGMI) and other defendants, captioned ALLIANZ GLOBAL INVESTORS, ET AL. v. BANK OF AMERICA CORP., ET AL., in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants manipulated, and colluded to manipulate, the foreign exchange markets. Plaintiffs assert claims under the Sherman Act and unjust enrichment claims, and seek consequential and punitive damages and other forms of relief. On July 28, 2020, plaintiffs filed a third amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 18-CV-10364 (S.D.N.Y.) (Schofield, J.).

In 2018, a group of institutional investors issued a claim against Citigroup, Citibank and other defendants, captioned ALLIANZ GLOBAL INVESTORS GMBH AND OTHERS v. BARCLAYS BANK PLC AND OTHERS, in the High Court of Justice in London. Claimants allege that defendants manipulated, and colluded to manipulate, the foreign exchange market in violation of EU and U.K. competition laws. In December 2021, the High Court ordered that the case be transferred to the U.K.'s Competition Appeal Tribunal. Additional information concerning this action is publicly available in court filings under the case number CL-2018-000840 in the High Court and under the case number 1430/5/7/22 (T) in the Competition Appeal Tribunal.

In 2015, a putative class of consumers and businesses in the U.S. who directly purchased supracompetitive foreign currency at benchmark exchange rates filed an action against Citigroup and other defendants, captioned NYPL v. JPMORGAN CHASE & CO., ET AL., in the United States District Court for the Northern District of California (later transferred to the United States District Court for the Southern District of New York). Subsequently, plaintiffs filed an amended class action complaint against Citigroup, Citibank and Citicorp as defendants. Plaintiffs allege that they suffered losses as a result of defendants' alleged manipulation of, and collusion with respect to, the foreign exchange market. Plaintiffs assert claims under federal and California antitrust and consumer protection laws, and seek compensatory damages, treble damages and declaratory and injunctive relief. Additional information concerning this action is publicly available in court filings under the docket numbers 15-CV-2290 (N.D. Cal.) (Chhabria, J.) and 15-CV-9300 (S.D.N.Y.) (Schofield, J.).

In 2019, two applications, captioned MICHAEL O'HIGGINS FX CLASS REPRESENTATIVE LIMITED v. BARCLAYS BANK PLC AND OTHERS and PHILLIP EVANS v. BARCLAYS BANK PLC AND OTHERS, were made to the U.K.'s Competition Appeal Tribunal requesting permission to commence collective proceedings against Citigroup, Citibank and other defendants. The applications seek compensatory damages for losses alleged to have arisen from the actions at issue in the European Commission's foreign exchange spot trading infringement decision (European Commission Decision of May 16, 2019 in Case AT.40135-FOREX (Three Way Banana Split) C(2019) 3631 final). Additional information concerning these actions is publicly available in court filings under the case numbers 1329/7/7/19 and 1336/7/7/19.

In 2019, a putative class action was filed against Citibank and other defendants, captioned J WISBEY & ASSOCIATES PTY LTD v. UBS AG & ORS, in the Federal Court of Australia. Plaintiffs allege that defendants manipulated the foreign exchange markets. Plaintiffs assert claims under antitrust laws, and seek compensatory damages and declaratory and injunctive relief. Additional information concerning this action is publicly available in court filings under the docket number VID567/2019.

In 2019, two motions for certification of class actions filed against Citigroup, Citibank and Citicorp and other defendants were consolidated, under the caption GERTLER, ET AL. v. DEUTSCHE BANK AG, in the Tel Aviv Central District Court in Israel. Plaintiffs allege that defendants manipulated the foreign exchange markets. Citibank's motion to dismiss plaintiffs' petition for certification was denied on April 12, 2021. A motion for leave to appeal this decision is currently pending before the Supreme Court of Israel. Additional information concerning this action is publicly available in court filings under the docket number CA 29013-09-18.

Hong Kong Private Bank Litigation

In 2007, a claim was filed in the High Court of Hong Kong claiming damages of over $51 million against Citibank. The case, captioned PT ASURANSI TUGU PRATAMA INDONESIA TBK v. CITIBANK N.A., was dismissed in 2018 by the Hong Kong Court of First Instance on grounds that the claim was time-barred. Plaintiff has appealed the court's dismissal. Additional information concerning this action is publicly available in court filings under the docket number CACV 548/2018.

Interbank Offered Rates-Related Litigation

In May 2019, three putative class actions filed against Citigroup, Citibank, CGMI and other defendants were consolidated, under the caption IN RE ICE LIBOR ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants suppressed ICE LIBOR. Plaintiffs assert claims under the Sherman Act, the Clayton Act, and unjust enrichment, and seek compensatory damages, disgorgement, and treble damages. In March 2020, the court granted defendants' motion to dismiss the action for failure to state a claim, which plaintiffs appealed to the United States Court of Appeals for the Second Circuit. Additional information concerning this action is publicly available in court filings under the docket numbers 19-CV-439 (S.D.N.Y.) (Daniels, J.) and 20-1492 (2d Cir.).

In August 2020, individual borrowers and consumers of loans and credit cards filed an action against Citigroup, Citibank, CGMI and other defendants, captioned MCCARTHY, ET AL. v. INTERCONTINENTAL EXCHANGE, INC., ET AL., in the United States District Court for the Northern District of California. Plaintiffs allege that defendants conspired to fix ICE LIBOR, assert claims under the Sherman Act and the Clayton Act, and seek declaratory relief, injunctive relief, and treble damages. Additional information concerning this action is publicly available in court filings under the docket number 20-CV-5832 (N.D. Cal.) (Donato, J.).

Interchange Fee Litigation

Beginning in 2005, several putative class actions were filed against Citigroup, Citibank and Citicorp, together with Visa, MasterCard and other banks and their affiliates, in various federal district courts and consolidated with other related individual cases in a multi-district litigation proceeding in the United States District Court for the Eastern District of New York. This proceeding is captioned IN RE PAYMENT CARD INTERCHANGE FEE AND MERCHANT DISCOUNT ANTITRUST LITIGATION.

The plaintiffs, merchants that accept Visa and MasterCard branded payment cards, and various membership associations that claim to represent certain groups of merchants, allege, among other things, that defendants have engaged in conspiracies to set the price of interchange and merchant discount fees on credit and debit card transactions and to restrain trade unreasonably through various Visa and MasterCard rules governing merchant conduct, all in violation of Section 1 of the Sherman Act and certain California statutes. Plaintiffs further alleged violations of Section 2 of the Sherman Act. Supplemental complaints also were filed against defendants in the putative class actions alleging that Visa's and MasterCard's respective initial public offerings were anticompetitive and violated Section 7 of the Clayton Act, and that MasterCard's initial public offering constituted a fraudulent conveyance.

In 2016, the Court of Appeals reversed the district court's approval of a class settlement and remanded for further proceedings. The district court thereafter appointed separate interim counsel for a putative class seeking damages and a putative class seeking injunctive relief. Amended or new complaints on behalf of the putative classes and various individual merchants were subsequently filed, including a further amended complaint on behalf of a putative damages class and a new complaint on behalf of a putative injunctive class, both of which named Citigroup and Related Parties. In addition, numerous merchants have filed amended or new complaints against Visa, MasterCard, and in some instances one or more issuing banks, including Citigroup and affiliates.

In 2019, the district court granted the damages class plaintiffs' motion for final approval of a new settlement with the defendants. The settlement involves the damages class only and does not settle the claims of the injunctive relief class or any actions brought on a non-class basis by individual merchants. The settlement provides for a cash payment to the damages class of $6.24 billion, later reduced by $700 million based on the transaction volume of class members that opted out from the settlement. Several merchants and merchant groups have appealed the final approval order. On September 27, 2021, the court granted the injunctive relief class plaintiffs' motion to certify a non-opt-out class. Additional information concerning these consolidated actions is publicly available in court filings under the docket number MDL 05-1720 (E.D.N.Y.) (Brodie, J.).

Interest Rate and Credit Default Swap Matters

Regulatory Actions: The Commodity Futures Trading Commission (CFTC) is conducting an investigation into alleged anticompetitive conduct in the trading and clearing of interest rate swaps (IRS) by investment banks. Citigroup is cooperating with the investigation.

Antitrust and Other Litigation: Beginning in 2015, Citigroup, Citibank, CGMI, CGML and numerous other parties were named as defendants in a number of industry-wide putative class actions related to IRS trading. These actions have been consolidated in the United States District Court for the Southern District of New York under the caption IN RE INTEREST RATE SWAPS ANTITRUST LITIGATION. The actions allege that defendants colluded to prevent the development of exchange-like trading for IRS and assert federal and state antitrust claims and claims for unjust enrichment. Also consolidated under the same caption are individual actions filed by swap execution facilities, asserting federal and state antitrust claims, as well as claims for unjust enrichment and tortious interference with business relations. Plaintiffs in these actions seek treble damages, fees, costs and injunctive relief. Lead plaintiffs in the class action moved for class certification in 2019, and subsequently filed an amended complaint. Additional information concerning these actions is publicly available in court filings under the docket numbers 18-CV-5361 (S.D.N.Y.) (Oetken, J.) and 16-MD-2704 (S.D.N.Y.) (Oetken, J.).

In 2017, Citigroup, Citibank, CGMI, CGML and numerous other parties were named as defendants in an action filed in the United States District Court for the Southern District of New York under the caption TERA GROUP, INC., ET AL. v. CITIGROUP, INC., ET AL. The complaint alleges that defendants colluded to prevent the development of exchange-like trading for credit default swaps and asserts federal and state antitrust claims and state law tort claims. In January 2020, plaintiffs filed an amended complaint, which defendants later moved to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 17-CV-4302 (S.D.N.Y.) (Sullivan, J.).

Madoff-Related Litigation

In December 2008, a Securities Investor Protection Act (SIPA) trustee was appointed for the SIPA liquidation of Bernard L. Madoff Investment Securities LLC (BLMIS), in the United States Bankruptcy Court for the Southern District of New York. Beginning in 2010, he commenced actions against multiple Citi entities, including Citibank, Citicorp North America, Inc., CGML and Citibank (Switzerland) AG, seeking recovery of monies that originated at BLMIS and were allegedly received by the Citi entities as subsequent transferees. On August 30, 2021, the United States Court of Appeals for the Second Circuit reversed the bankruptcy court's denial of the SIPA trustee's motion for leave to amend his complaint and remanded the case to the bankruptcy court for further proceedings. On January 27, 2022, Citibank and Citicorp North America, Inc. filed a petition for a writ of certiorari in the United States Supreme Court seeking review of the Second Circuit's holding that good faith is an affirmative defense. The SIPA trustee filed an amended complaint against Citibank, Citicorp North America, Inc. and CGML on February 11, 2022. The action against Citibank (Switzerland) AG was dismissed on February 23, 2022. Additional information concerning these actions is publicly available in court filings under the docket numbers 10-5345, 12-1700 (Bankr. S.D.N.Y.) (Morris, J.); 12-MC-115 (S.D.N.Y.) (Rakoff, J.); and 17-2992, 17-3076, 17-3139, 19-4282, 20-1333 (2d Cir.).

Also beginning in 2010, the British Virgin Islands liquidators of Fairfield Sentry Limited, whose assets were invested with BLMIS, commenced multiple actions in the United States Bankruptcy Court for the Southern District of New York against over 400 defendants, including CGML Citibank (Switzerland) AG; Citibank, N.A., London; Citivic Nominees Limited; and Cititrust (Bahamas) Limited. The actions seek recovery of monies that were allegedly received directly or indirectly by Citi entities from Fairfield Sentry. Appeals concerning various dismissed claims and a petition for interlocutory review on the one claim remaining are pending before the United States District Court for the Southern District of New York, and the remaining claim is proceeding in the Bankruptcy Court. Citi (Switzerland) AG and Citivic Nominees Limited filed a motion to dismiss for lack of personal jurisdiction on October 29, 2021. These actions are captioned FAIRFIELD SENTRY LTD., ET AL. v. CGML, ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. CITIBANK NA LONDON, ET AL.; and FAIRFIELD SENTRY LTD., ET AL. v. ZURICH CAPITAL MARKETS COMPANY, ET AL. Additional information is publicly available in court filings under the docket numbers 10-13164, 10-3496, 10-3622, 10-3634, 11-2770 (Bankr. S.D.N.Y.) (Morris, J.); and 19-3911, 19-4267, 19-4396, 19-4484, 19-5106, 19-5135, 21-2997, 21-3243, 21-3526, 21-3529, 21-3530, 21-4307, 21-4498, 21-4496 (S.D.N.Y.) (Broderick, J.).

Parmalat Litigation

In 2004, an Italian commissioner appointed to oversee the administration of various Parmalat companies filed a complaint against Citigroup, Citibank and related parties, alleging that the defendants facilitated a number of frauds by Parmalat insiders. In 2008, a jury rendered a verdict in Citigroup's favor and awarded Citi $431 million. In 2019, the Italian Supreme Court affirmed the decision in the full amount awarded. Citigroup has taken steps to enforce the judgment in Italian and Belgian courts. Additional information concerning these actions is publicly available in court filings under (in Italy) the docket numbers 4133/2019 and 224/2022 (Court of Milan Enforcement Section) and (in Belgium) 20/3617/A (Brussels Court of First Instance) and 21/AR/1658 (Brussels Court of Appeal).

In 2015, Parmalat filed a claim in an Italian civil court in Milan claiming damages of €1.8 billion against Citigroup, Citibank and related parties, which the court later dismissed on grounds it was duplicative of Parmalat's previously unsuccessful claims. In 2019, the Milan Court of Appeal rejected Parmalat's appeal of the Milan court's dismissal, which Parmalat appealed to the Italian Supreme Court. Additional information concerning this action is publicly available in court filings under the docket number 20598/2019.

In January 2020, Parmalat, its three directors, and its sole shareholder, Sofil S.a.s., as co-plaintiffs, filed a claim before the Italian civil court in Milan seeking a declaratory judgment that they do not owe compensatory damages of €990 million to Citibank, which Citibank is seeking to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 8611/2020.

Payment Protection Insurance

Regulators and courts in the U.K. have scrutinized the selling of payment protection insurance (PPI) by financial institutions for several years. Citibank continues to review customer claims relating to the sale of PPI in the U.K., to grant redress in accordance with the requirements of the U.K. Financial Conduct Authority, and to defend claims filed in U.K. courts.

Record-Keeping Matters

The U.S. Securities and Exchange Commission is conducting an investigation of CGMI and other firms regarding compliance with record-keeping obligations for broker-dealers and investment advisers in connection with business-related communications sent over unapproved electronic messaging channels. CGMI is cooperating with the investigation.

Revlon-Related Wire Transfer Litigation

In August 2020, Citibank filed actions in the United States District Court for the Southern District of New York, which have been consolidated under the caption IN RE CITIBANK AUGUST 11, 2020 WIRE TRANSFERS. The actions relate to a payment erroneously made by Citibank in its capacity as administrative agent for a Revlon credit facility. The action seeks the return of the erroneously transferred funds from certain fund managers. Citibank has asserted claims for unjust enrichment, conversion, money had and received, and payment by mistake. The court issued temporary restraining orders related to the subject funds. On February 16, 2021, the court issued a judgment in favor of the defendants, which Citibank later appealed in the United States Court of Appeals for the Second Circuit. In response to the district court's denial of Citibank's motion to extend the temporary restraining orders, Citibank filed a motion for an injunction with the United States Court of Appeals. Additional information concerning this action is publicly available in court filings under docket numbers 20-CV-6539 (S.D.N.Y.) (Furman, J.) and 21-487 (2d Cir.).

Shareholder Derivative and Securities Litigation

Beginning in October 2020, four derivative actions were filed in the United States District Court for the Southern District of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors. The actions were later consolidated under the case name IN RE CITIGROUP INC. SHAREHOLDER DERIVATIVE LITIGATION. The consolidated complaint asserts claims for breach of fiduciary duty, unjust enrichment, and contribution and indemnification in connection with defendants' alleged failures to implement adequate internal controls. In addition, the consolidated complaint asserts derivative claims for violations of Sections 10(b) and 14(a) of the Securities Exchange Act of 1934 in connection with statements in Citigroup's 2019 and 2020 annual meeting proxy statements. On February 8, 2021, the court stayed the action pending resolution of defendants' motion to dismiss in IN RE CITIGROUP SECURITIES LITIGATION. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-09438 (S.D.N.Y.) (Nathan, J.).

Beginning in December 2020, two derivative actions were filed in the Supreme Court of the State of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors, and certain current and former officers. The actions were later consolidated under the case name IN RE CITIGROUP INC. DERIVATIVE LITIGATION, and the court stayed the action pending resolution of defendants' motion to dismiss in IN RE CITIGROUP SECURITIES LITIGATION. Additional information concerning this action is publicly available in court filings under the docket number 656759/2020 (N.Y. Sup. Ct.) (Schecter, J.).

Beginning in October 2020, three putative class action complaints were filed in the United States District Court for the Southern District of New York against Citigroup and certain of its current and former officers, asserting violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 in connection with defendants' alleged misstatements concerning Citigroup's internal controls. The actions were later consolidated under the case name IN RE CITIGROUP SECURITIES LITIGATION. The consolidated complaint later added certain of Citigroup's current and former directors as defendants. Defendants have moved to dismiss the consolidated amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-9132 (S.D.N.Y.) (Nathan, J.).

Sovereign Securities Litigation

In 2015, putative class actions filed against CGMI and other defendants were consolidated under the caption IN RE TREASURY SECURITIES AUCTION ANTITRUST LITIGATION in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants colluded to fix U.S. treasury auction bids by sharing competitively sensitive information ahead of the auctions, and that defendants colluded to boycott and prevent the emergence of an anonymous, all-to-all electronic trading platform in the U.S. Treasuries secondary market. Plaintiffs assert claims under antitrust laws, and seek damages, including treble damages where authorized by statute, and injunctive relief. On March 31, 2021, the court granted defendants' motion to dismiss, without prejudice. On May 14, 2021, plaintiffs filed an amended consolidated complaint. On June 14, 2021, certain defendants, including CGMI, moved to dismiss the amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 15-MD-2673 (S.D.N.Y.) (Gardephe, J.).

In 2017, purchasers of supranational, sub-sovereign and agency (SSA) bonds filed a proposed class action on behalf of direct and indirect purchasers of SSA 296 bonds against Citigroup, Citibank, CGMI, CGML, Citibank Canada, Citigroup Global Markets Canada, Inc. and other defendants, captioned JOSEPH MANCINELLI, ET AL. v. BANK OF AMERICA CORPORATION, ET AL., in the Federal Court in Canada. Plaintiffs have filed an amended claim that alleges defendants manipulated, and colluded to manipulate, the SSA bonds market, asserts claims for breach of the Competition Act, breach of foreign law, civil conspiracy, unjust enrichment, waiver of tort and breach of contract, and seeks compensatory and punitive damages, among other relief. Additional information concerning this action is publicly available in court filings under the docket number T-1871-17 (Fed. Ct.).

In 2018, a putative class action was filed against Citigroup, CGMI, Citigroup Financial Products Inc., Citigroup Global Markets Holdings Inc., Citibanamex, Grupo Banamex and other banks, captioned IN RE MEXICAN GOVERNMENT BONDS ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. The complaint alleges that defendants colluded in the Mexican sovereign bond market. In September 2019, the court granted defendants' motion to dismiss. In December 2019, plaintiffs filed an amended complaint against Citibanamex and other market makers in the Mexican sovereign bond market. Plaintiffs no longer assert any claims against Citigroup and any other U.S. Citi affiliates. The amended complaint alleges a conspiracy to fix prices in the Mexican sovereign bond market from January 1, 2006 to April 19, 2017, and asserts antitrust and unjust enrichment claims, and seeks treble damages, restitution and injunctive relief. In February 2020, certain defendants, including Citibanamex, moved to dismiss the amended complaint, which the court later granted. On June 10, 2021, plaintiffs moved for reconsideration of the decision dismissing certain defendants, including Citibanamex, which those defendants have jointly opposed. Additional information concerning this action is publicly available in court filings under the docket number 18 Civ. 2830 (S.D.N.Y.) (Oetken, J.).

On February 9, 2021, purchasers of Euro-denominated sovereign debt issued by European central governments added CGMI, CGML and others as defendants to a putative class action, captioned IN RE EUROPEAN GOVERNMENT BONDS ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants engaged in a conspiracy to inflate prices of European government bonds in primary market auctions and to fix the prices of European government bonds in secondary markets. Plaintiffs assert a claim under the Sherman Act and seek treble damages and attorneys' fees. On June 4, 2021, certain defendants, including CGMI and CGML, filed a pre-motion letter with the court requesting leave to move to dismiss the action. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-2601 (S.D.N.Y.) (Marrero, J.).

Transaction Tax Matters

Citigroup and Citibank are engaged in litigation or examinations with non-U.S. tax authorities, including in the U.K., India and Germany, concerning the payment of transaction taxes and other non-income tax matters.

Tribune Company Bankruptcy

Certain Citigroup affiliates (along with numerous other parties) have been named as defendants in adversary proceedings related to the Chapter 11 cases of Tribune Company (Tribune) filed in the United States Bankruptcy Court for the District of Delaware, asserting claims arising out of the approximate $11 billion leveraged buyout of Tribune in 2007. The actions were consolidated as IN RE TRIBUNE COMPANY FRAUDULENT CONVEYANCE LITIGATION and transferred to the United States District Court for the Southern District of New York.

In the adversary proceeding captioned KIRSCHNER v. FITZSIMONS, ET AL., the litigation trustee, as successor plaintiff to the unsecured creditors committee, seeks to avoid and recover as actual fraudulent transfers the transfers of Tribune stock that occurred as a part of the leveraged buyout. Several Citigroup affiliates, along with numerous other parties, were named as shareholder defendants and were alleged to have tendered Tribune stock to Tribune as a part of the buyout. In 2017, the United States District Court for the Southern District of New York dismissed the actual fraudulent transfer claim against the shareholder defendants, including the Citigroup affiliates. In 2019, the litigation trustee filed an appeal to the United States Court of Appeals for the Second Circuit.

CGMI was named as a defendant in a separate action, KIRSCHNER v. CGMI, in connection with its role as advisor to Tribune. In 2019, the court dismissed the action, which the litigation trustee appealed to the United States Court of Appeals for the Second Circuit.

On August 20, 2021, the United States Court of Appeals for the Second Circuit issued its decision in the consolidated appeals in KIRSCHNER v. FITZSIMONS and KIRSCHNER v. CGMI. In the FITZSIMONS action, the Second Circuit affirmed the dismissal of the actual fraudulent transfer claim against the shareholder defendants, including the Citigroup affiliates. In the CGMI action, the Second Circuit affirmed the dismissal of all claims against CGMI except for the claim of constructive fraudulent conveyance. As to that claim, the Second Circuit vacated the dismissal and remanded to the district court for further proceedings on that claim and other claims that remain against certain other defendants that are not Citigroup affiliates. On November 29, 2021, on remand from the Second Circuit, the litigation trustee notified the United States District Court for the Southern District of New York that it was voluntarily dismissing all claims against CGMI pursuant to a settlement agreement. The district court approved the voluntary dismissal on December 10, 2021. Additional information concerning these actions is publicly available in court filings under the docket numbers 12 MC 2296 (S.D.N.Y.) (Cote, J.), 11 MD 2296 (S.D.N.Y.) (Cote, J.), 19-0449 (2d Cir.), and 19-3049 (2d Cir.).

Variable Rate Demand Obligation Litigation

In 2019, the plaintiffs in the consolidated actions CITY OF PHILADELPHIA v. BANK OF AMERICA CORP, ET AL. and MAYOR AND CITY COUNCIL OF BALTIMORE v. BANK OF AMERICA CORP., ET AL. filed a consolidated complaint naming as defendants Citigroup, Citibank, CGMI, CGML and numerous other industry participants. The consolidated complaint asserts violations of the Sherman Act, as well as claims for breach of contract, breach of fiduciary duty, and unjust enrichment, and seeks damages and injunctive relief based on allegations that defendants served as remarketing agents for municipal bonds called variable rate demand obligations (VRDOs) and colluded to set artificially high VRDO interest rates. In November 2020, the court granted in part and denied in part defendants' motion to dismiss the consolidated complaint.

On June 2, 2021, the Board of Directors of the San Diego Association of Governments, acting as the San Diego County Regional Transportation Commission, filed a parallel putative class action against the same defendants named in the already pending nationwide consolidated class action. The two actions were consolidated and on August 6, 2021, the plaintiffs in the nationwide putative class action filed a consolidated amended complaint, captioned THE CITY OF PHILADELPHIA, MAYOR AND CITY COUNCIL OF BALTIMORE, THE BOARD OF DIRECTORS OF THE SAN DIEGO ASSOCIATION OF GOVERNMENTS, ACTING AS THE SAN DIEGO COUNTY REGIONAL TRANSPORTATION COMMISSION v. BANK OF AMERICA CORP., ET AL. On September 14, 2021, defendants moved to dismiss the consolidated amended complaint in part. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-1608 (S.D.N.Y.) (Furman, J.).

Wind Farm Litigations

Beginning in March 2021, six wind farms in Texas commenced actions in New York and Texas state courts for declaratory judgments and breach of contract, asserting that the February 2021 winter storm in Texas excused their performance to deliver energy to Citi Energy Inc. (CEI) under the force majeure provisions of their contracts with CEI. In addition, the wind farms sought temporary restraining orders and/or preliminary injunctions, preventing CEI from exercising remedies under the contracts.

Preliminary injunctions were denied with respect to five of the six wind farms: the New York court denied preliminary injunctions with respect to the Stephens Ranch I and Stephens Ranch II wind farms; the Texas court denied preliminary injunctions with respect to the Flat Top, Shannon and Midway wind farms. Later in 2021, Stephens Ranch I, Stephens Ranch II and Flat Top each voluntarily dismissed its action with prejudice. The Mariah del Norte wind farm voluntarily dismissed its action with prejudice on February 18, 2022. A motion to dismiss the remaining Shannon and Midway actions remains pending. Additional information concerning these actions is publicly available in court filings under docket numbers 652078/2021 (Sup. Ct. N.Y. Cnty.) (Reed, J.), 2021-01387 (1st Dep't), 652312/2021 (Sup. Ct. N.Y. Cnty.) (Reed, J.), 2021-23588 (District Court Harris County TX) (Schaffer, J.), and 2021-26150 (District Court Harris County TX) (Engelhart, J.).

Settlement Payments

Payments required in settlement agreements described above have been made or are covered by existing litigation or other accruals.

28. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

Citigroup's Registration Statement on Form S-3 on file with the SEC includes its wholly owned subsidiary, Citigroup Global Markets Holdings Inc. (CGMHI), as a co-registrant. Any securities issued by CGMHI under the Form S-3 will be fully and unconditionally guaranteed by Citigroup.

The following are the Condensed Consolidating Statements of Income and Comprehensive Income for the years ended December 31, 2021, 2020 and 2019, Condensed Consolidating Balance Sheet as of December 31, 2021 and 2020 and Condensed Consolidating Statement of Cash Flows for the years ended December 31, 2021, 2020 and 2019 for Citigroup Inc., the parent holding company (Citigroup parent company), CGMHI, other Citigroup subsidiaries and eliminations and total consolidating adjustments. "Other Citigroup subsidiaries and eliminations" includes all other subsidiaries of Citigroup, intercompany eliminations and income (loss) from discontinued operations. "Consolidating adjustments" includes Citigroup parent company elimination of distributed and undistributed income of subsidiaries and investment in subsidiaries.

These Condensed Consolidating Financial Statements have been prepared and presented in accordance with SEC Regulation S-X Rule 3-10, "Financial Statements of Guarantors and Issuers of Guaranteed Securities Registered or Being Registered."

These Condensed Consolidating Financial Statements are presented for purposes of additional analysis, but should be considered in relation to the Consolidated Financial Statements of Citigroup taken as a whole.

Condensed Consolidating Statements of Income and Comprehensive Income

In millions of dollars	Year ended December 31, 2021 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 6,482	$ —	$ —	$ (6,482)	$ —
Interest revenue	—	3,566	46,909	—	50,475
Interest revenue—intercompany	3,757	531	(4,288)	—	—
Interest expense	4,791	778	2,412	—	7,981
Interest expense—intercompany	294	1,320	(1,614)	—	—
Net interest income	$ (1,328)	$ 1,999	$ 41,823	$ —	$ 42,494
Commissions and fees	$ —	$ 7,770	$ 5,902	$ —	$ 13,672
Commissions and fees—intercompany	(36)	407	(371)	—	—
Principal transactions	976	10,140	(962)	—	10,154
Principal transactions—intercompany	(1,375)	(6,721)	8,096	—	—
Other revenue	(64)	576	5,052	—	5,564
Other revenue—intercompany	(133)	(60)	193	—	—
Total non-interest revenues	$ (632)	$ 12,112	$ 17,910	$ —	$ 29,390
Total revenues, net of interest expense	$ 4,522	$ 14,111	$ 59,733	$ (6,482)	$ 71,884
Provisions for credit losses and for benefits and claims	$ —	$ 6	$ (3,784)	$ —	$ (3,778)
Operating expenses					
Compensation and benefits	$ 10	$ 5,251	$ 19,873	$ —	$ 25,134
Compensation and benefits—intercompany	69	—	(69)	—	—
Other operating	83	2,868	20,108	—	23,059
Other operating—intercompany	11	2,826	(2,837)	—	—
Total operating expenses	$ 173	$ 10,945	$ 37,075	$ —	$ 48,193
Equity in undistributed income of subsidiaries	$ 16,596	$ —	$ —	$ (16,596)	$ —
Income from continuing operations before income taxes	$ 20,945	$ 3,160	$ 26,442	$ (23,078)	$ 27,469
Provision (benefit) for income taxes	(1,007)	625	5,833	—	5,451
Income from continuing operations	$ 21,952	$ 2,535	$ 20,609	$ (23,078)	$ 22,018
Income (loss) from discontinued operations, net of taxes	—	—	7	—	7
Net income before attribution of noncontrolling interests	$ 21,952	$ 2,535	$ 20,616	$ (23,078)	$ 22,025
Noncontrolling interests	—	—	73	—	73
Net income	$ 21,952	$ 2,535	$ 20,543	$ (23,078)	$ 21,952
Comprehensive income					
Add: Other comprehensive income (loss)	$ (6,707)	$ (76)	$ (450)	$ 526	$ (6,707)
Total Citigroup comprehensive income	$ 15,245	$ 2,459	$ 20,093	$ (22,552)	$ 15,245
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (99)	$ —	$ (99)
Add: Net income attributable to noncontrolling interests	—	—	73	—	73
Total comprehensive income	$ 15,245	$ 2,459	$ 20,067	$ (22,552)	$ 15,219

Condensed Consolidating Statements of Income and Comprehensive Income

	Year ended December 31, 2020				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 2,355	$ —	$ —	$ (2,355)	$ —
Interest revenue	—	5,364	52,725	—	58,089
Interest revenue—intercompany	4,162	920	(5,082)	—	—
Interest expense	4,992	1,989	6,357	—	13,338
Interest expense—intercompany	502	2,170	(2,672)	—	—
Net interest income	$ (1,332)	$ 2,125	$43,958	$ —	$44,751
Commissions and fees	$ —	$ 6,216	$ 5,169	$ —	$11,385
Commissions and fees—intercompany	(36)	290	(254)	—	—
Principal transactions	(1,254)	(4,252)	19,391	—	13,885
Principal transactions—intercompany	693	9,064	(9,757)	—	—
Other revenue	(127)	706	4,901	—	5,480
Other revenue—intercompany	111	23	(134)	—	—
Total non-interest revenues	$ (613)	$12,047	$19,316	$ —	$30,750
Total revenues, net of interest expense	$ 410	$14,172	$63,274	$ (2,355)	$75,501
Provisions for credit losses and for benefits and claims	$ —	$ (1)	$17,496	$ —	$17,495
Operating expenses					
Compensation and benefits	$ (5)	$ 4,941	$17,278	$ —	$22,214
Compensation and benefits—intercompany	191	—	(191)	—	—
Other operating	37	2,393	19,730	—	22,160
Other operating—intercompany	15	2,317	(2,332)	—	—
Total operating expenses	$ 238	$ 9,651	$34,485	$ —	$44,374
Equity in undistributed income of subsidiaries	$ 9,894	$ —	$ —	$ (9,894)	$ —
Income from continuing operations before income taxes	$10,066	$ 4,522	$11,293	$(12,249)	$13,632
Provision (benefit) for income taxes	(981)	1,249	2,257	—	2,525
Income from continuing operations	$11,047	$ 3,273	$ 9,036	$(12,249)	$11,107
Income (loss) from discontinued operations, net of taxes	—	—	(20)	—	(20)
Net income (loss) before attribution of noncontrolling interests	$11,047	$ 3,273	$ 9,016	$(12,249)	$11,087
Noncontrolling interests	—	—	40	—	40
Net income	$11,047	$ 3,273	$ 8,976	$(12,249)	$11,047
Comprehensive income					
Add: Other comprehensive income (loss)	$ 4,260	$ (223)	$ 4,244	$ (4,021)	$ 4,260
Total Citigroup comprehensive income	$15,307	$ 3,050	$13,220	$(16,270)	$15,307
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ 26	$ —	$ 26
Add: Net income attributable to noncontrolling interests	—	—	40	—	40
Total comprehensive income	$15,307	$ 3,050	$13,286	$(16,270)	$15,373

Condensed Consolidating Statements of Income and Comprehensive Income

	Year ended December 31, 2019				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$23,347	$ —	$ —	$(23,347)	$ —
Interest revenue	—	10,661	65,849	—	76,510
Interest revenue—intercompany	5,091	1,942	(7,033)	—	—
Interest expense	4,949	7,010	16,423	—	28,382
Interest expense—intercompany	1,038	4,243	(5,281)	—	—
Net interest income	$ (896)	$ 1,350	$47,674	$ —	$48,128
Commissions and fees	$ —	$ 5,265	$ 6,481	$ —	$11,746
Commissions and fees—intercompany	(21)	354	(333)	—	—
Principal transactions	(2,537)	277	11,152	—	8,892
Principal transactions—intercompany	1,252	2,464	(3,716)	—	—
Other revenue	767	832	4,702	—	6,301
Other revenue—intercompany	(55)	102	(47)	—	—
Total non-interest revenues	$ (594)	$ 9,294	$18,239	$ —	$26,939
Total revenues, net of interest expense	$21,857	$10,644	$65,913	$(23,347)	$75,067
Provisions for credit losses and for benefits and claims	$ —	$ —	$ 8,383	$ —	$ 8,383
Operating expenses					
Compensation and benefits	$ 32	$ 4,680	$16,721	$ —	$21,433
Compensation and benefits—intercompany	134	—	(134)	—	—
Other operating	(16)	2,326	19,040	—	21,350
Other operating—intercompany	20	2,410	(2,430)	—	—
Total operating expenses	$ 170	$ 9,416	$33,197	$ —	$42,783
Equity in undistributed income of subsidiaries	$ (3,620)	$ —	$ —	$ 3,620	$ —
Income from continuing operations before income taxes	$18,067	$ 1,228	$24,333	$(19,727)	$23,901
Provision (benefit) for income taxes	(1,334)	176	5,588	—	4,430
Income from continuing operations	$19,401	$ 1,052	$18,745	$(19,727)	$19,471
Income (loss) from discontinued operations, net of taxes	—	—	(4)	—	(4)
Net income before attribution of noncontrolling interests	$19,401	$ 1,052	$18,741	$(19,727)	$19,467
Noncontrolling interests	—	—	66	—	66
Net income	$19,401	$ 1,052	$18,675	$(19,727)	$19,401
Comprehensive income					
Add: Other comprehensive income (loss)	$ 852	$ (651)	$ 1,600	$ (949)	$ 852
Total Citigroup comprehensive income	$20,253	$ 401	$20,275	$(20,676)	$20,253
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ —	$ —	$ —
Add: Net income attributable to noncontrolling interests	—	—	66	—	66
Total comprehensive income	$20,253	$ 401	$20,341	$(20,676)	$20,319

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Condensed Consolidating Balance Sheet

In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
	December 31, 2021				
Assets					
Cash and due from banks	$ —	$ 834	$ 26,681	$ —	$ 27,515
Cash and due from banks—intercompany	17	6,890	(6,907)	—	—
Deposits with banks, net of allowance	—	7,936	226,582	—	234,518
Deposits with banks—intercompany	3,500	11,005	(14,505)	—	—
Securities borrowed and purchased under resale agreements	—	269,608	57,680	—	327,288
Securities borrowed and purchased under resale agreements—intercompany	—	23,362	(23,362)	—	—
Trading account assets	248	189,841	141,856	—	331,945
Trading account assets—intercompany	1,215	1,438	(2,653)	—	—
Investments, net of allowance	1	224	512,597	—	512,822
Loans, net of unearned income	—	2,293	665,474	—	667,767
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(16,455)	—	(16,455)
Total loans, net	$ —	$ 2,293	$ 649,019	$ —	$ 651,312
Advances to subsidiaries	$142,144	$ —	$ (142,144)	$ —	$ —
Investments in subsidiaries	223,303	—	—	(223,303)	—
Other assets, net of allowance(1)	10,589	69,312	126,112	—	206,013
Other assets—intercompany	2,737	60,567	(63,304)	—	—
Total assets	**$383,754**	**$643,310**	**$1,487,652**	**$(223,303)**	**$2,291,413**
Liabilities and equity					
Deposits	$ —	$ —	$1,317,230	$ —	$1,317,230
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	171,818	19,467	—	191,285
Securities loaned and sold under repurchase agreements—intercompany	—	62,197	(62,197)	—	—
Trading account liabilities	17	122,383	39,129	—	161,529
Trading account liabilities—intercompany	777	500	(1,277)	—	—
Short-term borrowings	—	13,425	14,548	—	27,973
Short-term borrowings—intercompany	—	17,230	(17,230)	—	—
Long-term debt	164,945	61,416	28,013	—	254,374
Long-term debt—intercompany	—	76,335	(76,335)	—	—
Advances from subsidiaries	13,469	—	(13,469)	—	—
Other liabilities, including allowance	2,574	68,206	65,570	—	136,350
Other liabilities—intercompany	—	11,774	(11,774)	—	—
Stockholders' equity	201,972	38,026	185,977	(223,303)	202,672
Total liabilities and equity	**$383,754**	**$643,310**	**$1,487,652**	**$(223,303)**	**$2,291,413**

(1) *Other assets* for Citigroup parent company at December 31, 2021 included $30.5 billion of placements to Citibank and its branches, of which $19.5 billion had a remaining term of less than 30 days.

Condensed Consolidating Balance Sheet

	December 31, 2020				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 628	$ 25,721	$ —	$ 26,349
Cash and due from banks—intercompany	16	6,081	(6,097)	—	—
Deposits with banks, net of allowance	—	5,224	278,042	—	283,266
Deposits with banks—intercompany	4,500	8,179	(12,679)	—	—
Securities borrowed and purchased under resale agreements	—	238,718	55,994	—	294,712
Securities borrowed and purchased under resale agreements—intercompany	—	24,309	(24,309)	—	—
Trading account assets	307	222,278	152,494	—	375,079
Trading account assets—intercompany(1)	723	2,340	(3,063)	—	—
Investments, net of allowance	1	374	446,984	—	447,359
Loans, net of unearned income	—	2,524	673,359	—	675,883
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(24,956)	—	(24,956)
Total loans, net	$ —	$ 2,524	$ 648,403	$ —	$ 650,927
Advances to subsidiaries	$152,383	$ —	$ (152,383)	$ —	$ —
Investments in subsidiaries	213,267	—	—	(213,267)	—
Other assets, net of allowance(2)	12,156	60,273	109,969	—	182,398
Other assets—intercompany	2,781	51,489	(54,270)	—	—
Total assets	$386,134	$622,417	$1,464,806	$(213,267)	$2,260,090
Liabilities and equity					
Deposits	$ —	$ —	$1,280,671	$ —	$1,280,671
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	184,786	14,739	—	199,525
Securities loaned and sold under repurchase agreements—intercompany	—	76,590	(76,590)	—	—
Trading account liabilities	—	113,100	54,927	—	168,027
Trading account liabilities—intercompany(1)	397	1,531	(1,928)	—	—
Short-term borrowings	—	12,323	17,191	—	29,514
Short-term borrowings—intercompany	—	12,757	(12,757)	—	—
Long-term debt	170,563	47,732	53,391	—	271,686
Long-term debt—intercompany	—	67,322	(67,322)	—	—
Advances from subsidiaries	12,975	—	(12,975)	—	—
Other liabilities, including allowance	2,692	55,217	52,558	—	110,467
Other liabilities—intercompany	65	15,378	(15,443)	—	—
Stockholders' equity	199,442	35,681	178,344	(213,267)	200,200
Total liabilities and equity	$386,134	$622,417	$1,464,806	$(213,267)	$2,260,090

(1) The balances of *Trading account assets*—intercompany and *Trading account liabilities*—intercompany within CGMHI and within Other Citigroup subsidiaries and eliminations have been revised to reflect the netting of $7 billion of intercompany derivative and related collateral assets and liabilities subject to enforceable netting agreements. Because the adjustment was limited to transactions between affiliated entities, it had no impact to Citigroup consolidated.

(2) *Other assets* for Citigroup parent company at December 31, 2020 included $29.5 billion of placements to Citibank and its branches, of which $24.3 billion had a remaining term of less than 30 days.

Condensed Consolidating Statement of Cash Flows

	Year ended December 31, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by operating activities of continuing operations	**$ 3,947**	**$ 43,227**	**$ 14,075**	**$—**	**$ 61,249**
Cash flows from investing activities of continuing operations					
Purchases of investments	$ —	$ —	$(359,158)	$—	$ (359,158)
Proceeds from sales of investments	—	—	126,728	—	126,728
Proceeds from maturities of investments	—	—	142,100	—	142,100
Change in loans	—	—	(1,173)	—	(1,173)
Proceeds from sales and securitizations of loans	—	—	2,918	—	2,918
Change in securities borrowed and purchased under agreements to resell	—	(29,944)	(2,632)	—	(32,576)
Changes in investments and advances—intercompany	8,260	(9,040)	780	—	—
Other investing activities	—	(2)	(3,742)	—	(3,744)
Net cash provided by (used in) investing activities of continuing operations	**$ 8,260**	**$ (38,986)**	**$ (94,179)**	**$—**	**$ (124,905)**
Cash flows from financing activities of continuing operations					
Dividends paid	$ (5,198)	$ (196)	$ 196	$—	$ (5,198)
Issuance of preferred stock	3,300	—	—	—	3,300
Redemption of preferred stock	(3,785)	—	—	—	(3,785)
Treasury stock acquired	(7,601)	—	—	—	(7,601)
Proceeds (repayments) from issuance of long-term debt, net	(86)	15,071	(19,277)	—	(4,292)
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	14,410	(14,410)	—	—
Change in deposits	—	—	44,966	—	44,966
Change in securities loaned and sold under agreements to repurchase	—	(27,241)	19,001	—	(8,240)
Change in short-term borrowings	—	1,102	(2,643)	—	(1,541)
Net change in short-term borrowings and other advances—intercompany	501	(917)	416	—	—
Capital contributions from (to) parent	—	71	(71)	—	—
Other financing activities	(337)	12	(12)	—	(337)
Net cash provided by (used in) financing activities of continuing operations	**$ (13,206)**	**$ 2,312**	**$ 28,166**	**$—**	**$ 17,272**
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (1,198)	$—	$ (1,198)
Change in cash and due from banks and deposits with banks	**$ (999)**	**$ 6,553**	**$ (53,136)**	**$—**	**$ (47,582)**
Cash and due from banks and deposits with banks at beginning of year	**4,516**	**20,112**	**284,987**	**—**	**309,615**
Cash and due from banks and deposits with banks at end of year	**$ 3,517**	**$ 26,665**	**$ 231,851**	**$—**	**$ 262,033**
Cash and due from banks (including segregated cash and other deposits)	$ 17	$ 7,724	$ 19,774	$—	$ 27,515
Deposits with banks, net of allowance	3,500	18,941	212,077	—	234,518
Cash and due from banks and deposits with banks at end of year	**$ 3,517**	**$ 26,665**	**$ 231,851**	**$—**	**$ 262,033**
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$ (2,406)	$ 919	$ 5,515	$—	$ 4,028
Cash paid during the year for interest	3,101	2,210	1,832	—	7,143
Non-cash investing activities					
Decrease in net loans associated with significant disposals reclassified to HFS	$ —	$ —	$ 9,945	$—	$ 9,945
Transfers to loans HFS (*Other assets*) from loans	—	—	7,414	—	7,414
Non-cash financing activities					
Decrease in long-term debt associated with significant disposals reclassified to HFS	$ —	$ —	$ 479	$—	$ 479
Decrease in deposits associated with significant disposals reclassified to HFS	—	—	8,407	—	8,407

Condensed Consolidating Statement of Cash Flows

	Year ended December 31, 2020				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ 5,002	$(26,195)	$ 572	$—	$ (20,621)
Cash flows from investing activities of continuing operations					
Purchases of investments	$ —	$ —	$(334,900)	$—	$(334,900)
Proceeds from sales of investments	—	—	146,285	—	146,285
Proceeds from maturities of investments	—	—	124,229	—	124,229
Change in loans	—	—	14,249	—	14,249
Proceeds from sales and securitizations of loans	—	—	1,495	—	1,495
Change in securities borrowed and purchased under agreements to resell	—	(46,044)	2,654	—	(43,390)
Changes in investments and advances—intercompany	(5,584)	(6,917)	12,501	—	—
Other investing activities	—	(54)	(3,226)	—	(3,280)
Net cash used in investing activities of continuing operations	$ (5,584)	$(53,015)	$ (36,713)	$—	$ (95,312)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (5,352)	$ (172)	$ 172	$—	$ (5,352)
Issuance of preferred stock	2,995	—	—	—	2,995
Redemption of preferred stock	(1,500)	—	—	—	(1,500)
Treasury stock acquired	(2,925)	—	—	—	(2,925)
Proceeds from issuance of long-term debt, net	16,798	6,349	(10,091)	—	13,056
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	3,960	(3,960)	—	—
Change in deposits	—	—	210,081	—	210,081
Change in securities loaned and sold under agreements to repurchase	—	79,322	(46,136)	—	33,186
Change in short-term borrowings	—	1,228	(16,763)	—	(15,535)
Net change in short-term borrowings and other advances—intercompany	(7,528)	(7,806)	15,334	—	—
Other financing activities	(411)	—	—	—	(411)
Net cash provided by financing activities of continuing operations	$ 2,077	$ 82,881	$ 148,637	$—	$ 233,595
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (1,966)	$—	$ (1,966)
Change in cash and due from banks and deposits with banks	$ 1,495	$ 3,671	$ 110,530	$—	$ 115,696
Cash and due from banks and deposits with banks at beginning of year	3,021	16,441	174,457	—	193,919
Cash and due from banks and deposits with banks at end of year	$ 4,516	$ 20,112	$ 284,987	$—	$ 309,615
Cash and due from banks (including segregated cash and other deposits)	$ 16	$ 6,709	$ 19,624	$—	$ 26,349
Deposits with banks, net of allowance	4,500	13,403	265,363	—	283,266
Cash and due from banks and deposits with banks at end of year	$ 4,516	$ 20,112	$ 284,987	$—	$ 309,615
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$ (1,883)	$ 1,138	$ 5,542	$—	$ 4,797
Cash paid during the year for interest	2,681	4,516	4,897	—	12,094
Non-cash investing activities					
Transfers to loans HFS (*Other assets*) from loans	$ —	$ —	$ 2,614	$—	$ 2,614

Condensed Consolidating Statements of Cash Flows

	Year ended December 31, 2019				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ 25,011	$(35,396)	$ (2,452)	$—	$ (12,837)
Cash flows from investing activities of continuing operations					
Purchases of investments	$ —	$ —	$(274,491)	$—	$(274,491)
Proceeds from sales of investments	5	—	137,168	—	137,173
Proceeds from maturities of investments	—	—	119,051	—	119,051
Change in loans	—	—	(22,466)	—	(22,466)
Proceeds from sales and securitizations of loans	—	—	2,878	—	2,878
Change in securities borrowed and purchased under agreements to resell	—	15,811	3,551	—	19,362
Changes in investments and advances—intercompany	(1,847)	(870)	2,717	—	—
Other investing activities	—	(64)	(4,817)	—	(4,881)
Net cash provided by (used in) investing activities of continuing operations	$ (1,842)	$ 14,877	$ (36,409)	$—	$ (23,374)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (5,447)	$ —	$ —	$—	$ (5,447)
Issuance of preferred stock	1,496	—	—	—	1,496
Redemption of preferred stock	(1,980)	—	—	—	(1,980)
Treasury stock acquired	(17,571)	—	—	—	(17,571)
Proceeds (repayments) from issuance of long-term debt, net	1,666	10,389	(3,950)	—	8,105
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	(7,177)	7,177	—	—
Change in deposits	—	—	57,420	—	57,420
Change in securities loaned and sold under agreements to repurchase	—	5,115	(16,544)	—	(11,429)
Change in short-term borrowings	—	7,440	5,263	—	12,703
Net change in short-term borrowings and other advances—intercompany	(968)	5,843	(4,875)	—	—
Capital contributions from (to) parent	—	(74)	74	—	—
Other financing activities	(364)	(253)	253	—	(364)
Net cash provided by (used in) financing activities of continuing operations	$(23,168)	$ 21,283	$ 44,818	$—	$ 42,933
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (908)	$—	$ (908)
Change in cash and due from banks and deposits with banks	$ 1	$ 764	$ 5,049	$—	$ 5,814
Cash and due from banks and deposits with banks at beginning of year	3,020	15,677	169,408	—	188,105
Cash and due from banks and deposits with banks at end of year	$ 3,021	$ 16,441	$ 174,457	$—	$ 193,919
Cash and due from banks (including segregated cash and other deposits)	$ 21	$ 5,681	$ 18,265	$—	$ 23,967
Deposits with banks, net of allowance	3,000	10,760	156,192	—	169,952
Cash and due from banks and deposits with banks at end of year	$ 3,021	$ 16,441	$ 174,457	$—	$ 193,919
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$ (393)	$ 418	$ 4,863	$—	$ $4,888
Cash paid during the year for interest	3,820	12,664	11,417	—	27,901
Non-cash investing activities					
Transfers to loans HFS (*Other assets*) from loans	$ —	$ —	$ 5,500	$—	$ 5,500

29. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

	2021				2020			
In millions of dollars, except per share amounts	**Fourth**	**Third**	**Second**	**First**	Fourth	Third	Second	First
Revenues, net of interest expense[(1)(2)]	**$17,017**	**$17,447**	**$17,753**	**$19,667**	$16,832	$17,677	$20,036	$20,956
Operating expenses[(1)(3)]	**13,532**	**11,777**	**11,471**	**11,413**	11,437	11,339	10,730	10,868
Provisions (release) for credit losses and for benefits and claims	**(465)**	**(192)**	**(1,066)**	**(2,055)**	(46)	2,384	8,197	6,960
Income from continuing operations before income taxes	**$ 3,950**	**$ 5,862**	**$ 7,348**	**$10,309**	$ 5,441	$ 3,954	$ 1,109	$ 3,128
Income taxes[(4)]	**771**	**1,193**	**1,155**	**2,332**	1,116	777	52	580
Income from continuing operations	**$ 3,179**	**$ 4,669**	**$ 6,193**	**$ 7,977**	$ 4,325	$ 3,177	$ 1,057	$ 2,548
Income (loss) from discontinued operations, net of taxes	**—**	**(1)**	**10**	**(2)**	6	(7)	(1)	(18)
Net income before attribution of noncontrolling interests	**$ 3,179**	**$ 4,668**	**$ 6,203**	**$ 7,975**	$ 4,331	$ 3,170	$ 1,056	$ 2,530
Noncontrolling interests	**6**	**24**	**10**	**33**	22	24	—	(6)
Citigroup's net income	**$ 3,173**	**$ 4,644**	**$ 6,193**	**$ 7,942**	$ 4,309	$ 3,146	$ 1,056	$ 2,536
Earnings per share[(5)]								
Basic								
Income from continuing operations	**$ 1.47**	**$ 2.17**	**$ 2.86**	**$ 3.64**	$ 1.93	$ 1.37	$ 0.38	$ 1.07
Net income	**1.47**	**2.17**	**2.87**	**3.64**	1.93	1.37	0.38	1.06
Diluted								
Income from continuing operations	**1.46**	**2.15**	**2.84**	**3.62**	1.92	1.36	0.38	1.06
Net income	**1.46**	**2.15**	**2.85**	**3.62**	1.92	1.36	0.38	1.06

This Note to the Consolidated Financial Statements is unaudited due to the Company's individual quarterly results not being subject to an audit.

(1) During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. Amounts reclassified for each quarter were $295 million for 4Q21, $293 million for 3Q21, $279 million for 2Q21, $340 million for 1Q21, $333 million for 4Q20, $375 million for 3Q20, $270 million for 2Q20 and $225 million for 1Q20. For additional information, see Note 1 to the Consolidated Financial Statements.

(2) The third quarter of 2021 includes an approximate $700 million loss on sale (approximately $600 million after-tax) related to Citi's agreement to sell its consumer banking business in Australia.

(3) The fourth quarter of 2021 includes an approximate $1.052 billion charge (approximately $792 million after-tax) in connection with the voluntary early retirement plan (VERP) related to the announced wind-down of Citi's consumer banking business in Korea.

(4) The second quarter of 2021 includes an approximate $450 million benefit in tax rate from a reduction in Citi's valuation allowance related to its deferred tax assets (DTAs).

(5) Certain securities were excluded from the second quarter of 2020 diluted EPS calculation because they were anti-dilutive. Year-to-date EPS will not equal the sum of the individual quarters because the year-to-date EPS calculation is a separate calculation, which uses an averaging of shares across each quarter. In addition, due to averaging of shares, quarterly earnings per share may not sum to the totals reported for the full year.

End of Consolidated Financial Statements and Notes to Consolidated Financial Statements

FINANCIAL DATA SUPPLEMENT

RATIOS

	2021	2020	2019
Return on average assets	**0.94%**	0.50%	0.98%
Return on average common stockholders' equity(1)	**11.5**	5.7	10.3
Return on average total stockholders' equity(2)	**10.9**	5.7	9.9
Total average equity to average assets(3)	**8.6**	8.7	9.9
Dividend payout ratio(4)	**20**	43	24

(1) Based on Citigroup's net income less preferred stock dividends as a percentage of average common stockholders' equity.
(2) Based on Citigroup's net income as a percentage of average total Citigroup stockholders' equity.
(3) Based on average Citigroup stockholders' equity as a percentage of average assets.
(4) Dividends declared per common share as a percentage of net income per diluted share.

AVERAGE DEPOSIT LIABILITIES IN OFFICES OUTSIDE THE U.S.(1)

	2021		2020		2019	
In millions of dollars at year end, except ratios	**Average interest rate**	**Average balance**	Average interest rate	Average balance	Average interest rate	Average balance
Banks	**0.16%**	**$ 42,222**	0.10%	$130,970	0.59%	$ 52,699
Other demand deposits	**0.15**	**412,815**	0.33	311,342	1.08	293,209
Other time and savings deposits(2)	**0.55**	**200,194**	0.94	210,896	1.28	223,450
Total	**0.10%**	**$655,231**	0.48%	$653,208	1.11%	$569,358

(1) Interest rates and amounts include the effects of risk management activities and also reflect the impact of the local interest rates prevailing in certain countries.
(2) Primarily consists of certificates of deposit and other time deposits in denominations of $100,000 or more.

UNINSURED DEPOSITS

The table below shows the estimated amount of uninsured time deposits by maturity profile:

In millions of dollars at December 31, 2021	**Under 3 months or less**	**Over 3 months but within 6 months**	**Over 6 months but within 12 months**	**Over 12 months**	**Total**
In U.S. offices(1)					
Time deposits in excess of FDIC insurance limits(2)	**$ 5,779**	**$2,653**	**$1,861**	**$2,950**	**$13,243**
In offices outside the U.S.(1)					
Time deposits in excess of foreign jurisdiction insurance limits(3)	**57,248**	**6,471**	**4,080**	**1,095**	**68,894**
Total uninsured time deposits(4)	**$63,027**	**$9,124**	**$5,941**	**$4,045**	**$82,137**

(1) The classification between offices in the U.S. and outside the U.S. is based on the domicile of the booking unit, rather than the domicile of the depositor.
(2) The standard insurance amount is $250,000 and $500,000 per depositor, per insured bank, for single and joint account ownership categories, respectively.
(3) The standard insurance amount for time deposits outside the U.S. is based on the insurance limits approved by the regulator in the respective foreign jurisdiction. For certain depositors outside the U.S., Citi has not considered the account ownership category and other time deposit accounts that the depositors may own when allocating the insurance limits used to determine the uninsured time deposit balances. As a result, the uninsured time deposit balances disclosed above may differ from actual uninsured balances.
(4) The maturity term is based on the remaining term of the time deposit rather than the original maturity date.

Total uninsured deposits as of December 31, 2021 were $1.082 trillion (see notes 1, 2 and 3 to the table above).

SUPERVISION, REGULATION AND OTHER

SUPERVISION AND REGULATION

Citi is subject to regulation under U.S. federal and state laws, as well as applicable laws in the other jurisdictions in which it does business.

General

Citigroup is a registered bank holding company and financial holding company and is regulated and supervised by the Federal Reserve Board (FRB). Citigroup's nationally chartered subsidiary banks, including Citibank, are regulated and supervised by the Office of the Comptroller of the Currency (OCC). The Federal Deposit Insurance Corporation (FDIC) also has examination authority for banking subsidiaries whose deposits it insures. Overseas branches of Citibank are regulated and supervised by the FRB and OCC and overseas subsidiary banks by the FRB. These overseas branches and subsidiary banks are also regulated and supervised by regulatory authorities in the host countries. In addition, the Consumer Financial Protection Bureau regulates consumer financial products and services. Citi is also subject to laws and regulations concerning the collection, use, sharing and disposition of certain customer, employee and other personal and confidential information, including those imposed by the Gramm-Leach-Bliley Act, the Fair Credit Reporting Act and the EU General Data Protection Regulation. For more information on U.S. and foreign regulation affecting or potentially affecting Citi, see "Managing Global Risk—Capital Resources" and "—Liquidity Risk" and "Risk Factors" above.

Other Bank and Bank Holding Company Regulation

Citi, including its banking subsidiaries, is subject to regulatory limitations, including requirements as to liquidity, risk-based capital and leverage (see "Capital Resources" above and Note 18 to the Consolidated Financial Statements), restrictions on the types and amounts of loans that may be made and the interest that may be charged, and limitations on investments that can be made and services that can be offered. The FRB may also expect Citi to commit resources to its subsidiary banks in certain circumstances. Citi is also subject to anti-money laundering and financial transparency laws, including standards for verifying client identification at account opening and obligations to monitor client transactions and report suspicious activities.

Securities and Commodities Regulation

Citi conducts securities underwriting, brokerage and dealing activities in the U.S. through Citigroup Global Markets Inc. (CGMI), its primary broker-dealer, and other broker-dealer subsidiaries, which are subject to regulations of the U.S. Securities and Exchange Commission (SEC), the Financial Industry Regulatory Authority and certain exchanges. Citi conducts similar securities activities outside the U.S., subject to local requirements, through various subsidiaries and affiliates, principally Citigroup Global Markets Limited in London (CGML), which is regulated principally by the U.K. Financial Conduct Authority and Prudential Regulation Authority (PRA), and Citigroup Global Markets Japan Inc. in Tokyo, which is regulated principally by the Financial Services Agency of Japan.

Citi also has subsidiaries that are members of futures exchanges and derivatives clearinghouses. In the U.S., CGMI is a member of the principal U.S. futures exchanges and clearinghouses, and Citi has subsidiaries that are registered as futures commission merchants and commodity pool operators with the Commodity Futures Trading Commission (CFTC). Citibank, CGMI, Citigroup Energy Inc., Citigroup Global Markets Europe AG (CGME) and CGML are also registered as swap dealers with the CFTC (for additional information, see below). CGMI is also subject to SEC and CFTC rules that specify uniform minimum net capital requirements. Compliance with these rules could limit those operations of CGMI that require the intensive use of capital and also limits the ability of broker-dealers to transfer large amounts of capital to parent companies and other affiliates. See "Capital Resources" and Note 18 to the Consolidated Financial Statements for a further discussion of capital considerations of Citi's non-banking subsidiaries.

Recent Rules Regarding Swap Dealers/Security-Based Swap Dealers

On July 22, 2020, the CFTC adopted final rules establishing capital and financial reporting requirements for swap dealers that took effect in October 2021.

In addition, the SEC has adopted rules governing the registration and regulation of security-based swap dealers. The regulations include requirements related to (i) capital, margin and segregation, (ii) record-keeping, reporting and notification and (iii) risk management practices for uncleared security based swaps and the cross-border application of certain security-based swap requirements. These requirements also took effect in November 2021. Citibank, CGML and CGME registered with the SEC as securities-based swap dealers.

Transactions with Affiliates

Transactions between Citi's U.S. subsidiary depository institutions and their non-bank affiliates are regulated by the FRB, and are generally required to be on arm's-length terms. See "Managing Global Risk—Liquidity Risk" above.

COMPETITION

The financial services industry is highly competitive. Citi's competitors include a variety of financial services and advisory companies, as well as certain non-financial services firms. Citi competes for clients and capital (including deposits and funding in the short- and long-term debt markets) with some of these competitors globally and with others on a regional or product basis. Citi's competitive position depends on many factors, including, among others, the value of Citi's brand name, reputation, the types of clients and geographies served; the quality, range, performance, innovation and pricing of products and services; the effectiveness of and access to distribution channels, maintenance of partner relationships, emerging technologies and technology advances, customer service and convenience; the effectiveness of transaction execution, interest rates, lending limits and risk appetite; regulatory constraints and compliance; and changes in the macroeconomic business environment or societal norms. Citi's ability to compete effectively also depends upon its ability to attract new colleagues and retain and motivate existing colleagues, while managing compensation and other costs. For additional information on competitive factors and uncertainties impacting Citi's businesses, see "Risk Factors—Strategic Risks" above.

DISCLOSURE PURSUANT TO SECTION 219 OF THE IRAN THREAT REDUCTION AND SYRIA HUMAN RIGHTS ACT

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Section 219), which added Section 13(r) to the Securities Exchange Act of 1934, as amended, Citi is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with certain individuals or entities that are the subject of sanctions under U.S. law. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Citi, in its related quarterly reports on Form 10-Q, did not identify any reportable activities for the first and third quarters of 2021. Citi identified and reported certain activities pursuant to Section 219 for the second quarter of 2021.

During the fourth quarter of 2021, Citigroup reported one transaction pursuant to Section 219. In October 2021, Citigroup's Russian subsidiary (Citi Russia), acting as the beneficiary bank, released a payment that had been initiated by a Russian entity from its account with MB Bank, an entity designated pursuant to Executive Order 13224, for the benefit of Citi Russia's customer. The total value of the payment was RUB 16,533.12 (approximately USD 224.70), and the transaction was authorized pursuant to a specific license issued by the Office of Foreign Assets Control on October 1, 2021, which expired on December 31, 2021. Citi did not realize any fees for the processing of the payment.

UNREGISTERED SALES OF EQUITY SECURITIES, REPURCHASES OF EQUITY SECURITIES AND DIVIDENDS

Unregistered Sales of Equity Securities

None.

Equity Security Repurchases

As previously announced, Citigroup voluntarily suspended common share repurchases during the fourth quarter of 2021, in anticipation of the adverse regulatory capital impact resulting from adoption of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022. For additional information on the adoption of SA-CCR, see "Capital Resources—Adoption of the Standardized Approach for Counterparty Credit Risk" above. Accordingly, Citi did not have any share repurchases in the fourth quarter of 2021, other than repurchases relating to issuances of common stock related to employee stock ownership plans. During the quarter, pursuant to Citigroup's Board of Directors' authorization, Citi repurchased 1,855 shares (at an average price of $66.37) of common stock, added to treasury stock, related to activity on employee stock programs where shares were withheld to satisfy the employee tax requirements. Citi resumed common share repurchases in January 2022.

All large banks, including Citi, are subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see "Capital Resources—Regulatory Capital Buffers" and "Risk Factors—Strategic Risks" above.

Dividends

Citi paid common dividends of $0.51 per share for the fourth quarter of 2021 and the first quarter of 2022. As previously announced, Citi intends to maintain its planned capital actions, which include a quarterly common dividend of at least $0.51 per share, subject to financial and macroeconomic conditions as well as Board of Directors' approval.

As discussed above, Citi's ability to pay common stock dividends is subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see "Capital Resources—Regulatory Capital Buffers" and "Risk Factors—Strategic Risks" above.

Any dividend on Citi's outstanding common stock would also need to be made in compliance with Citi's obligations on its outstanding preferred stock.

During 2021, Citi distributed $1,040 million in dividends on its outstanding preferred stock. On January 12, 2022, Citi declared preferred dividends of approximately $277 million for the first quarter of 2022.

As of February 25, 2022, Citi estimates it will distribute preferred dividends of approximately $238 million, $277 million and $238 million in the second, third and fourth quarters of 2022, respectively, subject to such dividends being declared by the Citi Board of Directors.

For information on the ability of Citigroup's subsidiary depository institutions to pay dividends, see Note 18 to the Consolidated Financial Statements.

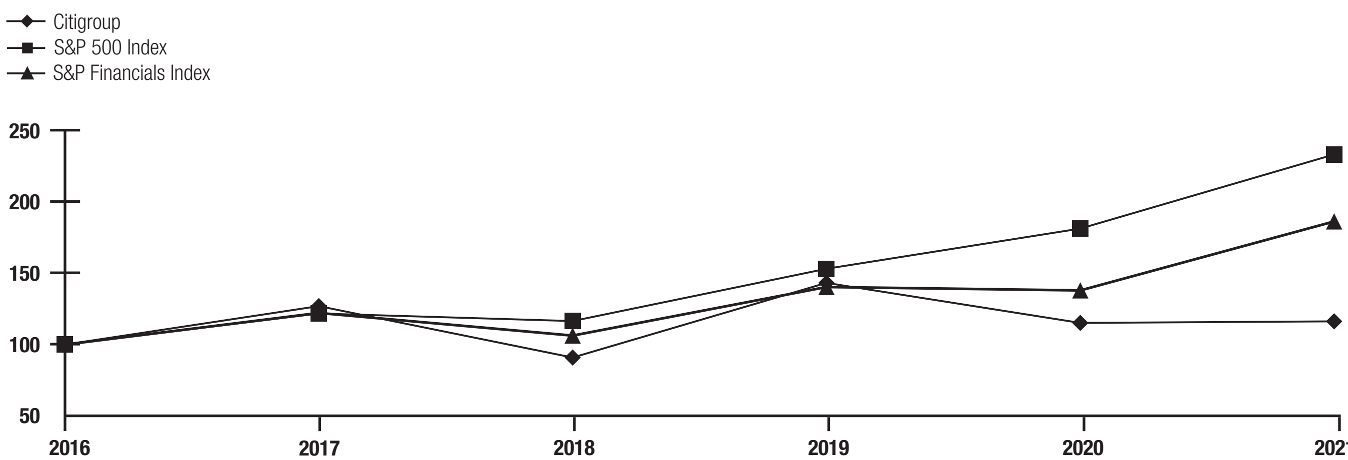
PERFORMANCE GRAPH

Comparison of Five-Year Cumulative Total Return

The following graph and table compare the cumulative total return on Citi's common stock with the cumulative total return of the S&P 500 Index and the S&P Financials Index over the five-year period through December 31, 2021. The graph and table assume that $100 was invested on December 31, 2016 in Citi's common stock, the S&P 500 Index and the S&P Financials Index, and that all dividends were reinvested.

Comparison of Five-Year Cumulative Total Return

For the years ended



DATE	Citigroup	S&P 500 Index	S&P Financials Index
31-Dec-2016	100.0	100.0	100.0
31-Dec-2017	127.0	121.8	122.2
31-Dec-2018	90.9	116.5	106.3
31-Dec-2019	143.3	153.2	140.4
31-Dec-2020	115.2	181.4	138.0
31-Dec-2021	116.3	233.4	186.4

Note: Citi's common stock is listed on the NYSE under the ticker symbol "C" and held by 61,355 common stockholders of record as of January 31, 2022.

CORPORATE INFORMATION

EXECUTIVE OFFICERS

Citigroup's executive officers as of February 25, 2022 are:

Name	Age	Position and office held
Peter Babej	58	CEO, Asia Pacific
Jane Fraser	54	Chief Executive Officer, Citigroup Inc.
Sunil Garg	56	Chief Executive Officer, Citibank, N.A.
David Livingstone	58	CEO, Europe, Middle East and Africa
Mark A. L. Mason	52	Chief Financial Officer
Brent McIntosh	48	General Counsel and Corporate Secretary
Mary McNiff	51	Chief Compliance Officer
Johnbull Okpara	50	Controller and Chief Accounting Officer
Karen Peetz	66	Chief Administrative Officer
Anand Selvakesari	54	CEO, Personal Banking and Wealth Management
Edward Skyler	48	Head of Global Public Affairs
Ernesto Torres Cantú	57	CEO, Latin America
Zdenek Turek	57	Chief Risk Officer
Sara Wechter	41	Head of Human Resources
Mike Whitaker	58	Head of Enterprise Operations and Technology
Paco Ybarra	60	CEO, Institutional Clients Group

The following executive officers have not held their current executive officer positions with Citigroup for at least five years:

- Mr. Babej joined Citi in 2010 and assumed his current position in October 2019. Previously, he served as *ICG*'s Global Head of the Financial Institutions Group (FIG) from January 2017 to October 2019 and Global Co-Head of FIG from 2010 to January 2017. Prior to joining Citi, Mr. Babej served as Co-Head, Financial Institutions—Americas at Deutsche Bank, among other roles;
- Ms. Fraser joined Citi in 2004 and assumed her current position on February 26, 2021. Previously, she served as CEO of *GCB* from October 2019 to December 2020. Before that, she served as CEO of Citi *Latin America* from June 2015 to October 2019. She held a number of other roles across the organization, including CEO of U.S. Consumer and Commercial Banking and CitiMortgage, CEO of Citi's Global Private Bank and Global Head of Strategy and M&A;
- Mr. Garg joined Citi in May 1988 and assumed his current position in February 2021. Previously, he was global CEO of the Commercial Bank beginning in 2011. Prior to that, Mr. Garg led the U.S. Commercial Banking business from 2008 until 2011. In addition, he held various other roles at Citi in Operations and Technology, Treasury and Trade Solutions, Corporate and Investment Banking and Commercial Banking.
- Mr. Livingstone joined Citi in 2016 and assumed his current position in March 2019. Previously, he served as Citi Country Officer for Australia and New Zealand since June 2016. Prior to joining Citi, he had a nine-year career at Credit Suisse, where he was Vice Chairman of the Investment Banking and Capital Markets Division for the *EMEA* region, Head of M&A and CEO of Credit Suisse Australia;
- Mr. Mason joined Citi in 2001 and assumed his current position in February 2019. Previously, he served as CFO of *ICG* since September 2014. He held a number of other senior operational, strategic and financial executive roles across the organization, including CEO of Citi Private Bank, CEO of Citi Holdings and CFO and Head of Strategy and M&A for Citi's Global Wealth Management Division;
- Mr. McIntosh joined Citi in his current position in October 2021. Previously, he served as Under Secretary for International Affairs at the U.S. Treasury from 2019 to 2021. From 2017 to 2019, Mr. McIntosh served as U.S. Treasury's General Counsel. Prior to that, he was a partner in the law firm of Sullivan & Cromwell and served in the U.S. White House from 2006 until 2009;
- Ms. McNiff joined Citi in 2012 and assumed her current position in June 2020. Previously, she served as CEO of Citibank, N.A. from April 2019 to June 2020 and Chief Auditor of Citi from February 2017 to April 2019. Prior to taking on that role, Ms. McNiff served as Chief Administrative Officer of Latin America & Mexico and interim Chief Auditor. She also led the Global Transformation initiative within Internal Audit;
- Mr. Okpara joined Citi in his current position in November 2020. Previously he served as Managing Director, Global Head of Financial Planning and Analysis and CFO, Infrastructure Groups at Morgan Stanley since 2016. Prior to that, Mr. Okpara was Managing Vice President, Finance and Deputy Controller at Capital One Financial Corporation;
- Ms. Peetz joined Citi in her current position in June 2020. Previously, she served on the Board of Directors of Wells Fargo from 2017 to 2019. Ms. Peetz spent nearly 20 years at BNY Mellon, where she managed several business units and ultimately served as President for five years until her departure in 2016. Prior to that, she worked at JPMorgan Chase, where she held a variety of management positions during her tenure;
- Mr. Selvakesari joined Citi in 1991 and assumed his current position in January 2021. Previously, he served as Head of the U.S. Consumer Bank since October 2018 and held various other roles at Citi prior to that, including Head of Consumer Banking for Asia Pacific from 2015 to 2018, as well as a number of regional and country roles, including Head of Consumer Banking for ASEAN and India, leading the consumer banking businesses in Singapore, Malaysia, Indonesia, the Philippines, Thailand and Vietnam, as well as India;
- Mr. Torres Cantú joined Citi in 1989 and assumed his current position in October 2019. Previously, he served as CEO of Citibanamex since October 2014. He served as CEO of *GCB* in Mexico from 2006 to 2011 and CEO of Crédito Familiar from 2003 to 2006. In addition, he previously held roles in Citibanamex, including Regional Director and Divisional Director;
- Mr. Turek joined Citi in 1991 and assumed his current position in December 2020. Previously, he served as CRO for *EMEA* since February 2020 and held various other roles at Citi, including CEO of Citibank Europe as well as leading significant franchises across Citi, including in Russia, South Africa and Hungary;
- Ms. Wechter joined Citi in 2004 and assumed her current position in July 2018. Previously, she served as Citi's Head of Talent and Diversity as well as Chief of Staff to Citi CEO Michael Corbat. She served as Chief of Staff to both Michael O'Neill and Richard Parsons during their terms as

Chairman of Citigroup's Board of Directors. In addition, she held roles in Citi's *ICG*, including Corporate M&A and Strategy and Investment Banking;

- Mr. Whitaker joined Citi in 2009 and assumed his current position in November 2018. Previously, he served as Head of Operations & Technology for *ICG* since September 2014 and held various other roles at Citi, including Head of Securities & Banking Operations & Technology, Head of *ICG* Technology and Regional Chief Information Officer; and
- Mr. Ybarra joined Citi in 1987 and assumed his current position in May 2019. Previously, he served as *ICG*'s Global Head of Markets and Securities Services since November 2013. In addition, he has held a number of other roles across *ICG*, including Deputy Head of *ICG*, Global Head of Markets and Co-Head of Global Fixed Income.

Code of Conduct, Code of Ethics

Citi has a Code of Conduct that maintains its commitment to the highest standards of conduct. The Code of Conduct is supplemented by a Code of Ethics for Financial Professionals (including accounting, controllers, financial reporting operations, financial planning and analysis, treasury, capital planning, tax, productivity and strategy, M&A, investor relations and regional/product finance professionals and administrative staff) that applies worldwide. The Code of Ethics for Financial Professionals applies to Citi's principal executive officer, principal financial officer and principal accounting officer. Amendments and waivers, if any, to the Code of Ethics for Financial Professionals will be disclosed on Citi's website, www.citigroup.com.

Both the Code of Conduct and the Code of Ethics for Financial Professionals can be found on the Citi website by clicking on "About Us," and then "Corporate Governance." Citi's Corporate Governance Guidelines can also be found there, as well as the charters for the Audit Committee, the Ethics, Conduct and Culture Committee, the Nomination, Governance and Public Affairs Committee, the Personnel and Compensation Committee and the Risk Management Committee of Citigroup's Board of Directors. These materials are also available by writing to Citigroup Inc., Corporate Governance, 388 Greenwich Street, 17th Floor, New York, New York 10013.

CITIGROUP BOARD OF DIRECTORS

Ellen M. Costello
Former President and CEO
BMO Financial Corporation and
Former U.S. Country Head
BMO Financial Group

Grace E. Dailey
Former Senior Deputy Comptroller
for Bank Supervision Policy and Chief
National Bank Examiner
Office of the Comptroller of the
Currency (OCC)

Barbara Desoer
Chair
Citibank, N.A.

John C. Dugan
Chair
Citigroup Inc.

Jane Fraser
Chief Executive Officer
Citigroup Inc.

Duncan P. Hennes
Co-Founder and Partner
Atrevida Partners, LLC

Peter Blair Henry
Dean Emeritus and W. R.
Berkley Professor of Economics
and Finance
New York University
Stern School of Business

S. Leslie Ireland
Former Assistant Secretary for
Intelligence and Analysis
U.S. Department of the Treasury

Lew W. (Jay) Jacobs, IV
Former President and Managing
Director
Pacific Investment Management
Company LLC (PIMCO)

Renée J. James
Founder, Chairman and CEO
Ampere Computing

Gary M. Reiner
Operating Partner
General Atlantic LLC

Diana L. Taylor
Former Superintendent of Banks
State of New York

James S. Turley
Former Chairman and CEO
Ernst & Young

Deborah C. Wright
Former Chairman
Carver Bancorp, Inc.

Ernesto Zedillo Ponce de Leon
Director, Center for the
Study of Globalization and
Professor in the Field
of International
Economics and Politics
Yale University

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 25th day of February, 2022.

Citigroup Inc.
(Registrant)

Mark A. L. Mason
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on the 25th day of February, 2022.

Citigroup's Principal Executive Officer and a Director:

Jane Fraser

Citigroup's Principal Financial Officer:

Mark A. L. Mason

Citigroup's Principal Accounting Officer:

Johnbull E. Okpara

The Directors of Citigroup listed below executed a power of attorney appointing Mark A. L. Mason their attorney-in-fact, empowering him to sign this report on their behalf.

Ellen M. Costello
Grace E. Dailey
Barbara Desoer
John C. Dugan
Duncan P. Hennes
Peter Blair Henry
S. Leslie Ireland
Lew W. (Jay) Jacobs, IV
Renée J. James
Gary M. Reiner
Diana L. Taylor
James S. Turley
Deborah C. Wright
Ernesto Zedillo Ponce de Leon

Mark A. L. Mason

GLOSSARY OF TERMS AND ACRONYMS

The following is a list of terms and acronyms that are used in this Annual Report on Form 10-K and other Citigroup presentations.

* Denotes a Citi metric

2021 Annual Report on Form 10-K: Annual report on Form 10-K for year ended December 31, 2021, filed with the SEC.

90+ days past due delinquency rate*: Represents consumer loans that are past due by 90 or more days, divided by that period's total EOP loans.

ABS: Asset-backed securities

ACL: Allowance for credit losses

ACLL: Allowance for credit losses on loans

ACLUC: Allowance for credit losses on unfunded lending commitments

AFS: Available-for-sale

ALCO: Asset Liability Committee

Amortized cost: Amount at which a financing receivable or investment is originated or acquired, adjusted for accretion or amortization of premium, discount, and net deferred fees or costs, collection of cash, charge-offs, foreign exchange, and fair value hedge accounting adjustments. For AFS securities, amortized cost is also reduced by any impairment losses recognized in earnings. Amortized cost is not reduced by the allowance for credit losses, except where explicitly presented net.

AOCI: Accumulated other comprehensive income (loss)

ARM: Adjustable rate mortgage(s)

ASC: Accounting Standards Codification under GAAP issued by the FASB.

ASU: Accounting Standards Update under GAAP issued by the FASB.

AUC: Assets under custody

AUM: Assets under management. Represent assets managed on behalf of Citi's clients.

Available liquidity resources*: Resources available at the balance sheet date to support Citi's client and business needs, including HQLA assets; additional unencumbered securities, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi's HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Basel III: Liquidity and capital rules adopted by the FRB based on an internationally agreed set of measures developed by the Basel Committee on Banking Supervision.

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities or other obligations, issued by VIEs that Citi consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

BHC: Bank holding company

Book value per share*: EOP common equity divided by EOP common shares outstanding.

Bps: Basis points. One basis point equals 1/100th of one percent.

Branded cards: Citi's branded-cards business with a portfolio of proprietary cards (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco).

Build: A net increase in ACL through the provision for credit losses.

Cards: Citi's credit cards' businesses or activities.

CCAR: Comprehensive Capital Analysis and Review

CCO: Chief Compliance Officer

CDS: Credit default swaps

CECL: Current Expected Credit Losses

CEO: Chief Executive Officer

CET1 Capital: Common Equity Tier 1 Capital. See "Capital Resources—Components of Citigroup Capital" above for the components of CET1.

CET1 Capital Ratio*: Common Equity Tier 1 Capital ratio. A primary regulatory capital ratio representing end-of-period CET1 Capital divided by total risk-weighted assets.

CFO: Chief Financial Officer

CFTC: Commodity Futures Trading Commission

CGMHI: Citigroup Global Markets Holdings Inc.

Citi: Citigroup Inc.

Citibank or CBNA: Citibank, N.A. (National Association)

Client assets: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

CLO: Collateralized loan obligations

Collateral-dependent: A loan is considered collateral dependent when repayment of the loan is expected to be provided substantially through the operation or sale of the collateral when the borrower is experiencing financial difficulty, including when foreclosure is deemed probable based on borrower delinquency.

Commercial Cards: Provides a wide range of payment services to corporate and public sector clients worldwide through commercial card products. Services include procurement, corporate travel and entertainment, expense management services, and business-to-business payment solutions.

Consent orders: In October 2020, Citigroup and Citibank entered into consent orders with the Federal Reserve and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls.

CRE: Commercial real estate

Credit card spend volume*: Dollar amount of card customers' purchases, net of returns. Also known as purchase sales.

Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again (or vice versa). The duration of a credit cycle can vary from a couple of years to several years.

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity), which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller). Upon the occurrence of a credit event by the reference entity, which may include, among other events, the bankruptcy or failure to pay its obligations, or certain restructurings of the debt of the reference entity, neither party has recourse to the reference entity. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value at the time of settling the credit derivative contract. The determination as to whether a credit event has occurred is generally made by the relevant International Swaps and Derivatives Association (ISDA) Determinations Committee.

Critical Audit Matters: Audit matters communicated by KPMG to Citi's Audit Committee of the Board of Directors, relating to accounts or disclosures that are material to the consolidated financial statements and involved especially challenging, subjective or complex judgments. See "Report of Independent Registered Public Accounting Firm" above.

Criticized: Criticized loans, lending-related commitments and derivative receivables that are classified as special mention, substandard and doubtful categories for regulatory purposes.

CRO: Chief Risk Officer

CVA: Credit valuation adjustment

Dividend payout ratio*: Represents dividends declared per common share as a percentage of net income per diluted share.

Dodd-Frank Act: Wall Street Reform and Consumer Protection Act

DPD: Days past due

DVA: Debit valuation adjustment

EC: European Commission

Efficiency ratio*: A ratio signifying how much of a dollar in expenses (as a percentage) it takes to generate one dollar in revenue. Represents total operating expenses divided by total revenues, net.

EMEA: Europe, Middle East and Africa

EOP: End-of-period

EPS*: Earnings per share

ERISA: Employee Retirement Income Security Act of 1974

ETR: Effective tax rate

EU: European Union

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

FFIEC: Federal Financial Institutions Examination Council

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICO: Fair Issac Corporation

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

FINRA: Financial Industry Regulatory Authority

Firm: Citigroup Inc.

FRBNY: Federal Reserve Bank of New York

Freddie Mac: Federal Home Loan Mortgage Corporation

Free standing derivatives: A derivative contract entered into either separate and apart from any of the Company's other financial instruments or equity transactions, or in conjunction with some other transaction and legally detachable and separately exercisable.

FTCs: Foreign tax credit carry-forwards

FTE: Full time employee

FVA: Funding valuation adjustment

FX: Foreign exchange

FX translation: The impact of converting non-U.S.-dollar currencies into U.S. dollars.

G7: Group of Seven nations. Countries in the G7 are Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

GAAP or U.S. GAAP: Generally accepted accounting principles in the United States of America.

GCB: Global Consumer Banking

Ginnie Mae: Government National Mortgage Association

GSIB: Global systemically important banks

HELOC: Home equity line of credit

HFI loans: Loans that are held-for-investment (i.e., excludes loans held-for-sale).

HFS: Held-for-sale

HQLA: High-quality liquid assets. Consist of cash and certain high-quality liquid securities as defined in the LCR rule.

HTM: Held-to-maturity

IBOR: Interbank Offered Rate

ICG: Institutional Clients Group

ICRM: Independent Compliance Risk Management

IPO: Initial public offering

ISDA: International Swaps and Derivatives Association

KM: Key financial and non-financial metric used by management when evaluating consolidated and/or individual business results.

KPMG LLP: Citi's Independent Registered Public Accounting Firm.

LATAM: Latin America, which for Citi, includes Mexico.

LCR: Liquidity coverage ratio. Represents HQLA divided by net outflows in the period.

LDA: Loss Distribution Approach

LGD: Loss given default

LIBOR: London Interbank Offered Rate

LLC: Limited Liability Company

LTD: Long-term debt

LTV: Loan-to-value. For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the appraised value of the collateral (i.e., residential real estate) securing the loan.

Master netting agreement: A single agreement with a counterparty that permits multiple transactions governed by that agreement to be terminated or accelerated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due).

MBS: Mortgage-backed securities

MCA: Manager's control assessment

MD&A: Management's discussion and analysis

Measurement alternative: Measures equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer.

Moody's: Moody's Investor Services

MSRs: Mortgage servicing rights

N/A: Data is not applicable or available for the period presented.

NAA: Non-accrual assets. Consists of non-accrual loans and OREO.

NAL: Non-accrual loans. Loans for which interest income is not recognized on an accrual basis. Loans (other than credit card loans and certain consumer loans insured by U.S. government sponsored agencies) are placed on non-accrual status when full payment of principal and interest is not expected, regardless of delinquency status, or when principal and interest have been in default for a period of 90 days or more unless the loan is both well-secured and in the process of collection. Collateral-dependent loans are typically maintained on non-accrual status.

NAV: Net asset value

NCL(s): Net credit losses. Represents gross credit losses, less gross credit recoveries.

NCL ratio*: Represents net credit losses (recoveries) (annualized), divided by average loans for the reporting period.

Net Capital Rule: Rule 15c3-1 under the Securities Exchange Act of 1934.

Net interchange income: Includes the following components:

- Interchange revenue: Fees earned from merchants based on Citi's credit and debit card customers' sales transactions.
- Reward costs: The cost to Citi for points earned by cardholders enrolled in credit card rewards programs generally tied to sales transactions.
- Partner payments: Payments to co-brand credit card partners based on the cost of loyalty program rewards earned by cardholders on credit card transactions.

NII: Net interest income. Represents total interest revenue, less total interest expenses.

NIM*: Net interest margin expressed as a yield percentage, calculated as annualized net interest income divided by average interest-earning assets for the period.

NIR: Non-interest revenues

NM: Not meaningful

Noncontrolling interests: The portion of an investment that has been consolidated by Citi that is not 100% owned by Citi.

Non-GAAP financial measure: Management uses these financial measures because it believes they provide information to enable investors to understand the underlying operational performance and trends of Citi and its businesses.

NSFR: Net Stable Funding Ratio

O/S: Outstanding

OCC: Office of the Comptroller of the Currency

OCI: Other comprehensive income (loss)

OREO: Other real estate owned

OTTI: Other-than-temporary impairment

Over-the-counter cleared (OTC-cleared) derivatives: Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

Over-the-counter (OTC) derivatives: Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

Parent Company: Citigroup Inc.

Participating securities: Represents unvested share-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, "dividends"), which are included in the earnings per share calculation using the two-class method. Citi grants RSUs to certain employees under its share-based compensation programs, which entitle the recipients to receive non-forfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

PCD: Purchased credit-deteriorated assets are financial assets that as of the date of acquisition have experienced a more-than-insignificant deterioration in credit quality since origination, as determined by the Company.

PCI: Purchased credit-impaired loans represented certain loans that were acquired and deemed to be credit impaired on the acquisition date. The now superseded FASB guidance that allowed purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools, provided that the loans had common risk characteristics (e.g., product type, LTV ratios).

PD: Probability of default

Principal transactions revenue: Primarily trading-related revenues predominantly generated by the *ICG* businesses. See Note 6 to the Consolidated Financial Statements.

Provisions: Provisions for credit losses and for benefits and claims.

PSUs: Performance share units

Real GDP: Real gross domestic product is the inflation-adjusted value of the goods and services produced by labor and property located in a country.

Regulatory VAR: Daily aggregated VAR calculated in accordance with regulatory rules.

REITs: Real estate investment trusts

Release: A net decrease in ACL through the provision for credit losses.

Reported basis: Financial statements prepared under U.S. GAAP.

Results of operations that exclude certain impacts from gains or losses on sale, or one-time charges*: Represents GAAP items, excluding the impact of gains or losses on sales, or one-time charges (e.g., the loss on sale related to the sale of Citi's consumer banking business in Australia).

Results of operations that exclude the impact of FX translation*: Represents GAAP items, excluding the impact of FX translation, whereby the prior periods' foreign currency balances are translated into U.S. dollars at the current periods' conversion rates (also known as Constant dollar).

Retail services: Citi's U.S. retail services cards business with a portfolio of co-brand and private label relationships (including, among others, The Home Depot, Sears, Best Buy and Macy's).

ROA*: Return on assets. Represents net income (annualized), divided by average assets for the period.

ROCE*: Return on Common Equity. Represents net income less preferred dividends (both annualized), divided by average common equity for the period.

ROE: Return on equity. Represents net income less preferred dividends (both annualized), divided by average Citigroup equity for the period.

RoTCE*: Return on tangible common equity. Represents net income less preferred dividends (both annualized), divided by average tangible common equity for the period.

RSU(s): Restricted stock units

RWA: Risk-weighted assets. Basel III establishes two comprehensive approaches for calculating RWA (a Standardized approach and an Advanced approach), which include capital requirements for credit risk, market risk, and in the case of Basel III Advanced, also operational risk. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings, which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized and Basel III Advanced Approaches.

S&P: Standard and Poor's Global Ratings

SCB: Stress Capital Buffer

SEC: The U.S. Securities and Exchange Commission

Securities financing agreements: Include resale, repurchase, securities borrowed and securities loaned agreements.

SLR: Supplementary leverage ratio. Represents Tier 1 Capital, divided by total leverage exposure.

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

Structured notes: Financial instruments whose cash flows are linked to the movement in one or more indexes, interest rates, foreign exchange rates, commodities prices, prepayment rates, or other market variables. The notes typically contain embedded (but not separable or detachable) derivatives. Contractual cash flows for principal, interest or both can vary in amount and timing throughout the life of the note based on non-traditional indexes or non-traditional uses of traditional interest rates or indexes.

Tangible book value per share (TBVPS)*: Represents tangible common equity divided by EOP common shares outstanding.

Tangible common equity (TCE): Represents common stockholders' equity less goodwill and identifiable intangible assets, other than MSRs.

Taxable-equivalent basis: Represents the total revenue, net of interest expense for the business, adjusted for revenue from investments that receive tax credits and the impact of tax-exempt securities. This metric presents results on a level comparable to taxable investments and securities.

Tax Reform: Tax Cuts and Jobs Act of 2017

TDR: Troubled debt restructuring. TDR is deemed to occur when the Company modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty. Loans with short-term and other insignificant modifications that are not considered concessions are not TDRs.

TLAC: Total loss-absorbing capacity

Total payout ratio*: Represents total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders.

Transformation: Citi has embarked on a multiyear transformation, with the target outcome to change Citi's business and operating models such that they simultaneously strengthen risk and controls and improve Citi's value to customers, clients and shareholders.

U.K.: United Kingdom

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

USD: U.S. dollar

U.S.: United States of America

U.S. government agencies: U.S. government agencies include, but are not limited to, agencies such as Ginnie Mae and FHA, and do not include Fannie Mae and Freddie Mac, which are U.S. government-sponsored enterprises (U.S. GSEs). In general, obligations of U.S. government agencies are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government in the event of a default.

U.S. Treasury: U.S. Department of the Treasury

VAR: Value at risk. A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

VIEs: Variable interest entities

Wallet: Proportion of fee revenue based on estimates of investment banking fees generated across the industry (i.e., the revenue wallet) from investment banking transactions in M&A, equity and debt underwriting, and loan syndications.

Stockholder Information

Citigroup common stock is listed on the NYSE under the ticker symbol "C." Citigroup preferred stock Series J and K are also listed on the NYSE.

Because Citigroup's common stock is listed on the NYSE, the Chief Executive Officer is required to make an annual certification to the NYSE stating that she was not aware of any violation by Citigroup of the corporate governance listing standards of the NYSE. The annual certification to that effect was made to the NYSE on May 21, 2021.

As of January 31, 2022, Citigroup had approximately 61,355 common stockholders of record. This figure does not represent the actual number of beneficial owners of common stock because shares are frequently held in "street name" by securities dealers and others for the benefit of individual owners who may vote the shares.

Transfer Agent

Stockholder address changes and inquiries regarding stock transfers, dividend replacement, 1099-DIV reporting and lost securities for common and preferred stock should be directed to:

Computershare
P.O. Box 505005
Louisville, KY 40233-5005
Telephone No. 781 575 4555
Toll-free No. 888 250 3985
E-mail address: shareholder@computershare.com
Web address: www.computershare.com/investor

Exchange Agent

Holders of Golden State Bancorp, Associates First Capital Corporation or Citicorp common stock should arrange to exchange their certificates by contacting:

Computershare
P.O. Box 505004
Louisville, KY 40233-5004
Telephone No. 781 575 4555
Toll-free No. 888 250 3985
E-mail address: shareholder@computershare.com
Web address: www.computershare.com/investor

On May 9, 2011, Citi effected a 1-for-10 reverse stock split. All Citi common stock certificates issued prior to that date must be exchanged for new certificates by contacting Computershare at the address noted above.

Citi's 2021 Form 10-K filed with the SEC, as well as other annual and quarterly reports, are available from Citi Document Services toll free at 877 936 2737 (outside the United States at 716 730 8055), by e-mailing a request to docserve@citi.com or by writing to:

Citi Document Services
540 Crosspoint Parkway
Getzville, NY 14068

Stockholder Inquiries

Information about Citi, including quarterly earnings releases and filings with the U.S. Securities and Exchange Commission, can be accessed via Citi's website at www.citigroup.com. Stockholder inquiries can also be directed by e-mail to shareholderrelations@citi.com.

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www.citigroup.com

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Federal Deposit Insurance Corporation OMB Number: 3064-0052
Office of the Comptroller of the Currency OMB Number: 1557-0081
Approval expires December 31, 2024

Federal Financial Institutions Examination Council

Consolidated Reports of Condition and Income for a Bank with Domestic and Foreign Offices—FFIEC 031

Report at the close of business September 30, 2022

(20220930)
(RCON 9999)

This report is required by law: 12 U.S.C. § 324 (State member banks); 12 U.S.C. §1817 (State nonmember banks); 12 U.S.C. §161 (National banks); and 12 U.S.C. §1464 (Savings associations).

Unless the context indicates otherwise, the term "bank" in this report form refers to both banks and savings associations. This report form is to be filed by (1) banks with branches and consolidated subsidiaries in U.S. territories and possessions, Edge or Agreement subsidiaries, foreign branches, consolidated foreign subsidiaries, or International Banking Facilities, (2) banks with domestic offices only and total consolidated assets of $100 billion or more, and (3) banks that are advanced approaches institutions for regulatory capital purposes.

NOTE: Each bank's board of directors and senior management are responsible for establishing and maintaining an effective system of internal control, including controls over the Reports of Condition and Income. The Reports of Condition and Income are to be prepared in accordance with federal regulatory authority instructions. The Reports of Condition and Income must be signed by the Chief Financial Officer (CFO) of the reporting bank (or by the individual performing an equivalent function) and attested to by not less than two directors (trustees) for state nonmember banks and three directors for state member banks, national banks, and savings associations.

I, the undersigned CFO (or equivalent) of the named bank, attest that the Reports of Condition and Income (including the supporting schedules) for this report date have been prepared in conformance with the instructions issued by the appropriate Federal regulatory authority and are true and correct to the best of my knowledge and belief.

Signature of Chief Financial Officer (or Equivalent)

November 4, 2022
Date of Signature

We, the undersigned directors (trustees), attest to the correctness of the Reports of Condition and Income (including the supporting schedules) for this report date and declare that the Reports of Condition and Income have been examined by us and to the best of our knowledge and belief have been prepared in conformance with the instructions issued by the appropriate Federal regulatory authority and are true and correct.

Director (Trustee)

Director (Trustee)

Director (Trustee)

Submission of Reports

Each bank must file its Reports of Condition and Income (Call Report) data by either:

(a) Using computer software to prepare its Call Report and then submitting the report data directly to the FFIEC's Central Data Repository (CDR), an Internet-based system for data collection (https://cdr.ffiec.gov/cdr/), or

(b) Completing its Call Report in paper form and arranging with a software vendor or another party to convert the data into the electronic format that can be processed by the CDR. The software vendor or other party then must electronically submit the bank's data file to the CDR.

For technical assistance with submissions to the CDR, please contact the CDR Help Desk by telephone at (888) CDR-3111, by fax at (703) 774-3946, or by e-mail at cdr.help@cdr.ffiec.gov.

FDIC Certificate Number 0 7 2 1 3
(RSSD 9050)

To fulfill the signature and attestation requirement for the Reports of Condition and Income for this report date, attach your bank's completed signature page (or a photocopy or a computer generated version of this page) to the hard-copy record of the data file submitted to the CDR that your bank must place in its files.

The appearance of your bank's hard-copy record of the submitted data file need not match exactly the appearance of the FFIEC's sample report forms, but should show at least the caption of each Call Report item and the reported amount.

Citibank, N.A.
Legal Title of Bank (RSSD 9017)

Sioux Falls
City (RSSD 9130)

SD
State Abbrev. (RSSD 9200)

57108
ZIP Code (RSSD 9220)

Legal Entity Identifier (LEI) E57ODZWZ7FF32TWEFA76
(Report only if your institution already has an LEI.) (RCON 9224)

The estimated average burden associated with this information collection is 86.49 hours per respondent and is expected to vary by institution, depending on individual circumstances. Burden estimates include the time for reviewing instructions, gathering and maintaining data in the required form, and completing the information collection, but exclude the time for compiling and maintaining business records in the normal course of a respondent's activities. A Federal agency may not conduct or sponsor, and an organization (or a person) is not required to respond to a collection of information, unless it displays a currently valid OMB control number. Comments concerning the accuracy of this burden estimate and suggestions for reducing this burden should be directed to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, and to one of the following: Secretary, Board of Governors of the Federal Reserve System, 20th and C Streets, NW, Washington, DC 20551; Legislative and Regulatory Analysis Division, Office of the Comptroller of the Currency, Washington, DC 20219; Assistant Executive Secretary, Federal Deposit Insurance Corporation, Washington, DC 20429.

Consolidated Reports of Condition and Income for a Bank with Domestic and Foreign Offices

Table of Contents

For information or assistance, national banks, state nonmember banks, and savings associations should contact the FDIC's Data Collection and Analysis Section, 550 17th Street, NW, Washington, DC 20429, toll free on (800) 688-FDIC(3342), Monday through Friday between 8:00 a.m. and 5:00 p.m., Eastern Time. State member banks should contact their Federal Reserve District Bank.

Contact Information for the Reports of Condition and Income

To facilitate communication between the Agencies and the bank concerning the Reports of Condition and Income, please provide contact information for (1) the Chief Financial Officer (or equivalent) of the bank signing the reports for this quarter, and (2) the person at the bank —other than the Chief Financial Officer (or equivalent)— to whom questions about the reports should be directed. If the Chief Financial Officer (or equivalent) is the primary contact for questions about the reports, please provide contact information for another person at the bank who will serve as a secondary contact for communications between the Agencies and the bank concerning the Reports of Condition and Income. Enter "none" for the contact's e-mail address or fax number if not available. Contact information for the Reports of Condition and Income is for the confidential use of the Agencies and will not be released to the public.

Chief Financial Officer (or Equivalent) Signing the Reports

CONF
Name (TEXT C490)

CONF
Title (TEXT C491)

CONF
E-mail Address (TEXT C492)

CONF
Telephone: Area code/phone number/extension (TEXT C493)

CONF
FAX: Area code/phone number (TEXT C494)

Other Person to Whom Questions about the Reports Should be Directed

CONF
Name (TEXT C495)

CONF
Title (TEXT C496)

CONF
E-mail Address (TEXT 4086)

CONF
Telephone: Area code/phone number/extension (TEXT 8902)

CONF
FAX: Area code/phone number (TEXT 9116)

Chief Executive Officer Contact Information

This information is being requested so the Agencies can distribute notifications about policy initiatives, deposit insurance assessments, and other matters directly to the Chief Executive Officers of reporting institutions. Notifications about other matters may include emergency notifications that may or may not also be sent to the institution's emergency contacts listed below. Please provide contact information for the Chief Executive Officer of the reporting institution. Enter "none" for the Chief Executive Officer's e-mail address or fax number if not available. Chief Executive Officer contact information is for the confidential use of the Agencies and will not be released to the public.

Chief Executive Officer

CONF
Name (TEXT FT42)

CONF
Telephone: Area code/phone number/extension (TEXT FT43)

CONF
E-mail Address (TEXT FT44)

CONF
Fax: Area code/phone number (TEXT FT45)

Emergency Contact Information

This information is being requested so the Agencies can distribute critical, time sensitive information to emergency contacts at banks. Please provide primary contact information for a senior official of the bank who has decision-making authority. Also provide information for a secondary contact if available. Enter "none" for the contact's e-mail address or fax number if not available. Emergency contact information is for the confidential use of the Agencies and will not be released to the public.

Primary Contact

CONF
Name (TEXT C366)

CONF
Title (TEXT C367)

CONF
E-mail Address (TEXT C368)

CONF
Telephone: Area code/phone number/extension (TEXT C369)

CONF
FAX: Area code/phone number (TEXT C370)

Secondary Contact

CONF
Name (TEXT C371)

CONF
Title (TEXT C372)

CONF
E-mail Address (TEXT C373)

CONF
Telephone: Area code/phone number/extension (TEXT C374)

CONF
FAX: Area code/phone number (TEXT C375)

USA PATRIOT Act Section 314(a) Anti-Money Laundering Contact Information

This information is being requested to identify points-of-contact who are in charge of your bank’s USA PATRIOT Act Section 314(a) information requests. Bank personnel listed could be contacted by law enforcement officers or the Financial Crimes Enforcement Network (FinCEN) for additional information related to specific Section 314(a) search requests or other anti-terrorist financing and anti-money laundering matters. Communications sent by FinCEN to the bank for purposes other than Section 314(a) notifications will state the intended purpose and should be directed to the appropriate bank personnel for review. Any disclosure of customer records to law enforcement officers or FinCEN must be done in compliance with applicable law, including the Right to Financial Privacy Act (12 U.S.C. 3401 et seq.).

Please provide information for a primary and secondary contact. Information for a third and fourth contact may be provided at the bank’s option. Enter “none” for the contact’s e-mail address if not available. This contact information is for the confidential use of the Agencies, FinCEN, and law enforcement officers and will not be released to the public.

Primary Contact

CONF
Name (TEXT C437)

CONF
Title (TEXT C438)

CONF
E-mail Address (TEXT C439)

CONF
Telephone: Area code/phone number/extension (TEXT C440)

Secondary Contact

CONF
Name (TEXT C442)

CONF
Title (TEXT C443)

CONF
E-mail Address (TEXT C444)

CONF
Telephone: Area code/phone number/extension (TEXT C445)

Third Contact

CONF
Name (TEXT C870)

CONF
Title (TEXT C871)

CONF
E-mail Address (TEXT C872)

CONF
Telephone: Area code/phone number/extension (TEXT C873)

Fourth Contact

CONF
Name (TEXT C875)

CONF
Title (TEXT C876)

CONF
E-mail Address (TEXT C877)

CONF
Telephone: Area code/phone number/extension (TEXT C878)

Consolidated Report of Income
For the period January 1, 2022 — September 30, 2022

All Report of Income schedules are to be reported on a calendar year-to-date basis in thousands of dollars.

Schedule RI—Income Statement

Dollar Amounts in Thousands	RIAD	Amount	
1. Interest income:			
a. Interest and fee income on loans:			
(1) In domestic offices:			
a. Loans secured by real estate:			
(1) Loans secured by 1-4 family residential properties	4435	2,190,000	1.a.1.a.1
(2) All other loans secured by real estate	4436	996,000	1.a.1.a.2
b. Loans to finance agricultural production and other loans to farmers	4024	2,000	1.a.1.b.
c. Commercial and industrial loans	4012	2,339,000	1.a.1.c.
d. Loans to individuals for household, family, and other personal expenditures:			
(1) Credit cards	B485	12,950,000	1.a.1.d.1
(2) Other (includes revolving credit plans other than credit cards, automobile loans, and other consumer loans)	B486	218,000	1.a.1.d.2
e. Loans to foreign governments and official institutions	4056	18,000	1.a.1.e.
f. All other loans in domestic offices	B487	1,639,000	1.a.1.f.
(2) In foreign offices, Edge and Agreement subsidiaries, and IBFs	4059	7,410,000	1.a.2.
(3) Total interest and fee income on loans (sum of items 1.a.(1)(a) through 1.a.(2))	4010	27,762,000	1.a.3.
b. Income from lease financing receivables	4065	11,000	1.b.
c. Interest income on balances due from depository institutions (1)	4115	2,036,000	1.c.
d. Interest and dividend income on securities:			
(1) U.S. Treasury securities and U.S. Government agency obligations (excluding mortgage-backed securities)	B488	1,428,000	1.d.1.
(2) Mortgage-backed securities	B489	1,625,000	1.d.2.
(3) All other securities (includes securities issued by states and political subdivisions in the U.S.)	4060	3,076,000	1.d.3.
e. Interest income from trading assets	4069	1,693,000	1.e.
f. Interest income on federal funds sold and securities purchased under agreements to resell	4020	1,744,000	1.f.
g. Other interest income	4518	119,000	1.g.
h. Total interest income (sum of items 1.a.(3) through 1.g)	4107	39,494,000	1.h.
2. Interest expense:			
a. Interest on deposits:			
(1) Interest on deposits in domestic offices:			
(a) Transaction accounts (interest-bearing demand deposits, NOW accounts, ATS accounts, and telephone and preauthorized transfer accounts)	4508	1,662,000	2.a.1.a.
(b) Nontransaction accounts:			
(1) Savings deposits (includes MMDAs)	0093	597,000	2.a.1.b.1
(2) Time deposits of $250,000 or less	HK03	170,000	2.a.1.b.2
(3) Time deposits of more than $250,000	HK04	253,000	2.a.1.b.3
(2) Interest on deposits in foreign offices, Edge and Agreement subsidiaries, and IBFs	4172	2,497,000	2.a.2.
b. Expense of federal funds purchased and securities sold under agreements to repurchase	4180	127,000	2.b.
c. Interest on trading liabilities and other borrowed money	4185	1,558,000	2.c.

1 Includes interest income on time certificates of deposit not held for trading.

Schedule RI—Continued

Dollar Amounts in Thousands			RIAD	Year-to-date Amount	
2. Interest expense (continued):					
d. Interest on subordinated notes and debentures			4200	268,000	2.d.
e. Total interest expense (sum of items 2.a through 2.d)			4073	7,132,000	2.e.
3. Net interest income (item 1.h minus 2.e)	4074	32,362,000			3.
4. Provision for loan and lease losses (1)	JJ33	3,018,000			4.
5. Noninterest income:					
a. Income from fiduciary activities (2)			4070	1,876,000	5.a.
b. Service charges on deposit accounts			4080	825,000	5.b.
c. Trading revenue (3)			A220	9,915,000	5.c.
d. Income from securities-related and insurance activities:					
(1) Fees and commissions from securities brokerage			C886	579,000	5.d.1.
(2) Investment banking, advisory, and underwriting fees and commissions			C888	353,000	5.d.2.
(3) Fees and commissions from annuity sales			C887	6,000	5.d.3.
(4) Underwriting income from insurance and reinsurance activities			C386	0	5.d.4.
(5) Income from other insurance activities			C387	236,000	5.d.5.
e. Venture capital revenue			B491	0	5.e.
f. Net servicing fees			B492	270,000	5.f.
g. Net securitization income			B493	38,000	5.g.
h. Not applicable					
i. Net gains (losses) on sales of loans and leases			5416	(562,000)	5.i.
j. Net gains (losses) on sales of other real estate owned			5415	5,000	5.j.
k. Net gains (losses) on sales of other assets (4)			B496	605,000	5.k.
l. Other noninterest income*			B497	(185,000)	5.l.
m. Total noninterest income (sum of items 5.a through 5.l)	4079	13,961,000			5.m.
6. a. Realized gains (losses) on held-to-maturity securities	3521	0			6.a.
b. Realized gains (losses) on available-for-sale debt securities	3196	(204,000)			6.b.
7. Noninterest expense:					
a. Salaries and employee benefits			4135	14,408,000	7.a.
b. Expenses of premises and fixed assets (net of rental income) (excluding salaries and employee benefits and mortgage interest)			4217	1,327,000	7.b.
c. (1) Goodwill impairment losses			C216	116,000	7.c.1.
(2) Amortization expense and impairment losses for other intangible assets			C232	250,000	7.c.2.
d. Other noninterest expense*			4092	10,044,000	7.d.
e. Total noninterest expense (sum of items 7.a through 7.d)	4093	26,145,000			7.e.
8. a. Income (loss) before change in net unrealized holding gains (losses) on equity securities not held for trading, applicable income taxes, and discontinued operations (item 3 plus or minus items 4, 5.m, 6.a, 6.b, and 7.e)	HT69	16,956,000			8.a.
b. Change in net unrealized holding gains (losses) on equity securities not held for trading (5)	HT70	78,000			8.b.
c. Income (loss) before applicable income taxes and discontinued operations (sum of items 8.a and 8.b)	4301	17,034,000			8.c.
9. Applicable income taxes (on item 8.c)	4302	4,119,000			9.
10. Income (loss) before discontinued operations (item 8.c minus item 9)	4300	12,915,000			10.
11. Discontinued operations, net of applicable income taxes*	FT28	(262,000)			11.
12. Net income (loss) attributable to bank and noncontrolling (minority) interests (sum of items 10 and 11)	G104	12,653,000			12.

* Describe on Schedule RI-E - Explanations

1 Institutions that have adopted ASU 2016-13 should report in item 4 the provisions for credit losses on all financial assets and off-balance-sheet credit exposures that fall within the scope of the standard.

2 For banks required to complete Schedule RC-T, items 14 through 22, income from fiduciary activities reported in Schedule RI, item 5.a, must equal the amount reported in Schedule RC-T, item 22.

3 For banks required to complete Schedule RI, Memorandum item 8, trading revenue reported in Schedule RI, item 5.c, must equal the sum of Memorandum items 8.a through 8.e.

4 Exclude net gains (losses) on sales of trading assets and held-to-maturity and available-for-sale debt securities.

5 Item 8.b is to be completed by all institutions. See the instructions for this item and the Glossary entry for "Securities Activities" for further detail on accounting for investments in equity securities.

Schedule RI—Continued

Dollar Amounts in Thousands			RIAD	Year-to-date Amount	
13. LESS: Net income (loss) attributable to noncontrolling (minority) interests (if net income, report as a positive value; if net loss, report as a negative value)	G103	72,000			13.
14. Net income (loss) attributable to bank (item 12 minus item 13)	4340	12,581,000			14.

Memoranda

Dollar Amounts in Thousands	RIAD	Year-to-date	
1. Interest expense incurred to carry tax-exempt securities, loans, and leases acquired after August 7, 1986, that is not deductible for federal income tax purposes	4513	64,000	M.1.
Memorandum item 2 is to be completed by banks with $1 billion or more in total assets.[1]			
2. Income from the sale and servicing of mutual funds and annuities in domestic offices (included in Schedule RI, item 8)	8431	0	M.2.
3. Income on tax-exempt loans and leases to states and political subdivisions in the U.S. (included in Schedule RI, items 1.a and 1.b)	4313	3,000	M.3.
4. Income on tax-exempt securities issued by states and political subdivisions in the U.S. (included in Schedule RI, item 1.d.(3))	4507	240,000	M.4.
5. Number of full-time equivalent employees at end of current period (round to the nearest whole number)		Number	
	4150	190,639	M.5.
6. Not applicable			
7. If the reporting institution has applied push down accounting this calendar year, report the date of the institution's acquisition (see instructions) (2)	RIAD	Date	
	9106	00000000	M.7.
8. Trading revenue (from cash instruments and derivative instruments) (sum of Memorandum items 8.a through 8.e must equal Schedule RI, item 5.c):			
Memorandum items 8.a through 8.e are to be completed by banks that reported total trading assets of $10 million or more for any quarter of the preceding calendar year.	RIAD	Amount	
a. Interest rate exposures	8757	2,371,000	M.8.a.
b. Foreign exchange exposures	8758	4,654,000	M.8.b.
c. Equity security and index exposures	8759	2,116,000	M.8.c.
d. Commodity and other exposures	8760	924,000	M.8.d.
e. Credit exposures	F186	(150,000)	M.8.e.
Memorandum items 8.f through 8.h are to be completed by banks with $100 billion or more in total assets that are required to complete Schedule RI, Memorandum items 8.a through 8.e, above.[1]			
f. Impact on trading revenue of changes in the creditworthiness of the bank's derivatives counterparties on the bank's derivative assets (year-to-date changes) (included in Memorandum items 8.a through 8.e above):			
(1) Gross credit valuation adjustment (CVA)	FT36	(193,000)	M.8.f.(1)
(2) CVA hedge	FT37	(3,000)	M.8.f.(2)
g. Impact on trading revenue of changes in the creditworthiness of the bank on the bank's derivative liabilities (year-to-date changes) (included in Memorandum items 8.a through 8.e above):			
(1) Gross debit valuation adjustment (DVA)	FT38	257,000	M.8.g.(1)
(2) DVA hedge	FT39	(71,000)	M.8.g.(2)
h. Gross trading revenue, before including positive or negative net CVA and net DVA	FT40	9,923,000	M.8.h.

1 **The asset-size tests are based on the total assets reported on the June 30, 2021, Report of Condition.**
2 Report the date in YYYYMMDD format. For example, a bank acquired on March 1, 2022, would report 20220301.

Schedule RI—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RIAD	Year-to-date Amount	
Memorandum items 9.a and 9.b are to be completed by banks with $10 billion or more in total assets.[1]			
9. Net gains (losses) recognized in earnings on credit derivatives that economically hedge credit exposures held outside the trading account:			
a. Net gains (losses) on credit derivatives held for trading	C889	0	M.9.a.
b. Net gains (losses) on credit derivatives held for purposes other than trading	C890	340,000	M.9.b.
10. Credit losses on derivatives (see instructions)	A251	72,000	M.10.
11. Does the reporting bank have a Subchapter S election in effect for federal income tax purposes for the current tax year?	RIAD A530	YES / NO NO	M.11.
Memorandum item 12 is to be completed by banks that are required to complete Schedule RC-C, Part I, Memorandum items 8.b and 8.c. and is to be completed semiannually in the June and December reports only.			
12. Noncash income from negative amortization on closed-end loans secured by 1-4 family residential properties (included in Schedule RI, item 1.a.(1)(a))	RIAD F228	Amount NR	M.12.
Memorandum item 13 is to be completed by banks that have elected to account for assets and liabilities under a fair value option.			
13. Net gains (losses) recognized in earnings on assets and liabilities that are reported at fair value under a fair value option:			
a. Net gains (losses) on assets	F551	(1,774,000)	M.13.a.
(1) Estimated net gains (losses) on loans attributable to changes in instrument-specific credit risk	F552	(9,000)	M.13.a.1.
b. Net gains (losses) on liabilities	F553	(428,000)	M.13.b.
(1) Estimated net gains (losses) on liabilities attributable to changes in instrument-specific credit risk	F554	0	M.13.b.1.
14. Other-than-temporary impairment losses on held-to-maturity and available-for-sale debt securities recognized in earnings (included in Schedule RI, items 6.a and 6.b) (2)	J321	NR	M.14.
Memorandum item 15 is to be completed by institutions with $1 billion or more in total assets[1] that answered "Yes" to Schedule RC-E, Memorandum item 5.			
15. Components of service charges on deposit accounts in domestic offices (sum of Memorandum items 15.a through 15.d must equal Schedule RI, item 5.b):			
a. Consumer overdraft-related service charges levied on those transaction account and nontransaction savings account deposit products intended primarily for individuals for personal, household, or family use	H032	55,000	M.15.a.
b. Consumer account periodic maintenance charges levied on those transaction account and nontransaction savings account deposit products intended primarily for individuals for personal, household, or family use	H033	98,000	M.15.b.
c. Consumer customer automated teller machine (ATM) fees levied on those transaction account and nontransaction savings account deposit products intended primarily for individuals for personal, household, or family use	H034	10,000	M.15.c.
d. All other service charges on deposit accounts	H035	662,000	M.15.d.

1 **The asset-size tests are based on the total assets reported on the June 30, 2021, Report of Condition.**

2 Memorandum item 14 is to be completed only by institutions that have not adopted ASU 2016-13.

Schedule RI-A—Changes in Bank Equity Capital

Dollar Amounts in Thousands	RIAD	Amount	
1. Total bank equity capital most recently reported for the December 31, 2021, Reports of Condition and Income (i.e., after adjustments from amended Reports of Income)	3217	165,805,000	1.
2. Cumulative effect of changes in accounting principles and corrections of material accounting errors*	B507	0	2.
3. Balance end of previous calendar year as restated (sum of items 1 and 2)	B508	165,805,000	3.
4. Net income (loss) attributable to bank (must equal Schedule RI, item 14)	4340	12,581,000	4.
5. Sale, conversion, acquisition, or retirement of capital stock, net (excluding treasury stock transactions)	B509	(76,000)	5.
6. Treasury stock transactions, net	B510	0	6.
7. Changes incident to business combinations, net	4356	0	7.
8. LESS: Cash dividends declared on preferred stock	4470	63,000	8.
9. LESS: Cash dividends declared on common stock	4460	5,237,000	9.
10. Other comprehensive income (1)	B511	(11,044,000)	10.
11. Other transactions with stockholders (including a parent holding company)* (not included in items 5, 6, 8, or 9 above)	4415	364,000	11.
12. Total bank equity capital end of current period (sum of items 3 through 11) (must equal Schedule RC, item 27.a)	3210	162,330,000	12.

* Describe on Schedule RI-E—Explanations.
1 Includes, but is not limited to, changes in net unrealized holding gains (losses) on available-for-sale debt securities, changes in accumulated net gains (losses) on cash flow hedges, foreign currency translation adjustments, and pension and other postretirement plan-related changes other than net periodic benefit cost.

Schedule RI-B—Charge-offs and Recoveries on Loans and Leases and Changes in Allowances for Credit Losses

Part I. Charge-offs and Recoveries on Loans and Leases

Part I includes charge-offs and recoveries through the allocated transfer risk reserve.

	(Column A) Charge-offs[1]		(Column B) Recoveries		
	Calendar year-to-date				
Dollar Amounts in Thousands	RIAD	Amount	RIAD	Amount	
1. Loans secured by real estate:					
a. Construction, land development, and other land loans in domestic offices:					
(1) 1-4 family residential construction loans	C891	0	C892	0	1.a.1.
(2) Other construction loans and all land development and other land loans	C893	0	C894	0	1.a.2.
b. Secured by farmland in domestic offices	3584	0	3585	0	1.b.
c. Secured by 1-4 family residential properties in domestic offices:					
(1) Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	5411	2,000	5412	18,000	1.c.1.
(2) Closed-end loans secured by 1-4 family residential properties:					
(a) Secured by first liens	C234	7,000	C217	10,000	1.c.2.a.
(b) Secured by junior liens	C235	4,000	C218	15,000	1.c.2.b.
d. Secured by multifamily (5 or more) residential properties in domestic offices	3588	0	3589	0	1.d.
e. Secured by nonfarm nonresidential properties in domestic offices:					
(1) Loans secured by owner-occupied nonfarm nonresidential properties	C895	0	C896	0	1.e.1.
(2) Loans secured by other nonfarm nonresidential properties	C897	0	C898	0	1.e.2.
f. In foreign offices	B512	4,000	B513	2,000	1.f.

1 Include write-downs arising from transfers of loans to a held-for-sale account.

Schedule RI-B—Continued

Part I—Continued

Dollar Amounts in Thousands	RIAD	(Column A) Charge-offs[1] Calendar year-to-date Amount	RIAD	(Column B) Recoveries Calendar year-to-date Amount	
2. Not applicable					
3. Loans to finance agricultural production and other loans to farmers	4655	0	4665	0	3.
4. Commercial and industrial loans:					
a. To U.S. addressees (domicile)	4645	111,000	4617	29,000	4.a.
b. To non-U.S. addressees (domicile)	4646	43,000	4618	55,000	4.b.
5. Loans to individuals for household, family, and other personal expenditures:					
a. Credit cards	B514	2,651,000	B515	769,000	5.a.
b. Automobile loans	K129	0	K133	0	5.b.
c. Other (includes revolving credit plans other than credit cards and other consumer loans)	K205	167,000	K206	60,000	5.c.
6. Loans to foreign governments and official institutions	4643	0	4627	0	6.
7. All other loans	4644	237,000	4628	40,000	7.
8. Lease financing receivables:					
a. Leases to individuals for household, family, and other personal expenditures	F185	0	F187	0	8.a.
b. All other leases	C880	0	F188	0	8.b.
9. Total (sum of items 1 through 8)	4635	3,226,000	4605	998,000	9.

Memoranda

Dollar Amounts in Thousands	RIAD	(Column A) Charge-offs[1] Calendar year-to-date Amount	RIAD	(Column B) Recoveries Calendar year-to-date Amount	
1. Loans to finance commercial real estate, construction, and land development activities (not secured by real estate) included in Schedule RI-B, Part I, items 4 and 7, above	5409	0	5410	0	M.1.
2. Loans secured by real estate to non-U.S. addressees (domicile) (included in Schedule RI-B, Part I, item 1, above)	4652	4,000	4662	2,000	M.2.
3. Not applicable					

Memorandum item 4 is to be completed by banks that (1) together with affiliated institutions, have outstanding credit card receivables (as defined in the instructions) that exceed $500 million as of the report date or (2) are credit card specialty banks as defined for Uniform Bank Performance Report purposes.

	RIAD	Calendar Year-to-date Amount	
4. Uncollectible retail credit card fees and finance charges reversed against income (i.e., not included in charge-offs against the allowance for loan and lease losses) (2)	C388	599,000	M.4.

1 Include write-downs arising from transfers of loans to a held-for-sale account.

2 Institutions that have adopted ASU 2016-13 should report in Memorandum item 4 uncollectible retail credit card fees and finance charges reversed against income (i.e., not included in charge-offs against the allowance for credit losses on loans and leases).

Schedule RI-B—Continued

Part II. Changes in Allowances for Credit Losses[1]

Dollar Amounts in Thousands	RIAD	(Column A) Loans and Leases Held for Investment Amount	RIAD	(Column B) Held-to-Maturity Debt Securities[2] Amount	RIAD	(Column C) Available-for-Sale Debt Securities[2] Amount	
1. Balance most recently reported for the December 31, 2021, Reports of Condition and Income (i.e., after adjustments from amended Reports of Income)	B522	14,896,000	JH88	70,000	JH94	0	1.
2. Recoveries (column A must equal Part I, item 9, column B, above)	4605	998,000	JH89	0	JH95	0	2.
3. LESS: Charge-offs (column A must equal Part I, item 9, column A, above less Schedule RI-B, Part II, item 4, column A)	C079	3,223,000	JH92	0	JH98	0	3.
4. LESS: Write-downs arising from transfers of financial assets (3)	5523	3,000	JJ00	0	JJ01	0	4.
5. Provisions for credit losses (4,5)	4230	2,639,000	JH90	36,000	JH96	0	5.
6. Adjustments* (see instructions for this schedule)	C233	(536,000)	JH91	0	JH97	0	6.
7. Balance end of current period (sum of items 1, 2, 5, and 6, less items 3 and 4) (column A must equal Schedule RC, item 4.c)	3123	14,771,000	JH93	106,000	JH99	0	7.

* Describe on Schedule RI-E - Explanations.

1 Institutions that have not yet adopted ASU 2016-13 should report changes in the allowance for loan and lease losses in column A.

2 Columns B and C are to be completed only by institutions that have adopted ASU 2016-13.

3 Institutions that have not yet adopted ASU 2016-13 should report write-downs arising from transfers of loans to a held-for-sale account in item 4, column A.

4 Institutions that have not yet adopted ASU 2016-13 should report the provision for loan and lease losses in item 5, column A, and the amount reported must equal Schedule RI, item 4.

5 For institutions that have adopted ASU 2016-13, the sum of item 5, columns A through C, plus Schedule RI-B, Part II, Memorandum items 5 and 7, below, must equal Schedule RI, item 4.

Memoranda

Dollar Amounts in Thousands	RIAD	Amount	
1. Allocated transfer risk reserve included in Schedule RI-B, Part II, item 7, column A, above	C435	NR	M.1.
Memorandum items 2 and 3 are to be completed by banks that (1) together with affiliated institutions, have outstanding credit card receivables (as defined in the instructions) that exceed $500 million as of the report date, or (2) are credit card specialty banks as defined for Uniform Bank Performance Report purposes.			
2. Separate valuation allowance for uncollectible retail credit card fees and finance charges	C389	0	M.2.
3. Amount of allowance for loan and lease losses attributable to retail credit card fees and finance charges (1)	C390	297,000	M.3.
4. Amount of allowance for post-acquisition credit losses on purchased credit-impaired loans accounted for in accordance with FASB ASC 310-30 (former AICPA Statement of Position 03-3) (included in Schedule RI-B, Part II, item 7, column A, above) (2)	C781	NR	M.4.
5. Provisions for credit losses on other financial assets measured at amortized cost (not included in item 5, above) (3)	JJ02	49,000	M.5.
6. Allowance for credit losses on other financial assets measured at amortized cost (not included in item 7, above) (3)	RCFD JJ03	114,000	M.6.
7. Provisions for credit losses on off-balance-sheet credit exposures (3)	RIAD MG93	294,000	M.7.
8. Estimated amount of expected recoveries of amounts previously written off included within the allowance for credit losses on loans and leases held for investment (included in item 7, column A, "Balance end of current period," above) (3)	MG94	887,000	M.8.

1 Institutions that have adopted ASU 2016-13 should report in Memorandum item 3 the amount of allowance for credit losses on loans and leases attributable to retail credit fees and finance charges.

2 Memorandum item 4 is to be completed only by institutions that have not yet adopted ASU 2016-13.

3 Memorandum items 5, 6, 7, and 8 are to be completed only by institutions that have adopted ASU 2016-13.

Schedule RI-C—Disaggregated Data on the Allowance for Loan and Lease Losses

Part I. Disaggregated Data on the Allowance for Loan and Lease Losses[1]

Schedule RI-C, Part I, is to be completed by institutions with $1 billion or more in total assets.[2]

	(Column A) Recorded Investment: Individually Evaluated for Impairment and Determined to be Impaired (ASC 310-10-35)		(Column B) Allowance Balance: Individually Evaluated for Impairment and Determined to be Impaired (ASC 310-10-35)		(Column C) Recorded Investment: Collectively Evaluated for Impairment (ASC 450-20)		(Column D) Allowance Balance: Collectively Evaluated for Impairment (ASC 450-20)		(Column E) Recorded Investment: Purchased Credit-Impaired Loans (ASC 310-30)		(Column F) Allowance Balance: Purchased Credit-Impaired Loans (ASC 310-30)		
Dollar Amounts in Thousands	RCFD	Amount	RCFD	Amount	RCFD	Amount	RCFD	Amount	RCFD	Amount	RCFD	Amount	
1. Real estate loans:													
a. Construction loans	M708	NR	M709	NR	M710	NR	M711	NR	M712	NR	M713	NR	1.a.
b. Commercial real estate loans	M714	NR	M715	NR	M716	NR	M717	NR	M719	NR	M720	NR	1.b.
c. Residential real estate loans	M721	NR	M722	NR	M723	NR	M724	NR	M725	NR	M726	NR	1.c.
2. Commercial loans (3)	M727	NR	M728	NR	M729	NR	M730	NR	M731	NR	M732	NR	2.
3. Credit cards	M733	NR	M734	NR	M735	NR	M736	NR	M737	NR	M738	NR	3.
4. Other consumer loans	M739	NR	M740	NR	M741	NR	M742	NR	M743	NR	M744	NR	4.
5. Unallocated, if any							M745	NR					5.
6. Total (for each column sum of 1.a through 5) (4)	M746	NR	M747	NR	M748	NR	M749	NR	M750	NR	M751	NR	6.

1 Only institutions that have not yet adopted ASU 2016-13 are to complete Schedule RI-C, Part I.
2 The $1 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.
3 Include all loans and leases not reported as real estate loans, credit cards, or other consumer loans in items 1, 3, or 4 of Schedule RI-C.
4 The sum of item 6, columns B, D, and F, must equal Schedule RC, item 4.c. Item 6, column E, must equal Schedule RC-C, Part I, Memorandum item 7.b. Item 6, column F, must equal Schedule RI-B, Part II, Memorandum item 4.

Schedule RI-C—Continued

Part II. Disaggregated Data on the Allowances for Credit Losses[1]

Schedule RI-C, Part II, is to be completed by institutions with $1 billion or more in total assets.[2]

Dollar Amounts in Thousands	RCFD	(Column A) Amortized Cost Amount	RCFD	(Column B) Allowance Balance Amount	
Loans and Leases Held for Investment:					
1. Real estate loans:					
a. Construction loans	JJ04	7,213,000	JJ12	39,000	1.a.
b. Commercial real estate loans	JJ05	17,044,000	JJ13	90,000	1.b.
c. Residential real estate loans	JJ06	130,466,000	JJ14	531,000	1.c.
2. Commercial loans (3)	JJ07	305,983,000	JJ15	3,017,000	2.
3. Credit cards	JJ08	140,962,000	JJ16	10,735,000	3.
4. Other consumer loans	JJ09	11,686,000	JJ17	359,000	4.
5. Unallocated, if any			JJ18	0	5.
6. Total (sum of items 1.a through 5) (4)	JJ11	613,354,000	JJ19	14,771,000	6.

Dollar Amounts in Thousands	RCFD	Allowance Balance Amount	
Held-to-Maturity Securities:			
7. Securities issued by states and political subdivisions in the U.S	JJ20	103,000	7.
8. Mortgage-backed securities (MBS) (including CMOs, REMICs, and stripped MBS)	JJ21	3,000	8.
9. Asset-backed securities and structured financial products	JJ23	0	9.
10. Other debt securities	JJ24	0	10.
11. Total (sum of items 7 through 10) (5)	JJ25	106,000	11.

1 Only institutions that have adopted ASU 2016-13 are to complete Schedule RI-C, Part II.
2 The $1 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.
3 Include all loans and leases not reported as real estate loans, credit cards, or other consumer loans in items 1, 3, or 4 of Schedule RI-C, Part II.
4 Item 6, column B, must equal Schedule RC, item 4.c.
5 Item 11 must equal Schedule RI-B, Part II, item 7, column B.

Schedule RI-D—Income from Foreign Offices

For all banks with foreign offices (including Edge or Agreement subsidiaries and IBFs) and total foreign office assets of $10 billion or more where foreign office revenues, assets, or net income exceed 10 percent of consolidated total revenues, total assets, or net income.

Dollar Amounts in Thousands	RIAD	Year-to-date Amount	
1. Total interest income in foreign offices	C899	13,832,000	1.
2. Total interest expense in foreign offices	C900	3,117,000	2.
3. Provision for loan and lease losses in foreign offices (1)	KW02	615,000	3.
4. Noninterest income in foreign offices:			
a. Trading revenue	C902	6,886,000	4.a.
b. Investment banking, advisory, brokerage, and underwriting fees and commissions	C903	196,000	4.b.
c. Net securitization income	C904	0	4.c.
d. Other noninterest income	C905	5,466,000	4.d.
5. Realized gains (losses) on held-to-maturity and available-for-sale debt securities and change in net unrealized holding gains (losses) on equity securities not held for trading in foreign offices	JA28	(261,000)	5.
6. Total noninterest expense in foreign offices	C907	10,850,000	6.
7. Adjustments to pretax income in foreign offices for internal allocations to foreign offices to reflect the effects of equity capital on overall bank funding costs	C908	0	7.
8. Applicable income taxes (on items 1 through 7)	C909	2,962,000	8.
9. Discontinued operations, net of applicable income taxes, in foreign offices	GW64	(261,000)	9.
10. Net income attributable to foreign offices before eliminations arising from consolidation (item 1 plus or minus items 2 through 9)	C911	8,314,000	10.
11. Not applicable			
12. Eliminations arising from the consolidation of foreign offices with domestic offices	C913	15,408,000	11.
13. Consolidated net income attributable to foreign offices (sum of items 10 and 12)	C914	23,722,000	12.

1 Institutions that have adopted ASU 2016-13 should report the provisions for credit losses in foreign offices for all financial assets and off-balance-sheet credit exposures that fall within the scope of the standard in item 3.

Schedule RI-E—Explanations

Schedule RI-E is to be completed each quarter on a calendar year-to-date basis.

Detail all adjustments in Schedule RI-A and RI-B, all discontinued operations in Schedule RI, and all significant items of other noninterest income and other noninterest expense in Schedule RI (See instructions for details.)

Dollar Amounts in Thousands			RIAD	Year-to-date Amount	
1. Other noninterest income (from Schedule RI, item 5.l) Itemize and describe amounts greater than $100,000 that exceed 7% of Schedule RI, item 5.l:					
a. Income and fees from the printing and sale of checks			C013	NR	1.a.
b. Earnings on/increase in value of cash surrender value of life insurance			C014	54,000	1.b.
c. Income and fees from automated teller machines (ATMs)			C016	NR	1.c.
d. Rent and other income from other real estate owned			4042	NR	1.d.
e. Safe deposit box rent			C015	NR	1.e.
f. Bank card and credit card interchange fees			F555	(797,000)	1.f.
g. Income and fees from wire transfers not reportable as service charges on deposit accounts			T047	NR	1.g.
h. TEXT 4461 Operating income from affiliates			4461	NR	1.h.
i. TEXT 4462 Other banking related fees			4462	1,311,000	1.i.
j. TEXT 4463 Letters-of-credit commitment fees			4463	419,000	1.j.
2. Other noninterest expense (from Schedule RI, item 7.d) Itemize and describe amounts greater than $100,000 that exceed 7% of Schedule RI, item 7.d:					
a. Data processing expenses			C017	4,503,000	2.a.
b. Advertising and marketing expenses			0497	1,230,000	2.b.
c. Directors' fees			4136	NR	2.c.
d. Printing, stationery, and supplies			C018	NR	2.d.
e. Postage			8403	NR	2.e.
f. Legal fees and expenses			4141	NR	2.f.
g. FDIC deposit insurance assessments			4146	CONF	2.g.
h. Accounting and auditing expenses			F556	NR	2.h.
i. Consulting and advisory expenses			F557	NR	2.i.
j. Automated teller machine (ATM) and interchange expenses			F558	NR	2.j.
k. Telecommunications expenses			F559	NR	2.k.
l. Other real estate owned expenses			Y923	NR	2.l.
m. Insurance expenses (not included in employee expenses, premises and fixed asset expenses, and other real estate owned expenses)			Y924	NR	2.m.
n. TEXT 4464 Expense paid to affiliates			4464	(705,000)	2.n.
o. TEXT 4467 Contract service provider fees			4467	NR	2.o.
p. TEXT 4468 Operational risk losses			4468	NR	2.p.
3. Discontinued operations and applicable income tax effect (from Schedule RI, item 11) (itemize and describe each discontinued operation):					
a. (1) TEXT FT29 Discontinued operations			FT29	(318,000)	3.a.1.
(2) Applicable income tax effect	FT30	(56,000)			3.a.2.
b. (1) TEXT FT31 NR			FT31	0	3.b.1.
(2) Applicable income tax effect	FT32	0			3.b.2.

Schedule RI-E—Continued

Dollar Amounts in Thousands		RIAD	Year-to-date Amount	
4. Cumulative effect of changes in accounting principles and corrections of material accounting errors (from Schedule RI-A, item 2) (itemize and describe all such effects):				
a. Effect of adoption of current expected credit losses methodology – ASU 2016-13 (1,2)		JJ26	NR	4.a.
b. Effect of adoption of lease accounting standard – ASC Topic 842		KW17	NR	4.b.
c.	TEXT B526 NR	B526	0	4.c.
d.	TEXT B527 NR	B527	0	4.d.
5. Other transactions with stockholders (including a parent holding company) (from Schedule RI-A, item 11) (itemize and describe all such transactions):				
a.	TEXT 4498 Primarily due to Capital Contributions.	4498	364,000	5.a.
b.	TEXT 4499 NR	4499	0	5.b.
6. Adjustments to allowances for credit losses (3) (from Schedule RI-B, Part II, item 6) (itemize and describe all adjustments):				
a. Initial allowances for credit losses recognized upon the acquisition of purchased credit-deteriorated assets on or after the effective date of ASU 2016-13 (1)		JJ27	NR	6.a.
b. Effect of adoption of current expected credit losses methodology on allowances for credit losses (1,2)		JJ28	NR	6.b.
c.	TEXT 4521 FX translation adjustments	4521	(186,000)	6.c.
d.	TEXT 4522 Reclassification of ACL related to loans included in a disposal groups related to business sales.	4522	(350,000)	6.d.

7. Other explanations (the space below is provided for the bank to briefly describe, at its option, any other significant items affecting the Report of Income):

	RIAD	YES / NO	
Comments?	4769	YES	7.

Other explanations (please type or print clearly):
(TEXT 4769)

Other noninterest income (from schedule RI, item 5.l): Itemize and describe amounts greater than $100,000 that exceed 7% of Schedule RI, item 5.l: 1.k Marked-to-Market on Hedging Transactions $902,000M; 1.m Other translation -$654,000M; 1.n Earnings of minority owned affiliates $298,000M.
Other noninterest expense (from Schedule RI, item 7.d): Itemize and describe amounts greater than $100,000 that exceed 7% of Schedule RI item 7.d: none

1 Only institutions that have adopted ASU 2016-13 should report amounts in items 4.a, 6.a, and 6.b, if applicable.
2 An institution should complete item 4.a and item 6.b in the quarter that it adopts ASU 2016-13 and in the quarter-end Call Reports for the remainder of that calendar year only.
3 Institutions that have not adopted ASU 2016-13 should report adjustments to the allowance for loan and lease losses in items 6.c and 6.d, if applicable.

Consolidated Report of Condition for Insured Banks and Savings Associations for September 30, 2022

All schedules are to be reported in thousands of dollars. Unless otherwise indicated, report the amount outstanding as of the last business day of the quarter.

Schedule RC—Balance Sheet

Dollar Amounts in Thousands				RCFD	Amount	
Assets						
1. Cash and balances due from depository institutions (from Schedule RC-A):						
a. Noninterest-bearing balances and currency and coin (1)				0081	23,753,000	1.a.
b. Interest-bearing balances (2)				0071	264,445,000	1.b.
2. Securities:						
a. Held-to-maturity securities (from Schedule RC-B, column A) (3)				JJ34	261,767,000	2.a.
b. Available-for-sale debt securities (from Schedule RC-B, column D)				1773	207,514,000	2.b.
c. Equity securities with readily determinable fair values not held for trading (4)				JA22	105,000	2.c.
3. Federal funds sold and securities purchased under agreements to resell:						
a. Federal funds sold			RCON	B987	0	3.a.
b. Securities purchased under agreements to resell (5,6)			RCFD	B989	79,457,000	3.b.
4. Loans and lease financing receivables (from Schedule RC-C):				RCFD		
a. Loans and leases held for sale				5369	22,933,000	4.a.
b. Loans and leases held for investment	B528	616,124,000				4.b.
c. LESS: Allowance for loan and lease losses (7)	3123	14,771,000				4.c.
d. Loans and leases held for investment, net of allowance (item 4.b minus 4.c)				B529	601,353,000	4.d.
5. Trading assets (from Schedule RC-D)				3545	136,496,000	5.
6. Premises and fixed assets (including capitalized leases)				2145	11,802,000	6.
7. Other real estate owned (from Schedule RC-M)				2150	11,000	7.
8. Investments in unconsolidated subsidiaries and associated companies				2130	5,278,000	8.
9. Direct and indirect investments in real estate ventures				3656	0	9.
10. Intangible assets (from Schedule RC-M)				2143	13,734,000	10.
11. Other assets (from Schedule RC-F) (6)				2160	85,826,000	11.
12. Total assets (sum of items 1 through 11)				2170	1,714,474,000	12.
Liabilities						
13. Deposits:				RCON		
a. In domestic offices (sum of totals of columns A and C from Schedule RC-E, Part I)				2200	745,159,000	13.a.
(1) Noninterest-bearing (8)	RCON 6631	137,796,000				13.a.1.
(2) Interest-bearing	RCON 6636	607,363,000				13.a.2.
b. In foreign offices, Edge and Agreement subsidiaries, and IBFs				RCFN		
(from Schedule RC-E, Part II)				2200	589,995,000	13.b.
(1) Noninterest-bearing	RCFN 6631	75,718,000				13.b.1.
(2) Interest-bearing	RCFN 6636	514,277,000				13.b.2.
14. Federal funds purchased and securities sold under agreements to repurchase:						
a. Federal funds purchased in domestic offices (9)			RCON	B993	0	14.a.
b. Securities sold under agreements to repurchase (10)			RCFD	B995	15,831,000	14.b.
15. Trading liabilities (from Schedule RC-D)			RCFD	3548	70,831,000	15.
16. Other borrowed money (includes mortgage indebtedness) (from Schedule RC-M)			RCFD	3190	57,870,000	16.

1 Includes cash items in process of collection and unposted debits.
2 Includes time certificates of deposit not held for trading.
3 Institutions that have adopted ASU 2016-13 should report in item 2.a amounts net of any applicable allowance for credit losses, and item 2.a should equal Schedule RC-B, item 8, column A, less Schedule RI-B, Part II, item 7, column B.
4 Item 2.c is to be completed by all institutions. See the instructions for this item and the Glossary entry for "Securities Activities" for further detail on accounting for investments in equity securities.
5 Includes all securities resale agreements, regardless of maturity.
6 Institutions that have adopted ASU 2016-13 should report in items 3.b and 11 amounts net of any applicable allowance for credit losses.
7 Institutions that have adopted ASU 2016-13 should report in item 4.c the allowance for credit losses on loans and leases.
8 Includes noninterest-bearing, demand, time, and savings deposits.
9 Report overnight Federal Home Loan Bank advances in Schedule RC, item 16, "Other borrowed money."
10 Includes all securities repurchase agreements, regardless of maturity.

Schedule RC—Continued

Dollar Amounts in Thousands	RCFD	Amount	
Liabilities - continued			
17. and 18. Not applicable			
19. Subordinated notes and debentures (1)	3200	10,500,000	19.
20. Other liabilities (from Schedule RC-G)	2930	61,441,000	20.
21. Total liabilities (sum of items 13 through 20)	2948	1,551,627,000	21.
22. Not applicable			
Equity Capital			
Bank Equity Capital			
23. Perpetual preferred stock and related surplus	3838	2,100,000	23.
24. Common stock	3230	751,000	24.
25. Surplus (excludes all surplus related to preferred stock)	3839	147,245,000	25.
26. a. Retained earnings	3632	44,233,000	26.a.
b. Accumulated other comprehensive income (2)	B530	(31,999,000)	26.b.
c. Other equity capital components (3)	A130	0	26.c.
27. a. Total bank equity capital (sum of items 23 through 26.c)	3210	162,330,000	27.a.
b. Noncontrolling (minority) interests in consolidated subsidiaries	3000	517,000	27.b.
28. Total equity capital (sum of items 27.a and 27.b)	G105	162,847,000	28.
29. Total liabilities and equity capital (sum of items 21 and 28)	3300	1,714,474,000	29.

Memoranda

To be reported with the March Report of Condition.

	RCFD	Number	
1. Indicate in the box at the right the number of the statement below that best describes the most comprehensive level of auditing work performed for the bank by independent external auditors as of any date during 2021	6724	NR	M.1.

1a = An integrated audit of the reporting institution's financial statements and its internal control over financial reporting conducted in accordance with the standards of the American Institute of Certified Public Accountants (AICPA) or the Public Company Accounting Oversight Board (PCAOB) by an independent publicaccountant that submits a report on the institution

1b = An audit of the reporting institution's financial statements only conducted in accordance with the auditing standards of the AICPA or the PCAOB by an independent public accountant that submits a report on the institution

2a = An integrated audit of the reporting institution's parent holding company's consolidated financial statements and its internal control over financial reporting conducted in accordance with the standards of the AICPA or the PCAOB by an independent public accountant that submits a report on the consolidated holding company (but not on the institution separately)

2b = An audit of the reporting institution's parent holding company's consolidated financial statements only conducted in accordance with the auditing standards of the AICPA or the PCAOB by an independent public accountant that submits a report on the consolidated holding company (but not on the institution separately)

3 = This number is not to be used

4 = Directors' examination of the bank conducted in accordance with generally accepted auditing standards by a certified public accounting firm (may be required by state-chartering authority)

5 = Directors' examination of the bank performed by other external auditors (may be required by state-chartering authority)

6 = Review of the bank's financial statements by external auditors

7 = Compilation of the bank's financial statements by external auditors

8 = Other audit procedures (excluding tax preparation work)

9 = No external audit work

To be reported with the March Report of Condition.

	RCON	Date	
2. Bank's fiscal year-end date (report the date in MMDD format)	8678	NR	M.2.

1 Includes limited-life preferred stock and related surplus.

2 Includes, but is not limited to, net unrealized holding gains (losses) on available-for-sale securities, accumulated net gains (losses) on cash flow hedges, cumulative foreign currency translation adjustments, and accumulated defined benefit pension and other postretirement plan adjustments.

3 Includes treasury stock and unearned Employee Stock Ownership Plan shares.

Schedule RC-A—Cash and Balances Due From Depository Institutions

Exclude assets held for trading.

	(Column A) Consolidated Bank		(Column B) Domestic Offices		
	RCFD	Amount	RCON	Amount	
1. Cash items in process of collection, unposted debits, and currency and coin	0022	6,607,000			
a. Cash items in process of collection and unposted debits			0020	3,283,000	1.a.
b. Currency and coin			0080	989,000	1.b.
2. Balances due from depository institutions in the U.S.	0082	606,000	0082	142,000	2.
3. Balances due from banks in foreign countries and foreign central banks	0070	167,290,000	0070	211,000	3.
4. Balances due from Federal Reserve Banks	0090	113,695,000	0090	113,695,000	4.
5. Total (sum of items 1 through 4) (must equal Schedule RC, sum of items 1.a and 1.b)	0010	288,198,000	0010	118,320,000	5.

Schedule RC-B—Securities

Exclude assets held for trading.

	Held-to-maturity				Available-for-sale				
	(Column A) Amortized Cost		(Column B) Fair Value		(Column C) Amortized Cost		(Column D) Fair Value		
Dollar Amounts in Thousands	RCFD	Amount	RCFD	Amount	RCFD	Amount	RCFD	Amount	
1. U.S. Treasury securities	0211	134,970,000	0213	120,297,000	1286	89,573,000	1287	86,760,000	1.
2. U.S. Government agency and sponsored agency obligations (exclude mortgage-backed securities) (1)	HT50	0	HT51	0	HT52	0	HT53	0	2.
3. Securities issued by states and political subdivisions in the U.S.	8496	8,978,000	8497	7,875,000	8498	2,033,000	8499	1,832,000	3.

1 Includes Small Business Administration "Guaranteed Loan Pool Certificates," U.S. Maritime Administration obligations", Export –Import Bank participation certificates", and obligations (other than mortgage-backed securities) issued by the Farm Credit System, the Federal Home Loan Bank System, the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, the Resolution Funding Corporation, the Student Loan Marketing Association, and the Tennessee Valley Authority.

Schedule RC-B—Continued

Dollar Amounts in Thousands	Held-to-maturity				Available-for-sale				
	(Column A) Amortized Cost		(Column B) Fair Value		(Column C) Amortized Cost		(Column D) Fair Value		
	RCFD	Amount	RCFD	Amount	RCFD	Amount	RCFD	Amount	
4. Mortgage-backed securities (MBS):									
a. Residential mortgage pass-through securities:									
(1) Guaranteed by GNMA	G300	6,757,000	G301	6,371,000	G302	130,000	G303	117,000	4.a.1.
(2) Issued by FNMA and FHLMC	G304	76,541,000	G305	66,158,000	G306	7,572,000	G307	7,016,000	4.a.2.
(3) Other pass-through securities	G308	0	G309	0	G310	416,000	G311	416,000	4.a.3.
b. Other residential mortgage-backed securities (include CMOs, REMICs, and stripped MBS):									
(1) Issued or guaranteed by U.S. Government agencies or sponsored agencies (1)	G312	783,000	G313	723,000	G314	1,851,000	G315	1,807,000	4.b.1.
(2) Collateralized by MBS issued or guaranteed by U.S. Government agencies or sponsored agencies (1)	G316	0	G317	0	G318	0	G319	0	4.b.2.
(3) All other residential MBS	G320	466,000	G321	466,000	G322	38,000	G323	36,000	4.b.3.
c. Commercial MBS:									
(1) Commercial mortgage pass-through securities:									
(a) Issued or guaranteed by FNMA, FHLMC, or GNMA	K142	1,379,000	K143	1,305,000	K144	320,000	K145	283,000	4.c.1.a.
(b) Other pass-through securities	K146	0	K147	0	K148	0	K149	0	4.c.1.b.

1 U.S. Government agencies include, but are not limited to, such agencies as the Government National Mortgage Association (GNMA), the Federal Deposit Insurance Corporation (FDIC), and the National Credit Union Administration (NCUA). U.S. Government-sponsored agencies include, but are not limited to, such agencies as the Federal Home Loan Mortgage Corporation (FHLMC) and the Federal National Mortgage Association (FNMA).

Schedule RC-B—Continued

Dollar Amounts in Thousands	Held-to-maturity (Column A) Amortized Cost RCFD	Amount	(Column B) Fair Value RCFD	Amount	Available-for-sale (Column C) Amortized Cost RCFD	Amount	(Column D) Fair Value RCFD	Amount	
4. c.(2) Other commercial MBS:									
(a) Issued or guaranteed by U.S. Government agencies or sponsored agencies (1)	K150	237,000	K151	232,000	K152	95,000	K153	83,000	4.c.2.a.
(b) All other commercial MBS	K154	899,000	K155	901,000	K156	0	K157	0	4.c.2.b.
5. Asset-backed securities and structured financial products:									
a. Asset-backed securities (ABS)	C026	0	C988	0	C989	270,000	C027	270,000	5.a.
b. Structured financial products	HT58	30,863,000	HT59	29,790,000	HT60	100,000	HT61	99,000	5.b.
6. Other debt securities:									
a. Other domestic debt securities	1737	0	1738	0	1739	0	1741	0	6.a.
b. Other foreign debt securities	1742	0	1743	0	1744	111,130,000	1746	108,795,000	6.b.
7. Unallocated portfolio layer fair value hedge basis adjustments (2)					MG95	NR			7.
8. Total (sum of items 1 through 7) (3)	1754	261,873,000	1771	234,118,000	1772	213,528,000	1773	207,514,000	8.

1 U.S. Government agencies include, but are not limited to, such agencies as the Government National Mortgage Association (GNMA), the Federal Deposit Insurance Corporation (FDIC), and the National Credit Union Administration (NCUA). U.S. Government-sponsored agencies include, but are not limited to, such agencies as the Federal Home Loan Mortgage Corporation (FHLMC) and the Federal National Mortgage Association (FNMA).

2 This item is to be completed by institutions that have adopted ASU 2022-01, as applicable.

3 For institutions that have adopted ASU 2016-13, the total reported in column A must equal Schedule RC, item 2.a, plus Schedule RI-B, Part II, item 7, column B. For institutions that have not adopted ASU 2016-13, the total reported in column A must equal Schedule RC, item 2.a. For all institutions, the total reported in column D must equal Schedule RC, item 2.b.

Schedule RC-B—Continued

Memoranda

Dollar Amounts in Thousands	RCFD	Amount	
1. Pledged securities (1)	0416	247,538,000	M.1.
2. Maturity and repricing data for debt securities (excluding those in nonaccrual status):			
a. Securities issued by the U.S. Treasury, U.S. Government agencies, and states and political subdivisions in the U.S.; other non-mortgage debt securities; and mortgage pass-through securities other than those backed by closed-end first lien 1-4 family residential mortgages with a remaining maturity or next repricing date of: (2,3)			
(1) Three months or less	A549	65,998,000	M.2.a.1.
(2) Over three months through 12 months	A550	40,477,000	M.2.a.2.
(3) Over one year through three years	A551	135,494,000	M.2.a.3.
(4) Over three years through five years	A552	72,422,000	M.2.a.4.
(5) Over five years through 15 years	A553	54,642,000	M.2.a.5.
(6) Over 15 years	A554	5,197,000	M.2.a.6.
b. Mortgage pass-through securities backed by closed-end first lien 1-4 family residential mortgages with a remaining maturity or next repricing date of: (2,4)			
(1) Three months or less	A555	440,000	M.2.b.1.
(2) Over three months through 12 months	A556	124,000	M.2.b.2.
(3) Over one year through three years	A557	8,000	M.2.b.3.
(4) Over three years through five years	A558	1,000	M.2.b.4.
(5) Over five years through 15 years	A559	2,488,000	M.2.b.5.
(6) Over 15 years	A560	87,785,000	M.2.b.6.
c. Other mortgage-backed securities (include CMOs, REMICs, and stripped MBS; exclude mortgage pass-through securities) with an expected average life of: (5)			
(1) Three years or less	A561	1,095,000	M.2.c.1.
(2) Over three years	A562	3,216,000	M.2.c.2.
d. Debt securities with a REMAINING MATURITY of one year or less (included in Memorandum items 2.a through 2.c above)	A248	69,860,000	M.2.d.
Memorandum item 3 is to be completed semiannually in the June and December reports only.			
3. Amortized cost of held-to-maturity securities sold or transferred to available-for-sale or trading securities during the calendar year-to-date (report the amortized cost at date of sale or transfer)	1778	NR	M.3.
4. Structured notes (included in the held-to-maturity and available-for-sale accounts in Schedule RC-B, items 2, 3, 5, and 6):			
a. Amortized cost	8782	0	M.4.a.
b. Fair value	8783	0	M.4.b.

1 Includes held-to-maturity securities at amortized cost, available-for-sale debt securities at fair value, and equity securities with readily determinable fair values not held for trading (reported in Schedule RC, item 2.c) at fair value.

2 Report fixed rate debt securities by remaining maturity and floating rate debt securities by next repricing date.

3 Sum of Memorandum items 2.a.(1) through 2.a.(6) plus any nonaccrual debt securities in the categories of debt securities reported in Memorandum item 2.a that are included in Schedule RC-N, item 10, column C, must equal Schedule RC-B, sum of items 1, 2, 3, 4.c.(1), 5, and 6, columns A and D, plus residential mortgage pass-through securities other than those backed by closed-end first lien 1 –4 family residential mortgages included in Schedule RC-B, item 4.a, columns A and D.

4 Sum of Memorandum items 2.b.(1) through 2.b.(6) plus any nonaccrual mortgage pass-through securities backed by closed-end first lien 1 –4 family residential mortgages included in Schedule RC-N, item 10, column C, must equal Schedule RC-B, item 4.a, sum of columns A and D, less the amount of residential mortgage pass-through securities other than those backed by closed-end first lien 1 –4 family residential mortgages included in Schedule RC-B, item 4.a, columns A and D.

5 Sum of Memorandum items 2.c.(1) and 2.c.(2) plus any nonaccrual "Other mortgage-backed securities" included in Schedule RC-N, item 10, column C, must equal Schedule RC-B, sum of items 4.b and 4.c.(2), columns A and D.

Schedule RC-B—Continued

Memoranda—Continued

Dollar Amounts in Thousands	Held-to-maturity (Column A) Amortized Cost RCFD	Amount	Held-to-maturity (Column B) Fair Value RCFD	Amount	Available-for-sale (Column C) Amortized Cost RCFD	Amount	Available-for-sale (Column D) Fair Value RCFD	Amount	
Memorandum items 5.a through 5.f and 6.a through 6.g are to be completed by banks with $10 billion or more in total assets.[1]									
5. Asset-backed securities (ABS) (for each column, sum of Memorandum items 5.a through 5.f must equal Schedule RC-B, item 5.a):									
a. Credit card receivables	B838	0	B839	0	B840	0	B841	0	M.5.a.
b. Home equity lines	B842	0	B843	0	B844	0	B845	0	M.5.b.
c. Automobile loans	B846	0	B847	0	B848	270,000	B849	270,000	M.5.c.
d. Other consumer loans	B850	0	B851	0	B852	0	B853	0	M.5.d.
e. Commercial and industrial loans	B854	0	B855	0	B856	0	B857	0	M.5.e.
f. Other	B858	0	B859	0	B860	0	B861	0	M.5.f.
6. Structured financial products by by underlying collateral or reference assets (for each column, sum of Memorandum items 6.a through 6.g must equal Schedule RC-B, item 5.b):									
a. Trust preferred securities issued by financial institutions	G348	0	G349	0	G350	0	G351	0	M.6.a.
b. Trust preferred securities issued by real estate investment trusts	G352	0	G353	0	G354	0	G355	0	M.6.b.
c. Corporate and similar loans	G356	30,427,000	G357	29,403,000	G358	0	G359	0	M.6.c.
d. 1-4 family residential MBS issued or guaranteed by U.S. government-sponsored enterprises (GSEs)	G360	0	G361	0	G362	0	G363	0	M.6.d.
e. 1-4 family residential MBS not issued or guaranteed by GSEs	G364	0	G365	0	G366	0	G367	0	M.6.e.
f. Diversified (mixed) pools of structured financial products	G368	0	G369	0	G370	0	G371	0	M.6.f.
g. Other collateral or reference assets	G372	436,000	G373	387,000	G374	100,000	G375	99,000	M.6.g.

1 **The $10 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.**

Schedule RC-C—Loans and Lease Financing Receivables

Part I. Loans and Leases

Do not deduct the allowance for loan and lease losses or the allocated transfer risk reserve from amounts reported in this schedule.[1]
Report (1) loans and leases held for sale at the lower of cost or fair value, (2) loans and leases held for investment, net of unearned income, and (3) loans and leases accounted for at fair value under a fair value option. Exclude assets held for trading and commercial paper.

Dollar Amounts in Thousands	RCFD	(Column A) Consolidated Bank Amount	RCON	(Column B) Domestic Offices Amount	
1. Loans secured by real estate: (2)	1410	NR			1.
a. Construction, land development, and other land loans:					
(1) 1-4 family residential construction loans	F158	371,000	F158	15,000	1.a.1.
(2) Other construction loans and all land development and other land loans	F159	6,908,000	F159	6,907,000	1.a.2.
b. Secured by farmland (including farm residential and other improvements)	1420	60,000	1420	59,000	1.b.
c. Secured by 1-4 family residential properties:					
(1) Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	1797	6,632,000	1797	4,416,000	1.c.1.
(2) Closed-end loans secured by 1-4 family residential properties:					
(a) Secured by first liens	5367	123,176,000	5367	94,056,000	1.c.2.a.
(b) Secured by junior liens	5368	2,654,000	5368	1,601,000	1.c.2.b.
d. Secured by multifamily (5 or more) residential properties	1460	8,752,000	1460	8,640,000	1.d.
e. Secured by nonfarm nonresidential properties:					
(1) Loans secured by owner-occupied nonfarm nonresidential properties	F160	2,178,000	F160	1,049,000	1.e.1.
(2) Loans secured by other nonfarm nonresidential properties	F161	15,947,000	F161	10,448,000	1.e.2.
2. Loans to depository institutions and acceptances of other banks:					
a. To commercial banks in the U.S			B531	152,000	2.a.
(1) To foreign branches of other U.S. banks	B532	137,000			
(2) To other commercial banks in the U.S	B533	26,000			
b. To other depository institutions in the U.S	B534	0	B534	0	2.b.
c. To banks in foreign countries			B535	4,080,000	2.c.
(1) To U.S. branches and agencies of foreign banks	B536	40,000			
(2) To other banks in foreign countries	B537	10,306,000			
3. Loans to finance agricultural production and other loans to farmers	1590	383,000	1590	105,000	3.
4. Commercial and industrial loans:					
a. To U.S. addressees (domicile)	1763	53,250,000	1763	51,123,000	4.a.
b. To non-U.S. addressees (domicile)	1764	94,885,000	1764	10,240,000	4.b.
5. Not applicable					
6. Loans to individuals for household, family, and other personal expenditures (i.e., consumer loans) (includes purchased paper):					
a. Credit cards	B538	146,148,000	B538	133,830,000	6.a.
b. Other revolving credit plans	B539	4,749,000	B539	1,033,000	6.b.
c. Automobile loans	K137	2,000	K137	0	6.c.
d. Other consumer loans (includes single payment and installment loans other than automobile loans and all student loans)	K207	10,187,000	K207	2,843,000	6.d.
7. Loans to foreign governments and official institutions (including foreign central banks)	2081	3,718,000	2081	347,000	7.
8. Obligations (other than securities and leases) of states and political subdivisions in the U.S	2107	493,000	2107	492,000	8.

1 Institutions that have adopted ASU 2016-13 should not deduct the allowance for credit losses on loans and leases or the allocated transfer risk reserve from amounts reported on this schedule.

2 When reporting “Loans secured by real estate,” “large institutions” and “highly complex institutions,” as defined for deposit insurance assessment purposes in FDIC regulations, should complete items 1.a.(1) through 1.e.(2) in columns A and B (but not item 1 in column A); all other institutions should complete item 1 in column A and items 1.a.(1) through 1.e.(2) in column B (but not items 1.a.(1) through 1.e.(2) in column A).

Schedule RC-C—Continued

Part I. Continued

Dollar Amounts in Thousands	(Column A) Consolidated Bank RCFD	Amount	(Column B) Domestic Offices RCON	Amount	
9. Loans to nondepository financial institutions and other loans:	1563	147,664,000			9.
a. Loans to nondepository financial institutions			J454	54,577,000	9.a.
b. Other loans:					
(1) Loans for purchasing or carrying securities (secured and unsecured)			1545	650,000	9.b.1.
(2) All other loans (exclude consumer loans)			J451	30,148,000	9.b.2.
10. Lease financing receivables (net of unearned income):			2165	383,000	10.
a. Leases to individuals for household, family, and other personal expenditures (i.e., consumer leases)	F162	0			10.a.
b. All other leases	F163	391,000			10.b.
11. LESS: Any unearned income on loans reflected in items 1-9 above	2123	0	2123	0	11.
12. Total loans and leases held for investment and held for sale (1) (item 12, column A must equal Schedule RC, sum of items 4.a and 4.b)	2122	639,057,000	2122	417,194,000	12.

Memoranda

Dollar Amounts in Thousands	RCON	Amount	
1. Loans restructured in troubled debt restructurings that are in compliance with their modified terms (included in Schedule RC-C, Part I, and not reported as past due or nonaccrual in Schedule RC-N, Memorandum item 1):			
a. Construction, land development, and other land loans in domestic offices:			
(1) 1-4 family residential construction loans	K158	0	M.1.a.1.
(2) Other construction loans and all land development and other land loans	K159	0	M.1.a.2.
b. Loans secured by 1-4 family residential properties in domestic offices	F576	875,000	M.1.b.
c. Secured by multifamily (5 or more) residential properties in domestic offices	K160	0	M.1.c.
d. Secured by nonfarm nonresidential properties in domestic offices:			
(1) Loans secured by owner-occupied nonfarm nonresidential properties	K161	0	M.1.d.1.
(2) Loans secured by other nonfarm nonresidential properties	K162	0	M.1.d.2.
e. Commercial and industrial loans:	RCFD		
(1) To U.S. addressees (domicile)	K163	0	M.1.e.1.
(2) To non-U.S. addressees (domicile)	K164	0	M.1.e.2.
f. All other loans (include loans to individuals for household, family, and other personal expenditures)	K165	1,652,000	M.1.f.

Itemize loan categories included in Memorandum item 1.f, above that exceed 10% of total loans restructured in troubled debt restructurings that are in compliance with their modified terms (sum of Memorandum items 1.a through 1.f):

	RCON	Amount	
(1) Loans secured by farmland in domestic offices	K166	0	M.1.f.1.
(2) Not applicable	RCFD		
(3) Loans to finance agricultural production and other loans to farmers	K168	0	M.1.f.3.
(4) Loans to individuals for household, family, and other personal expenditures:			
(a) Credit card	K098	1,265,000	M.1.f.4.a.
(b) Automobile loans	K203	0	M.1.f.4.b.
(c) Other (includes revolving credit plans other than credit cards, and other consumer loans)	K204	293,000	M.1.f.4.c.

	RCON	Amount	
g. Total loans restructured in troubled debt restructurings that are in compliance with their modified terms (sum of Memorandum items 1.a.(1) through 1.f)	HK25	2,527,000	M.1.g.

1 For "large institutions" and "highly complex institutions," as defined for deposit insurance assessment purposes in FDIC regulations, item 12, column A, must equal the sum of items 1.a.(1) through 10.b, column A, less item 11, column A. For all other institutions, item 12, column A, must equal the sum of item 1 and items 2.a.(1) through 10.b, column A, less item 11, column A. For all institutions, item 12, column B, must equal the sum of items 1.a.(1) through 10, column B, less item 11, column B.

Schedule RC-C—Continued

Part I—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCON	Amount	
2. Maturity and repricing data for loans and leases (excluding those in nonaccrual status):			
a. Closed-end loans secured by first liens on 1-4 family residential properties in domestic offices (reported in Schedule RC-C, Part I, item 1.c.(2)(a), column B) with a remaining maturity or next repricing date of: (1,2)			
(1) Three months or less	A564	2,457,000	M.2.a.1.
(2) Over three months through 12 months	A565	2,267,000	M.2.a.2.
(3) Over one year through three years	A566	2,160,000	M.2.a.3.
(4) Over three years through five years	A567	4,439,000	M.2.a.4.
(5) Over five years through 15 years	A568	28,853,000	M.2.a.5.
(6) Over 15 years	A569	53,356,000	M.2.a.6.
b. All loans and leases (reported in Schedule RC-C, Part I, items 1 through 10, column A) EXCLUDING closed-end loans secured by first liens on 1-4 family residential properties in in domestic offices (reported in Schedule RC-C, Part I, item 1.c.(2)(a), column B) with a remaining maturity or next repricing date of: (1,3)	RCFD		
(1) Three months or less	A570	438,522,000	M.2.b.1.
(2) Over three months through 12 months	A571	26,549,000	M.2.b.2.
(3) Over one year through three years	A572	61,278,000	M.2.b.3.
(4) Over three years through five years	A573	6,174,000	M.2.b.4.
(5) Over five years through 15 years	A574	8,889,000	M.2.b.5.
(6) Over 15 years	A575	1,846,000	M.2.b.6.
c. Loans and leases (reported in Schedule RC-C, Part I, items 1 through 10, column A) with a REMAINING MATURITY of one year or less (excluding those in nonaccrual status)	A247	321,684,000	M.2.c.
3. Loans to finance commercial real estate, construction, and land development activities (not secured by real estate) included in Schedule RC-C, Part I, items 4 and 9, column A (4)	2746	11,447,000	M.3.
4. Adjustable rate closed-end loans secured by first liens on 1-4 family residential properties in domestic offices (included in Schedule RC-C, Part I, item 1.c.(2)(a), column B)	RCON 5370	36,059,000	M.4.
5. Loans secured by real estate to non-U.S. addressees (domicile) (included in Schedule RC-C, Part I, item 1, column A or Schedule RC-C, Part I, items 1.a.(1) through 1.e.(2), column A, as appropriate)	RCFD B837	42,756,000	M.5.
Memorandum item 6 is to be completed by banks that (1) together with affiliated institutions, have outstanding credit card receivables (as defined in the instructions) that exceed $500 million as of the report date or (2) are credit card specialty banks as defined for Uniform Bank Performance Report purposes.			
6. Outstanding credit card fees and finance charges included in Schedule RC-C, Part I, item 6.a, column A	C391	3,391,000	M.6.
Memorandum items 7.a and 7.b are to be completed by all banks semiannually in the June and December reports only. (5)			
7. Purchased credit-impaired loans held for investment accounted for in accordance with FASB ASC 310-30 (former AICPA Statement of Position 03-3) (exclude loans held for sale):			
a. Outstanding balance	C779	NR	M.7.a.
b. Amount included in Schedule RC-C, Part I, items 1 through 9	C780	NR	M.7.b.

1 Report fixed rate loans and leases by remaining maturity and floating rate loans by next repricing date.

2 Sum of Memorandum items 2.a.(1) through 2.a.(6), plus total nonaccrual closed-end loans secured by first liens on 1 –4 family residential properties in domestic offices included in Schedule RC-N, item 1.c.(2)(a), column C, must equal total closed-end loans secured by first liens on 1–4 family residential properties from Schedule RC-C, Part I, item 1.c.(2)(a), column B.

3 Sum of Memorandum items 2.b.(1) through 2.b.(6), plus total nonaccrual loans and leases from Schedule RC-N, item 9, column C, minus nonaccrual closed-end loans secured by first liens on 1 –4 family residential properties in domestic offices included in Schedule RC-N, item 1.c.(2)(a), column C, must equal total loans and leases from Schedule RC-C, Part I, sum of items 1 through 10, column A, minus total closed-end loans secured by first liens on 1–4 family residential properties in domestic offices from Schedule RC-C, Part I, item 1.c.(2)(a), column B.

4 Exclude loans secured by real estate that are included in Schedule RC-C, Part I, item 1, column A.

5 Memorandum item 7 is to be completed only by institutions that have not yet adopted ASU 2016-13.

Schedule RC-C—Continued

Part I—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCON	Amount	
Memorandum item 8.a is to be completed by all banks semiannually in the June and December reports only.			
8. Closed-end loans with negative amortization features secured by 1-4 family residential properties in domestic offices:			
a. Total amount of closed-end loans with negative amortization features secured by 1-4 family residential properties (included in Schedule RC-C, Part I, items 1.c.(2)(a) and (b))	F230	NR	M.8.a.
Memorandum items 8.b and 8.c are to be completed semiannually in the June and December reports only by banks that had closed-end loans with negative amortization features secured by 1–4 family residential properties (as reported in Schedule RC-C, Part I, Memorandum item 8.a) as of the preceding December 31 report date, that exceeded the lesser of $100 million or 5 percent of total loans and leases held for investment and held for sale in domestic offices (as reported in Schedule RC-C, Part I, item 12, column B).			
b. Total maximum remaining amount of negative amortization contractually permitted on closed-end loans secured by 1-4 family residential properties	F231	NR	M.8.b.
c. Total amount of negative amortization on closed-end loans secured by 1-4 family residential properties included in the amount reported in Memorandum item 8.a above	F232	NR	M.8.c.
9. Loans secured by 1-4 family residential properties in domestic offices in process of foreclosure (included in Schedule RC-C, Part I, items 1.c.(1), 1.c.(2)(a), and 1.c.(2)(b))	F577	266,000	M.9.

10. and 11. Not applicable

	(Column A) Fair Value of Acquired Loans and Leases at Acquisition Date		(Column B) Gross Contractual Amounts Receivable at Acquisition Date		(Column C) Best Estimate at Acquisition Date of Contractual Cash Flows Not Expected to be Collected		
Dollar Amounts in Thousands	RCFD	Amount	RCFD	Amount	RCFD	Amount	
Memorandum items 12.a, 12.b, 12.c, and 12.d are to be completed semiannually in the June and December reports only.							
12. Loans (not subject to the requirements of FASB ASC 310-30 (former AICPA Statement of Position 03-3)) and leases held for investment that were acquired in business combinations with acquisition dates in the current calendar year: (1)							
a. Loans secured by real estate	G091	NR	G092	NR	G093	NR	M.12.a.
b. Commercial and industrial loans	G094	NR	G095	NR	G096	NR	M.12.b.
c. Loans to individuals for household, family, and other personal expenditures	G097	NR	G098	NR	G099	NR	M.12.c.
d. All other loans and all leases	G100	NR	G101	NR	G102	NR	M.12.d.

1 Institutions that have adopted ASU 2016-13 should report only loans held for investment not considered purchased credit-deteriorated in Memorandum item 12.

Schedule RC-C—Continued

Part I—Continued

Memoranda—Continued

Dollar Amounts in Thousands		Amount	
Memorandum item 13 is to be completed by banks that had construction, land development, and other land loans in domestic offices (as reported in Schedule RC-C, Part I, item 1.a., column B) that exceeded the sum of tier 1 capital (as reported in Schedule RC-R, Part I, item 26) plus the allowance for loan and lease losses or the allowance for credit losses on loans and leases, as applicable (as reported in Schedule RC, item 4.c) as of the preceding December 31 report date.	RCON		
13. Construction, land development, and other land loans in domestic offices with interest reserves:			
a. Amount of loans that provide for the use of interest reserves (included in Schedule RC-C, Part I, item 1.a, column B)	G376	NR	M.13.a.
b. Amount of interest capitalized from interest reserves on construction, land development, and other land loans that is included in interest and fee income on loans during the quarter (included in Schedule RI, item 1.a.(1)(b))	RIAD G377	NR	M.13.b.
Memorandum item 14 is to be completed by all banks.	RCFD		
14. Pledged loans and leases	G378	251,020,000	M.14.
Memorandum item 15 is to be completed for the December report only.			
15. Reverse mortgages in domestic offices:			
a. Reverse mortgages outstanding that are held for investment (included in Schedule RC-C, Part I, item 1.c, above):	RCON		
(1) Home Equity Conversion Mortgage (HECM) reverse mortgages	J466	NR	M.15.a.1.
(2) Proprietary reverse mortgages	J467	NR	M.15.a.2.
b. Estimated number of reverse mortgage loan referrals to other lenders during the year from whom compensation has been received for services performed in connection with the origination of the reverse mortgages:		Number	
(1) Home Equity Conversion Mortgage (HECM) reverse mortgages	J468	NR	M.15.b.1.
(2) Proprietary reverse mortgages	J469	NR	M.15.b.2.
c. Principal amount of reverse mortgage originations that have been sold during the year:		Amount	
(1) Home Equity Conversion Mortgage (HECM) reverse mortgages	J470	NR	M.15.c.1.
(2) Proprietary reverse mortgages	J471	NR	M.15.c.2.
Memorandum item 16 is to be completed by all banks.			
16. Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit in domestic offices that have converted to non-revolving closed-end status (included in item 1.c.(1) above)	LE75	169,000	M.16.
Amounts reported in Memorandum items 17.a and 17.b will not be made available to the public on an individual institution basis.			
17. Eligible loan modifications under Section 4013, Temporary Relief from Troubled Debt Restructurings, of the 2020 Coronavirus Aid, Relief, and Economic Security Act:		Number	
a. Number of Section 4013 loans outstanding	LG24	CONF	M.17.a.
		Amount	
b. Outstanding balance of Section 4013 loans	LG25	CONF	M.17.b.

Schedule RC-C—Continued

Part II. Loans to Small Businesses and Small Farms

Report the number and amount currently outstanding as of the report date of business loans with "original amounts" of $1,000,000 or less and farm loans with "original amounts" of $500,000 or less. The following guidelines should be used to determine the "original amount" of a loan:

(1) For loans drawn down under lines of credit or loan commitments, the "original amount" of the loan is the size of the line of credit or loan commitment when the line of credit or loan commitment was most recently approved, extended, or renewed prior to the report date. However, if the amount currently outstanding as of the report date exceeds this size, the "original amount" is the amount currently outstanding on the report date.

(2) For loan participations and syndications, the "original amount" of the loan participation or syndication is the entire amount of the credit originated by the lead lender.

(3) For all other loans, the "original amount" is the total amount of the loan at origination or the amount currently outstanding as of the report date, whichever is larger.

Loans to Small Businesses

1. and 2. Not applicable

Dollar Amounts in Thousands	RCON	(Column A) Number of Loans	RCON	(Column B) Amount Currently Outstanding	
		Number		Amount	
3. Number and amount currently outstanding of "Loans secured by nonfarm nonresidential properties" in domestic offices reported in Schedule RC-C, Part I, items 1.e.(1) and 1.e.(2) (sum of items 3.a through 3.c must be less than or equal to Schedule RC-C, Part I, sum of items 1.e.(1) and 1.e.(2), column B):					
a. With original amounts of $100,000 or less	5564	16	5565	1,000	3.a.
b. With original amounts of more than $100,000 through $250,000	5566	76	5567	14,000	3.b.
c. With original amounts of more than $250,000 through $1,000,000	5568	641	5569	249,000	3.c.
4. Number and amount currently outstanding of "Commercial and industrial loans to U.S. addressees" in domestic offices reported in Schedule RC-C, Part I, item 4.a, column B (sum of items 4.a through 4.c must be less than or equal to Schedule RC-C, Part I, item 4.a, column B):					
a. With original amounts of $100,000 or less	5570	2,450,466	5571	7,348,000	4.a.
b. With original amounts of more than $100,000 through $250,000	5572	1,846	5573	119,000	4.b.
c. With original amounts of more than $250,000 through $1,000,000	5574	1,280	5575	565,000	4.c.

Schedule RC-C—Continued

Part II—Continued

Agricultural Loans to Small Farms

5. and 6. Not applicable

Dollar Amounts in Thousands	RCON	(Column A) Number of Loans	RCON	(Column B) Amount Currently Outstanding	
		Number		Amount	
7. Number and amount currently outstanding of "Loans secured by farmland (including farm residential and other improvements)" in domestic offices reported in Schedule RC-C, Part I, item 1.b, column B (sum of items 7.a through 7.c must be less than or equal to Schedule RC-C, Part I, item 1.b, column B):					
a. With original amounts of $100,000 or less	5578	0	5579	0	7.a.
b. With original amounts of more than $100,000 through $250,000	5580	0	5581	0	7.b.
c. With original amounts of more than $250,000 through $500,000	5582	0	5583	0	7.c.
8. Number and amount currently outstanding of "Loans to finance agricultural production and other loans to farmers" in domestic offices reported in Schedule RC-C, Part I, item 3, column B (sum of items 8.a through 8.c must be less than or equal to Schedule RC-C, Part I, item 3, column B):					
a. With original amounts of $100,000 or less	5584	3,004	5585	14,000	8.a.
b. With original amounts of more than $100,000 through $250,000	5586	2	5587	0	8.b.
c. With original amounts of more than $250,000 through $500,000	5588	0	5589	0	8.c.

Schedule RC-D—Trading Assets and Liabilities

Schedule RC-D is to be completed by banks that (1) reported total trading assets of $10 million or more in any of the four preceding calendar quarters, or (2) meet the FDIC's definition of a large or highly complex institution for deposit insurance assessment purposes.

Dollar Amounts in Thousands	Consolidated Bank RCFD	Consolidated Bank Amount	
Assets			
1. U.S. Treasury securities	3531	19,159,000	1.
2. U.S. Government agency obligations (exclude mortgage-backed securities)	3532	0	2.
3. Securities issued by states and political subdivisions in the U.S.	3533	248,000	3.
4. Mortgage-backed securities (MBS):			
a. Residential mortgage pass-through securities issued or guaranteed by FNMA, FHLMC, or GNMA	G379	0	4.a.
b. Other residential MBS issued or guaranteed by U.S. Government agencies or sponsored agencies (1) (include CMOs, REMICs, and stripped MBS)	G380	0	4.b.
c. All other residential MBS	G381	0	4.c.
d. Commercial MBS issued or guaranteed by U.S. Government agencies or sponsored agencies (1)	K197	0	4.d.
e. All other commercial MBS	K198	0	4.e.
5. Other debt securities:			
a. Structured financial products	HT62	37,000	5.a.
b. All other debt securities	G386	38,119,000	5.b.
6. Loans:			
a. Loans secured by real estate:			
(1) Loans secured by 1-4 family residential properties	HT63	0	6.a.1.
(2) All other loans secured by real estate	HT64	0	6.a.2.
b. Commercial and industrial loans	F614	3,845,000	6.b.
c. Loans to individuals for household, family, and other personal expenditures (i.e., consumer loans) (includes purchased paper)	HT65	0	6.c.
d. Other loans	F618	1,076,000	6.d.
7. and 8. Not applicable			
9. Other trading assets	3541	14,386,000	9.
10. Not applicable			
11. Derivatives with a positive fair value	3543	59,626,000	11.
12. Total trading assets (sum of items 1 through 11) (must equal Schedule RC, item 5)	3545	136,496,000	12.
Liabilities			
13. a. Liability for short positions	3546	25,587,000	13.a.
b. Other trading liabilities	F624	157,000	13.b.
14. Derivatives with a negative fair value	3547	45,087,000	14.
15. Total trading liabilities (sum of items 13.a through 14) (must equal Schedule RC, item 15)	3548	70,831,000	15.

1 U.S. Government agencies include, but are not limited to, such agencies as the Government National Mortgage Association (GNMA), the Federal Deposit Insurance Corporation (FDIC), and the National Credit Union Administration (NCUA). U.S. Government-sponsored agencies include, but are not limited to, such agencies as the Federal Home Loan Mortgage Corporation (FHLMC) and the Federal National Mortgage Association (FNMA).

Schedule RC-D—Trading Assets and Liabilities

Memoranda

Dollar Amounts in Thousands	RCFD	Consolidated Bank Amount	
1. Unpaid principal balance of loans measured at fair value (reported in Schedule RC-D, items 6.a.(1) through 6.d):			
a. Loans secured by real estate:			
(1) Loans secured by 1-4 family residential properties	HT66	0	M.1.a.1.
(2) All other loans secured by real estate	HT67	0	M.1.a.2.
b. Commercial and industrial loans	F632	4,075,000	M.1.b.
c. Loans to individuals for household, family, and other personal expenditures (i.e., consumer loans) (includes purchased paper)	HT68	0	M.1.c.
d. Other loans	F636	1,126,000	M.1.d.
Memorandum items 2 through 10 are to be completed by banks with $10 billion or more in total trading assets.			
2. Loans measured at fair value that are past due 90 days or more:			
a. Fair value	F639	25,000	M.2.a.
b. Unpaid principal balance	F640	15,000	M.2.b.
3. Structured financial products by underlying collateral or reference assets (for each column, sum of Memorandum items 3.a through 3.g must equal Schedule RC-D, sum of items 5.a.(1) through (3)):			
a. Trust preferred securities issued by financial institutions	G299	0	M.3.a.
b. Trust preferred securities issued by real estate investment trusts	G332	0	M.3.b.
c. Corporate and similar loans	G333	37,000	M.3.c.
d. 1–4 family residential MBS issued or guaranteed by U.S. government-sponsored enterprises (GSEs)	G334	0	M.3.d.
e. 1–4 family residential MBS not issued or guaranteed by GSEs	G335	0	M.3.e.
f. Diversified (mixed) pools of structured financial products	G651	0	M.3.f.
g. Other collateral or reference assets	G652	0	M.3.g.
4. Pledged trading assets:			
a. Pledged securities	G387	2,436,000	M.4.a.
b. Pledged loans	G388	0	M.4.b.
5. Asset-backed securities:			
a. Credit card receivables	F643	0	M.5.a.
b. Home equity lines	F644	0	M.5.b.
c. Automobile loans	F645	0	M.5.c.
d. Other consumer loans	F646	0	M.5.d.
e. Commercial and industrial loans	F647	0	M.5.e.
f. Other	F648	0	M.5.f.
6. Not applicable			
7. Equity securities (included in Schedule RC-D, item 9, above):			
a. Readily determinable fair values	F652	7,537,000	M.7.a.
b. Other	F653	116,000	M.7.b.
8. Loans pending securitization	F654	0	M.8.
9. Other trading assets (itemize and describe amounts included in Schedule RC-D, item 9, that are greater than $1,000,000 and exceed 25 percent of the item): (2)			
a. TEXT F655 Fair Value of Physical Commodities	F655	5,881,000	M.9.a.
b. TEXT F656 NR	F656	NR	M.9.b.
c. TEXT F657 NR	F657	NR	M.9.c.
10. Other trading liabilities (itemize and describe amounts included in Schedule RC-D, item 13.b, that are greater than $1,000,000 and exceed 25 percent of the item):			
a. TEXT F658 Revaluation Losses on Foreign Exchange Spot Contracts	F658	157,000	M.10.a.
b. TEXT F659 NR	F659	NR	M.10.b.
c. TEXT F660 NR	F660	NR	M.10.c.

1 The $10 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.

2 Exclude equity securities.

Schedule RC-E—Deposit Liabilities

Part I. Deposits in Domestic Offices

Dollar Amounts in Thousands	Transaction Accounts (Column A) Total Transaction Accounts (Including Total Demand Deposits) RCON	Amount	Transaction Accounts (Column B) Memo: Total Demand Deposits[1] (Included in Column A) RCON	Amount	Nontransaction Accounts (Column C) Total Nontransaction Accounts (Including MMDAs) RCON	Amount	
Deposits of:							
1. Individuals, partnerships, and corporations	B549	393,874,000			B550	255,999,000	1.
2. U.S. Government	2202	10,000			2520	0	2.
3. States and political subdivisions in the U.S	2203	753,000			2530	2,126,000	3.
4. Commercial banks and other depository institutions in the U.S	B551	6,127,000			B552	3,551,000	4.
5. Banks in foreign countries	2213	56,832,000			2236	735,000	5.
6. Foreign governments and official institutions (including foreign central banks)	2216	23,762,000			2377	1,390,000	6.
7. Total (sum of items 1 through 6) (sum of columns A and C must equal Schedule RC, item 13.a)	2215	481,358,000	2210	431,537,000	2385	263,801,000	7.

Memoranda

Dollar Amounts in Thousands	RCON	Amount	
1. Selected components of total deposits (i.e., sum of item 7, columns A and C):			
a. Total Individual Retirement Accounts (IRAs) and Keogh Plan accounts	6835	24,775,000	M.1.a.
b. Total brokered deposits	2365	82,828,000	M.1.b.
c. Brokered deposits of $250,000 or less (fully insured brokered deposits) (2)	HK05	45,494,000	M.1.c.
d. Maturity data for brokered deposits:			
(1) Brokered deposits of $250,000 or less with a remaining maturity of one year or less (included in Memorandum item 1.c above)	HK06	43,174,000	M.1.d.1.
(2) Not applicable			
(3) Brokered deposits of more than $250,000 with a remaining maturity of one year or less (included in Memorandum item 1.b. above)	K220	37,334,000	M.1.d.3.
e. Preferred deposits (uninsured deposits of states and political subdivisions in the U.S. reported in item 3 above which are secured or collateralized as required under state law) (to be completed for the December report only)	5590	NR	M.1.e.
f. Estimated amount of deposits obtained through the use of deposit listing services that are not brokered deposits	K223	0	M.1.f.
g. Total reciprocal deposits	JH83	0	M.1.g.
Memorandum items 1.h.(1)(a), 1.h.(2)(a), 1.h.(3)(a), and 1.h.(4)(a) are to be completed by institutions with $100 billion or more in total assets.[3]			
h. Sweep deposits:			
(1) Fully insured, affiliate sweep deposits	MT87	2,063,000	M.1.h.1.
(a) Fully insured, affiliate, retail sweep deposits	MT88	1,841,000	M.1.h.1.a.
(2) Not fully insured, affiliate sweep deposits	MT89	188,000	M.1.h.2.
(a) Not fully insured, affiliate, retail sweep deposits	MT90	133,000	M.1.h.2.a.
(3) Fully insured, non-affiliate sweep deposits	MT91	56,466,000	M.1.h.3.
(a) Fully insured, non-affiliate, retail sweep deposits	MT92	50,429,000	M.1.h.3.a.
(4) Not fully insured, non-affiliate sweep deposits	MT93	2,607,000	M.1.h.4.
(a) Not fully insured, non-affiliate, retail sweep deposits	MT94	1,616,000	M.1.h.4.a.
i. Total sweep deposits that are not brokered deposits	MT95	19,752,000	M.1.i.

1 Includes interest-bearing and noninterest-bearing demand deposits.
2 The dollar amount used as the basis for reporting in Memorandum item 1.c reflects the deposit insurance limit in effect on the report date.
3 The $100 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.

Schedule RC-E—Continued

Part I—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCON	Amount	
2. Components of total nontransaction accounts (sum of Memorandum items 2.a through 2.d must equal item 7, column C above):			
a. Savings deposits:			
(1) Money market deposit accounts (MMDAs)	6810	186,374,000	M.2.a.1.
(2) Other savings deposits (excludes MMDAs)	0352	1,788,000	M.2.a.2.
b. Total time deposits of less than $100,000	6648	10,293,000	M.2.b.
c. Total time deposits of $100,000 through $250,000	J473	10,100,000	M.2.c.
d. Total time deposits of more than $250,000 (sum of Memoranda items 4.a.(1) through 4.a.(4) below)	J474	55,246,000	M.2.d.
e. Individual Retirement Accounts (IRAs) and Keogh Plan accounts of $100,000 or more included in Memorandum items 2.c and 2.d above	F233	281,000	M.2.e.
3. Maturity and repricing data for time deposits of $250,000 or less:			
a. Time deposits of $250,000 or less with a remaining maturity or next repricing date of: (1,2)			
(1) Three months or less	HK07	4,491,000	M.3.a.1.
(2) Over three months through 12 months	HK08	11,275,000	M.3.a.2.
(3) Over one year through three years	HK09	3,630,000	M.3.a.3.
(4) Over three years	HK10	997,000	M.3.a.4.
b. Time deposits of $250,000 or less with a REMAINING MATURITY of one year or less (included in Memorandum items 3.a.(1) and 3.a.(2) above) (3)	HK11	15,766,000	M.3.b.
4. Maturity and repricing data for time deposits of more than $250,000:			
a. Time deposits of more than $250,000 with a remaining maturity or next repricing date of: (1,4)			
(1) Three months or less	HK12	30,897,000	M.4.a.1.
(2) Over three months through 12 months	HK13	23,210,000	M.4.a.2.
(3) Over one year through three years	HK14	1,118,000	M.4.a.3.
(4) Over three years	HK15	21,000	M.4.a.4.
b. Time deposits of more than $250,000 with a REMAINING MATURITY of one year or less (included in Memorandum items 4.a.1 and 4.a.2 above) (3)	K222	54,107,000	M.4.b.

	RCON	YES / NO	
5. Does your institution offer one or more consumer deposit account products, i.e., transaction account or nontransaction savings account deposit products intended primarily for individuals for personal, household, or family use?	P752	YES	M.5.

Memorandum items 6 and 7 are to be completed by institutions with $1 billion or more in total assets (5) that answered "Yes" to Memorandum item 5 above.

Dollar Amounts in Thousands	RCON	Amount	
6. Components of total transaction account deposits of individuals, partnerships, and corporations (sum of Memorandum items 6.a and 6.b must be less than or equal to item 1, column A, above):			
a. Total deposits in those noninterest-bearing transaction account deposit products intended primarily for individuals for personal, household, or family use	P753	32,203,000	M.6.a.
b. Total deposits in those interest-bearing transaction account deposit products intended primarily for individuals for personal, household, or family use	P754	42,593,000	M.6.b.

1 Report fixed rate time deposits by remaining maturity and floating rate time deposits by next repricing date.
2 Sum of Memorandum items 3.a.(1) through 3.a.(4) must equal Schedule RC-E, sum of Memorandum items 2.b and 2.c.
3 Report both fixed-and floating-rate time deposits by remaining maturity. Exclude floating-rate time deposits with a next repricing date of one year or less that have a remaining maturity of over one year.
4 Sum of Memorandum items 4.a.(1) through 4.a.(4) must equal Schedule RC-E, Memorandum item 2.d.
5 **The $1 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.**

Schedule RC-E—Continued

Part I—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCON	Amount	
7. Components of total nontransaction account deposits of individuals, partnerships, and corporations (sum of Memorandum items 7.a.(1), 7.a.(2), 7.b.(1), and 7.b.(2) plus all time deposits of individuals, partnerships, and corporations must equal item 1, column C, above):			
a. Money market deposit accounts (MMDAs) of individuals, partnerships, and corporations (sum of Memorandum items 7.a.(1) and 7.a.(2) must be less than or equal to Memorandum item 2.a.(1) above):			
(1) Total deposits in those MMDA deposit products intended primarily for individuals for personal, household, or family use	P756	65,206,000	M.7.a.1.
(2) Deposits in all other MMDAs of individuals, partnerships, and corporations	P757	119,848,000	M.7.a.2.
b. Other savings deposit accounts of individuals, partnerships, and corporations (sum of Memorandum items 7.b.(1) and 7.b.(2) must be less than or equal to Memorandum item 2.a.(2) above):			
(1) Total deposits in those other savings deposit account deposit products intended primarily for individuals for personal, household, or family use	P758	0	M.7.b.1.
(2) Deposits in all other savings deposit accounts of individuals, partnerships, and corporations	P759	1,788,000	M.7.b.2.

Part II. Deposits in Foreign Offices (including Edge and Agreement subsidiaries and IBFs)

Items 1 through 6 are to be completed by banks with $10 billion or more in total assets.[1]

Dollar Amounts in Thousands	RCFN	Amount	
Deposits of:			
1. Individuals, partnerships, and corporations (include all certified and official checks)	B553	550,895,000	1.
2. U.S. banks (including IBFs and foreign branches of U.S. banks) and other U.S. depository institutions	B554	2,297,000	2.
3. Foreign banks (including U.S. branches and agencies of foreign banks, including their IBFs)	2625	16,831,000	3.
4. Foreign governments and official institutions (including foreign central banks)	2650	19,328,000	4.
5. U.S. Government and states and political subdivisions in the U.S.	B555	644,000	5.
6. Total (sum of items 1 through 5) (must equal Schedule RC, item 13.b)	2200	589,995,000	6.

Memorandum

Memorandum item 1 is to be completed by all banks.

Dollar Amounts in Thousands	RCFN	Amount	
1. Time deposits with a remaining maturity of one year or less (included in Schedule RC, item 13.b)	A245	123,499,000	M.1.

1 **The $10 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.**

Schedule RC-F—Other Assets[1]

Dollar Amounts in Thousands			RCFD	Amount	
1. Accrued interest receivable (2)			B556	5,005,000	1.
2. Net deferred tax assets (3)			2148	15,048,000	2.
3. Interest-only strips receivable (not in the form of a security) (4)			HT80	0	3.
4. Equity investments without readily determinable fair values (5)			1752	5,804,000	4.
5. Life insurance assets:					
a. General account life insurance assets			K201	44,000	5.a.
b. Separate account life insurance assets			K202	5,251,000	5.b.
c. Hybrid account life insurance assets			K270	0	5.c.
6. All other assets (itemize and describe amounts greater than $100,000 that exceed 25% of this item)			2168	54,674,000	6.
a. Prepaid expenses	2166	NR			6.a.
b. Repossessed personal property (including vehicles)	1578	NR			6.b.
c. Derivatives with a positive fair value held for purposes other than trading	C010	NR			6.c.
d. FDIC loss-sharing indemnification assets	J448	NR			6.d.
e. Computer software	FT33	NR			6.e.
f. Accounts receivable	FT34	NR			6.f.
g. Receivables from foreclosed government-guaranteed mortgage loans	FT35	NR			6.g.
h. TEXT 3549 Brokerage Receivable	3549	20,263,000			6.h.
i. TEXT 3550 NR	3550	NR			6.i.
j. TEXT 3551 NR	3551	NR			6.j.
7. Total (sum of items 1 through 6) (must equal Schedule RC, item 11)			2160	85,826,000	7.

Schedule RC-G—Other Liabilities

Dollar Amounts in Thousands			RCON	Amount	
1. a. Interest accrued and unpaid on deposits in domestic offices (6)			3645	387,000	1.a.
			RCFD		
b. Other expenses accrued and unpaid (includes accrued income taxes payable)			3646	12,898,000	1.b.
2. Net deferred tax liabilities (3)			3049	412,000	2.
3. Allowance for credit losses on off-balance sheet credit exposures (7)			B557	1,993,000	3.
4. All other liabilities (itemize and describe amounts greater than $100,000 that exceed 25% of this item)			2938	45,751,000	4.
a. Accounts payable	3066	13,149,000			4.a.
b. Deferred compensation liabilities	C011	0			4.b.
c. Dividends declared but not yet payable	2932	0			4.c.
d. Derivatives with a negative fair value held for purposes other than trading	C012	0			4.d.
e. Operating lease liabilities	LB56	0			4.e.
f. TEXT 3552 NR	3552	0			4.f.
g. TEXT 3553 NR	3553	0			4.g.
h. TEXT 3554 NR	3554	0			4.h.
5. Total (sum of items 1 through 4) (must equal Schedule RC, item 20)			2930	61,441,000	5.

1 Institutions that have adopted ASU 2016-13 should report asset amounts in Schedule RC-F net of any applicable allowance for credit losses.
2 Includes accrued interest receivable on loans, leases, debt securities, and other interest-bearing assets. Exclude accrued interest receivable on interest-bearing assets that is reported elsewhere on the balance sheet.
3 See discussion of deferred income taxes in Glossary entry on "income taxes."
4 Report interest-only strips receivable in the form of a security as available-for-sale securities in Schedule RC, item 2.b, or as trading assets in Schedule RC, item 5, as appropriate.
5 Includes Federal Reserve stock, Federal Home Loan Bank stock, and bankers' bank stock.
6 For savings banks, include "dividends" accrued and unpaid on deposits.
7 Institutions that have adopted ASU 2016-13 should report in Schedule RC-G, item 3, the allowance for credit losses on those off-balance sheet credit exposures that fall within the scope of the standard.

Schedule RC-H—Selected Balance Sheet Items for Domestic Offices

To be completed only by banks with foreign offices.

Dollar Amounts in Thousands	RCON	Domestic Offices Amount	
1. and 2. Not applicable			
3. Securities purchased under agreements to resell	B989	33,740,000	3.
4. Securities sold under agreements to repurchase (1)	B995	8,759,000	4.
5. Other borrowed money	3190	52,051,000	5.
EITHER			
6. Net due from own foreign offices, Edge and agreement subsidiaries, and IBFs	2163	9,623,000	6.
OR			
7. Net due to own foreign offices, Edge and agreement subsidiaries, and IBFs	2941	0	7.
8. Total assets (excludes net due from foreign offices, Edge and agreement subsidiaries, and IBFs)	2192	1,028,616,000	8.
9. Total liabilities (excludes net due to foreign offices, Edge and agreement subsidiaries, and IBFs)	3129	875,392,000	9.

Dollar Amounts in Thousands	RCON	(Column A) Amortized Cost of Held-to-Maturity Securities[2] Amount	RCON	(Column B) Fair Value of Available-for-Sale Securities Amount	
10. U.S. Treasury securities	0211	134,970,000	1287	66,378,000	10.
11. U.S. Government agency obligations (exclude mortgage-backed securities)	8492	0	8495	0	11.
12. Securities issued by states and political subdivisions in the U.S.	8496	8,978,000	8499	1,832,000	12.
13. Mortgage-backed securities (MBS):					
a. Mortgage pass-through securities:					
(1) Issued or guaranteed by FNMA, FHLMC, or GNMA	G389	84,677,000	G390	7,416,000	13.a.1.
(2) Other mortgage pass-through securities	1709	0	1713	0	13.a.2.
b. Other mortgage-backed securities (include CMOs, REMICs, and stripped MBS):					
(1) Issued or guaranteed by U.S. Government agencies or sponsored agencies (3)	G393	1,020,000	G394	1,890,000	13.b.1
(2) All other mortgage-backed securities	1733	1,058,000	1736	0	13.b.2
14. Other domestic debt securities (include domestic structured financial products and domestic asset-backed securities)	G397	437,000	G398	99,000	14.
15. Other foreign debt securities (include foreign structured financial products and foreign asset-backed securities)	G399	20,757,000	G400	19,773,000	15.
16. Not applicable					
17. Total held-to-maturity and available-for-sale debt securities (sum of items 10 through 15)	1754	251,897,000	1773	97,388,000	17.

	RCON	Amount	
18. Equity investments not held for trading:			
a. Equity securities with readily determinable fair values (4)	JA22	45,000	18.a.
b. Equity investments without readily determinable fair values	1752	5,474,000	18.b.

1 Institutions that have adopted ASU 2016-13 should report in item 4 amounts net of any applicable allowance for credit losses.
2 For institutions that have adopted ASU 2016-13, allowances for credit losses should not be deducted from the amortized cost amounts reported in items 10 through 17, column A.
3 U.S. Government agencies include, but are not limited to, such agencies as the Government National Mortgage Association (GNMA), the Federal Deposit Insurance Corporation (FDIC), and the National Credit Union Administration (NCUA). U.S. Government-sponsored agencies include, but are not limited to, such agencies as the Federal Home Loan Mortgage Corporation (FHLMC) and the Federal National Mortgage Association (FNMA).
4 Item 18.a is to be completed by all institutions. See the instructions for this item and the Glossary entry for "Securities Activities" for further detail on accounting for investments in equity securities.

Schedule RC-H—Continued

Dollar Amounts in Thousands	Domestic Offices RCON	Amount	
Items 19, 20, and 21 are to be completed by (1) banks that reported total trading assets of $10 million or more in any of the four preceding calendar quarters and (2) all banks meeting the FDIC's definition of a large or highly complex institution for deposit insurance assessment purposes.			
19. Total trading assets	3545	47,561,000	19.
20. Total trading liabilities	3548	28,837,000	20.
21. Total loans held for trading	HT71	3,478,000	21.
Item 22 is to be completed by banks that: (1) have elected to report financial instruments or servicing assets and liabilities at fair value under a fair value option with changes in fair value recognized in earnings, or (2) are required to completed Schedule RC-D, Trading Assets and Liabilities.			
22. Total amount of fair value option loans held for investment and held for sale	JF75	3,183,000	22.

Schedule RC-I—Assets and Liabilities of IBFs

To be completed only by banks with IBFs and other "foreign" offices.

Dollar Amounts in Thousands	RCFN	Amount	
1. Total IBF assets of the consolidated bank (component of Schedule RC, item 12)	2133	3,027,000	1.
2. Total IBF liabilities (component of Schedule RC, item 21)	2898	2,415,000	2.

Schedule RC-K—Quarterly Averages[1]

Dollar Amounts in Thousands		RCFD	Amount	
Assets				
1. Interest-bearing balances due from depository institutions		3381	253,851,000	1.
2. U.S. Treasury securities and U.S. Government agency obligations (2) (excluding mortgage-backed securities)		B558	226,346,000	2.
3. Mortgage-backed securities (2)		B559	98,447,000	3.
4. All other debt securities (2) and equity securities with readily determinable fair values not held for trading purposes (3)		B560	153,625,000	4.
5. Federal funds sold and securities purchased under agreements to resell		3365	84,280,000	5.
6. Loans:				
a. Loans in domestic offices:		RCON		
(1) Total loans		3360	418,161,000	6.a.1.
(2) Loans secured by real estate:				
(a) Loans secured by 1–4 family residential properties		3465	97,530,000	6.a.2.a.
(b) All other loans secured by real estate		3466	27,651,000	6.a.2.b.
(3) Loans to finance agricultural production and other loans to farmers		3386	99,000	6.a.3.
(4) Commercial and industrial loans		3387	62,893,000	6.a.4.
(5) Loans to individuals for household, family, and other personal expenditures:				
(a) Credit cards		B561	131,355,000	6.a.5.a.
(b) Other (includes revolving credit plans other than credit cards, automobile loans, and other consumer loans)		B562	3,574,000	6.a.5.b.
b. Total loans in foreign offices, Edge and agreement subsidiaries, and IBFs	RCFN	3360	229,505,000	6.b.
Item 7 is to be completed by (1) banks that reported total trading assets of $10 million or more in any of the four preceding calendar quarters and (2) all banks meeting the FDIC's definition of a large or highly complex institution for deposit insurance assessment purposes.				
7. Trading assets	RCFD	3401	127,214,000	7.
8. Lease financing receivables (net of unearned income)	RCFD	3484	388,000	8.
9. Total assets (4)	RCFD	3368	1,714,246,000	9.
Liabilities				
10. Interest-bearing transaction accounts in domestic offices (interest-bearing demand deposits, NOW accounts, ATS accounts, and telephone and preauthorized transfer accounts)		RCON 3485	353,221,000	10.
11. Nontransaction accounts in domestic offices:				
a. Savings deposits (includes MMDAs)		B563	197,253,000	11.a.
b. Time deposits of $250,000 or less		HK16	17,051,000	11.b.
c. Time deposits of more than $250,000		HK17	38,475,000	11.c.
12. Interest-bearing deposits in foreign offices, Edge and agreement subsidiaries, and IBFs	RCFN	3404	518,696,000	12.
13. Federal funds purchased and securities sold under agreements to repurchase	RCFD	3353	15,509,000	13.
14. Other borrowed money (includes mortgage indebtedness)	RCFD	3355	55,947,000	14.

1 For all items, banks have the option of reporting either (1) an average of DAILY figures for the quarter, or (2) an average of WEEKLY figures (i.e., the Wednesday of each week of the quarter).
2 Quarterly averages for all debt securities should be based on amortized cost.
3 Quarterly averages for equity securities with readily determinable fair values should be based on fair value.
4 The quarterly average for total assets should reflect securities not held for trading as follows:
a) Debt securities at amortized cost.
b) Equity securities with readily determinable fair values at fair value.
c) Equity investments without readily determinable fair values at their balance sheet carrying values (i.e., fair value or, if elected, cost minus impairment, if any, plus or minus changes resulting from observable price changes).

Schedule RC-L—Derivatives and Off-Balance Sheet Items

Please read carefully the instructions for the preparation of Schedule RC-L. Some of the amounts reported in Schedule RC-L are regarded as volume indicators and not necessarily as measures of risk.

Dollar Amounts in Thousands			Code	Amount	
1. Unused commitments:			RCFD		
a. Revolving, open-end lines secured by 1-4 family residential properties, e.g., home equity lines			3814	6,809,000	1.a.
Item 1.a.(1) is to be completed for the December report only.					
(1) Unused commitments for reverse mortgages outstanding that are held for investment in domestic offices (included in item 1.a. above)			RCON HT72	NR	1.a.1.
b. Credit card lines			RCFD 3815	680,001,000	1.b.
Items 1.b.(1) and 1.b.(2) are to be completed semiannually in the June and December reports only by banks with either $300 million or more in total assets or $300 million or more in credit card lines[1] (sum of items 1.b.(1) and 1.b.(2) must equal item 1.b).					
(1) Unused consumer credit card lines			J455	NR	1.b.1.
(2) Other unused credit card lines			J456	NR	1.b.2.
c. Commitments to fund commercial real estate, construction, and land development loans:					
(1) Secured by real estate:					
(a) 1-4 family residential construction loan commitments			F164	50,000	1.c.1.a.
(b) Commercial real estate, other construction loan, and land development loan commitments			F165	5,567,000	1.c.1.b.
(2) NOT secured by real estate			6550	9,902,000	1.c.2.
d. Securities underwriting			3817	0	1.d.
e. Other unused commitments:					
(1) Commercial and industrial loans			J457	179,331,000	1.e.1.
(2) Loans to financial institutions			J458	43,972,000	1.e.2.
(3) All other unused commitments			J459	76,050,000	1.e.3.
2. Financial standby letters of credit			3819	89,216,000	2.
Item 2.a is to be completed by banks with $1 billion or more in total assets.[1]					
a. Amount of financial standby letters of credit conveyed to others	3820	23,025,000			2.a.
3. Performance standby letters of credit			3821	10,504,000	3.
Item 3.a is to be completed by banks with $1 billion or more in total assets.[1]					
a. Amount of performance standby letters of credit conveyed to others	3822	843,000			3.a.
4. Commercial and similar letters of credit			3411	5,845,000	4.
5. Not applicable					
6. Securities lent and borrowed:					
a. Securities lent (including customers' securities lent where the customer is indemnified against loss by the reporting bank)			3433	112,116,000	6.a.
b. Securities borrowed			3432	0	6.b.

	(Column A) Sold Protection		(Column B) Purchased Protection		
7. Credit derivatives:	RCFD	Amount	RCFD	Amount	
a. Notional amounts:					
(1) Credit default swaps	C968	767,133,000	C969	806,451,000	7.a.1.
(2) Total return swaps	C970	9,064,000	C971	14,371,000	7.a.2.
(3) Credit options	C972	63,921,000	C973	47,902,000	7.a.3.
(4) Other credit derivatives	C974	0	C975	0	7.a.4.

1 The asset-size tests and the $300 million credit card lines test are based on the total assets and credit card lines reported on the June 30, 2021, Report of Condition.

Schedule RC-L—Continued

Dollar Amounts in Thousands	RCFD	(Column A) Sold Protection Amount	RCFD	(Column B) Purchased Protection Amount	
7. b. Gross fair values:					
(1) Gross positive fair value	C219	2,751,000	C221	9,502,000	7.b.1.
(2) Gross negative fair value	C220	8,752,000	C222	2,835,000	7.b.2.

Dollar Amounts in Thousands	RCFD	Amount	
7. c. Notional amounts by regulatory capital treatment: [1]			
(1) Positions covered under the Market Risk Rule:			
(a) Sold protection	G401	840,118,000	7.c.1.a.
(b) Purchased protection	G402	836,456,000	7.c.1.b.
(2) All other positions:			
(a) Sold protection	G403	0	7.c.2.a.
(b) Purchased protection that is recognized as a guarantee for regulatory capital purposes	G404	31,947,000	7.c.2.b.
(c) Purchased protection that is not recognized as a guarantee for regulatory capital purposes	G405	321,000	7.c.2.c.

Dollar Amounts in Thousands	Remaining Maturity of:						
	(Column A) One Year or Less		(Column B) Over One Year Through Five Years		(Column C) Over Five Years		
	RCFD	Amount	RCFD	Amount	RCFD	Amount	
7. d. Notional amounts by remaining maturity:							
(1) Sold credit protection: [2]							
(a) Investment grade	G406	114,301,000	G407	491,107,000	G408	57,781,000	7.d.1.a.
(b) Subinvestment grade	G409	40,781,000	G410	126,434,000	G411	9,714,000	7.d.1.b.
(2) Purchased credit protection: [3]							
(a) Investment grade	G412	104,169,000	G413	517,251,000	G414	60,781,000	7.d.2.a.
(b) Subinvestment grade	G415	42,237,000	G416	133,194,000	G417	11,092,000	7.d.2.b.

Dollar Amounts in Thousands	RCFD	Amount	RCFD	Amount	
8. Spot foreign exchange contracts			8765	593,481,000	8.
9. All other off-balance sheet liabilities (exclude derivatives) (itemize and describe each component of this item over 25% of Schedule RC, item 27.a, "Total bank equity capital")			3430	0	9.
a. Not applicable					
b. Commitments to purchase when-issued securities	3434	0			9.b.
c. Standby letters of credit issued by another party (e.g., a Federal Home Loan Bank) on the bank's behalf	C978	0			9.c.
d. TEXT 3555 NR	3555	0			9.d.
e. TEXT 3556 NR	3556	0			9.e.
f. TEXT 3557 NR	3557	0			9.f.
10. All other off-balance sheet assets (exclude derivatives) (itemize and describe each component of this item over 25% of Schedule RC, item 27.a, "Total bank equity capital")			5591	0	10.
a. Commitments to sell when-issued securities	3435	0			10.a.
b. TEXT 5592 NR	5592	0			10.b.
c. TEXT 5593 NR	5593	0			10.c.
d. TEXT 5594 NR	5594	0			10.d.
e. TEXT 5595 NR	5595	0			10.e.

1 Sum of items 7.c.(1)(a) and 7.c.(2)(a) must equal sum of items 7.a.(1) through (4), column A. Sum of items 7.c.(1)(b), 7.c.(2)(b), and 7.c.(2)(c) must equal sum of items 7.a.(1) through (4), column B.
2 Sum of items 7.d.(1)(a) and (b), columns A through C, must equal sum of items 7.a.(1) through (4), column A.
3 Sum of items 7.d.(2)(a) and (b), columns A through C, must equal sum of items 7.a.(1) through (4), column B.

Schedule RC-L—Continued

Dollar Amounts in Thousands	RCFD	Amount	
Items 11.a and 11.b are to be completed semiannually in the June and December reports only.			
11. Year-to-date merchant credit card sales volume:			
a. Sales for which the reporting bank is the acquiring bank	C223	NR	11.a.
b. Sales for which the reporting bank is the agent bank with risk	C224	NR	11.b.

Dollar Amounts in Thousands	(Column A) Interest Rate Contracts Amount	(Column B) Foreign Exchange Contracts Amount	(Column C) Equity Derivative Contracts Amount	(Column D) Commodity and Other Contracts Amount	
Derivatives Position Indicators					
12. Gross amounts (e.g., notional amounts) (for each column, sum of items 12.a through 12.e must equal sum of items 13 and 14):					
a. Futures contracts	RCFD 8693 580,585,000	RCFD 8694 14,662,000	RCFD 8695 7,275,000	RCFD 8696 48,255,000	12.a.
b. Forward contracts	RCFD 8697 941,422,000	RCFD 8698 3,297,324,000	RCFD 8699 3,000	RCFD 8700 53,309,000	12.b.
c. Exchange-traded option contracts:					
(1) Written options	RCFD 8701 155,680,000	RCFD 8702 29,000	RCFD 8703 13,470,000	RCFD 8704 61,617,000	12.c.1.
(2) Purchased options	RCFD 8705 188,862,000	RCFD 8706 66,000	RCFD 8707 10,772,000	RCFD 8708 60,036,000	12.c.2.
d. Over-the-counter option contracts:					
(1) Written options	RCFD 8709 1,797,323,000	RCFD 8710 960,640,000	RCFD 8711 452,539,000	RCFD 8712 38,310,000	12.d.1.
(2) Purchased options	RCFD 8713 1,713,605,000	RCFD 8714 946,238,000	RCFD 8715 371,566,000	RCFD 8716 36,920,000	12.d.2.
e. Swaps	RCFD 3450 25,272,941,000	RCFD 3826 6,815,157,000	RCFD 8719 335,960,000	RCFD 8720 85,440,000	12.e.
13. Total gross notional amount of derivative contracts held for trading	RCFD A126 30,567,553,000	RCFD A127 11,981,817,000	RCFD 8723 1,191,585,000	RCFD 8724 383,887,000	13.
14. Total gross notional amount of derivative contracts held for purposes other than trading	RCFD 8725 82,865,000	RCFD 8726 52,299,000	RCFD 8727 0	RCFD 8728 0	14.
a. Interest rate swaps where the bank has agreed to pay a fixed rate	RCFD A589 8,885,000				14.a.
15. Gross fair values of derivative contracts:					
a. Contracts held for trading:					
(1) Gross positive fair value	RCFD 8733 268,223,000	RCFD 8734 258,746,000	RCFD 8735 50,689,000	RCFD 8736 20,857,000	15.a.1.
(2) Gross negative fair value	RCFD 8737 255,932,000	RCFD 8738 251,403,000	RCFD 8739 50,573,000	RCFD 8740 14,440,000	15.a.2.
b. Contracts held for purposes other than trading:					
(1) Gross positive fair value	RCFD 8741 3,730,000	RCFD 8742 2,158,000	RCFD 8743 0	RCFD 8744 0	15.b.1.
(2) Gross negative fair value	RCFD 8745 3,221,000	RCFD 8746 1,161,000	RCFD 8747 0	RCFD 8748 0	15.b.2.

Schedule RC-L—Continued

Item 16 is to be completed only by banks with total assets of $10 billion or more.[1]

Dollar Amounts in Thousands	(Column A) Banks and Securities Firms RCFD	Amount	(Column B) Not applicable	(Column C) Hedge Funds RCFD	Amount	(Column D) Sovereign Governments RCFD	Amount	(Column E) Corporations and All Other Counterparties RCFD	Amount	
16. Over-the counter derivatives:										
a. Net current credit exposure	G418	32,875,000		G420	682,000	G421	9,256,000	G422	66,771,000	16.a.
b. Fair value of collateral:										
(1) Cash—U.S. dollar	G423	24,569,000		G425	5,368,000	G426	791,000	G427	34,141,000	16.b.1.
(2) Cash—Other currencies	G428	6,760,000		G430	103,000	G431	4,131,000	G432	4,728,000	16.b.2.
(3) U.S. Treasury securities	G433	1,083,000		G435	1,870,000	G436	0	G437	5,683,000	16.b.3.
(4) U.S. Government agency and U.S. Government-sponsored agency debt securities	G438	167,000		G440	0	G441	0	G442	3,000	
(5) Corporate bonds	G443	1,132,000		G445	0	G446	9,000	G447	1,816,000	
(6) Equity securities	G448	525,000		G450	459,000	G451	0	G452	2,535,000	
(7) All other collateral	G453	6,251,000		G455	299,000	G456	80,000	G457	8,521,000	16.b.7.
(8) Total fair value of collateral (sum of items 16.b.(1) through (7))	G458	40,487,000		G460	8,099,000	G461	5,011,000	G462	57,427,000	16.b.8.

1 **The $10 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.**

Schedule RC-M—Memoranda

Dollar Amounts in Thousands			RCFD	Amount	
1. Extensions of credit by the reporting bank to its executive officers, directors, principal shareholders, and their related interests as of the report date:					
a. Aggregate amount of all extensions of credit to all executive officers, directors, principal shareholders, and their related interests			6164	19,000	1.a.
b. Number of executive officers, directors, and principal shareholders to whom the amount of all extensions of credit by the reporting bank (including extensions of credit to related interests) equals or exceeds the lesser of $500,000 or 5 percent of total capital as defined for this purpose in agency regulations	6165	Number 7			1.b.
2. Intangible assets:					
a. Mortgage servicing assets			3164	647,000	2.a.
(1) Estimated fair value of mortgage servicing assets	A590	647,000			2.a.1.
b. Goodwill			3163	9,493,000	2.b.
c. All other intangible assets			JF76	3,594,000	2.c.
d. Total (sum of items 2.a, 2.b, and 2.c) (must equal Schedule RC, item 10)			2143	13,734,000	2.d.
3. Other real estate owned:			RCON		
a. Construction, land development, and other land in domestic offices			5508	1,000	3.a.
b. Farmland in domestic offices			5509	0	3.b.
c. 1-4 family residential properties in domestic offices			5510	7,000	3.c.
d. Multifamily (5 or more) residential properties in domestic offices			5511	0	3.d.
e. Nonfarm nonresidential properties in domestic offices			5512	0	3.e.
			RCFN		
f. In foreign offices			5513	3,000	3.f.
			RCFD		
g. Total (sum of items 3.a through 3.e) (must equal Schedule RC, item 7)			2150	11,000	3.g.
4. Cost of equity securities with readily determinable fair values not held for trading (the fair value of which is reported in Schedule RC, item 2.c) (1)			JA29	83,000	4.
5. Other borrowed money:					
a. Federal Home Loan Bank advances:					
(1) Advances with a remaining maturity or next repricing date of: (2)					
(a) One year or less			F055	19,250,000	5.a.1.a.
(b) Over one year through three years			F056	0	5.a.1.b.
(c) Over three years through five years			F057	0	5.a.1.c.
(d) Over five years			F058	0	5.a.1.d.
(2) Advances with a REMAINING MATURITY of one year or less (included in item 5.a.(1)(a) above) (3)			2651	15,250,000	5.a.2.
(3) Structured advances (included in items 5.a.(1)(a) - (d) above)			F059	0	5.a.3.
b. Other borrowings:					
(1) Other borrowings with a remaining maturity or next repricing date of: (4)					
(a) One year or less			F060	34,349,000	5.b.1.a.
(b) Over one year through three years			F061	2,543,000	5.b.1.b.
(c) Over three years through five years			F062	64,000	5.b.1.c.
(d) Over five years			F063	1,664,000	5.b.1.d.
(2) Other borrowings with a REMAINING MATURITY of one year or less (included in item 5.b.(1)(a) above) (5)			B571	20,501,000	5.b.2.
c. Total (sum of items 5.a.(1)(a)–(d) and items 5.b.(1)(a)–(d)) (must equal Schedule RC, item 16)			3190	57,870,000	5.c.

1 Item 4 is to be completed only by insured state banks that have been approved by the FDIC to hold grandfathered equity investments. See instructions for this item and the Glossary entry for "Securities Activities" for further detail on accounting for investments in equity securities.
2 Report fixed rate advances by remaining maturity and floating-rate advances by next repricing date.
3 Report both fixed and floating-rate advances by remaining maturity. Exclude floating-rate advances with a next repricing date of one year or less that have a remaining maturity of over one year.
4 Report fixed rate other borrowings by remaining maturity and floating-rate other borrowings by next repricing date.
5 Report both fixed and floating-rate other borrowings by remaining maturity. Exclude floating-rate other borrowings with a next repricing date of one year or less that have a remaining maturity of over one year.

Schedule RC-M—Continued

Dollar Amounts in Thousands	RCFD	YES / NO	
6. Does the reporting bank sell private label or third-party mutual funds and annuities?	B569	YES	6.

	RCFD	Amount	
7. Assets under the reporting bank's management in proprietary mutual funds and annuities	B570	0	7.

8. Internet Website addresses and physical office trade names:
   a. Uniform Resource Locator (URL) of the reporting institution's primary Internet Web site (home page), if any (Example: www.examplebank.com):

	TEXT 4087	http:// www.citibank.com	8.a.

   b. URLs of all other public-facing Internet websites that the reporting institution uses to accept or solicit deposits from the public, if any (Example: www.examplebank.biz): [1]

(1)	TE01 N528	http:// NR	8.b.1.
(2)	TE02 N528	http:// NR	8.b.2.
(3)	TE03 N528	http:// NR	8.b.3.
(4)	TE04 N528	http:// NR	8.b.4.
(5)	TE05 N528	http:// NR	8.b.5.
(6)	TE06 N528	http:// NR	8.b.6.
(7)	TE07 N528	http:// NR	8.b.7.
(8)	TE08 N528	http:// NR	8.b.8.
(9)	TE09 N528	http:// NR	8.b.9.
(10)	TE10 N528	http:// NR	8.b.10.

   c. Trade names other than the reporting institution's legal title used to identify one or more of the institution's physical offices at which deposits are accepted or solicited from the public, if any:

(1)	TE01 N529	NR	8.c.1.
(2)	TE02 N529	NR	8.c.2.
(3)	TE03 N529	NR	8.c.3.
(4)	TE04 N529	NR	8.c.4.
(5)	TE05 N529	NR	8.c.5.
(6)	TE06 N529	NR	8.c.6.

Item 9 is to be completed annually in the December report only.

	RCFD	YES / NO	
9. Do any of the bank's Internet websites have transactional capability, i.e., allow the bank's customers to execute transactions on their accounts through the website?	4088	NR	9.

10. Secured liabilities:

	RCON	Amount	
a. Amount of "Federal funds purchased in domestic offices" that are secured (included in Schedule RC, item 14.a)	F064	0	10.a.
b. Amount of "Other borrowings" that are secured (included in Schedule RC-M, items 5.b.(1)(a) - (d))	RCFD F065	20,186,000	10.b.

	RCON	YES / NO	
11. Does the bank act as trustee or custodian for Individual Retirement Accounts, Health Savings Accounts, and other similar accounts?	G463	YES	11.
12. Does the bank provide custody, safekeeping, or other services involving the acceptance of orders for the sale or purchase of securities?	G464	YES	12.

1 Report only highest level URLs (for example, report www.examplebank.biz, but do not also report www.examplebank.biz/checking). Report each top level domain name used (for example, report both www.examplebank.biz and www.examplebank.net).

Schedule RC-M—Continued

Dollar Amounts in Thousands	RCON	Amount	
13. Assets covered by loss-sharing agreements with the FDIC:			
a. Loans and leases (included in Schedule RC, items 4.a and 4.b):			
(1) Loans secured by real estate in domestic offices:			
(a) Construction, land development, and other land loans:			
(1) 1-4 family residential construction loans	K169	0	13.a.1a1
(2) Other construction loans and all land development and other land loans	K170	0	13.a.1a2
(b) Secured by farmland	K171	0	13.a.1b
(c) Secured by 1-4 family residential properties:			
(1) Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	K172	0	13.a.1c1
(2) Closed-end loans secured by 1-4 family residential properties:			
(a) Secured by first liens	K173	0	13.a.1.c2a
(b) Secured by junior liens	K174	0	13.a.1.c2b
(d) Secured by multifamily (5 or more) residential properties	K175	0	13.a.1d
(e) Secured by nonfarm nonresidential properties:			
(1) Loans secured by owner-occupied nonfarm nonresidential properties	K176	0	13.a.1e1
(2) Loans secured by other nonfarm nonresidential properties	K177	0	13.a.1e2
(2) - (4) Not applicable	RCFD		
(5) All other loans and all leases	K183	0	13.a.5.
b. Other real estate owned (included in Schedule RC, item 7):	RCON		
(1) Construction, land development, and other land in domestic offices	K187	0	13.b.1.
(2) Farmland in domestic offices	K188	0	13.b.2.
(3) 1-4 family residential properties in domestic offices	K189	0	13.b.3.
(4) Multifamily (5 or more) residential properties in domestic offices	K190	0	13.b.4.
(5) Nonfarm nonresidential properties in domestic offices	K191	0	13.b.5.
	RCFN		
(6) In foreign offices	K260	0	13.b.6.
(7) Portion of covered other real estate owned included in items 13.b.(1) through (6)	RCFD		
above that is protected by FDIC loss-sharing agreements	K192	0	13.b.7.
c. Debt securities (included in Schedule RC, items 2.a and 2.b)	J461	0	13.c.
d. Other assets (exclude FDIC loss-sharing indemnification assets)	J462	0	13.d.
Items 14.a and 14.b are to be completed annually in the December report only.			
14. Captive insurance and reinsurance subsidiaries:			
a. Total assets of captive insurance subsidiaries (1)	K193	NR	14.a.
b. Total assets of captive reinsurance subsidiaries (1)	K194	NR	14.b.

Item 15 is to be completed by institutions that are required or have elected to be treated as a Qualified Thrift Lender.

15. Qualified Thrift Lender (QTL) test:	RCON	Number	
a. Does the institution use the Home Owners' Loan Act (HOLA) QTL test or the Internal Revenue Service Domestic Building and Loan Association (IRS DBLA) test to determine its QTL compliance? (for the HOLA QTL test, enter 1; for the IRS DBLA test, enter 2)	L133	NR	15.a.
		YES / NO	
b. Has the institution been in compliance with the HOLA QTL test as of each month end during the quarter or the IRS DBLA test for its most recent taxable year, as applicable?	L135	NR	15.b.

1 Report total assets before eliminating intercompany transactions between the consolidated insurance or reinsurance subsidiary and other offices or consolidated subsidiaries of the reporting bank.

Schedule RC-M—Continued

Dollar Amounts in Thousands	RCON	Number	
Item 16.a and, if appropriate, items 16.b.(1) through 16.b.(3) are to be completed annually in the December report only.			
16. International remittance transfers offered to consumers:[1]			
a. Estimated number of international remittance transfers provided by your institution during the calendar year ending on the report date	N523	NR	16.a.
Items 16.b.(1) through 16.b.(3) are to be completed by institutions that reported 501 or more international remittance transfers in item 16.a in either or both of the current report or the most recent prior report in which item 16.a was required to be completed.			
b. Estimated dollar value of remittance transfers provided by your institution and usage of regulatory exceptions during the calendar year ending on the report date:		Amount	
(1) Estimated dollar value of international remittance transfers	N524	NR	16.b.1.
(2) Estimated number of international remittance transfers for which your institution applied the permanent exchange rate exception		Number	
	MM07	NR	16.b.2.
(3) Estimated number of international remittance transfers for which your institution applied the permanent covered third-party fee exception	MQ52	NR	16.b.3.
17. U.S. Small Business Administration Paycheck Protection Program (PPP) loans[2] and the Federal Reserve PPP Liquidity Facility (PPPLF):			
a. Number of PPP loans outstanding	LG26	3,204	17.a.
		Amount	
b. Outstanding balance of PPP loans	LG27	139,000	17.b.
c. Outstanding balance of PPP loans pledged to the PPPLF	LG28	0	17.c.
d. Outstanding balance of borrowings from Federal Reserve Banks under the PPPLF with a remaining maturity of:			
(1) One year or less	LL59	0	17.d.1.
(2) More than one year	LL60	0	17.d.2.
e. Quarterly average amount of PPP loans pledged to the PPPLF and excluded from "Total assets for the leverage ratio" reported in Schedule RC-R, Part I, item 30	LL57	0	17.e.
18. Money Market Mutual Fund Liquidity Facility (MMLF):			
a. Outstanding balance of assets purchased under the MMLF	LL61	0	18.a.
b. Quarterly average amount of assets purchased under the MMLF and excluded from "Total assets for the leverage ratio" reported in Schedule RC-R, Part I, item 30	LL58	0	18.b.

1 Report information about international electronic transfers of funds offered to consumers in the United States that:
(a) are "remittance transfers" as defined by subpart B of Regulation E (12 CFR § 1005.30(e)), or
(b) would qualify as "remittance transfers" under subpart B of Regulation E (12 CFR § 1005.30(e)) but are excluded from that definition only because the provider is not providing those transfers in the normal course of its business. See 12 CFR § 1005.30(f).
For purposes of this item 16, such transfers are referred to as international remittance transfers.

Exclude transfers sent by your institution as a correspondent bank for other providers. Report information only about transfers for which the reporting institution is the provider.

2 Paycheck Protection Program (PPP) covered loans as defined in sections 7(a)(36) and 7(a)(37) of the Small Business Act (15 U.S.C. 636(a)(36) and (37)).

Schedule RC-N—Past Due and Nonaccrual Loans, Leases, and Other Assets

Dollar Amounts in Thousands	RCON	(Column A) Past due 30 through 89 days and still accruing Amount	RCON	(Column B) Past due 90 days or more and still accruing Amount	RCON	(Column C) Nonaccrual Amount	
1. Loans secured by real estate:							
a. Construction, land development, and other land loans in domestic offices:							
(1) 1-4 family residential construction loans	F172	0	F174	0	F176	0	1.a.1.
(2) Other construction loans and all land development and other land loans	F173	23,000	F175	0	F177	0	1.a.2.
b. Secured by farmland in domestic offices	3493	0	3494	0	3495	0	1.b.
c. Secured by 1-4 family residential properties in domestic offices:							
(1) Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	5398	14,000	5399	0	5400	190,000	1.c.1.
(2) Closed-end loans secured by 1-4 family residential properties:							
(a)Secured by first liens	C236	455,000	C237	192,000	C229	524,000	1.c.2.a.
(b) Secured by junior liens	C238	4,000	C239	0	C230	33,000	1.c.2.b.
d. Secured by multifamily (5 or more) residential properties in domestic offices	3499	42,000	3500	14,000	3501	1,000	1.d.
e. Secured by nonfarm nonresidential properties in domestic offices:							
(1) Loans secured by owner-occupied nonfarm nonresidential properties	F178	0	F180	0	F182	4,000	1.e.1.
(2) Loans secured by other nonfarm nonresidential properties	F179	51,000	F181	27,000	F183	0	1.e.2.
	RCFN		RCFN		RCFN		
f. In foreign offices	B572	39,000	B573	0	B574	151,000	1.f.
2. Loans to depository institutions and acceptances of other banks:	RCFD		RCFD		RCFD		
a. To U.S. banks and other U.S. depository institutions	5377	0	5378	0	5379	0	2.a.
b. To foreign banks	5380	5,000	5381	4,000	5382	35,000	2.b.
3. Loans to finance agricultural production and other loans to farmers	1594	0	1597	0	1583	0	3.
4. Commercial and industrial loans:							
a. To U.S. addressees (domicile)	1251	477,000	1252	470,000	1253	295,000	4.a.
b. To non-U.S. addressees (domicile)	1254	381,000	1255	184,000	1256	731,000	4.b.
5. Loans to individuals for household, family, and other personal expenditures:							
a. Credit cards	B575	1,308,000	B576	1,160,000	B577	25,000	5.a.
b. Automobile loans	K213	0	K214	0	K215	0	5.b.
c. Other (includes revolving credit plans other than credit cards and other consumer loans)	K216	124,000	K217	23,000	K218	44,000	5.c.
6. Loans to foreign governments and official institutions	5389	0	5390	0	5391	0	6.
7. All other loans	5459	630,000	5460	396,000	5461	224,000	7.

Schedule RC-N—Continued

Amounts reported by loan and lease category in Schedule RC-N, items 1 through 8, include guaranteed and unguaranteed portions of past due and nonaccrual loans and leases. Report in items 11 and 12 below certain guaranteed loans and leases that have already been included in the amounts reported in items 1 through 8.

Dollar Amounts in Thousands	(Column A) Past due 30 through 89 days and still accruing		(Column B) Past due 90 days or more and still accruing		(Column C) Nonaccrual		
	RCFD	Amount	RCFD	Amount	RCFD	Amount	
8. Lease financing receivables							
a. Leases to individuals for household, family, and other personal expenditures	F166	0	F167	0	F168	0	8.a.
b. All other leases	F169	0	F170	0	F171	10,000	8.b.
9. Total loans and leases (sum of items 1 through 8)	1406	3,553,000	1407	2,470,000	1403	2,267,000	9.
10. Debt securities and other assets (exclude other real estate owned and other repossessed assets)	3505	0	3506	0	3507	265,000	10.
11. Loans and leases reported in items 1 through 8 above that are wholly or partially guaranteed by the U.S. Government, excluding loans and leases covered by loss-sharing agreements with the FDIC	K036	117,000	K037	205,000	K038	38,000	11.
a. Guaranteed portion of loans and leases included in item 11 above, excluding rebooked "GNMA loans"	K039	32,000	K040	48,000	K041	0	11.a.
b. Rebooked "GNMA loans" that have been repurchased or are eligible for repurchase included in item 11 above	K042	67,000	K043	140,000	K044	33,000	11.b.
12. Loans and leases reported in items 1 through 8 above that are covered by loss-sharing agreements with the FDIC:							
a. Loans secured by real estate in domestic offices:							
(1) Construction, land development, and other land loans:	RCON		RCON		RCON		
(a) 1-4 family residential construction loans	K045	0	K046	0	K047	0	12.a.1.a.
(b) Other construction loans and all land development and other land loans	K048	0	K049	0	K050	0	12.a.1.b.
(2) Secured by farmland	K051	0	K052	0	K053	0	12.a.2.
(3) Secured by 1-4 family residential properties:							
(a) Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	K054	0	K055	0	K056	0	12.a.3.a.
(b) Closed-end loans secured by 1-4 family residential properties:							
(1) Secured by first liens	K057	0	K058	0	K059	0	12.a.3.b1.
(2) Secured by junior liens	K060	0	K061	0	K062	0	12.a.3.b2.
(4) Secured by multifamily (5 or more) residential properties	K063	0	K064	0	K065	0	12.a.4.

Schedule RC-N—Continued

Dollar Amounts in Thousands	RCON	(Column A) Past due 30 through 89 days and still accruing Amount	RCON	(Column B) Past due 90 days or more and still accruing Amount	RCON	(Column C) Nonaccrual Amount	
12. a. (5) Secured by nonfarm nonresidential properties:							
(a) Loans secured by owner-occupied nonfarm nonresidential properties	K066	0	K067	0	K068	0	12.a.5.a.
(b) Loans secured by other nonfarm nonresidential properties	K069	0	K070	0	K071	0	12.a.5.b.
b. - d. Not applicable	RCFD		RCFD		RCFD		
e. All other loans and all leases	K087	0	K088	0	K089	0	12.e.
f. Portion of covered loans and leases included in items 12.a through 12.e above that is protected by FDIC loss-sharing agreements	K102	0	K103	0	K104	0	12.f.

Schedule RC-N—Continued

Memoranda

Dollar Amounts in Thousands	RCON	(Column A) Past due 30 through 89 days and still accruing Amount	RCON	(Column B) Past due 90 days or more and still accruing Amount	RCON	(Column C) Nonaccrual Amount	
1. Loans restructured in troubled debt restructurings included in Schedule RC-N, items 1 through 7, above (and not reported in Schedule RC-C, Part I, Memorandum item 1):							
a. Construction, land development, and other land loans in domestic offices:							
(1) 1-4 family residential construction loans	K105	0	K106	0	K107	0	M.1.a.1.
(2) Other construction loans and all land development and other land loans	K108	0	K109	0	K110	1,000	M.1.a.2.
b. Loans secured by 1-4 family residential properties in domestic offices	F661	95,000	F662	126,000	F663	352,000	M.1.b.
c. Secured by multifamily (5 or more) residential properties in domestic offices	K111	0	K112	0	K113	0	M.1.c.
d. Secured by nonfarm nonresidential properties in domestic offices:							
(1) Loans secured by owner-occupied nonfarm nonresidential properties	K114	0	K115	0	K116	0	M.1.d.1.
(2) Loans secured by other nonfarm nonresidential properties	K117	0	K118	0	K119	0	M.1.d.2.
e. Commercial and industrial loans:	RCFD		RCFD		RCFD		
(1) To U.S. addressees (domicile)	K120	0	K121	0	K122	28,000	M.1.e.1.
(2) To non-U.S. addressees (domicile)	K123	0	K124	0	K125	52,000	M.1.e.2.
f. All other loans (include loans to individuals for household, family, and other personal expenditures)	K126	87,000	K127	35,000	K128	85,000	M.1.f.
Itemize loan categories included in Memorandum item 1.f, above that exceed 10% of total loans restructured in troubled debt restructurings that are past due 30 days or more or in nonaccrual status (sum of Memorandum items 1.a through 1.e plus 1.f, columns A through C):	RCON		RCON		RCON		
(1) Loans secured by farmland in domestic offices	K130	0	K131	0	K132	0	M.1.f.1.
(2) Not applicable	RCFD		RCFD		RCFD		
(3) Loans to finance agricultural production and other loans to farmers	K138	0	K139	0	K140	0	M.1.f.3.
(4) Loans to individuals for household, family, and other personal expenditures:							
(a) Credit cards	K274	0	K275	0	K276	0	M.1.f.4.a.
(b) Automobile loans	K277	0	K278	0	K279	0	M.1.f.4.b.
(c) Other (includes revolving credit plans other than credit cards and other consumer loans)	K280	0	K281	0	K282	0	M.1.f.4.c.

Schedule RC-N—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCFD	(Column A) Past due 30 through 89 days and still accruing Amount	RCFD	(Column B) Past due 90 days or more and still accruing Amount	RCFD	(Column C) Nonaccrual Amount	
1.g. Total loans restructured in troubled debt restructurings included in Schedule RC-N items 1 through 7, above (sum of Memorandum items 1.a.(1) through 1.f) (1)	HK26	182,000	HK27	161,000	HK28	518,000	M.1.g.
2. Loans to finance commercial real estate, construction, and land development activities (not secured by real estate) included in Schedule RC-N, items 4 and 7, above	6558	0	6559	0	6560	8,000	M.2.
3. Loans secured by real estate to non-U.S. addressees (domicile) (included in Schedule RC-N, item 1, above)	1248	49,000	1249	0	1250	148,000	M.3.
4. Not applicable							
5. Loans and leases held for sale (included in RC-N, items 1 through 8, above)	C240	322,000	C241	96,000	C226	301,000	M.5.

Dollar Amounts in Thousands	RCFD	(Column A) Past due 30 through 89 days Amount	RCFD	(Column B) Past due 90 days or more Amount	
6. Derivative contracts: Fair value of amounts carried as assets	3529	0	3530	0	M.6.

Memorandum items 7, 8, 9.a, and 9.b are to be completed semiannually in the June and December reports only.

	RCFD	Amount	
7. Additions to nonaccrual assets during the previous six months	C410	NR	M.7.
8. Nonaccrual assets sold during the previous six months	C411	NR	M.8.

Dollar Amounts in Thousands	RCFD	(Column A) Past due 30 through 89 days and still accruing Amount	RCFD	(Column B) Past due 90 days or more and still accruing Amount	RCFD	(Column C) Nonaccrual Amount	
9. Purchased credit-impaired loans accounted for in accordance with FASB ASC 310-30 (former AICPA Statement of Position 03-3): (2)							
a. Outstanding balance	L183	NR	L184	NR	L185	NR	M.9.a.
b. Amount included in Schedule RC-N, items 1 through 7, above	L186	NR	L187	NR	L188	NR	M.9.b

1 Exclude amounts reported in Memorandum items 1.f.(1) through 1.f.(4) when calculating the total in Memorandum item 1.g.
2 Memorandum items 9.a and 9.b should be completed only by institutions that have not yet adopted ASU 2016-13.

Schedule RC-O—Other Data for Deposit Insurance Assessments

All FDIC-insured depository institutions must complete items 1 through 9, 10, and 11, Memorandum item 1, and, if applicable, item 9.a, Memorandum items 2 through 18 each quarter. Unless otherwise indicated, complete items 1 through 11 and Memorandum items 1 through 4 on an "unconsolidated single FDIC certificate number basis" (see instructions) and complete Memorandum items 5 through 18 on a fully consolidated basis.

Dollar Amounts in Thousands	RCFD	Amount	
1. Total deposit liabilities before exclusions (gross) as defined in Section 3(l) of the Federal Deposit Insurance Act and FDIC regulations	F236	1,143,522,000	1.
2. Total allowable exclusions, including interest accrued and unpaid on allowable exclusions (including foreign deposits)	F237	356,994,000	2.
3. Total foreign deposits, including interest accrued and unpaid thereon (included in item 2 above)	RCFN F234	356,994,000	3.
4. Average consolidated total assets for the calendar quarter	RCFD K652	1,714,246,000	4.
a. Averaging method used (for daily averaging, enter 1, for weekly averaging, enter 2)	K653	Number: 1	4.a.
5. Average tangible equity for the calendar quarter (1)	K654	149,890,000	5.
6. Holdings of long-term unsecured debt issued by other FDIC-insured depository institutions	K655	0	6.
7. Unsecured "Other borrowings" with a remaining maturity of (sum of items 7.a through 7.d must be less than or equal to Schedule RC-M, items 5.b.(1)(a)-(d) minus item 10.b):			
a. One year or less	G465	4,581,000	7.a.
b. Over one year through three years	G466	3,794,000	7.b.
c. Over three years through five years	G467	22,000	7.c.
d. Over five years	G468	10,037,000	7.d.
8. Subordinated notes and debentures with a remaining maturity of (sum of items 8.a. through 8.d. must equal Schedule RC, item 19):			
a. One year or less	G469	0	8.a.
b. Over one year through three years	G470	0	8.b.
c. Over three years through five years	G471	0	8.c.
d. Over five years	G472	10,500,000	8.d.
9. Brokered reciprocal deposits (included in Schedule RC-E, Part I, Memorandum item 1.b)	RCON G803	0	9.
Item 9.a is to be completed on a fully consolidated basis by all institutions that own another insured depository institution.			
a. Fully consolidated brokered reciprocal deposits	L190	NR	9.a.
10. Banker's bank certification: Does the reporting institution meet both the statutory definition of a banker's bank and the business conduct test set forth in FDIC regulations?	RCFD K656	YES / NO: NO	10.
If the answer to item 10 is "YES", complete items 10.a and 10.b.		Amount	
a. Banker's bank deduction	K657	NR	10.a.
b. Banker's bank deduction limit	K658	NR	10.b.
11. Custodial bank certification: Does the reporting institution meet the definition of a custodial bank set forth in FDIC regulations?	K659	YES / NO: YES	11.
If the answer to item 11 is "YES", complete items 11.a and 11.b.[2]		Amount	
a. Custodial bank deduction	K660	717,114,000	11.a.
b. Custodial bank deduction limit	K661	101,632,000	11.b.

1 See instructions for averaging methods. For deposit insurance assessment purposes, tangible equity is defined as Tier 1 capital as set forth in the banking agencies' regulatory capital standards and reported in Schedule RC-R, Part I, item 26, except as described in the instructions.

2 If the amount reported in item 11.b is zero, item 11.a may be left blank.

Schedule RC-O—Continued

Memoranda

Dollar Amounts in Thousands			RCON	Amount	
1. Total deposit liabilities of the bank, including related interest accrued and unpaid, less allowable exclusions, including related interest accrued and unpaid (sum of Memorandum items 1.a.(1), 1.b.(1), 1.c.(1), and 1.d.(1) must equal Schedule RC-O, item 1 less item 2):					
a. Deposit accounts (excluding retirement accounts) of $250,000 or less:[1]					
(1) Amount of deposit accounts (excluding retirement accounts) of $250,000 or less			F049	172,868,000	M.1.a.1.
(2) Number of deposit accounts (excluding retirement accounts) of $250,000 or less	F050	Number 15,603,951			M.1.a.2.
b. Deposit accounts (excluding retirement accounts) of more than $250,000:[1]					
(1) Amount of deposit accounts (excluding retirement accounts) of more than $250,000			F051	588,885,000	M.1.b.1.
(2) Number of deposit accounts (excluding retirement accounts) of more than $250,000	F052	Number 204,491			M.1.b.2.
c. Retirement deposit accounts of $250,000 or less:[1]					
(1) Amount of retirement deposit accounts of $250,000 or less			F045	24,523,000	M.1.c.1.
(2) Number of retirement deposit accounts of $250,000 or less	F046	Number 2,314,187			M.1.c.2.
d. Retirement deposit accounts of more than $250,000:[1]					
(1) Amount of retirement deposit accounts of more than $250,000			F047	252,000	M.1.d.1.
(2) Number of retirement deposit accounts of more than $250,000	F048	Number 455			M.1.d.2.
Memorandum item 2 is to be completed by banks with $1 billion or more in total assets.[2]					
2. Estimated amount of uninsured deposits in domestic offices of the bank and in insured branches in Puerto Rico and U.S. territories and possessions, including related interest accrued and unpaid (see instructions) (3)			5597	574,953,000	M.2.

3. Has the reporting institution been consolidated with a parent bank or savings association in that parent bank's or parent savings association's Call Report?
If so, report the legal title and FDIC Certificate Number of the parent bank or parent savings association:

TEXT		RCON	FDIC Cert. No.	
A545	NR	A545	00000	M.3.

	RCFN		
4. Dually payable deposits in the reporting institution's foreign branches	GW43	0	M.4.

1 The dollar amounts used as the basis for reporting in Memorandum items 1.a through 1.d reflect the deposit insurance limits in effect on the report date.
2 The $1 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.
3 Uninsured deposits should be estimated based on the deposit insurance limits set forth in Memorandum items 1.a through 1.d.

Schedule RC-O—Continued

Amounts reported in Memorandum items 6 through 9, 14, and 15 will not be made available to the public on an individual institution basis.

Memoranda—Continued

Dollar Amounts in Thousands	RCFD	Amount	
Memorandum items 5 through 12 are to be completed by "large institutions" and "highly complex institutions" as defined in FDIC regulations.			
5. Applicable portion of the CECL transitional amount or modified CECL transitional amount that has been added to retained earnings for regulatory capital purposes as of the current report date and is attributable to loans and leases held for investment	MW53	2,120,000	M.5.
6. Criticized and classified items:			
a. Special mention	K663	CONF	M.6.a.
b. Substandard	K664	CONF	M.6.b.
c. Doubtful	K665	CONF	M.6.c.
d. Loss	K666	CONF	M.6.d.
7. "Nontraditional 1-4 family residential mortgage loans" as defined for assessment purposes only in FDIC regulations:			
a. Nontraditional 1-4 family residential mortgage loans	N025	CONF	M.7.a.
b. Securitizations of nontraditional 1-4 family residential mortgage loans	N026	CONF	M.7.b.
8. "Higher-risk consumer loans" as defined for assessment purposes only in FDIC regulations:			
a. Higher-risk consumer loans	N027	CONF	M.8.a.
b. Securitizations of higher-risk consumer loans	N028	CONF	M.8.b.
9. "Higher-risk commercial and industrial loans and securities" as defined for assessment purposes only in FDIC regulations:			
a. Higher-risk commercial and industrial loans and securities	N029	CONF	M.9.a.
b. Securitizations of higher-risk commercial and industrial loans and securities	N030	CONF	M.9.b.
10. Commitments to fund construction, land development, and other land loans secured by real estate for the consolidated bank:			
a. Total unfunded commitments	K676	5,471,000	M.10.a.
b. Portion of unfunded commitments guaranteed or insured by the U.S. government (including the FDIC)	K677	0	M.10.b.
11. Amount of other real estate owned recoverable from the U.S. government under guarantee or insurance provisions (excluding FDIC loss-sharing agreements)	K669	1,000	M.11.
12. Nonbrokered time deposits of more than $250,000 in domestic offices (included in Schedule RC-E, Part I, Memorandum item 2.d)	RCON K678	26,606,000	M.12.
Memorandum item 13.a is to be completed by "large institutions" and "highly complex institutions" as defined in FDIC regulations. Memorandum items 13.b through 13.h are to be completed by "large institutions" only.			
13. Portion of funded loans and securities in domestic and foreign offices guaranteed or insured by the U.S. government (including FDIC loss-sharing agreements):	RCFD		
a. Construction, land development, and other land loans secured by real estate	N177	0	M.13.a.
b. Loans secured by multifamily residential and nonfarm nonresidential properties	N178	NR	M.13.b.
c. Closed-end loans secured by first liens on 1-4 family residential properties	N179	NR	M.13.c.
d. Closed-end loans secured by junior liens on 1-4 family residential properties and revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	N180	NR	M.13.d.
e. Commercial and industrial loans	N181	NR	M.13.e.
f. Credit card loans to individuals for household, family, and other personal expenditures	N182	NR	M.13.f.
g. All other loans to individuals for household, family, and other personal expenditures	N183	NR	M.13.g.
h. Non-agency residential mortgage-backed securities	M963	NR	M.13.h.
Memorandum items 14 and 15 are to be completed by "highly complex institutions" as defined in FDIC regulations.			
14. Amount of the institution's largest counterparty exposure	K673	CONF	M.14.
15. Total amount of the institution's 20 largest counterparty exposures	K674	CONF	M.15.

Schedule RC-O—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCFD	Amount	
Memorandum item 16 is to be completed by "large institutions" and "highly complex institutions" as defined in FDIC regulations.			
16. Portion of loans restructured in troubled debt restructurings that are in compliance with their modified terms and are guaranteed or insured by the U.S. government (including the FDIC) (included in Schedule RC-C, Part I, Memorandum item 1)	L189	341,000	M.16.
Memorandum item 17 is to be completed on a fully consolidated basis by those "large institutions" and "highly complex institutions" as defined in FDIC regulations that own another insured depository institution.			
17. Selected fully consolidated data for deposit insurance assessment purposes:			
a. Total deposit liabilities before exclusions (gross) as defined in Section 3(l) of the Federal Deposit Insurance Act and FDIC regulations	L194	NR	M.17.a
b. Total allowable exclusions, including interest accrued and unpaid on allowable exclusions (including foreign deposits)	L195	NR	M.17.b
c. Unsecured "Other borrowings" with a remaining maturity of one year or less	L196	NR	M.17.c
d. Estimated amount of uninsured deposits in domestic offices of the institution and in insured branches in Puerto Rico and U.S. territories and possessions, including related interest accrued and unpaid	RCON L197	NR	M.17.d

Schedule RC-O—Continued

Memorandum item 18 is to be completed by “large institutions” and “highly complex institutions” as defined in FDIC regulations.
Amounts reported in Memorandum item 18 will not be made available to the public on an individual institution basis.

	Two-Year Probability of Default (PD)								
	(Column A)	(Column B)	(Column C)	(Column D)	(Column E)	(Column F)	(Column G)	(Column H)	
	<= 1%	1.01–4%	4.01–7%	7.01–10%	10.01–14%	14.01–16%	16.01–18%	18.01–20%	
Dollar Amounts in Thousands	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
18. Outstanding balance of 1-4 family residential mortgage loans, consumer loans, and consumer leases by two-year probability of default:									
a. "Nontraditional 1-4 family residential mortgage loans" as defined for assessment purposes only in FDIC regulations	RCFD M964	RCFD M965	RCFD M966	RCFD M967	RCFD M968	RCFD M969	RCFD M970	RCFD M971	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.a
b. Closed-end loans secured by first liens on 1-4 family residential properties	RCFD M979	RCFD M980	RCFD M981	RCFD M982	RCFD M983	RCFD M984	RCFD M985	RCFD M986	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.b
c. Closed-end loans secured by junior liens on 1-4 family residential properties	RCFD M994	RCFD M995	RCFD M996	RCFD M997	RCFD M998	RCFD M999	RCFD N001	RCFD N002	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.c
d. Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	RCFD N010	RCFD N011	RCFD N012	RCFD N013	RCFD N014	RCFD N015	RCFD N016	RCFD N017	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.d
e. Credit cards	RCFD N040	RCFD N041	RCFD N042	RCFD N043	RCFD N044	RCFD N045	RCFD N046	RCFD N047	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.e
f. Automobile loans	RCFD N055	RCFD N056	RCFD N057	RCFD N058	RCFD N059	RCFD N060	RCFD N061	RCFD N062	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.f
g. Student loans	RCFD N070	RCFD N071	RCFD N072	RCFD N073	RCFD N074	RCFD N075	RCFD N076	RCFD N077	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.g
h. Other consumer loans and revolving credit plans other than credit cards	RCFD N085	RCFD N086	RCFD N087	RCFD N088	RCFD N089	RCFD N090	RCFD N091	RCFD N092	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.h
i. Consumer leases	RCFD N100	RCFD N101	RCFD N102	RCFD N103	RCFD N104	RCFD N105	RCFD N106	RCFD N107	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.i
j. Total	RCFD N115	RCFD N116	RCFD N117	RCFD N118	RCFD N119	RCFD N120	RCFD N121	RCFD N122	
	CONF	CONF	CONF	CONF	CONF	CONF	CONF	CONF	M.18.j

Schedule RC-O—Continued

Memorandum item 18 is to be completed by "large institutions" and "highly complex institutions" as defined in FDIC regulations.
Amounts reported in Memorandum item 18 will not be made available to the public on an individual institution basis.

	Two-Year Probability of Default (PD)						(Column O) PDs Were Derived Using[1]	
	(Column I) 20.01–22%	(Column J) 22.01–26%	(Column K) 26.01–30%	(Column L) > 30%	(Column M) Unscoreable	(Column N) Total		
Dollar Amounts in Thousands	Amount	Amount	Amount	Amount	Amount	Amount	Number	
18. Outstanding balance of 1-4 family residential mortgage loans, consumer loans, and consumer leases by two-year probability of default:								
a. "Nontraditional 1-4 family residential mortgage loans" as defined for assessment purposes only in FDIC regulations	RCFD M972 CONF	RCFD M973 CONF	RCFD M974 CONF	RCFD M975 CONF	RCFD M976 CONF	RCFD M977 CONF	RCFD M978 CONF	M.18.a
b. Closed-end loans secured by first liens on 1-4 family residential properties	RCFD M987 CONF	RCFD M988 CONF	RCFD M989 CONF	RCFD M990 CONF	RCFD M991 CONF	RCFD M992 CONF	RCFD M993 CONF	M.18.b
c. Closed-end loans secured by junior liens on 1-4 family residential properties	RCFD N003 CONF	RCFD N004 CONF	RCFD N005 CONF	RCFD N006 CONF	RCFD N007 CONF	RCFD N008 CONF	RCFD N009 CONF	M.18.c
d. Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit	RCFD N018 CONF	RCFD N019 CONF	RCFD N020 CONF	RCFD N021 CONF	RCFD N022 CONF	RCFD N023 CONF	RCFD N024 CONF	M.18.d
e. Credit cards	RCFD N048 CONF	RCFD N049 CONF	RCFD N050 CONF	RCFD N051 CONF	RCFD N052 CONF	RCFD N053 CONF	RCFD N054 CONF	M.18.e
f. Automobile loans	RCFD N063 CONF	RCFD N064 CONF	RCFD N065 CONF	RCFD N066 CONF	RCFD N067 CONF	RCFD N068 CONF	RCFD N069 CONF	M.18.f
g. Student loans	RCFD N078 CONF	RCFD N079 CONF	RCFD N080 CONF	RCFD N081 CONF	RCFD N082 CONF	RCFD N083 CONF	RCFD N084 CONF	M.18.g
h. Other consumer loans and revolving credit plans other than credit cards	RCFD N093 CONF	RCFD N094 CONF	RCFD N095 CONF	RCFD N096 CONF	RCFD N097 CONF	RCFD N098 CONF	RCFD N099 CONF	M.18.h
i. Consumer leases	RCFD N108 CONF	RCFD N109 CONF	RCFD N110 CONF	RCFD N111 CONF	RCFD N112 CONF	RCFD N113 CONF	RCFD N114 CONF	M.18.i
j. Total	RCFD N123 CONF	RCFD N124 CONF	RCFD N125 CONF	RCFD N126 CONF	RCFD N127 CONF	RCFD N128 CONF		M.18.j

1 For PDs derived using scores and default rate mappings provided by a third-party vendor, enter 1; for PDs derived using an internal approach, enter 2; for PDs derived using third-party vendor mappings for some loans within a product type and an internal approach for other loans within the same product type, enter 3. If the total reported in Column N for a product type is zero, enter 0.

Schedule RC-P—1-4 Family Residential Mortgage Banking Activities in Domestic Offices

Schedule RC-P is to be completed by banks with at which either 1-4 family residential mortgage loan originations and purchases for resale[1] from all sources, loan sales, or quarter-end loans held for sale or trading in domestic offices exceed $10 million for two consecutive quarters.

Dollar Amounts in Thousands	RCON	Amount	
1. Retail originations during the quarter of 1-4 family residential mortgage loans for sale (1)	HT81	325,000	1.
2. Wholesale originations and purchases during the quarter of 1-4 family residential mortgage loans for sale (1)	HT82	1,686,000	2.
3. 1-4 family residential mortgages sold during the quarter	FT04	1,602,000	3.
4. 1-4 family residential mortgage loans held for sale or trading at quarter-end (included in Schedule RC, items 4.a and 5)	FT05	1,894,000	4.
5. Noninterest income for the quarter from the sale, securitization, and servicing of 1–4 family residential mortgage loans (included in Schedule RI, items 5.c, 5.f, 5.g, and 5.i)	RIAD HT85	(75,000)	5.
6. Repurchases and indemnifications of 1-4 family residential mortgage loans during the quarter	RCON HT86	8,000	6.
7. Representation and warranty reserves for 1-4 family residential mortgage loans sold:			
a. For representations and warranties made to U.S. government agencies and government-sponsored agencies	L191	CONF	7.a.
b. For representations and warranties made to other parties	L192	CONF	7.b.
c. Total representation and warranty reserves (sum of items 7.a and 7.b)	M288	15,000	7.c.

1 Exclude originations and purchases of 1–4 family residential mortgage loans that are held for investment.

Schedule RC-Q—Assets and Liabilities Measured at Fair Value on a Recurring Basis

Schedule RC-Q is to be completed by banks that:
(1) Have elected to report financial instruments or servicing assets and liabilities at fair value under a fair value option with changes in fair value recognized in earnings, or
(2) Are required to complete Schedule RC-D, Trading Assets and Liabilities.

Dollar Amounts in Thousands	RCFD	(Column A) Total Fair Value Reported on Schedule RC Amount	RCFD	(Column B) LESS: Amounts Netted in the Determination of Total Fair Value Amount	RCFD	(Column C) Level 1 Fair Value Measurements Amount	RCFD	(Column D) Level 2 Fair Value Measurements Amount	RCFD	(Column E) Level 3 Fair Value Measurements Amount	
Assets											
1. Available-for-sale debt securities and equity securities with readily determinable fair values not held for trading (1)	JA36	207,619,000	G474	0	G475	128,476,000	G476	77,655,000	G477	1,488,000	1.
2. Federal funds sold and securities purchased under agreements to resell	G478	7,346,000	G479	5,314,000	G480	0	G481	12,660,000	G482	0	2.
3. Loans and leases held for sale	G483	1,481,000	G484	0	G485	0	G486	1,443,000	G487	38,000	3.
4. Loans and leases held for investment	G488	2,770,000	G489	0	G490	0	G491	2,314,000	G492	456,000	4.
5. Trading assets:											
a. Derivative assets	3543	59,626,000	G493	568,434,000	G494	296,000	G495	609,366,000	G496	18,398,000	5.a.
b. Other trading assets	G497	76,870,000	G498	1,980,000	G499	47,413,000	G500	30,740,000	G501	697,000	5.b.
(1) Nontrading securities at fair value with changes in fair value reported in current earnings (included in Schedule RC-Q, item 5.b, above)	F240	0	F684	0	F692	0	F241	0	F242	0	5.b.1.
6. All other assets	G391	10,599,000	G392	(15,000)	G395	0	G396	9,899,000	G804	685,000	6.
7. Total assets measured at fair value on a recurring basis (sum of items 1 through 5.b plus item 6)	G502	366,311,000	G503	575,713,000	G504	176,185,000	G505	744,077,000	G506	21,762,000	7.

1 The amount reported in item 1, column A, must equal the sum of Schedule RC, items 2.b and 2.c.

Schedule RC-Q—Continued

Dollar Amounts in Thousands	RCFD	(Column A) Total Fair Value Reported on Schedule RC Amount	RCFD	(Column B) LESS: Amounts Netted in the Determination of Total Fair Value Amount	RCFD	(Column C) Level 1 Fair Value Measurements Amount	RCFD	(Column D) Level 2 Fair Value Measurements Amount	RCFD	(Column E) Level 3 Fair Value Measurements Amount	
Liabilities											
8. Deposits	F252	2,440,000	F686	0	F694	0	F253	2,424,000	F254	16,000	8.
9. Federal funds purchased and securities sold under agreements to repurchase	G507	3,749,000	G508	5,314,000	G509	0	G510	9,063,000	G511	0	9.
10. Trading liabilities:											
a. Derivative liabilities	3547	45,087,000	G512	552,903,000	G513	314,000	G514	589,227,000	G515	8,449,000	10.a.
b. Other trading liabilities	G516	25,744,000	G517	1,980,000	G518	21,920,000	G519	5,800,000	G520	4,000	10.b.
11. Other borrowed money	G521	2,345,000	G522	0	G523	0	G524	1,120,000	G525	1,225,000	11.
12. Subordinated notes and debentures	G526	0	G527	0	G528	0	G529	0	G530	0	12.
13. All other liabilities	G805	4,871,000	G806	0	G807	0	G808	4,852,000	G809	19,000	13.
14. Total liabilities measured at fair value on a recurring basis (sum of items 8 through 13)	G531	84,236,000	G532	560,197,000	G533	22,234,000	G534	612,486,000	G535	9,713,000	14.
Memoranda											
1. All other assets (itemize and describe amounts included in Schedule RC-Q, item 6, that are greater than $100,000 and exceed 25% of item 6):											
a. Mortgage servicing assets	G536	NR	G537	NR	G538	NR	G539	NR	G540	NR	M.1.a.
b. Nontrading derivative assets	G541	6,158,000	G542	NR	G543	NR	G544	6,132,000	G545	26,000	M.1.b.
c. TEXT G546 Negotiable CDs	G546	3,757,000	G547	NR	G548	NR	G549	3,757,000	G550	NR	M.1.c.
d. TEXT G551 NR	G551	NR	G552	NR	G553	NR	G554	NR	G555	NR	M.1.d.
e. TEXT G556 NR	G556	NR	G557	NR	G558	NR	G559	NR	G560	NR	M.1.e.
f. TEXT G561 NR	G561	NR	G562	NR	G563	NR	G564	NR	G565	NR	M.1.f.
2. All other liabilities (itemize and describe amounts included in Schedule RC-Q, item 13, that are greater than $100,000 and exceed 25% of item 13):											
a. Loan commitments (not accounted for as derivatives)	F261	NR	F689	NR	F697	NR	F262	NR	F263	NR	M.2.a.
b. Nontrading derivative liabilities	G566	4,869,000	G567	NR	G568	NR	G569	4,850,000	G570	19,000	M.2.b.
c. TEXT G571 NR	G571	NR	G572	NR	G573	NR	G574	NR	G575	NR	M.2.c.
d. TEXT G576 NR	G576	NR	G577	NR	G578	NR	G579	NR	G580	NR	M.2.d.
e. TEXT G581 NR	G581	NR	G582	NR	G583	NR	G584	NR	G585	NR	M.2.e.
f. TEXT G586 NR	G586	NR	G587	NR	G588	NR	G589	NR	G590	NR	M.2.f.

Schedule RC-Q—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCFD	Consolidated Bank Amount	
3. Loans measured at fair value (included in Schedule RC-C, Part I, items 1 through 9):			
a. Loans secured by real estate:			
(1) Secured by 1-4 family residential properties	HT87	1,698,000	M.3.a.1.
(2) All other loans secured by real estate	HT88	0	M.3.a.2.
b. Commercial and industrial loans	F585	671,000	M.3.b.
c. Loans to individuals for household, family, and other personal expenditures (i.e., consumer loans) (includes purchased paper)	HT89	0	M.3.c.
d. Other loans	F589	1,882,000	M.3.d.
4. Unpaid principal balance of loans measured at fair value (reported in Schedule RC-Q, Memorandum item 3):			
a. Loans secured by real estate:			
(1) Secured by 1-4 family residential properties	HT91	1,826,000	M.4.a.1.
(2) All other loans secured by real estate	HT92	0	M.4.a.2.
b. Commercial and industrial loans	F597	671,000	M.4.b.
c. Loans to individuals for household, family, and other personal expenditures (i.e., consumer loans) (includes purchased paper)	HT93	0	M.4.c.
d. Other loans	F601	1,951,000	M.4.d.

Schedule RC-R—Regulatory Capital

Part I. Regulatory Capital Components and Ratios

Part I is to be completed on a consolidated basis.

Dollar Amounts in Thousands	RCFA	Amount	
Common Equity Tier 1 Capital			
1. Common stock plus related surplus, net of treasury stock and unearned employee stock ownership plan (ESOP) shares	P742	147,996,000	1.
2. Retained earnings (1)	KW00	46,455,000	2.
a. To be completed only by institutions that have adopted ASU 2016-13: Does your institution have a CECL transition election in effect as of the quarter-end report date? (enter "0" for No; enter "1" for Yes with a 3-year CECL transition election; enter "2" for Yes with a 5-year 2020 CECL transition election.)	RCOA JJ29	Number 2	2.a.
	RCFA	Amount	
3. Accumulated other comprehensive income (AOCI)	B530	(31,999,000)	3.
a. AOCI opt-out election (enter “1” for Yes; enter “0” for No.) (Advanced approaches institutions must enter "0" for No.)	0=No 1=Yes RCOA P838	0	3.a.
	RCFA	Amount	
4. Common equity tier 1 minority interest includable in common equity tier 1 capital	P839	113,000	4.
5. Common equity tier 1 capital before adjustments and deductions (sum of items 1 through 4)	P840	162,565,000	5.
Common Equity Tier 1 Capital: Adjustments and Deductions			
6. LESS: Goodwill net of associated deferred tax liabilities (DTLs)	P841	9,731,000	6.
7. LESS: Intangible assets (other than goodwill and mortgage servicing assets (MSAs)), net of associated DTLs	P842	3,284,000	7.
8. LESS: Deferred tax assets (DTAs) that arise from net operating loss and tax credit carryforwards, net of any related valuation allowances and net of DTLs	P843	3,034,000	8.
9. AOCI-related adjustments (if entered "1" for Yes in item 3.a, complete only items 9.a through 9.e; if entered "0" for No in item 3.a, complete only item 9.f):			
a. LESS: Net unrealized gains (losses) on available-for-sale debt securities (if a gain, report as a positive value; if a loss, report as a negative value)	P844	NR	9.a.
b. Not applicable			
c. LESS: Accumulated net gains (losses) on cash flow hedges (if a gain, report as a positive value; if a loss, report as a negative value)	P846	NR	9.c.
d. LESS: Amounts recorded in AOCI attributed to defined benefit postretirement plans resulting from the initial and subsequent application of the relevant GAAP standards that pertain to such plans (if a gain, report as a positive value; if a loss, report as a negative value)	P847	NR	9.d.
e. LESS: Net unrealized gains (losses) on held-to-maturity securities that are included in AOCI (if a gain, report as a positive value; if a loss, report as a negative value)	P848	NR	9.e.
f. To be completed only by institutions that entered “0” for No in item 3.a: LESS: Accumulated net gain (loss) on cash flow hedges included in AOCI, net of applicable income taxes, that relates to the hedging of items that are not recognized at fair value on the balance sheet (if a gain, report as a positive value; if a loss, report as a negative value)	P849	(2,753,000)	9.f.

1 Institutions that have adopted ASU 2016-13 and have elected to apply the 3-year or the 5-year 2020 CECL transition provision should include the applicable portion of the CECL transitional amount or the modified CECL transitional amount, respectively, in this item.

Schedule RC-R—Continued

Part I - Continued

Dollar Amounts in Thousands	RCFA	Amount	
10. Other deductions from (additions to) common equity tier 1 capital before threshold-based deductions:			
a. LESS: Unrealized net gain (loss) related to changes in the fair value of liabilities that are due to changes in own credit risk (if a gain, report as a positive value; if a loss, report as a negative value)	Q258	440,000	10.a.
b. LESS: All other deductions from (additions to) common equity tier 1 capital before threshold-based deductions	P850	891,000	10.b.

Dollar Amounts in Thousands	(Column A) Non-advanced Approaches Institutions[1]		(Column B) Advanced Approaches Institutions[1]		
	RCFA	Amount	RCFW	Amount	
11. LESS: Non-significant investments in the capital of unconsolidated financial institutions in the form of common stock that exceed the 10 percent threshold for non-significant investments			P851	0	11.
12. Subtotal (for column A, item 5 minus items 6 through 10.b; for column B, item 5 minus items 6 through 11)	P852	NR	P852	147,938,000	12.
13.a. LESS: Investments in the capital of unconsolidated financial institutions, net of associated DTLs, that exceed 25 percent of item 12	LB58	NR			13.a.
b. LESS: Significant investments in the capital of unconsolidated financial institutions in the form of common stock, net of associated DTLs, that exceed the 10 percent common equity tier 1 capital deduction threshold			P853	0	13.b.
14.a. LESS: MSAs, net of associated DTLs, that exceed 25 percent of item 12	LB59	NR			14.a.
b. LESS: MSAs, net of associated DTLs, that exceed the 10 percent common equity tier 1 capital deduction threshold			P854	0	14.b.
15.a. LESS: DTAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of related valuation allowances and net of DTLs, that exceed 25 percent of item 12	LB60	NR			15.a.
b. LESS: DTAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of related valuation allowances and net of DTLs, that exceed the 10 percent common equity tier 1 capital deduction threshold			P855	0	15.b.
16. LESS: Amount of significant investments in the capital of unconsolidated financial institutions in the form of common stock, net of associated DTLs; MSAs, net of associated DTLs; and DTAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of related valuation allowances and net of DTLs; that exceeds the 15 percent common equity tier 1 capital deduction threshold			P856	0	16.
17. LESS: Deductions applied to common equity tier 1 capital due to insufficient amounts of additional tier 1 capital and tier 2 capital (2) to cover deductions	P857	NR	P857	0	17.
18. Total adjustments and deductions for common equity tier 1 capital (3) (sum of items 13 through 17)	P858	NR	P858	0	18.
19. Common equity tier 1 capital (item 12 minus item 18)	P859	NR	P859	147,938,000	19.

1 All non-advanced approaches institutions should complete column A for items 11-19; all advanced approaches institutions should complete column B for items 11-19.
2 An institution that has a CBLR framework election in effect as of the quarter-end report date is neither required to calculate tier 2 capital nor make any deductions that would have been taken from tier 2 capital as of the report date.
3 All non-advanced approaches institutions should report in item 18, column A, the sum of items 13.a, 14.a, 15.a, and 17, column A; all advanced approaches institutions should report in item 18, column B, the sum of items 13.b, 14.b, 15.b, 16, and 17, column B.

Schedule RC-R—Continued

Part I - Continued

Dollar Amounts in Thousands	RCFA	Amount	
Additional Tier 1 Capital			
20. Additional tier 1 capital instruments plus related surplus	P860	2,100,000	20.
21. Non-qualifying capital instruments subject to phase-out from additional tier 1 capital	P861	0	21.
22. Tier 1 minority interest not included in common equity tier 1 capital	P862	24,000	22.
23. Additional tier 1 capital before deductions (sum of items 20, 21, and 22)	P863	2,124,000	23.
24. LESS: Additional tier 1 capital deductions	P864	0	24.
25. Additional tier 1 capital (greater of item 23 minus item 24, or zero)	P865	2,124,000	25.
Tier 1 Capital			
26. Tier 1 capital (1) (sum of items 19 and 25)	8274	150,062,000	26.
Total Assets for the Leverage Ratio			
27. Average total consolidated assets (2)	KW03	1,716,468,000	27.
28. LESS: Deductions from common equity tier 1 capital and additional tier 1 capital (3)	P875	16,940,000	28.
29. LESS: Other deductions from (additions to) assets for leverage ratio purposes	B596	5,147,000	29.
30. Total assets for the leverage ratio (item 27 minus items 28 and 29)	A224	1,694,381,000	30.

Leverage Ratio*	RCFA	Percentage	
31. Leverage ratio (item 26 divided by item 30)	7204	8.8564%	31.

	0=No 1=Yes	RCOA		
a. Does your institution have a community bank leverage ratio (CBLR) framework election in effect as of the quarter-end report date? (enter “1” for Yes; enter “0” for No)		LE74	0	31.a.

If your institution entered “1” for Yes in item 31.a:
- Complete items 32 through 37 and, if applicable, items 38.a through 38.c,
- Do not complete items 39 through 55.b, and
- Do not complete Part II of Schedule RC-R.

If your institution entered “0” for No in item 31.a:
- Skip (do not complete) items 32 through 38.c,
- Complete items 39 through 55.b, as applicable, and
- Complete Part II of Schedule RC-R.

Item 31.b is to be completed only by non-advanced approaches institutions that elect to use the Standardized Approach for Counterparty Credit Risk (SA-CCR) for purposes of the standardized approach and supplementary leverage ratio.

		RCOA		
b. Standardized Approach for Counterparty Credit Risk opt-in election (enter "1" for Yes; leave blank for No)	1=Yes	NC99	NR	31.b.

* Report each ratio as a percentage, rounded to four decimal places, e.g., 12.3456.
1 All non-advanced approaches institutions should report the sum of item 19, column A, and item 25 in item 26; all advanced approaches institutions should report the sum of item 19, column B, and item 25 in item 26.
2 Institutions that have adopted ASU 2016-13 and have elected to apply the 3-year or 5-year 2020 CECL transition provision should include the applicable portion of the CECL transitional amount or the modified CECL transitional amount, respectively, in item 27.
3 All non-advanced approaches institutions should report in item 28 the sum of items 6, 7, 8, 10.b, 13.a, 14.a, 15.a, 17 (column A), and certain elements of item 24 - see instructions; all advanced approaches institutions should report in item 28, the sum of items 6, 7, 8, 10.b, 11, 13.b, 14.b, 15.b, 16, 17 (column B), and certain elements of item 24 - see instructions.

Schedule RC-R—Continued

Part I - Continued

Qualifying Criteria and Other Information for CBLR Institutions*

Dollar Amounts in Thousands	RCFA	(Column A) Amount	RCFA	(Column B) Percentage	
32. Total assets (Schedule RC, item 12); (must be less than $10 billion)	2170	NR			32.
33. Trading assets and trading liabilities (Schedule RC, sum of items 5 and 15). Report as a dollar amount in column A and as a percentage of total assets (5% limit) in column B	KX77	NR	KX78	NR	33.
34. Off-balance sheet exposures:					
a. Unused portion of conditionally cancellable commitments	KX79	NR			34.a.
b. Securities lent and borrowed (Schedule RC-L, sum of items 6.a and 6.b)	KX80	NR			34.b.
c. Other off-balance sheet exposures	KX81	NR			34.c.
d. Total off-balance sheet exposures (sum of items 34.a through 34.c) Report as a dollar amount in column A and as a percentage of total assets (25% limit) in column B	KX82	NR	KX83	NR	34.d.

Dollar Amounts in Thousands	RCFA	Amount	
35. Unconditionally cancellable commitments	S540	NR	35.
36. Investments in the tier 2 capital of unconsolidated financial institutions	LB61	NR	36.
37. Allocated transfer risk reserve	3128	NR	37.
38. Amount of allowances for credit losses on purchased credit-deteriorated assets:[1]			
a. Loans and leases held for investment	JJ30	NR	38.a.
b. Held-to-maturity debt securities	JJ31	NR	38.b.
c. Other financial assets measured at amortized cost	JJ32	NR	38.c.

If your institution entered "0" for No in item 31.a, complete items 39 through 55.b, as applicable, and Part II of Schedule RC-R. If your institution entered "1" for Yes in item 31.a, do not complete items 39 through 55.b or Part II of Schedule RC-R.

Dollar Amounts in Thousands	RCFA	Amount	
Tier 2 Capital[2]			
39. Tier 2 capital instruments plus related surplus	P866	10,500,000	39.
40. Non-qualifying capital instruments subject to phase-out from tier 2 capital	P867	NR	40.
41. Total capital minority interest that is not included in tier 1 capital	P868	32,000	41.
42. a. Allowance for loan and lease losses includable in tier 2 capital (3,4)	5310	12,322,000	42.a.
b. (Advanced approaches institutions that exit parallel run only): Eligible credit reserves	RCFW		
includable in tier 2 capital	5310	4,577,000	42.b.
43. Not applicable	RCFA		
44. a. Tier 2 capital before deductions (sum of items 39 through 42.a)	P870	22,854,000	44.a.
b. (Advanced approaches institutions that exit parallel run only): Tier 2 capital before deductions	RCFW		
(sum of items 39 through 41, plus item 42.b)	P870	15,109,000	44.b.

* Report each ratio as a percentage, rounded to four decimal places, e.g., 12.3456.
1 Items 38.a through 38.c should be completed only by institutions that have adopted ASU 2016-13.
2 An institution that has a CBLR election in effect as of the quarter-end report date is neither required to calculate tier 2 capital nor make any deductions that would have been taken from tier 2 capital as of the report date.
3 Institutions that have adopted ASU 2016-13 should report the amount of adjusted allowances for credit losses (AACL), as defined in the regulatory capital rule, includable in tier 2 capital in item 42.a.
4 Institutions that have adopted ASU 2016-13 and have elected to apply the 3-year or the 5-year 2020 CECL transition provision should subtract the applicable portion of the AACL transitional amount or the modified AACL transitional amount, respectively, from the AACL, as defined in the regulatory capital rule, before determining the amount of AACL includable in tier 2 capital. See instructions for further detail on the CECL transition provision.

Schedule RC-R—Continued

Part I - Continued

Dollar Amounts in Thousands	RCFA	Amount	
45. LESS: Tier 2 capital deductions	P872	NR	45.
46. a. Tier 2 capital (greater of item 44.a minus item 45, or zero)	5311	22,854,000	46.a.
b. (Advanced approaches institutions that exit parallel run only): Tier 2 capital (greater of item 44.b minus item 45, or zero)	RCFW 5311	15,109,000	46.b.
Total Capital			
47. a. Total capital (sum of items 26 and 46.a)	3792	172,916,000	47.a.
b. (Advanced approaches institutions that exit parallel run only): Total capital (sum of items 26 and 46.b)	RCFW 3792	165,171,000	47.b.
Total Risk-Weighted Assets	RCFA		
48. a. Total risk-weighted assets (from Schedule RC-R, Part II, item 31)	A223	1,024,923,000	48.a.
b. (Advanced approaches institutions that exit parallel run only): Total risk-weighted assets using advanced approaches rule (from FFIEC 101 Schedule A, item 60)	RCFW A223	1,046,884,429	48.b.

Risk-Based Capital Ratios*

	Column A		Column B		
	RCFA	Percentage	RCFW	Percentage	
49. Common equity tier 1 capital ratio (Column A: item 19, column A or B, as applicable, divided by item 48.a) (Advanced approaches institutions that exit parallel run only: Column B: item 19, column B, divided by item 48.b)	P793	14.4341%	P793	14.1313%	49.
50. Tier 1 capital ratio (Column A: item 26 divided by item 48.a) (Advanced approaches institutions that exit parallel run only: Column B: item 26 divided by item 48.b)	7206	14.6413%	7206	14.3342%	50.
51. Total capital ratio (Column A: item 47.a divided by item 48.a) (Advanced approaches institutions that exit parallel run only: Column B: item 47.b divided by item 48.b)	7205	16.8711%	7205	15.7774%	51.

Capital Buffer*	RCFA	Percentage	
52. Institution-specific capital buffer necessary to avoid limitations on distributions and discretionary bonus payments:			
a. Capital conservation buffer	H311	7.7774%	52.a.
b. (Advanced approaches institutions and institutions subject to Category III capital standards only): Total applicable capital buffer	RCFW H312	2.5000%	52.b.

Dollar Amounts in Thousands	RCFA	Amount	
53. Eligible retained income (1)	H313	NR	53.
54. Distributions and discretionary bonus payments during the quarter (2)	H314	NR	54.
Supplementary Leverage Ratio*			
55. Advanced approaches institutions and institutions subject to Category III capital standards only: Supplementary leverage ratio information:			
a. Total leverage exposure (3)	H015	2,147,923,000	55.a.
		Percentage	
b. Supplementary leverage ratio	H036	6.9864%	55.b.

* Report each ratio and buffer as a percentage, rounded to four decimal places, e.g., 12.3456.

1 Non-advanced approaches institutions other than Category III institutions must complete item 53 only if the amount reported in item 52.a above is less than or equal to 2.5000 percent. Advanced approaches institutions and Category III institutions must complete item 53 only if the amount reported in item 52.a above is less than or equal to the amount reported in item 52.b above.

2 Non-advanced approaches institutions other than Category III institutions must complete item 54 only if the amount reported in Schedule RC-R, Part I, item 52.a, in the Call Report for the previous calendar quarter-end report date was less than or equal to 2.5000 percent. Advanced approaches institutions and Category III institutions must complete item 54 only if the amount reported in Schedule RC-R, Part I, item 52.a, in the Call Report for the previous calendar quarter-end report date was less than or equal to the amount reported in Schedule RC-R, Part I, item 52.b, in the Call Report for that previous report date.

3 Institutions that have adopted ASU 2016-13 and have elected to apply the 3-year or the 5-year 2020 CECL transition provision should include the applicable portion of the CECL transitional amount or the modified CECL transitional amount, respectively, in item 55.a.

Schedule RC-R—Continued

Part II. Risk-Weighted Assets

Institutions that entered "1" for Yes in Schedule RC-R, Part I, item 31.a, do not have to complete Schedule RC-R, Part II.
Institutions are required to assign a 100 percent risk weight to all assets not specifically assigned a risk weight under Subpart D of the federal banking agencies' regulatory capital rules[1] and not deducted from tier 1 or tier 2 capital.

Dollar Amounts in Thousands	(Column A) Totals From Schedule RC	(Column B) Adjustments to Totals Reported in Column A	(Column C) Allocation by Risk-Weight Category 0%	(Column D) 2%	(Column E) 4%	(Column F) 10%	(Column G) 20%	(Column H) 50%	(Column I) 100%	(Column J) 150%	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
Balance Sheet Asset Categories[2]											
1. Cash and balances due from depository institutions	RCFD D957 288,198,000	RCFD S396 (30,000)	RCFD D958 263,811,000				RCFD D959 9,048,000	RCFD S397 2,880,000	RCFD D960 5,869,000	RCFD S398 6,620,000	1.
2. Securities:											
a. Held-to-maturity securities (3)	RCFD D961 229,700,000	RCFD S399 (106,000)	RCFD D962 142,002,000	RCFD HJ74 0	RCFD HJ75 0		RCFD D963 83,597,000	RCFD D964 3,817,000	RCFD D965 390,000	RCFD S400 0	2.a.
b. Available-for-sale debt securities and equity securities with readily determinable fair values not held for trading	RCFD JA21 206,894,000	RCFD S402 0	RCFD D967 189,770,000	RCFD HJ76 0	RCFD HJ77 0		RCFD D968 10,863,000	RCFD D969 1,582,000	RCFD D970 2,751,000	RCFD S403 1,928,000	2.b.
3. Federal funds sold and securities purchased under agreements to resell:											
a. Federal funds sold	RCON D971 0		RCON D972 0				RCON D973 0	RCON S410 0	RCON D974 0	RCON S411 0	3.a.
b. Securities purchased under agreements to resell	RCFD H171 79,457,000	RCFD H172 79,457,000									3.b.
4. Loans and leases held for sale:											
a. Residential mortgage exposures	RCFD S413 9,411,000	RCFD S414 0	RCFD H173 0				RCFD S415 60,000	RCFD S416 4,819,000	RCFD S417 4,532,000		4.a.
b. High volatility commercial real estate exposures	RCFD S419 0	RCFD S420 0	RCFD H174 0				RCFD H175 0	RCFD H176 0	RCFD H177 0	RCFD S421 0	4.b.

1 For national banks and federal savings associations, 12 CFR Part 3; for state member banks, 12 CFR Part 217; and for state nonmember banks and state savings associations, 12 CFR Part 324.
2 All securitization exposures held as on-balance sheet assets of the reporting institution are to be excluded from items 1 through 8 and are to be reported instead in item 9.
3 Institutions that have adopted ASU 2016-13 and have reported held-to-maturity securities net of allowances for credit losses in item 2.a, column A, should report as a negative number in item 2.a., column B, those allowances for credit losses eligible for inclusion in tier 2 capital, which excludes allowances for credit losses on purchased credit-deteriorated assets.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column K)	(Column L)	(Column M)	(Column N)	(Column O)	(Column P)	(Column Q)	(Column R)	(Column S)	
	Allocation by Risk-Weight Category							Application of Other Risk-Weighting Approaches[1]		
	250%	300%	400%	600%	625%	937.5%	1250%	Exposure Amount	Risk-Weighted Asset Amount	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
Balance Sheet Asset Categories (continued)										
1. Cash and balances due from depository institutions										1.
2. Securities:										
a. Held-to-maturity securities										2.a.
b. Available-for-sale debt securities and equity securities with readily determinable fair values not held for trading	RCFD H270 0	RCFD S405 0		RCFD S406 0				RCFD H271 0	RCFD H272 0	2.b.
3. Federal funds sold and securities purchased under agreements to resell:										
a. Federal funds sold										3.a.
b. Securities purchased under agreements to resell										3.b.
4. Loans and leases held for sale:										
a. Residential mortgage exposures								RCFD H273 0	RCFD H274 0	4.a.
b. High volatility commercial real estate exposures								RCFD H275 0	RCFD H276 0	4.b.

1 Includes, for example, investments in mutual funds/investment funds, exposures collateralized by securitization exposures or mutual funds, separate account bank-owned life insurance, and default fund contributions to central counterparties.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column A) Totals From Schedule RC	(Column B) Adjustments to Totals Reported in Column A	(Column C) Allocation by Risk-Weight Category 0%	(Column D) 2%	(Column E) 4%	(Column F) 10%	(Column G) 20%	(Column H) 50%	(Column I) 100%	(Column J) 150%	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
4. Loans and leases held for sale (continued):											
c. Exposures past due 90 days or more or on nonaccrual (1)	RCFD S423	RCFD S424	RCFD S425	RCFD HJ78	RCFD HJ79		RCFD S426	RCFD S427	RCFD S428	RCFD S429	
	296,000	0	0	0	0		0	0	0	296,000	4.c.
d. All other exposures	RCFD S431	RCFD S432	RCFD S433	RCFD HJ80	RCFD HJ81		RCFD S434	RCFD S435	RCFD S436	RCFD S437	
	13,071,000	292,000	0	0	0		3,000	17,000	12,181,000	578,000	4.d.
5. Loans and leases held for investment (2):											
a. Residential mortgage exposures	RCFD S439	RCFD S440	RCFD H178				RCFD S441	RCFD S442	RCFD S443		
	121,676,000	0	0				779,000	96,556,000	24,341,000		5.a.
b. High volatility commercial real estate exposures	RCFD S445	RCFD S446	RCFD H179				RCFD H180	RCFD H181	RCFD H182	RCFD S447	
	8,000	0	0				0	0	0	8,000	5.b.
c. Exposures past due 90 days or more or on nonaccrual (3)	RCFD S449	RCFD S450	RCFD S451	RCFD HJ82	RCFD HJ83		RCFD S452	RCFD S453	RCFD S454	RCFD S455	
	3,370,000	0	230,000	9,000	0		8,000	0	0	3,123,000	5.c.
d. All other exposures	RCFD S457	RCFD S458	RCFD S459	RCFD HJ84	RCFD HJ85		RCFD S460	RCFD S461	RCFD S462	RCFD S463	
	428,467,000	0	5,136,000	2,846,000	0		5,649,000	3,310,000	396,949,000	2,905,000	5.d.
6. LESS: Allowance for loan and lease losses (4)	RCFD 3123	RCFD 3123									
	14,771,000	14,771,000									6.

1 For loans and leases held for sale, exclude residential mortgage exposures, high volatility commercial real estate exposures, or sovereign exposures that are past due 90 days or more or on nonaccrual.
2 Institutions that have adopted ASU 2016-13 should report as a positive number in column B of items 5.a through 5.d, as appropriate, any allowances for credit losses on purchased credit-deteriorated assets reported in column A of items 5.a through 5.d, as appropriate.
3 For loans and leases held for investment, exclude residential mortgage exposures, high volatility commercial real estate exposures, or sovereign exposures that are past due 90 days or more or on nonaccrual.
4 Institutions that have adopted ASU 2016-13 should report the allowance for credit losses on loans and leases in item 6, columns A and B.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column K)	(Column L)	(Column M)	(Column N)	(Column O)	(Column P)	(Column Q)	(Column R)	(Column S)	
	Allocation by Risk-Weight Category							Application of Other Risk-Weighting Approaches[1]		
	250%	300%	400%	600%	625%	937.5%	1250%	Exposure Amount	Risk-Weighted Asset Amount	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
4. Loans and leases held for sale (continued):										
c. Exposures past due 90 days or or more or on nonaccrual (2)								RCFD H277 0	RCFD H278 0	4.c.
d. All other exposures								RCFD H279 0	RCFD H280 0	4.d.
5. Loans and leases held for investment:										
a. Residential mortgage exposures								RCFD H281 0	RCFD H282 0	5.a.
b. High volatility commercial real estate exposures								RCFD H283 0	RCFD H284 0	5.b.
c. Exposures past due 90 days or more or on nonaccrual (3)								RCFD H285 0	RCFD H286 0	5.c.
d. All other exposures								RCFD H287 11,672,000	RCFD H288 2,425,000	5.d.
6. LESS: Allowance for loan and lease losses										6.

1 Includes, for example, investments in mutual funds/investment funds, exposures collateralized by securitization exposures or mutual funds, separate account bank-owned life insurance, and default fund contributions to central counterparties.
2 For loans and leases held for sale, exclude residential mortgage exposures, high volatility commercial real estate exposures, or sovereign exposures that are past due 90 days or more or on nonaccrual.
3 For loans and leases held for investment, exclude residential mortgage exposures, high volatility commercial real estate exposures, or sovereign exposures that are past due 90 days or more or on nonaccrual.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column A) Totals From Schedule RC	(Column B) Adjustments to Totals Reported in Column A	(Column C) Allocation by Risk-Weight Category 0%	(Column D) 2%	(Column E) 4%	(Column F) 10%	(Column G) 20%	(Column H) 50%	(Column I) 100%	(Column J) 150%	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
	RCFD D976	RCFD S466	RCFD D977	RCFD HJ86	RCFD HJ87		RCFD D978	RCFD D979	RCFD D980	RCFD S467	
7. Trading assets	136,460,000	109,047,000	21,957,000	0	0		211,000	148,000	5,047,000	50,000	7.
	RCFD D981	RCFD S469	RCFD D982	RCFD HJ88	RCFD HJ89		RCFD D983	RCFD D984	RCFD D985	RCFD H185	
8. All other assets (1,2,3)	116,097,000	27,472,949	22,044,000	3,000	0		1,211,000	658,000	44,702,051	698,000	8.
a. Separate account bank-owned life insurance											8.a.
b. Default fund contributions to central counterparties											8.b.

1 Includes premises and fixed assets; other real estate owned; investments in unconsolidated subsidiaries and associated companies; direct and indirect investments in real estate ventures; intangible assets; and other assets.

2 Institutions that have adopted ASU 2016-13 and have elected to apply the 3-year or the 5-year 2020 CECL transition provision should report as a positive number in item 8, column B, the applicable portion of the DTA transitional amount as determined in accordance with the 3-year or the 5-year 2020 CECL transition rule, respectively.

3 Institutions that have adopted ASU 2016-13 and have reported any assets, net of allowances for credit losses in item 8, column A, should report as a negative number in item 8, column B, those allowances for credit losses eligible for inclusion in tier 2 capital, which excludes allowances for credit losses on purchased credit-deteriorated assets.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column K) Allocation by Risk-Weight Category 250% Amount	(Column L) 300% Amount	(Column M) 400% Amount	(Column N) 600% Amount	(Column O) 625% Amount	(Column P) 937.5% Amount	(Column Q) 1250% Amount	(Column R) Application of Other Risk-Weighting Approaches[1] Exposure Amount	(Column S) Risk-Weighted Asset Amount	
	RCFD H289	RCFD H186	RCFD H290	RCFD H187				RCFD H291	RCFD H292	
7. Trading assets	0	0	0	0				0	0	7.
	RCFD H293	RCFD H188	RCFD S470	RCFD S471				RCFD H294	RCFD H295	
8. All other assets (2)	11,032,000	0	0	0				0	0	8.
								RCFD H296	RCFD H297	
a. Separate account bank-owned life insurance								5,295,000	1,092,669	8.a.
								RCFD H298	RCFD H299	
b. Default fund contributions to central counterparties								2,981,000	244,000	8.b.

1 Includes, for example, investments in mutual funds/investment funds, exposures collateralized by securitization exposures or mutual funds, separate account bank-owned life insurance, and default fund contributions to central counterparties.

2 Includes premises and fixed assets; other real estate owned; investments in unconsolidated subsidiaries and associated companies; direct and indirect investments in real estate ventures; intangible assets; and other assets.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column A) Totals	(Column B) Adjustments to Totals Reported in Column A	(Column Q) Allocation by Risk-Weight Category (Exposure Amount) 1250%	(Column T) Total Risk-Weighted Asset Amount by Calculation Methodology SSFA[1]	(Column U) Total Risk-Weighted Asset Amount by Calculation Methodology Gross-Up	
	Amount	Amount	Amount	Amount	Amount	
Securitization Exposures: On- and Off-Balance Sheet						
9. On-balance sheet securitization exposures:	RCFD S475	RCFD S476	RCFD S477	RCFD S478	RCFD S479	
a. Held-to-maturity securities (2)	32,067,000	32,067,000	0	7,261,000	0	9.a.
	RCFD S480	RCFD S481	RCFD S482	RCFD S483	RCFD S484	
b. Available-for-sale securities	725,000	725,000	0	215,000	0	9.b.
	RCFD S485	RCFD S486	RCFD S487	RCFD S488	RCFD S489	
c. Trading assets	36,000	36,000	0	13,000	0	9.c.
	RCFD S490	RCFD S491	RCFD S492	RCFD S493	RCFD S494	
d. All other on-balance sheet securitization exposures	63,312,000	62,964,000	348,000	17,399,000	0	9.d.
	RCFD S495	RCFD S496	RCFD S497	RCFD S498	RCFD S499	
10. Off-balance sheet securitization exposures	45,377,000	45,356,000	21,000	8,307,000	0	10.

Dollar Amounts in Thousands	(Column A) Total From *Schedule RC*	(Column B) Adjustments to Totals Reported in Column A	(Column C) Allocation by Risk-Weight Category 0%	(Column D) 2%	(Column E) 4%	(Column F) 10%	(Column G) 20%	(Column H) 50%	(Column I) 100%	(Column J) 150%	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
	RCFD 2170	RCFD S500	RCFD D987	RCFD HJ90	RCFD HJ91		RCFD D988	RCFD D989	RCFD D990	RCFD S503	
11. Total balance sheet assets (3)	1,714,474,000	297,153,949	644,950,000	2,858,000	0		111,429,000	113,787,000	496,762,051	16,206,000	11.

Dollar Amounts in Thousands	(Column K) Allocation by Risk-Weight Category 250%	(Column L) 300%	(Column M) 400%	(Column N) 600%	(Column O) 625%	(Column P) 937.5%	(Column Q) 1250%	(Column R) Application of Other Risk-Weighting Approaches Exposure Amount	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
	RCFD S504	RCFD S505	RCFD S506	RCFD S507			RCFD S510	RCFD H300	
11. Total balance sheet assets (3)	11,032,000	0	0	0			348,000	19,948,000	11.

1 Simplified Supervisory Formula Approach.
2 Institutions that have adopted ASU 2016-13 and have reported held-to-maturity securities, net of allowances for credit losses in item 9.a, column A, should report as a negative number in item 9.a., column B, those allowances for credit losses eligible for inclusion in tier 2 capital, which excludes allowances for credit losses on purchased credit-deteriorated assets.
3 For each of columns A through R of item 11, report the sum of items 1 through 9. For item 11, the sum of columns B through R must equal column A. Item 11, column A, must equal Schedule RC, item 12.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column A) Face, Notional, or Other Amount	CCF[1]	(Column B) Credit Equivalent Amount[2]	(Column C) 0%	(Column D) 2%	(Column E) 4%	(Col F) 10%	(Column G) 20%	(Column H) 50%	(Column I) 100%	(Column J) 150%	
	Amount		Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
Derivatives, Off-Balance Sheet Items, and Other Items Subject to Risk Weighting (Excluding Securitization Exposures) (3)												
12. Financial standby letters of credit	RCFD D991 38,911,000	1.0	RCFD D992 38,911,000	RCFD D993 2,835,000	RCFD HJ92 1,384,000	RCFD HJ93 0		RCFD D994 5,056,000	RCFD D995 901,000	RCFD D996 27,941,000	RCFD S511 794,000	12.
13. Performance standby letters of credit and transaction-related contingent items	RCFD D997 10,449,000	0.5	RCFD D998 5,224,500	RCFD D999 103,000				RCFD G603 320,500	RCFD G604 26,000	RCFD G605 4,690,000	RCFD S512 85,000	13.
14. Commercial and similar letters of credit with an original maturity of one year or less	RCFD G606 6,145,000	0.2	RCFD G607 1,229,000	RCFD G608 3,000	RCFD HJ94 5,000	RCFD HJ95 0		RCFD G609 37,000	RCFD G610 22,000	RCFD G611 865,000	RCFD S513 297,000	14.
15. Retained recourse on small business obligations sold with recourse	RCFD G612 10,000	1.0	RCFD G613 10,000	RCFD G614 0				RCFD G615 0	RCFD G616 0	RCFD G617 10,000	RCFD S514 0	15.

1 Credit conversion factor.
2 Column A multiplied by credit conversion factor. For each of items 12 through 21, the sum of columns C through J plus column R must equal column B.
3 All derivatives and off-balance sheet items that are securitization exposures are to be excluded from items 12 through 21 and are to be reported instead in item 10.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column A) Face, Notional, or Other Amount	CCF[1]	(Column B) Credit Equivalent Amount[2]	(Column C) Allocation by Risk-Weight Category 0%	(Column D) 2%	(Column E) 4%	(Col F) 10%	(Column G) 20%	(Column H) 50%	(Column I) 100%	(Column J) 150%	
	Amount		Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
16. Repo-style transactions (3)	RCFD S515 23,347,000	1.0	RCFD S516 23,347,000	RCFD S517 5,526,000	RCFD S518 5,043,000	RCFD S519 0		RCFD S520 2,496,000	RCFD S521 9,000	RCFD S522 8,469,000	RCFD S523 1,804,000	16.
17. All other off-balance sheet liabilities	RCFD G618 2,787,000	1.0	RCFD G619 2,787,000	RCFD G620 1,136,000				RCFD G621 0	RCFD G622 0	RCFD G623 1,641,000	RCFD S524 10,000	17.
18. Unused commitments (exclude unused commitments to asset-backed commercial paper conduits):												
a. Original maturity of one year or less	RCFD S525 44,147,000	0.2	RCFD S526 8,829,400	RCFD S527 132,000	RCFD HJ96 697,000	RCFD HJ97 0		RCFD S528 319,400	RCFD S529 143,000	RCFD S530 7,416,000	RCFD S531 122,000	18.a.
b. Original maturity exceeding one year	RCFD G624 244,080,000	0.5	RCFD G625 122,040,000	RCFD G626 529,000	RCFD HJ98 13,925,000	RCFD HJ99 0		RCFD G627 9,770,000	RCFD G628 348,000	RCFD G629 96,413,000	RCFD S539 1,055,000	18.b.
19. Unconditionally cancelable commitments	RCFD S540 692,917,000	0.0	RCFD S541 0									19.
20. Over-the-counter derivatives			RCFD S542 192,855,000	RCFD S543 12,497,000	RCFD HK00 0	RCFD HK01 0	RCFD S544 0	RCFD S545 29,931,000	RCFD S546 4,244,000	RCFD S547 144,928,000	RCFD S548 1,255,000	20.
21. Centrally cleared derivatives			RCFD S549 36,439,000	RCFD S550 0	RCFD S551 35,763,000	RCFD S552 0		RCFD S554 0	RCFD S555 0	RCFD S556 676,000	RCFD S557 0	21.
22. Unsettled transactions (failed trades) (4)	RCFD H191 4,106,000			RCFD H193 3,796,500				RCFD H194 0	RCFD H195 0	RCFD H196 171,000	RCFD H197 0	22.

1 Credit conversion factor.
2 For items 16 through 19, column A multiplied by credit conversion factor.
3 Includes securities purchased under agreements to resell (reverse repos), securities sold under agreements to repurchase (repos), securities borrowed, and securities lent.
4 For item 22, the sum of columns C through Q must equal column A.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column O) Allocation by Risk-Weight Category 625% Amount	(Column P) 937.5% Amount	(Column Q) 1250% Amount	(Column R) Application of Other Risk-Weighting Approaches[1] Credit Equivalent Amount	(Column S) Risk-Weighted Asset Amount	
16. Repo-style transactions (2)				RCFD H301 0	RCFD H302 0	16.
17. All other off-balance sheet liabilities						17.
18. Unused commitments (excludes unused commitments to asset-backed commercial paper conduits):						
a. Original maturity of one year or less				RCFD H303 0	RCFD H304 0	18.a.
b. Original maturity exceeding one year				RCFD H307 0	RCFD H308 0	18.b.
19. Unconditionally cancelable commitments						19.
20. Over-the-counter derivatives				RCFD H309 0	RCFD H310 0	20.
21. Centrally cleared derivatives						21.
22. Unsettled transactions (failed trades) (3)	RCFD H198 47,000	RCFD H199 8,000	RCFD H200 83,500			22.

1 Includes, for example, exposures collateralized by securitization exposures or mutual funds.
2 Includes securities purchased under agreements to resell (reverse repos), securities sold under agreements to repurchase (repos), securities borrowed, and securities lent.
3 For item 22, the sum of columns C through Q must equal column A.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column C)	(Column D)	(Column E)	(Column F)	(Column G)	(Column H)	(Column I)	(Column J)	
	Allocation by Risk-Weight Category								
	0%	2%	4%	10%	20%	50%	100%	150%	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
23. Total assets, derivatives, off-balance sheet items, and other items subject to risk weighting by risk-weight category (for each of columns C through P, sum of items 11 through 22; for column Q, sum of items 10 through 22)	RCFD G630	RCFD S558	RCFD S559	RCFD S560	RCFD G631	RCFD G632	RCFD G633	RCFD S561	
	671,507,500	59,675,000	0	0	159,358,900	119,480,000	789,982,051	21,628,000	23.
24. Risk weight factor	X 0%	X 2%	X 4%	X 10%	X 20%	X 50%	X 100%	X 150%	24.
25. Risk-weighted assets by risk-weight category (for each column, item 23 multiplied by item 24)	RCFD G634	RCFD S569	RCFD S570	RCFD S571	RCFD G635	RCFD G636	RCFD G637	RCFD S572	
	0	1,193,500	0	0	31,871,780	59,740,000	789,982,051	32,442,000	25.

Schedule RC-R—Continued

Part II—Continued

Dollar Amounts in Thousands	(Column K)	(Column L)	(Column M)	(Column N)	(Column O)	(Column P)	(Column Q)	
	Allocation by Risk-Weight Category							
	250%	300%	400%	600%	625%	937.5%	1250%	
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
23. Total assets, derivatives, off-balance sheet items, and other items subject to risk weighting by risk-weight category (for each of columns C through P, sum of items 11 through 22; for column Q, sum of items 10 through 22)	RCFD S562 11,032,000	RCFD S563 0	RCFD S564 0	RCFD S565 0	RCFD S566 47,000	RCFD S567 8,000	RCFD S568 452,500	23.
24. Risk weight factor	X 250%	X 300%	X 400%	X 600%	X 625%	X 937.5%	X 1250%	24.
25. Risk-weighted assets by risk-weight category (for each column, item 23 multiplied by item 24)	RCFD S573 27,580,000	RCFD S574 0	RCFD S575 0	RCFD S576 0	RCFD S577 293,750	RCFD S578 75,000	RCFD S579 5,656,250	25.

Dollar Amounts in Thousands	RCFD	Totals Amount	
26. Risk-weighted assets base for purposes of calculating the allowance for loan and lease losses 1.25 percent threshold (1)	S580	985,791,051	26.
27. Standardized market-risk weighted assets (applicable only to banks that are covered by the market risk capital rules)	S581	40,974,000	27.
28. Risk-weighted assets before deductions for excess allowance for loan and lease losses and allocated transfer risk reserve (2,3)	B704	1,026,765,000	28.
29. LESS: Excess allowance for loan and lease losses (4,5)	A222	1,842,000	29.
30. LESS: Allocated transfer risk reserve	3128	0	30.
31. Total risk-weighted assets (item 28 minus items 29 and 30)	G641	1,024,923,000	31.

1 For institutions that have adopted ASU 2016-13, the risk-weighted assets base reported in item 26 is for purposes of calculating the adjusted allowances for credit losses (AACL) 1.25 percent threshold.
2 Sum of items 2.b through 20, column S; items 9.a, 9.b, 9.c, 9.d, and 10, columns T and U; item 25, columns C through Q; and item 27 (if applicable).
3 For institutions that have adopted ASU 2016-13, the risk-weighted assets reported in item 28 represents the amount of risk-weighted assets before deductions for excess AACL and allocated transfer risk reserve.
4 Institutions that have adopted ASU 2016-13 should report the excess AACL.
5 Institutions that have adopted ASU 2016-13 and have elected to apply the 3-year or the 5-year 2020 CECL transition provision should subtract the applicable portion of the AACL transitional amount or the modified AACL transitional amount, respectively, from the AACL, as defined in the regulatory capital rule, before determining the amount of excess AACL.

Schedule RC-R—Continued

Part II—Continued

Memoranda

Dollar Amounts in Thousands	RCFD	Amount	
1. Current credit exposure across all derivative contracts covered by the regulatory capital rules	G642	66,870,000	M.1.

Dollar Amounts in Thousands	With a remaining maturity of (Column A) One year or less RCFD	Amount	(Column B) Over one year through five years RCFD	Amount	(Column C) Over five years RCFD	Amount	
2. Notional principal amounts of over-the-counter derivative contracts:							
a. Interest rate	S582	2,259,856,000	S583	2,953,548,000	S584	2,291,811,000	M.2.a.
b. Foreign exchange rate and gold	S585	9,957,299,000	S586	571,866,000	S587	206,443,000	M.2.b.
c. Credit (investment grade reference asset)	S588	176,524,000	S589	818,767,000	S590	79,710,000	M.2.c.
d. Credit (non-investment grade reference asset)	S591	59,716,000	S592	209,533,000	S593	12,805,000	M.2.d.
e. Equity	S594	555,526,000	S595	143,956,000	S596	8,046,000	M.2.e.
f. Precious metals (except gold)	S597	78,213,000	S598	2,896,000	S599	0	M.2.f.
g. Other	S600	63,847,000	S601	29,811,000	S602	903,000	M.2.g.
3. Notional principal amounts of centrally cleared derivative contracts:							
a. Interest rate	S603	20,195,186,000	S604	647,561,000	S605	350,338,000	M.3.a.
b. Foreign exchange rate and gold	S606	332,110,000	S607	5,539,000	S608	191,000	M.3.b.
c. Credit (investment grade reference asset)	S609	239,609,000	S610	3,327,000	S611	0	M.3.c.
d. Credit (non-investment grade reference asset)	S612	71,574,000	S613	5,032,000	S614	299,000	M.3.d.
e. Equity	S615	16,266,000	S616	1,760,000	S617	22,000	M.3.e.
f. Precious metals (except gold)	S618	20,314,000	S619	818,000	S620	0	M.3.f.
g. Other	S621	62,782,000	S622	24,329,000	S623	48,000	M.3.g.

Dollar Amounts in Thousands	RCFD	Amount	
4. Amount of allowances for credit losses on purchased credit-deteriorated assets: (1)			
a. Loans and leases held for investment	JJ30	2,000	M.4.a.
b. Held-to-maturity debt securities	JJ31	0	M.4.b.
c. Other financial assets measured at amortized cost	JJ32	0	M.4.c.

1 Memorandum items 4.a through 4.c should be completed only by institutions that have adopted ASU 2016-13.

Schedule RC-S—Servicing, Securitization, and Asset Sale Activities

Dollar Amounts in Thousands	(Column A) 1-4 Family Residential Loans Amount	(Column B) Home Equity Line Amount	(Column C) Credit Card Receivables Amount	(Column D) Auto Loans Amount	(Column E) Other Consumer Loans Amount	(Column F) Commercial and Industrial Loans Amount	(Column G) All Other Loans, All Leases, and All Other Assets Amount	
Bank Securitization Activities								
1. Outstanding principal balance of assets sold and securitized by the reporting bank with servicing retained or with recourse or other seller-provided credit enhancements	RCFD B705 4,148,000	RCFD B706 0	RCFD B707 0	RCFD B708 0	RCFD B709 0	RCFD B710 0	RCFD B711 28,000	1.
2. Maximum amount of credit exposure arising from recourse or other seller-provided credit enhancements provided to structures reported in item 1	RCFD HU09 0	RCFD HU10 0	RCFD HU11 0	RCFD HU12 0	RCFD HU13 0	RCFD HU14 0	RCFD HU15 1,000	2.
Item 3 is to be completed by banks with $100 billion or more in total assets.[1]								
3. Reporting bank's unused commitments to provide liquidity to structures reported in item 1	RCFD B726 0	RCFD B727 0	RCFD B728 0	RCFD B729 0	RCFD B730 0	RCFD B731 0	RCFD B732 0	3.
4. Past due loan amounts included in item 1:								
a. 30-89 days past due	RCFD B733 308,000	RCFD B734 0	RCFD B735 0	RCFD B736 0	RCFD B737 0	RCFD B738 0	RCFD B739 0	4.a.
b. 90 days or more past due	RCFD B740 168,000	RCFD B741 0	RCFD B742 0	RCFD B743 0	RCFD B744 0	RCFD B745 0	RCFD B746 0	4.b.
5. Charge-offs and recoveries on assets sold and securitized with servicing retained or with recourse or other seller-provided credit enhancements (calendar year-to-date):								
a. Charge-offs	RIAD B747 5,000	RIAD B748 0	RIAD B749 0	RIAD B750 0	RIAD B751 0	RIAD B752 0	RIAD B753 0	5.a.
b. Recoveries	RIAD B754 3,000	RIAD B755 0	RIAD B756 0	RIAD B757 0	RIAD B758 0	RIAD B759 0	RIAD B760 0	5.b.

1 The $100 billion asset-size test is based on total assets reported on the June 30, 2021, Report of Condition.

Schedule RC-S—Continued

Dollar Amounts in Thousands	(Column A) 1-4 Family Residential Loans Amount	(Column B) Home Equity Line Amount	(Column C) Credit Card Receivables Amount	(Column D) Auto Loans Amount	(Column E) Other Consumer Loans Amount	(Column F) Commercial and Industrial Loans Amount	(Column G) All Other Loans, All Leases, and All Other Assets Amount	
Item 6 is to be completed by banks with $10 billion or more in total assets.[1]								
6. Total amount of ownership (or seller's) interest carried as securities or loans		RCFD HU16 0	RCFD HU17 0			RCFD HU18 0		6.
7. and 8. Not applicable								
For Securitization Facilities Sponsored By or Otherwise Established By Other Institutions								
9. Maximum amount of credit exposure arising from credit enhancements provided by the reporting bank to other institutions' securitization structures in the form of standby letters of credit, purchased subordinated securities, and other enhancements	RCFD B776 0			RCFD B779 0	RCFD B780 0	RCFD B781 0	RCFD B782 0	9.
Item 10 is to be completed by banks with $10 billion or more in total assets.[1]								
10. Reporting bank's unused commitments to provide liquidity to other institutions' securitization structures	RCFD B783 0			RCFD B786 0	RCFD B787 0	RCFD B788 0	RCFD B789 1,406,000	10.
Bank Asset Sales								
11. Assets sold with recourse or other seller-provided credit enhancements and not securitized by the reporting bank	RCFD B790 18,000						RCFD B796 3,449,000	11.
12. Maximum amount of credit exposure arising from recourse or other seller- provided credit enhancements provided to assets reported in item 11	RCFD B797 18,000						RCFD B803 916,000	12.

1 **The $10 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.**

Schedule RC-S—Continued

Memoranda

Dollar Amounts in Thousands	RCFD	Amount	
1. Not applicable			
2. Outstanding principal balance of assets serviced for others (includes participations serviced for others):			
a. Closed-end 1-4 family residential mortgages serviced with recourse or other servicer-provided credit enhancements	B804	18,000	M.2.a.
b. Closed-end 1-4 family residential mortgages serviced with no recourse or other servicer-provided credit enhancements	B805	42,674,000	M.2.b.
c. Other financial assets (includes home equity lines) (1)	A591	15,234,000	M.2.c.
d. 1-4 family residential mortgages serviced for others that are in process of foreclosure at quarter-end (includes closed-end and open-end loans)	F699	319,000	M.2.d.
Memorandum item 3 is to be completed by banks with $10 billion or more in total assets.[2]			
3. Asset-backed commercial paper conduits:			
a. Maximum amount of credit exposure arising from credit enhancements provided to conduit structures in the form of standby letters of credit, subordinated securities, and other enhancements:			
(1) Conduits sponsored by the bank, a bank affiliate, or the bank's holding company	B806	1,603,000	M.3.a1.
(2) Conduits sponsored by other unrelated institutions	B807	0	M.3.a2.
b. Unused commitments to provide liquidity to conduit structures:			
(1) Conduits sponsored by the bank, a bank affiliate, or the bank's holding company	B808	24,679,000	M.3.b1.
(2) Conduits sponsored by other unrelated institutions	B809	0	M.3.b2.
4. Outstanding credit card fees and finance charges included in Schedule RC-S, item 1, column C (2,3)	C407	NR	M.4.

1 Memorandum item 2.c is to be completed if the principal balance of other financial assets serviced for others is more than $10 million.

2 The $10 billion asset-size test is based on the total assets reported on the June 30, 2021, Report of Condition.

3 Memorandum item 4 is to be completed by banks with $10 billion or more in total assets that (1) together with affiliated institutions, have outstanding credit card receivables (as defined in the instructions) that exceed $500 million as of the report date, or (2) are credit card specialty banks as defined for Uniform Bank Performance Report purposes.

Schedule RC-T—Fiduciary and Related Services

	RCFD	YES / NO	
1. Does the institution have fiduciary powers? (If "NO", do not complete Schedule RC-T)...	A345	YES	1.
2. Does the institution exercise the fiduciary powers it has been granted?...	A346	YES	2.
3. Does the institution have any fiduciary or related activity (in the form of assets or accounts) to report in this schedule? (If "NO," do not complete the rest of Schedule RC-T)...	B867	YES	3.

If the answer to item 3 is "YES," complete the applicable items of Schedule RC-T, as follows:

Institutions with total fiduciary assets (item 10, sum of columns A and B) greater than $250 million (as of the preceding December 31 report date) or with gross fiduciary and related services income greater than 10% of revenue (net interest income plus noninterest income) for the preceding calendar year must complete:
- Items 4 through 22 and Memorandum item 3 quarterly,
- Items 23 through 26 annually with the December report, and
- Memorandum items 1, 2, and 4 annually with the December report.

Institutions with total fiduciary assets (item 10, sum of columns A and B) less than or equal to $250 million (as of the preceding December 31 report date) that do not meet the fiduciary income test for quarterly reporting must complete:
- Items 4 through 13 annually with the December report, and
- Memorandum items 1 through 3 annually with the December report.
- Institutions with total fiduciary assets greater than $100 million but less than or equal to $250 million (as of the preceding December 31 report date) that do not meet the fiduciary income test for quarterly reporting must also complete Memorandum item 4 annually with the December report.

Dollar Amounts in Thousands	(Column A) Managed Assets	(Column B) Non-Managed Assets	(Column C) Number of Managed Accounts	(Column D) Number of Non-Managed Accounts	
	Amount	Amount	Number	Number	
Fiduciary and Related Assets	RCFD B868	RCFD B869	RCFD B870	RCFD B871	
4. Personal trust and agency accounts...	8,980,000	56,051,000	1,413	3,969	4.
5. Employee benefit and retirement-related trust and agency accounts:					
a. Employee benefit - defined contribution...	RCFD B872 0	RCFD B873 10,932,000	RCFD B874 0	RCFD B875 33	5.a.
b. Employee benefit - defined benefit...	RCFD B876 0	RCFD B877 0	RCFD B878 0	RCFD B879 0	5.b.
c. Other employee benefit and retirement-related accounts...	RCFD B880 305,000	RCFD B881 71,000	RCFD B882 183	RCFD B883 6	5.c.
6. Corporate trust and agency accounts...	RCFD B884 1,103,000	RCFD B885 41,870,000	RCFD C001 1	RCFD C002 1,819	6.
7. Investment management and investment advisory agency accounts...	RCFD B886 54,729,000	RCFD J253 133,000	RCFD B888 7,894	RCFD J254 6	7.
8. Foundation and endowment trust and agency accounts...	RCFD J255 862,000	RCFD J256 24,000	RCFD J257 223	RCFD J258 13	8.
9. Other fiduciary accounts...	RCFD B890 134,918,000	RCFD B891 640,049,000	RCFD B892 109	RCFD B893 5,437	9.
10. Total fiduciary accounts (sum of items 4 through 9)...	RCFD B894 200,897,000	RCFD B895 749,130,000	RCFD B896 9,823	RCFD B897 11,283	10.
11. Custody and safekeeping accounts...		RCFD B898 18,078,962,000		RCFD B899 284,063	11.

Schedule RC-T—Continued

Dollar Amounts in Thousands	(Column A) Managed Assets Amount	(Column B) Non-Managed Assets Amount	(Column C) Number of Managed Accounts Number	(Column D) Number of Non-Managed Accounts Number	
12. Fiduciary accounts held in foreign offices (included in items 10 and 11)	RCFN B900 61,591,000	RCFN B901 9,983,563,000	RCFN B902 4,039	RCFN B903 265,873	12.
13. Individual Retirement Accounts, Health Savings Accounts, and other similar accounts (included in items 5.c and 11)	RCFD J259 305,000	RCFD J260 463,000	RCFD J261 183	RCFD J262 385	13.

Dollar Amounts in Thousands		RIAD	Amount	
Fiduciary and Related Services Income				
14. Personal trust and agency accounts		B904	80,000	14.
15. Employee benefit and retirement-related trust and agency accounts:				
a. Employee benefit - defined contribution		B905	0	15.a.
b. Employee benefit - defined benefit		B906	0	15.b.
c. Other employee benefit and retirement-related accounts		B907	2,000	15.c.
16. Corporate trust and agency accounts		A479	15,000	16.
17. Investment management and investment advisory agency accounts		J315	202,000	17.
18. Foundation and endowment trust and agency accounts		J316	4,000	18.
19. Other fiduciary accounts		A480	47,000	19.
20. Custody and safekeeping accounts		B909	1,305,000	20.
21. Other fiduciary and related services income		B910	221,000	21.
22. Total gross fiduciary and related services income (sum of items 14 through 21) (must equal Schedule RI, item 5.a)		4070	1,876,000	22.
a. Fiduciary and related services income—foreign offices (included in item 22)	B912 1,246,000			22.a.
23. Less: Expenses		C058	NR	23.
24. Less: Net losses from fiduciary and related services		A488	NR	24.
25. Plus: Intracompany income credits for fiduciary and related services		B911	NR	25.
26. Net fiduciary and related services income		A491	NR	26.

Memoranda

Dollar Amounts in Thousands	RCFD	(Column A) Personal Trust and Agency and Investment Management Agency Accounts Amount	RCFD	(Column B) Employee Benefit and Retirement-Related Trust and Agency Accounts Amount	RCFD	(Column C) All Other Accounts Amount	
1. Managed assets held in fiduciary accounts:							
a. Noninterest-bearing deposits	J263	NR	J264	NR	J265	NR	M.1.a.
b. Interest-bearing deposits	J266	NR	J267	NR	J268	NR	M.1.b.
c. U.S. Treasury and U.S. Government agency obligations	J269	NR	J270	NR	J271	NR	M.1.c.
d. State, county, and municipal obligations	J272	NR	J273	NR	J274	NR	M.1.d.
e. Money market mutual funds	J275	NR	J276	NR	J277	NR	M.1.e.
f. Equity mutual funds	J278	NR	J279	NR	J280	NR	M.1.f.
g. Other mutual funds	J281	NR	J282	NR	J283	NR	M.1.g.
h. Common trust funds and collective investment funds	J284	NR	J285	NR	J286	NR	M.1.h.
i. Other short-term obligations	J287	NR	J288	NR	J289	NR	M.1.i.

Schedule RC-T—Continued

Memoranda—Continued

Dollar Amounts in Thousands	RCFD	(Column A) Personal Trust and Agency and Investment Management Agency Accounts Amount	RCFD	(Column B) Employee Benefit and Retirement-Related Trust and Agency Accounts Amount	RCFD	(Column C) All Other Accounts Amount	
1. j. Other notes and bonds	J290	NR	J291	NR	J292	NR	M.1.j.
k. Investments in unregistered funds and private equity investments	J293	NR	J294	NR	J295	NR	M.1.k.
l. Other common and preferred stocks	J296	NR	J297	NR	J298	NR	M.1.l.
m. Real estate mortgages	J299	NR	J300	NR	J301	NR	M.1.m.
n. Real estate	J302	NR	J303	NR	J304	NR	M.1.n.
o. Miscellaneous assets	J305	NR	J306	NR	J307	NR	M.1.o.
p. Total managed assets held in fiduciary accounts (for each column, sum of Memorandum items 1.a through 1.o)	J308	NR	J309	NR	J310	NR	M.1.p.

Dollar Amounts in Thousands	RCFD	(Column A) Managed Assets Amount	RCFD	(Column B) Number of Managed Accounts Number	
1. q. Investments of managed fiduciary accounts in advised or sponsored mutual funds	J311	NR	J312	NR	M.1.q.

Dollar Amounts in Thousands	RCFD	(Column A) Number of Issues Number	(Column B) Principal Amount Outstanding Amount	
2. Corporate trust and agency accounts:			RCFD B928	
a. Corporate and municipal trusteeships	B927	NR	NR	M.2.a.
			RCFD J314	
(1) Issues reported in Memorandum item 2.a that are in default	J313	NR	NR	M.2.a.1.
b. Transfer agent, registrar, paying agent, and other corporate agency	B929	NR		M.2.b.

Memorandum items 3.a through 3.h are to be completed by banks with collective investment funds and common trust funds with a total market value of $1 billion or more as of the preceding December 31 report date.

Memorandum item 3.h only is to be completed by banks with collective investment funds and common trust funds with a total market value of less that $1 billion as of the preceding December 31 report date.

Dollar Amounts in Thousands	RCFD	(Column A) Number of Funds Number	RCFD	(Column B) Market Value of Fund Assets Amount	
3. Collective investment funds and common trust funds:					
a. Domestic equity	B931	NR	B932	NR	M.3.a.
b. International/Global equity	B933	NR	B934	NR	M.3.b.
c. Stock/Bond blend	B935	NR	B936	NR	M.3.c.
d. Taxable bond	B937	NR	B938	NR	M3.d.
e. Municipal bond	B939	NR	B940	NR	M.3.e.
f. Short-term investments/Money market	B941	NR	B942	NR	M.3.f.
g. Specialty/Other	B943	NR	B944	NR	M.3.g.
h. Total collective investment funds (sum of Memorandum items 3.a through 3.g)	B945	0	B946	0	M.3.h.

Schedule RC-T—Continued

Memoranda—Continued

Dollar Amounts in Thousands	(Column A) Gross Losses Managed Accounts RIAD	Amount	(Column B) Gross Losses Non-Managed Accounts RIAD	Amount	(Column C) Recoveries RIAD	Amount	
4. Fiduciary settlements, surcharges, and other losses:							
a. Personal trust and agency accounts	B947	NR	B948	NR	B949	NR	M.4.a.
b. Employee benefit and retirement-related trust and agency accounts	B950	NR	B951	NR	B952	NR	M.4.b.
c. Investment management and investment advisory agency accounts	B953	NR	B954	NR	B955	NR	M.4.c.
d. Other fiduciary accounts and related services	B956	NR	B957	NR	B958	NR	M.4.d.
e. Total fiduciary settlements, surcharges, and other losses (sum of Memorandum items 4.a through 4.d) (sum of columns A and B minus column C must equal Schedule RC-T, item 24)	B959	NR	B960	NR	B961	NR	M.4.e.

Person to whom questions about Schedule RC-T - Fiduciary and Related Services should be directed:

CONF
Name and Title (TEXT B962)

CONF
E-mail Address (TEXT B926)

CONF
Telephone: Area code/phone number/extension (TEXT B963)

CONF
FAX: Area code/phone number (TEXT B964)

Schedule RC-V—Variable Interest Entities[1]

Dollar Amounts in Thousands	RCFD	(Column A) Securitization Vehicles Amount	RCFD	(Column B) Other VIEs Amount	
1. Assets of consolidated variable interest entities (VIEs) that can be used only to settle obligations of the consolidated VIEs:					
a. Cash and balances due from depository institutions	J981	0	JF84	45,000	1.a.
b. Securities not held for trading	HU20	42,000	HU21	507,000	1.b.
c. Loans and leases held for investment, net of allowance, and held for sale	HU22	31,089,000	HU23	16,613,000	1.c.
d. Other real estate owned	K009	0	JF89	0	1.d.
e. Other assets	JF91	8,000	JF90	399,000	1.e.
2. Liabilities of consolidated VIEs for which creditors do not have recourse to the general credit of the reporting bank:					
a. Other borrowed money	JF92	8,563,000	JF85	10,073,000	2.a.
b. Other liabilities	JF93	57,000	JF86	193,000	2.b.
3. All other assets of consolidated VIEs (not included in items 1.a. through 1.e above)	K030	0	JF87	0	3.
4. All other liabilities of consolidated VIEs (not included in items 2.a and 2.b above)	K033	0	JF88	1,603,000	4.

Dollar Amounts in Thousands	RCFD	Amount	
5. Total assets of asset-backed commercial paper (ABCP) conduit VIEs	JF77	15,583,000	5.
6. Total liabilities of ABCP conduit VIEs	JF78	11,049,000	6.

1 Institutions that have adopted ASU 2016-13 should report assets, net of any applicable allowance for credit losses.

Optional Narrative Statement Concerning the Amounts Reported in the Consolidated Reports of Condition and Income

The management of the reporting bank may, if it wishes, submit a brief narrative statement on the amounts reported in the Consolidated Reports of Condition and Income. This optional statement will be made available to the public, along with the publicly available data in the Consolidated Reports of Condition and Income, in response to any request for individual bank report data. However, the information reported in Schedule RI-E, item 2.g; Schedule RC-C, Part I, Memorandum items 17.a and 17.b; Schedule RC-O, Memorandum items 6 through 9, 14, 15 and 18; and Schedule RC-P, items 7.a and 7.b, is regarded as confidential and will not be made available to the public on an individual institution basis. BANKS CHOOSING TO SUBMIT THE NARRATIVE STATEMENT SHOULD ENSURE THAT THE STATEMENT DOES NOT CONTAIN THE NAMES OR OTHER IDENTIFICATIONS OF INDIVIDUAL BANK CUSTOMERS, REFERENCES TO THE AMOUNTS REPORTED IN THE CONFIDENTIAL ITEMS IDENTIFIED ABOVE, OR ANY OTHER INFORMATION THAT THEY ARE NOT WILLING TO HAVE MADE PUBLIC OR THAT WOULD COMPROMISE THE PRIVACY OF THEIR CUSTOMERS. Banks choosing not to make a statement may check the “No comment” box below and should make no entries of any kind in the space provided for the narrative statement; i.e., DO NOT enter in this space such phrases as “No statement,” “Not applicable,” “N/A,” “No comment,” and “None.”

The optional statement must be entered on this sheet. The statement should not exceed 100 words. Further, regardless of the number of words, the statement must not exceed 750 characters, including punctuation, indentation, and standard spacing between words and sentences. If any submission should exceed 750 characters, as defined, it will be truncated at 750 characters with no notice to the submitting bank and the truncated statement will appear as the bank’s statement both on agency computerized records and in computer-file releases to the public.

All information furnished by the bank in the narrative statement must be accurate and not misleading. Appropriate efforts shall be taken by the submitting bank to ensure the statement’s accuracy.

If, subsequent to the original submission, material changes are submitted for the data reported in the Consolidated Reports of Condition and Income, the existing narrative statement will be deleted from the files, and from disclosure; the bank, at its option, may replace it with a statement appropriate to the amended data.

The optional narrative statement will appear in agency records and in release to the public exactly as submitted (or amended as described in the preceding paragraph) by the management of the bank (except for the truncation of statements exceeding the 750-character limit described above). THE STATEMENT WILL NOT BE EDITED OR SCREENED IN ANY WAY BY THE SUPERVISORY AGENCIES FOR ACCURACY OR RELEVANCE. DISCLOSURE OF THE STATEMENT SHALL NOT SIGNIFY THAT ANY FEDERAL SUPERVISORY AGENCY HAS VERIFIED OR CONFIRMED THE ACCURACY OF THE INFORMATION CONTAINED THEREIN. A STATEMENT TO THIS EFFECT WILL APPEAR ON ANY PUBLIC RELEASE OF THE OPTIONAL STATEMENT SUBMITTED BY THE MANAGEMENT OF THE REPORTING BANK.

	RCON	YES / NO
Comments?........	6979	NO

BANK MANAGEMENT STATEMENT (please type or print clearly; 750 character limit):

(TEXT 6980)

NR

CITIGROUP -- QUARTERLY FINANCIAL DATA SUPPLEMENT 3Q22

CITIGROUP FINANCIAL SUMMARY

(In millions of dollars, except per share amounts and as otherwise noted)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Total revenues, net of interest expense[1][2][3]	**$ 17,447**	**$ 17,017**	**$ 19,186**	**$ 19,638**	**$ 18,508**	**(6%)**	**6%**	**$ 54,867**	**$ 57,332**	**4%**
Total operating expenses[1][4]	11,777	13,532	13,165	12,393	12,749	3%	8%	34,661	38,307	11%
Net credit losses (NCLs)	961	866	872	850	887	4%	(8%)	4,029	2,609	(35%)
Credit reserve build / (release) for loans	(1,149)	(1,176)	(612)	534	441	(17%)	NM	(6,822)	363	NM
Provision / (release) for unfunded lending commitments	(13)	(193)	474	(159)	(71)	55%	NM	(595)	244	NM
Provisions for benefits and claims, HTM debt securities and other assets	9	38	21	49	108	NM	NM	75	178	NM
Provisions for credit losses and for benefits and claims	(192)	(465)	755	1,274	1,365	7%	NM	(3,313)	3,394	NM
Income from continuing operations before income taxes	5,862	3,950	5,266	5,971	4,394	(26%)	(25%)	23,519	15,631	(34%)
Income taxes[5]	1,193	771	941	1,182	879	(26%)	(26%)	4,680	3,002	(36%)
Income from continuing operations	**4,669**	**3,179**	**4,325**	**4,789**	**3,515**	**(27%)**	**(25%)**	**18,839**	**12,629**	**(33%)**
Income (loss) from discontinued operations, net of taxes[6]	(1)	-	(2)	(221)	(6)	97%	NM	7	(229)	NM
Net income before noncontrolling interests	4,668	3,179	4,323	4,568	3,509	(23%)	(25%)	18,846	12,400	(34%)
Net income (loss) attributable to noncontrolling interests	24	6	17	21	30	43%	25%	67	68	1%
Citigroup's net income	**$ 4,644**	**$ 3,173**	**$ 4,306**	**$ 4,547**	**$ 3,479**	**(23%)**	**(25%)**	**$ 18,779**	**$ 12,332**	**(34%)**
Diluted earnings per share:										
Income from continuing operations	$ 2.15	$ 1.46	$ 2.02	$ 2.30	$ 1.63	(29%)	(24%)	$ 8.64	$ 5.95	(31%)
Citigroup's net income	$ 2.15	$ 1.46	$ 2.02	$ 2.19	$ 1.63	(26%)	(24%)	$ 8.65	$ 5.84	(32%)
Preferred dividends	$ 266	$ 229	$ 279	$ 238	$ 277	16%	4%	$ 811	$ 794	(2%)
Income allocated to unrestricted common shareholders - basic										
Income from continuing operations	$ 4,353	$ 2,924	$ 4,004	$ 4,495	$ 3,180	(29%)	(27%)	$ 17,827	$ 11,677	(34%)
Citigroup's net income	$ 4,352	$ 2,924	$ 4,002	4,274	$ 3,174	(26%)	(27%)	$ 17,834	$ 11,449	(36%)
Income allocated to unrestricted common shareholders - diluted										
Income from continuing operations	$ 4,361	$ 2,932	$ 4,012	$ 4,506	$ 3,191	(29%)	(27%)	$ 17,851	$ 11,707	(34%)
Citigroup's net income	$ 4,360	$ 2,932	$ 4,010	$ 4,285	$ 3,185	(26%)	(27%)	$ 17,857	$ 11,479	(36%)
Shares (in millions):										
Average basic	2,009.3	1,984.3	1,971.7	1,941.5	1,936.8	-	(4%)	2,049.3	1,950.0	(5%)
Average diluted	2,026.2	2,001.6	1,988.2	1,958.1	1,955.1	-	(4%)	2,065.3	1,967.1	(5%)
Common shares outstanding, at period end	1,984.3	1,984.4	1,941.9	1,936.7	1,936.9	-	(2%)			
Regulatory capital ratios and performance metrics:										
Common Equity Tier 1 (CET1) Capital ratio[7][8][9]	11.65%	12.25%	11.38%	11.90%	12.2%					
Tier 1 Capital ratio[7][8][9]	13.15%	13.91%	12.98%	13.57%	13.9%					
Total Capital ratio[7][8][9]	15.37%	16.04%	14.84%	15.16%	15.0%					
Supplementary Leverage ratio (SLR)[7][9][10]	5.80%	5.73%	5.58%	5.63%	5.7%					
Return on average assets	0.79%	0.53%	0.74%	0.77%	0.58%			1.08%	0.69%	
Return on average common equity	9.5%	6.4%	9.0%	9.7%	7.1%			13.2%	8.6%	
Average tangible common equity (TCE) (in billions of dollars)	$ 157.4	$ 157.0	$ 155.3	$ 154.4	$ 155.5	1%	(1%)	$ 156.0	$ 155.4	-
Return on average tangible common equity (RoTCE)	11.0%	7.4%	10.5%	11.2%	8.2%			15.4%	9.9%	
Efficiency ratio (total operating expenses/total revenues, net)	67.5%	79.5%	68.6%	63.1%	68.9%	580 bps	140 bps	63.2%	66.8%	360 bps
Balance sheet data (in billions of dollars, except per share amounts):										
Total assets	$ 2,361.9	$ 2,291.4	$ 2,394.1	$ 2,380.9	$ 2,381.1	-	1%			
Total average assets	2,346.0	2,386.2	2,374.0	2,380.1	2,399.4	1%	2%	2,334.9	2,384.5	2%
Total loans	664.8	667.8	659.7	657.3	646.0	(2%)	(3%)			
Total deposits	1,347.5	1,317.2	1,333.7	1,321.8	1,306.5	(1%)	(3%)			
Citigroup's stockholders' equity	200.9	202.0	197.7	199.0	198.6	-	(1%)			
Book value per share	92.16	92.21	92.03	92.95	92.71	-	1%			
Tangible book value per share	79.07	79.16	79.03	80.25	80.34	-	2%			
Direct staff (in thousands)	220	223	228	231	238	3%	8%			

(1) During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from Interest expense to Other operating expenses for all periods presented. For additional information, see Note 1 to the Consolidated Financial Statements in Citi's 2021 Annual Report on Form 10-K.
(2) 3Q21 includes an approximate $680 million loss on sale (an approximate $580 million after-tax), related to Citi's agreement to sell its Australia consumer banking business.
(3) 3Q22 includes an approximate $616 million gain on sale recorded in Other revenue (approximately $290 million after various taxes) related to Citi's sale of the Philippines consumer banking business.
(4) 4Q21 includes approximately $1.052 billion in expenses (approximately $792 million after-tax), primarily related to charges incurred from the voluntary early retirement plan (VERP) in connection with the wind-down of Citi's consumer banking business in Korea.
(5) 2021 includes an approximate $600 million benefit from a reduction in Citi's valuation allowance related to its Deferred Tax Assets (DTAs).
(6) 2Q22 discontinued operations reflects the release of a currency translation adjustment (CTA) loss (net of hedges) recorded in Accumulated Other Comprehensive Income (AOCI) related to the substantial liquidation of a legal entity (with a non-U.S. dollar functional currency), that had previously divested a legacy business.
(7) 3Q22 is preliminary.
(8) For all periods presented, Citi's reportable CET1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach framework, whereas Citi's reportable Total Capital ratios were derived under the Basel III Advanced Approaches framework. These reportable ratios reflect the more binding ratios under both the Standardized Approach and the Advanced Approaches under the Collins Amendment. For the composition of Citi's CET1 Capital and ratio, see page 18.
(9) Citi's regulatory capital ratios reflect certain deferrals based on the modified regulatory capital transition provision related to the Current Expected Credit Losses (CECL) standard. For additional information, see "Capital Resources" in Citi's 2021 Annual Report on Form 10-K.
(10) For the composition of Citi's SLR, see page 18.

Note: Ratios and variance percentages are calculated based on the displayed amounts.
NM Not meaningful.
Reclassified to conform to the current period's presentation.

CITIGROUP CONSOLIDATED STATEMENT OF INCOME
(In millions of dollars)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Revenues										
Interest revenue	$ 12,650	$ 12,828	$ 13,151	$ 15,630	$ 19,919	27%	57%	$ 37,647	$ 48,700	29%
Interest expense[1]	1,959	2,009	2,280	3,666	7,356	NM	NM	5,972	13,302	NM
Net interest income (NII)	10,691	10,819	10,871	11,964	12,563	5%	18%	31,675	35,398	12%
Commissions and fees	3,399	3,229	2,568	2,452	2,139	(13%)	(37%)	10,443	7,159	(31%)
Principal transactions	2,233	1,704	4,590	4,525	2,625	(42%)	18%	8,450	11,740	39%
Administrative and other fiduciary fees	1,007	953	966	1,023	915	(11%)	(9%)	2,990	2,904	(3%)
Realized gains (losses) on investments	117	10	80	(58)	52	NM	(56%)	655	74	(89%)
Impairment losses on investments and other assets	(30)	(94)	(90)	(96)	(91)	5%	NM	(112)	(277)	NM
Provision for credit losses on AFS debt securities[2]	(1)	(2)	-	2	5	NM	NM	(1)	7	NM
Other revenue (loss)	31	398	201	(174)	300	NM	NM	767	327	(57%)
Total non-interest revenues (NIR)	6,756	6,198	8,315	7,674	5,945	(23%)	(12%)	23,192	21,934	(5%)
Total revenues, net of interest expense	**17,447**	**17,017**	**19,186**	**19,638**	**18,508**	**(6%)**	**6%**	**54,867**	**57,332**	4%
Provisions for credit losses and for benefits and claims										
Net credit losses	961	866	872	850	887	4%	(8%)	4,029	2,609	(35%)
Credit reserve build / (release) for loans	(1,149)	(1,176)	(612)	534	441	(17%)	NM	(6,822)	363	NM
Provision for credit losses on loans	(188)	(310)	260	1,384	1,328	(4%)	NM	(2,793)	2,972	NM
Provision for credit losses on held-to-maturity (HTM) debt securities	(10)	14	(2)	20	10	(50%)	NM	(17)	28	NM
Provision for credit losses on other assets	(3)	(3)	(4)	7	73	NM	NM	3	76	NM
Policyholder benefits and claims	22	27	27	22	25	14%	14%	89	74	(17%)
Provision for credit losses on unfunded lending commitments	(13)	(193)	474	(159)	(71)	55%	NM	(595)	244	NM
Total provisions for credit losses and for benefits and claims[3]	**(192)**	**(465)**	**755**	**1,274**	**1,365**	**7%**	**NM**	**(3,313)**	**3,394**	**NM**
Operating expenses										
Compensation and benefits	6,058	7,093	6,820	6,472	6,745	4%	11%	18,041	20,037	11%
Premises and equipment	560	620	543	619	557	(10%)	(1%)	1,694	1,719	1%
Technology / communication	1,997	2,084	2,016	2,068	2,145	4%	7%	5,744	6,229	8%
Advertising and marketing	402	478	311	414	407	(2%)	1%	1,012	1,132	12%
Other operating[1]	2,760	3,257	3,475	2,820	2,895	3%	5%	8,170	9,190	12%
Total operating expenses	**11,777**	**13,532**	**13,165**	**12,393**	**12,749**	**3%**	**8%**	**34,661**	**38,307**	**11%**
Income from continuing operations before income taxes	5,862	3,950	5,266	5,971	4,394	(26%)	(25%)	23,519	15,631	(34%)
Provision for income taxes[4]	1,193	771	941	1,182	879	(26%)	(26%)	4,680	3,002	(36%)
Income (loss) from continuing operations	**4,669**	**3,179**	**4,325**	**4,789**	**3,515**	**(27%)**	**(25%)**	**18,839**	**12,629**	(33%)
Discontinued operations[5]										
Income (loss) from discontinued operations	(1)	-	(2)	(262)	(6)	98%	NM	7	(270)	NM
Provision (benefit) for income taxes	-	-	-	(41)	-	100%	-	-	(41)	NM
Income (loss) from discontinued operations, net of taxes	(1)	-	(2)	(221)	(6)	97%	NM	7	(229)	NM
Net income before noncontrolling interests	4,668	3,179	4,323	4,568	3,509	(23%)	(25%)	18,846	12,400	(34%)
Net income (loss) attributable to noncontrolling interests	24	6	17	21	30	43%	25%	67	68	1%
Citigroup's net income	**$ 4,644**	**$ 3,173**	**$ 4,306**	**$ 4,547**	**$ 3,479**	**(23%)**	**(25%)**	**$ 18,779**	**$ 12,332**	(34%)

(1) See footnote 1 on page 1.
(2) This presentation is in accordance with ASC 326, which requires the provision for credit losses on AFS securities to be included in revenue.
(3) This total excludes the provision for credit losses on AFS securities, which is disclosed separately above.
(4) See footnote 5 on page 1.
(5) See footnote 6 on page 1.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

CITIGROUP CONSOLIDATED BALANCE SHEET

(In millions of dollars)

	September 30, 2021	December 31, 2021	March 31, 2022	June 30, 2022	September 30, 2022[1]	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21
Assets							
Cash and due from banks (including segregated cash and other deposits)	$ 28,906	$ 27,515	$ 27,768	$ 24,902	$ 26,502	6%	(8%)
Deposits with banks, net of allowance	294,902	234,518	244,319	259,128	273,105	5%	(7%)
Securities borrowed and purchased under agreements to resell, net of allowance	337,696	327,288	345,410	361,334	349,214	(3%)	3%
Brokerage receivables, net of allowance	59,487	54,340	89,218	80,486	79,696	(1%)	34%
Trading account assets	342,914	331,945	357,997	340,875	358,260	5%	4%
Investments							
Available-for-sale debt securities, net of allowance	295,573	288,522	264,774	238,499	232,143	(3%)	(21%)
Held-to-maturity debt securities, net of allowance	198,056	216,963	242,547	267,592	267,864	-	35%
Equity securities	7,220	7,337	7,281	7,787	8,009	3%	11%
Total investments	500,849	512,822	514,602	513,878	508,016	(1%)	1%
Loans, net of unearned income							
Consumer[2]	369,292	376,534	350,328	355,605	357,583	1%	(3%)
Corporate[3]	295,472	291,233	309,341	301,728	288,377	(4%)	(2%)
Loans, net of unearned income	664,764	667,767	659,669	657,333	645,960	(2%)	(3%)
Allowance for credit losses on loans (ACLL)	(17,715)	(16,455)	(15,393)	(15,952)	(16,309)	(2%)	8%
Total loans, net	647,049	651,312	644,276	641,381	629,651	(2%)	(3%)
Goodwill	21,573	21,299	19,865	19,597	19,326	(1%)	(10%)
Intangible assets (including MSRs)	4,553	4,495	4,522	4,526	4,485	(1%)	(1%)
Other assets, net of allowance	123,947	125,879	146,128	134,797	132,809	(1%)	7%
Total assets	**$ 2,361,876**	**$ 2,291,413**	**$ 2,394,105**	**$ 2,380,904**	**$ 2,381,064**	-	**1%**
Liabilities							
Non-interest-bearing deposits in U.S. offices	$ 145,103	$ 158,552	$ 153,666	$ 147,214	$ 135,514	(8%)	(7%)
Interest-bearing deposits in U.S. offices	567,902	543,283	557,327	565,785	570,920	1%	1%
Total U.S. deposits	713,005	701,835	710,993	712,999	706,434	(1%)	(1%)
Non-interest-bearing deposits in offices outside the U.S.	94,016	97,270	98,579	100,266	98,904	(1%)	5%
Interest-bearing deposits in offices outside the U.S.	540,507	518,125	524,139	508,583	501,148	(1%)	(7%)
Total international deposits	634,523	615,395	622,718	608,849	600,052	(1%)	(5%)
Total deposits	1,347,528	1,317,230	1,333,711	1,321,848	1,306,486	(1%)	(3%)
Securities loaned and sold under agreements to resell	209,184	191,285	204,494	198,472	203,429	2%	(3%)
Brokerage payables	60,501	61,430	91,324	96,474	87,841	(9%)	45%
Trading account liabilities	179,286	161,529	188,059	180,453	196,479	9%	10%
Short-term borrowings	29,683	27,973	30,144	40,054	47,368	18%	60%
Long-term debt	258,274	254,374	253,954	257,425	253,068	(2%)	(2%)
Other liabilities[4]	75,810	74,920	94,066	86,552	87,276	1%	15%
Total liabilities	**$ 2,160,266**	**$ 2,088,741**	**$ 2,195,752**	**$ 2,181,278**	**$ 2,181,947**	-	**1%**
Equity							
Stockholders' equity							
Preferred stock	$ 17,995	$ 18,995	$ 18,995	$ 18,995	$ 18,995	-	6%
Common stock	31	31	31	31	31	-	-
Additional paid-in capital	107,922	108,003	108,050	108,210	108,347	-	-
Retained earnings	183,024	184,948	187,962	191,261	193,462	1%	6%
Treasury stock, at cost	(71,246)	(71,240)	(73,744)	(73,988)	(73,977)	-	(4%)
Accumulated other comprehensive income (loss) (AOCI)[5]	(36,851)	(38,765)	(43,585)	(45,495)	(48,298)	(6%)	(31%)
Total common equity	**$ 182,880**	**$ 182,977**	**$ 178,714**	**$ 180,019**	**$ 179,565**	-	**(2%)**
Total Citigroup stockholders' equity	**$ 200,875**	**$ 201,972**	**$ 197,709**	**$ 199,014**	**$ 198,560**	-	**(1%)**
Noncontrolling interests	735	700	644	612	557	(9%)	(24%)
Total equity	**201,610**	**202,672**	**198,353**	**199,626**	**199,117**	-	**(1%)**
Total liabilities and equity	**$ 2,361,876**	**$ 2,291,413**	**$ 2,394,105**	**$ 2,380,904**	**$ 2,381,064**	-	**1%**

(1) Preliminary.
(2) Consumer loans include loans managed by PBWM and Legacy Franchises (other than Mexico Small Business & Middle-Market Banking (Mexico SBMM) loans).
(3) Corporate loans include loans managed by ICG and Legacy Franchises-Mexico SBMM.
(4) Includes allowance for credit losses for unfunded lending commitments. See page 15.
(5) As discussed in footnote 2 on page 1, Citi's third quarter of 2021 results include an approximate $680 million loss on sale (an approximate $580 million after-tax), related to Citi's agreement to sell its Australia consumer banking business. The loss primarily reflects the impact of an approximate $625 million ($475 million (after-tax)) currency translation adjustment (CTA) loss (net of hedges) at September 30, 2021, December 31, 2021 and March 31, 2022, already reflected in the Accumulated Other Comprehensive Income (AOCI) component of equity. The sale closed during the second quarter of 2022, and the CTA balance was removed from the AOCI component of equity as of the end of the second quarter of 2022, resulting in a neutral impact from CTA to Citi's Common Equity Tier 1 Capital.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

OPERATING SEGMENT AND REPORTING UNIT DETAILS
(In millions of dollars)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Net revenues										
Institutional Clients Group	$ 9,991	$ 8,908	$ 11,160	$ 11,419	$ 9,468	(17%)	(5%)	$ 30,928	$ 32,047	4%
Personal Banking and Wealth Management	5,852	5,785	5,905	6,029	6,187	3%	6%	17,542	18,121	3%
Legacy Franchises	1,536	2,193	1,931	1,935	2,554	32%	66%	6,058	6,420	6%
Corporate/Other	68	131	190	255	299	17%	NM	339	744	NM
Total net revenues	**$ 17,447**	**$ 17,017**	**$ 19,186**	**$ 19,638**	**$ 18,508**	**(6%)**	**6%**	**$ 54,867**	**$ 57,332**	**4%**
Income from continuing operations										
Institutional Clients Group	$ 3,115	$ 2,330	$ 2,658	$ 3,978	$ 2,186	(45%)	(30%)	$ 11,978	$ 8,822	(26%)
Personal Banking and Wealth Management	1,896	1,613	1,860	553	792	43%	(58%)	6,121	3,205	(48%)
Legacy Franchises	(201)	(620)	(385)	(15)	316	NM	NM	611	(84)	NM
Corporate/Other	(141)	(144)	192	273	221	(19%)	NM	129	686	NM
Income from continuing operations	**$ 4,669**	**$ 3,179**	**$ 4,325**	**$ 4,789**	**$ 3,515**	**(27%)**	**(25%)**	**$ 18,839**	**$ 12,629**	**(33%)**
Discontinued operations	(1)	-	(2)	(221)	(6)	97%	NM	7	(229)	NM
Net income attributable to noncontrolling interests	24	6	17	21	30	43%	25%	67	68	1%
Net income	**$ 4,644**	**$ 3,173**	**$ 4,306**	**$ 4,547**	**$ 3,479**	**(23%)**	**(25%)**	**$ 18,779**	**$ 12,332**	**(34%)**

NM Not meaningful.
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INSTITUTIONAL CLIENTS GROUP

(In millions of dollars, except as otherwise noted)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Commissions and fees	$ 1,055	$ 1,064	$ 1,130	$ 1,125	$ 1,082	(4%)	3%	3,236	3,337	3%
Administration and other fiduciary fees	676	662	672	732	651	(11%)	(4%)	2,031	2,055	1%
Investment banking fees[(1)]	1,685	1,669	1,039	990	816	(18%)	(52%)	5,040	2,845	(44%)
Principal transactions	2,229	1,654	4,442	4,358	2,776	(36%)	25%	8,109	11,576	43%
Other	608	91	93	(306)	(427)	(40%)	NM	1,281	(640)	NM
Total non-interest revenue	6,253	5,140	7,376	6,899	4,898	(29%)	(22%)	19,697	19,173	(3%)
Net interest income (including dividends)	3,738	3,768	3,784	4,520	4,570	1%	22%	11,231	12,874	15%
Total revenues, net of interest expense	**9,991**	**8,908**	**11,160**	**11,419**	**9,468**	**(17%)**	**(5%)**	**30,928**	**32,047**	**4%**
Total operating expenses	5,963	6,225	6,723	6,434	6,541	2%	10%	17,724	19,698	11%
Net credit losses on loans	31	82	30	18	-	(100%)	(100%)	274	48	(82%)
Credit reserve build / (release) for loans	14	(192)	596	(76)	75	NM	NM	(1,901)	595	NM
Provision for credit losses on unfunded lending commitments	(13)	(181)	352	(169)	(59)	65%	NM	(572)	124	NM
Provisions for credit losses for HTM debt securities and other assets	(8)	10	(7)	25	70	NM	NM	(10)	88	NM
Provision for credit losses	24	(281)	971	(202)	86	NM	NM	(2,209)	855	NM
Income from continuing operations before taxes	4,004	2,964	3,466	5,187	2,841	(45%)	(29%)	15,413	11,494	(25%)
Income taxes	889	634	808	1,209	655	(46%)	(26%)	3,435	2,672	(22%)
Income from continuing operations	**3,115**	**2,330**	**2,658**	**3,978**	**2,186**	**(45%)**	**(30%)**	**11,978**	**8,822**	**(26%)**
Noncontrolling interests	24	10	18	17	24	41%	-	73	59	(19%)
Net income	**$ 3,091**	**$ 2,320**	**$ 2,640**	**$ 3,961**	**$ 2,162**	**(45%)**	**(30%)**	**$ 11,905**	**$ 8,763**	**(26%)**
EOP assets (in billions)	$ 1,670	$ 1,613	$ 1,704	$ 1,700	$ 1,706	-	2%			
Average assets (in billions)	1,660	1,698	1,685	1,698	1,729	2%	4%	1,659	1,704	3%
Efficiency ratio	60%	70%	60%	56%	69%	1,300 bps	900 bps	57%	61%	400 bps
Revenue by reporting unit										
Services	$ 3,141	$ 3,258	$ 3,448	$ 4,023	$ 4,177	4%	33%	$ 9,281	$ 11,648	26%
Markets	4,387	3,343	5,826	5,320	4,068	(24%)	(7%)	14,575	15,214	4%
Banking	2,463	2,307	1,886	2,076	1,223	(41%)	(50%)	7,072	5,185	(27%)
Total revenues, net of interest expense	$ 9,991	$ 8,908	$ 11,160	$ 11,419	$ 9,468	(17%)	(5%)	$ 30,928	$ 32,047	4%
Revenue by region										
North America	$ 3,727	$ 3,278	$ 3,722	$ 4,410	$ 3,091	(30%)	(17%)	$ 11,481	$ 11,223	(2%)
EMEA	2,981	2,705	4,030	3,566	3,099	(13%)	4%	9,710	10,695	10%
Latin America	1,129	1,113	1,141	1,266	1,202	(5%)	6%	3,164	3,609	14%
Asia	2,154	1,812	2,267	2,177	2,076	(5%)	(4%)	6,573	6,520	(1%)
Total revenues, net of interest expense	$ 9,991	$ 8,908	$ 11,160	$ 11,419	$ 9,468	(17%)	(5%)	$ 30,928	$ 32,047	4%
Income (loss) from continuing operations by region										
North America	$ 718	$ 768	$ 589	$ 1,501	$ 97	(94%)	(86%)	$ 4,321	$ 2,187	(49%)
EMEA	990	672	928	1,172	1,003	(14%)	1%	3,531	3,103	(12%)
Latin America	580	473	359	544	426	(22%)	(27%)	1,587	1,329	(16%)
Asia	827	417	782	761	660	(13%)	(20%)	2,539	2,203	(13%)
Income (loss) from continuing operations	$ 3,115	$ 2,330	$ 2,658	$ 3,978	$ 2,186	(45%)	(30%)	$ 11,978	$ 8,822	(26%)
Average loans by reporting unit (in billions)										
Services	$ 76	$ 77	$ 81	$ 85	$ 82	(4%)	8%	$ 73	$ 82	12%
Banking	196	195	194	199	197	(1%)	1%	197	197	-
Markets	17	17	14	13	12	(8%)	(29%)	16	13	(19%)
Total	$ 289	$ 289	$ 289	$ 297	$ 291	(2%)	1%	$ 286	$ 292	2%
Average deposits by reporting unit and selected component (in billions)										
Treasury and trade solutions (TTS)	$ 668	$ 684	$ 664	$ 665	$ 664	-	(1%)	$ 658	$ 664	1%
Securities services	135	140	135	137	131	(4%)	(3%)	133	134	1%
Services	803	824	799	802	795	(1%)	(1%)	791	798	1%
Markets	28	28	27	28	22	(21%)	(21%)	28	26	(7%)
Total	$ 831	$ 852	$ 826	$ 830	$ 817	(2%)	(2%)	$ 819	$ 824	1%
Services Key Drivers (in billions of dollars, except as otherwise noted)										
AUC/AUA (in trillions of dollars)	$ 22.6	$ 23.7	$ 23.0	$ 21.2	$ 20.9	(1%)	(8%)			
Cross border transaction value	$ 69.0	$ 78.2	$ 75.6	$ 79.3	$ 75.6	(5%)	10%	$ 201.3	$ 230.5	15%
U.S.-dollar clearing volume (in millions)	37.0	37.8	36.1	36.7	37.6	2%	2%	108.4	110.4	2%
Commercial card spend volume	$ 10.5	$ 11.4	$ 11.4	$ 15.0	$ 15.6	4%	49%	$ 27.2	$ 42.0	54%

(1) Investment banking fees are substantially composed of underwriting and advisory revenues

NM Not meaningful.

Reclassified to conform to the current period's presentation.

INSTITUTIONAL CLIENTS GROUP
REPORTING UNIT REVENUES
(In millions of dollars, except as otherwise noted)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Services										
Net interest income	$ 1,613	$ 1,682	$ 1,907	$ 2,327	$ 2,619	13%	62%	$ 4,870	$ 6,853	41%
Non-interest revenue	1,528	1,576	1,541	1,696	1,558	(8%)	2%	4,411	4,795	9%
Total Services revenues	**$ 3,141**	**$ 3,258**	**$ 3,448**	**$ 4,023**	**$ 4,177**	**4%**	**33%**	**$ 9,281**	**$ 11,648**	**26%**
Net interest income	$ 1,389	$ 1,444	$ 1,659	$ 2,026	$ 2,232	10%	61%	$ 4,221	$ 5,917	40%
Non-interest revenue	908	960	931	1,003	977	(3%)	8%	2,549	2,911	14%
Treasury and trade solutions	**$ 2,297**	**$ 2,404**	**$ 2,590**	**$ 3,029**	**$ 3,209**	**6%**	**40%**	**$ 6,770**	**$ 8,828**	**30%**
Net interest income	$ 224	$ 238	$ 248	$ 301	$ 387	29%	73%	$ 649	$ 936	44%
Non-interest revenue	620	616	610	693	581	(16%)	(6%)	1,862	1,884	1%
Securities services	**$ 844**	**$ 854**	**$ 858**	**$ 994**	**$ 968**	**(3%)**	**15%**	**$ 2,511**	**$ 2,820**	**12%**
Markets										
Net interest income	$ 1,265	$ 1,250	$ 1,109	$ 1,383	$ 1,228	(11%)	(3%)	$ 3,953	$ 3,720	(6%)
Non-interest revenue	3,122	2,093	4,717	3,937	2,840	(28%)	(9%)	10,622	11,494	8%
Total Markets revenues	**$ 4,387**	**$ 3,343**	**$ 5,826**	**$ 5,320**	**$ 4,068**	**(24%)**	**(7%)**	**$ 14,575**	**$ 15,214**	**4%**
Fixed income markets	$ 3,040	$ 2,425	$ 4,299	$ 4,084	$ 3,062	(25%)	1%	$ 10,497	$ 11,445	9%
Equity markets	1,347	918	1,527	1,236	1,006	(19%)	(25%)	4,078	3,769	(8%)
Total	**$ 4,387**	**$ 3,343**	**$ 5,826**	**$ 5,320**	**$ 4,068**	**(24%)**	**(7%)**	**$ 14,575**	**$ 15,214**	**4%**
Rates and currencies	$ 2,112	$ 1,721	$ 3,231	$ 3,277	$ 2,492	(24%)	18%	$ 7,114	$ 9,000	27%
Spread products / other fixed income	928	704	1,068	807	570	(29%)	(39%)	3,383	2,445	(28%)
Total fixed income markets revenues	**$ 3,040**	**$ 2,425**	**$ 4,299**	**$ 4,084**	**$ 3,062**	**(25%)**	**1%**	**$ 10,497**	**$ 11,445**	**9%**
Banking										
Net interest income	$ 860	$ 836	$ 768	$ 810	$ 723	(11%)	(16%)	$ 2,408	$ 2,301	(4%)
Non-interest revenue	1,603	1,471	1,118	1,266	500	(61%)	(69%)	4,664	2,884	(38%)
Total Banking revenues, including gain/(loss) on loan hedges	**$ 2,463**	**$ 2,307**	**$ 1,886**	**$ 2,076**	**$ 1,223**	**(41%)**	**(50%)**	**$ 7,072**	**$ 5,185**	**(27%)**
Investment banking										
Advisory	$ 539	$ 571	$ 347	$ 357	$ 392	10%	(27%)	$ 1,225	$ 1,096	(11%)
Equity underwriting	468	462	185	177	100	(44%)	(79%)	1,787	462	(74%)
Debt underwriting	770	520	496	271	139	(49%)	(82%)	2,066	906	(56%)
Total investment banking	1,777	1,553	1,028	805	631	(22%)	(64%)	5,078	2,464	(51%)
Corporate lending - excluding gain/(loss) on loan hedges[1]	732	733	689	777	648	(17%)	(11%)	2,155	2,114	(2%)
Total Banking revenues (ex-gain/(loss) on loan hedges)[1]	**$ 2,509**	**$ 2,286**	**$ 1,717**	**$ 1,582**	**$ 1,279**	**(19%)**	**(49%)**	**$ 7,233**	**$ 4,578**	**(37%)**
Gain/(loss) on loan hedges[1]	(46)	21	169	494	(56)	NM	(22%)	(161)	607	NM
Total Banking revenues including gain/(loss) on loan hedges[1]	**$ 2,463**	**$ 2,307**	**$ 1,886**	**$ 2,076**	**$ 1,223**	**(41%)**	**(50%)**	**$ 7,072**	**$ 5,185**	**(27%)**
Total ICG revenues, net of interest expense	**$ 9,991**	**$ 8,908**	**$ 11,160**	**$ 11,419**	**$ 9,468**	**(17%)**	**(5%)**	**$ 30,928**	**$ 32,047**	**4%**
Taxable-equivalent adjustments[2]	105	159	100	116	115	(1%)	10%	400	331	(17%)
Total ICG revenues - including taxable-equivalent adjustments[2]	**$ 10,096**	**$ 9,067**	**$ 11,260**	**$ 11,535**	**$ 9,583**	**(17%)**	**(5%)**	**$ 31,328**	**$ 32,378**	**3%**

(1) Credit derivatives are used to economically hedge a portion of the corporate loan portfolio that includes both accrual loans and loans at fair value. Gain/(loss) on loan hedges includes the mark-to-market on the credit derivatives partially offset by the mark-to-market on the loans in the portfolio that are at fair value. Hedges on accrual loans reflect the mark-to-market on credit derivatives used to economically hedge the corporate loan accrual portfolio. The fixed premium costs of these hedges are netted against the corporate lending revenues to reflect the cost of credit protection. Citigroup's results of operations excluding the impact of gain/(loss) on loan hedges are non-GAAP financial measures.
(2) Primarily relates to income tax credits related to affordable housing and alternative energy investments as well as tax exempt income from municipal bond investments.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

PERSONAL BANKING AND WEALTH MANAGEMENT

(In millions of dollars, except as otherwise noted)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Net interest income	$ 5,174	$ 5,322	$ 5,385	$ 5,569	$ 5,836	5%	13%	$ 15,324	$ 16,790	10%
Non-interest revenue	678	463	520	460	351	(24%)	(48%)	2,218	1,331	(40%)
Total revenues, net of interest expense	**5,852**	**5,785**	**5,905**	**6,029**	**6,187**	**3%**	**6%**	**17,542**	**18,121**	**3%**
Total operating expenses	3,624	4,017	3,889	3,985	4,077	2%	13%	10,593	11,951	13%
Net credit losses on loans	641	568	691	699	723	3%	13%	2,493	2,113	(15%)
Credit reserve build / (release) for loans	(836)	(866)	(1,062)	638	360	(44%)	NM	(3,418)	(64)	98%
Provision for credit losses on unfunded lending commitments	(7)	(3)	(2)	13	19	46%	NM	(13)	30	NM
Provisions for benefits and claims, and other assets	1	5	(3)	5	7	40%	NM	10	9	(10%)
Provisions for credit losses and for benefits and claims (PBC)	(201)	(296)	(376)	1,355	1,109	(18%)	NM	(928)	2,088	NM
Income (loss) from continuing operations before taxes	2,429	2,064	2,392	689	1,001	45%	(59%)	7,877	4,082	(48%)
Income taxes (benefits)	533	451	532	136	209	54%	(61%)	1,756	877	(50%)
Income (loss) from continuing operations	**1,896**	**1,613**	**1,860**	**553**	**792**	**43%**	**(58%)**	**6,121**	**3,205**	**(48%)**
Noncontrolling interests	-	-	-	-	-	-	-	-	-	-
Net income (loss)	**$ 1,896**	**$ 1,613**	**$ 1,860**	**$ 553**	**$ 792**	**43%**	**(58%)**	**$ 6,121**	**$ 3,205**	**(48%)**
EOP assets (in billions)	$ 477	$ 464	$ 476	$ 479	$ 479	-	-			
Average assets (in billions)	474	476	474	474	473	-	-	463	474	2%
Efficiency ratio	62%	69%	66%	66%	66%	0 bps	400 bps	60%	66%	600 bps
Revenue by reporting unit and component										
Branded cards	$ 2,045	$ 2,073	$ 2,090	$ 2,168	$ 2,258	4%	10%	$ 6,117	$ 6,516	7%
Retail services	1,277	1,290	1,299	1,300	1,431	10%	12%	3,792	4,030	6%
Retail banking	629	624	595	656	642	(2%)	2%	1,882	1,893	1%
U.S. Personal Banking	3,951	3,987	3,984	4,124	4,331	5%	10%	11,791	12,439	5%
Private bank	722	688	779	745	649	(13%)	(10%)	2,255	2,173	(4%)
Wealth at Work	172	177	183	170	182	7%	6%	514	535	4%
Citigold	1,007	933	959	990	1,025	4%	2%	2,982	2,974	-
Global Wealth Management	1,901	1,798	1,921	1,905	1,856	(3%)	(2%)	5,751	5,682	(1%)
Total	$ 5,852	$ 5,785	$ 5,905	$ 6,029	$ 6,187	3%	6%	$ 17,542	$ 18,121	3%
Average loans by reporting unit (in billions)										
U.S. Personal Banking	$ 158	$ 162	$ 161	$ 167	$ 174	4%	10%	$ 158	$ 167	6%
Global Wealth Management	151	150	151	150	151	1%	-	147	151	3%
Total	$ 309	$ 312	$ 312	$ 317	$ 325	3%	5%	$ 305	$ 318	4%
Average deposits by reporting unit (in billions)										
U.S. Personal Banking	$ 114	$ 114	$ 118	$ 116	$ 115	(1%)	1%	$ 111	$ 117	5%
Global Wealth Management	310	323	329	319	313	(2%)	1%	299	320	7%
Total	$ 424	$ 437	$ 447	$ 435	$ 428	(2%)	1%	$ 410	$ 437	7%

NM Not meaningful.

Reclassified to conform to the current period's presentation.

PERSONAL BANKING AND WEALTH MANAGEMENT
Metrics

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q21
U.S. Personal Banking Key Indicators (in billions of dollars, except as otherwise noted)							
New account acquisitions (in thousands)							
Branded cards	995	1,069	991	1,069	1,090	2%	10%
Retail services	2,526	3,126	2,178	2,634	2,339	(11%)	(7%)
Credit card spend volume							
Branded cards	$ 106.0	$ 115.2	$ 106.8	$ 121.8	$ 120.7	(1%)	14%
Retail services	22.7	27.1	21.4	26.1	24.5	(6%)	8%
Average loans(1)							
Branded cards	$ 81.9	$ 84.5	$ 84.0	$ 87.9	$ 91.8	4%	12%
Retail services	42.4	43.8	44.2	44.8	46.1	3%	9%
EOP loans(1)							
Branded cards	$ 82.8	$ 87.9	$ 85.9	$ 91.6	$ 93.7	2%	13%
Retail services	42.7	46.0	44.1	45.8	46.7	2%	9%
NII as a % of average loans(2)							
Branded cards	9.00%	8.93%	9.16%	8.86%	8.98%		
Retail services	16.54%	16.55%	16.93%	17.32%	17.45%		
NCLs as a % of average loans							
Branded cards	1.73%	1.33%	1.46%	1.50%	1.50%		
Retail services	2.23%	2.10%	2.31%	2.60%	2.71%		
Loans 90+ days past due as a % of EOP loans							
Branded cards	0.44%	0.44%	0.47%	0.46%	0.51%		
Retail services	0.99%	1.05%	1.15%	1.16%	1.35%		
Loans 30-89 days past due as a % of EOP loans							
Branded cards	0.45%	0.46%	0.49%	0.47%	0.59%		
Retail services	1.10%	1.17%	1.27%	1.27%	1.53%		
Average deposits	$ 114	$ 114	$ 118	$ 116	$ 115	(1%)	1%
Branches (actual)	658	658	658	658	653	(1%)	(1%)
Mortgage originations	$ 3.4	$ 3.4	$ 3.1	$ 4.1	$ 4.2	2%	24%
Global Wealth Management Key Indicators (in billions of dollars)							
Client assets	$ 789	$ 814	$ 788	$ 730	$ 708	(3%)	(10%)
Average loans	151	150	151	150	151	1%	-
Average deposits	310	323	329	319	313	(2%)	1%
U.S. mortgage originations	3.8	3.5	3.7	5.3	4.4	(17%)	16%

(1) Average loans, EOP loans and the related consumer delinquency amounts and ratios include interest and fees receivables balances.
(2) Net interest income includes certain fees that are recorded as interest revenue.

Reclassified to conform to the current period's presentation.

LEGACY FRANCHISES[1]

(In millions of dollars, except as otherwise noted)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Net interest income	$ 1,532	$ 1,534	$ 1,508	$ 1,474	$ 1,385	(6%)	(10%)	$ 4,716	$ 4,367	(7%)
Non-interest revenue[2][3]	4	659	423	461	1,169	NM	NM	1,342	2,053	53%
Total revenues, net of interest expense	**1,536**	**2,193**	**1,931**	**1,935**	**2,554**	**32%**	**66%**	**6,058**	**6,420**	**6%**
Total operating expenses[3][4]	1,748	2,971	2,293	1,814	1,845	2%	6%	5,288	5,952	13%
Net credit losses on loans	289	216	151	133	164	23%	(43%)	1,262	448	(65%)
Credit reserve build / (release) for loans	(327)	(118)	(146)	(28)	6	NM	NM	(1,503)	(168)	89%
Provision for credit losses on unfunded lending commitments	7	(9)	124	(3)	(31)	NM	NM	(10)	90	NM
Provisions for benefits and claims, HTM debt securities and other assets	17	23	31	19	28	47%	65%	77	78	1%
Provisions for credit losses and for benefits and claims (PBC)	(14)	112	160	121	167	38%	NM	(174)	448	NM
Income from continuing operations before taxes	(198)	(890)	(522)	-	542	NM	NM	944	20	(98%)
Income taxes (benefits)	3	(270)	(137)	15	226	NM	NM	333	104	(69%)
Income (loss) from continuing operations	**(201)**	**(620)**	**(385)**	**(15)**	**316**	**NM**	**NM**	**611**	**(84)**	**NM**
Noncontrolling interests	(1)	(4)	(2)	2	-	(100%)	100%	(6)	-	100%
Net income (loss)	**$ (200)**	**$ (616)**	**$ (383)**	**$ (17)**	**$ 316**	**NM**	**NM**	**$ 617**	**$ (84)**	**NM**
EOP assets (in billions)	$ 124	$ 125	$ 122	$ 108	$ 100	(7%)	(19%)			
Average assets (in billions)	126	123	124	115	103	(10%)	(18%)	128	114	(11%)
Efficiency ratio	114%	135%	119%	94%	72%	(2,200) bps	(4,200) bps	87%	93%	600 bps

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Revenue by reporting unit and component										
Asia Consumer	$ 330	$ 948	$ 787	$ 880	$ 1,372	56%	NM	$ 2,457	$ 3,039	24%
Mexico Consumer/SBMM	1,162	1,168	1,139	1,184	1,173	(1%)	1%	3,483	3,496	-
Legacy Holdings Assets	44	77	5	(129)	9	NM	(80%)	118	(115)	NM
Total	$ 1,536	$ 2,193	$ 1,931	$ 1,935	$ 2,554	32%	66%	$ 6,058	$ 6,420	6%
Asia Consumer - Key Indicators (in billions of dollars)										
EOP loans	$ 42.9	$ 41.1	$ 19.5	$ 17.3	$ 13.4	(23%)	(69%)			
EOP deposits	46.6	43.3	17.5	17.2	14.6	(15%)	(69%)			
Average loans	46.4	42.3	23.1	18.2	15.2	(16%)	(67%)			
NCLs as a % of average loans	1.10%	0.96%	0.79%	0.77%	1.02%					
Loans 90+ days past due as a % of EOP loans	0.60%	0.51%	0.28%	0.29%	0.35%					
Loans 30-89 days past due as a % of EOP loans	0.80%	0.69%	0.32%	0.40%	0.47%					
Mexico Consumer/SBMM - Key Indicators (in billions of dollars)										
EOP loans	$ 19.4	$ 20.0	$ 20.7	$ 20.6	$ 20.7	-	7%			
EOP deposits	31.4	32.7	33.9	35.5	35.8	1%	14%			
Average loans	19.6	19.4	19.6	20.5	20.4	-	4%			
NCLs as a % of average loans	3.70%	2.72%	2.55%	2.15%	2.64%					
Loans 90+ days past due as a % of EOP loans (Mexico Consumer only)	1.52%	1.38%	1.32%	1.29%	1.26%					
Loans 30-89 days past due as a % of EOP loans (Mexico Consumer only)	1.46%	1.30%	1.30%	1.18%	1.23%					
Legacy Holdings Assets - Key Indicators (in billions of dollars)										
EOP loans	$ 4.2	$ 3.9	$ 3.7	$ 3.2	$ 3.2	-	(24%)			

(1) Legacy Franchises consists of the consumer franchises in 13 markets across Asia and EMEA that Citi intends to exit (Asia Consumer), the consumer, small business & middle-market banking (Mexico SBMM) operations in Mexico (collectively Mexico Consumer/SBMM); and Legacy Holdings Assets (primarily North America consumer mortgage loans and other legacy assets).
(2) See footnote 2 on page 1.
(3) See footnote 3 on page 1.
(4) See footnote 4 on page 1.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

CORPORATE / OTHER[1]

(In millions of dollars, except as otherwise noted)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Net interest income	$ 247	$ 195	$ 194	$ 401	$ 772	93%	NM	$ 404	$ 1,367	NM
Non-interest revenue	(179)	(64)	(4)	(146)	(473)	NM	NM	(65)	(623)	NM
Total revenues, net of interest expense	**68**	**131**	**190**	**255**	**299**	**17%**	**NM**	**339**	**744**	**NM**
Total operating expenses	442	319	260	160	286	79%	(35%)	1,056	706	(33%)
Provisions for HTM debt securities and other assets	(1)	-	-	-	3	NM	NM	(2)	3	NM
Income (loss) from continuing operations before taxes	(373)	(188)	(70)	95	10	(89%)	NM	(715)	35	NM
Income taxes (benefits)	(232)	(44)	(262)	(178)	(211)	(19%)	9%	(844)	(651)	23%
Income (loss) from continuing operations	**(141)**	**(144)**	**192**	**273**	**221**	**(19%)**	**NM**	**129**	**686**	NM
Income (loss) from discontinued operations, net of taxes[2]	(1)	-	(2)	(221)	(6)	97%	**NM**	7	(229)	NM
Noncontrolling interests	1	-	1	2	6	NM	NM	-	9	NM
Net income (loss)	**$ (143)**	**$ (144)**	**$ 189**	**$ 50**	**$ 209**	**NM**	**NM**	**$ 136**	**$ 448**	NM
EOP assets (in billions)	$ 91	$ 89	$ 92	$ 94	$ 96	2%	5%			

(1) Includes certain unallocated costs of global staff functions (including finance, risk, human resources, legal and compliance-related costs), other corporate expenses and unallocated global operations and technology expenses and income taxes, as well as Corporate Treasury Investment activities and discontinued operations.
(2) See footnote 6 on page 1.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

AVERAGE BALANCES AND INTEREST RATES[(1)(2)(3)(4)(5)]
Taxable Equivalent Basis

In millions of dollars, except as otherwise noted	Average Volumes 3Q21	Average Volumes 2Q22	Average Volumes 3Q22[(5)]	Interest 3Q21	Interest 2Q22	Interest 3Q22[(5)]	% Average Rate [(4)] 3Q21	% Average Rate [(4)] 2Q22	% Average Rate [(4)] 3Q22[(5)]
Assets									
Deposits with banks	$ 294,160	$ 227,377	$ 256,444	$ 147	$ 658	$ 1,218	**0.20%**	**1.16%**	**1.88%**
Securities borrowed and purchased under resale agreements[(6)]	323,183	349,520	361,719	264	805	2,176	**0.32%**	**0.92%**	**2.39%**
Trading account assets[(7)]	288,642	275,937	272,996	1,285	1,662	1,991	**1.77%**	**2.42%**	**2.89%**
Investments	498,112	519,582	513,414	1,907	2,387	3,010	**1.52%**	**1.84%**	**2.33%**
Consumer loans	373,216	352,531	356,347	6,567	6,601	7,380	**6.98%**	**7.51%**	**8.22%**
Corporate loans	295,271	304,956	298,371	2,330	2,917	3,430	**3.13%**	**3.84%**	**4.56%**
Total loans (net of unearned income)[(8)]	668,487	657,487	654,718	8,897	9,518	10,810	**5.28%**	**5.81%**	**6.55%**
Other interest-earning assets	71,193	121,629	110,619	196	644	760	**1.09%**	**2.12%**	**2.73%**
Total average interest-earning assets	**$ 2,143,777**	**$ 2,151,532**	**$ 2,169,910**	**$ 12,696**	**$ 15,674**	**$ 19,965**	**2.35%**	**2.92%**	**3.65%**
Liabilities									
Deposits[(9)]	1,097,790	1,068,002	1,075,359	730	1,420	3,270	**0.26%**	**0.53%**	**1.21%**
Securities loaned and sold under repurchase agreements[(6)]	228,947	208,399	207,190	287	655	1,251	**0.50%**	**1.26%**	**2.40%**
Trading account liabilities[(7)]	108,703	124,810	128,525	106	137	472	**0.39%**	**0.44%**	**1.46%**
Short-term borrowings and other interest-bearing liabilities	92,716	154,239	154,322	8	268	745	**0.03%**	**0.70%**	**1.92%**
Long-term debt[(10)]	185,784	168,724	169,329	828	1,186	1,618	**1.77%**	**2.82%**	**3.79%**
Total average interest-bearing liabilities	**$ 1,713,940**	**$ 1,724,174**	**$ 1,734,725**	**$ 1,959**	**$ 3,666**	**$ 7,356**	**0.45%**	**0.85%**	**1.68%**
Net interest income as a % of average interest-earning assets (NIM)[(9)]				**$ 10,737**	**$ 12,008**	**$ 12,609**	**1.99%**	**2.24%**	**2.31%**
3Q22 increase (decrease) from:							**32 bps**	**7 bps**	

(1) Interest revenue and Net interest income include the taxable equivalent adjustments (based on the U.S. federal statutory tax rate of 21%) of $46 million for 3Q21, $44 million for 2Q22 and $46 million for 3Q22
(2) Citigroup average balances and interest rates include both domestic and international operations
(3) Monthly averages have been used by certain subsidiaries where daily averages are unavailable
(4) Average rate percentage is calculated as annualized interest over average volumes.
(5) 3Q22 is preliminary.
(6) Average volumes of securities borrowed or purchased under agreements to resell and securities loaned or sold under agreements to repurchase are reported net pursuant to FIN 41; the related interes excludes the impact of ASU 2013-01 (Topic 210).
(7) Interest expense on trading account liabilities of ICG is reported as a reduction of interest revenue. Interest revenue and interest expense on cash collateral positions are reported in trading account assets anc trading account liabilities, respectively.
(8) Nonperforming loans are included in the average loan balances
(9) See footnote 1 on page 1.
(10) Excludes hybrid financial instruments with changes in fair value recorded in Principal transactions revenue

Reclassified to conform to the current period's presentation.

EOP LOANS(1)(2)

(In billions of dollars)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21
Corporate loans - by region							
North America	$ 127.7	$ 126.7	$ 129.2	$ 129.9	$ 125.9	(3%)	(1%)
EMEA	77.4	75.7	81.2	76.8	71.6	(7%)	(7%)
Latin America	31.6	32.2	35.9	36.2	35.4	(2%)	12%
Asia	58.8	56.6	63.0	58.8	55.5	(6%)	(6%)
Total corporate loans	**$ 295.5**	**$ 291.2**	**$ 309.3**	**$ 301.7**	**$ 288.4**	**(4%)**	**(2%)**
Corporate loans - by reporting unit							
Services	$ 79.8	$ 75.2	$ 86.7	$ 86.1	$ 80.8	(6%)	1%
Markets	17.5	15.1	14.6	12.6	11.7	(7%)	(33%)
Banking	191.8	194.2	200.9	195.9	188.9	(4%)	(2%)
Legacy Franchises - Mexico SBMM	6.4	6.7	7.1	7.1	7.0	(1%)	9%
Total corporate loans	**$ 295.5**	**$ 291.2**	**$ 309.3**	**$ 301.7**	**$ 288.4**	**(4%)**	**(2%)**
Personal Banking and Wealth Management							
Branded cards	$ 82.8	$ 87.9	$ 85.9	$ 91.6	$ 93.7	2%	13%
Retail services	42.7	46.0	44.1	45.8	46.7	2%	9%
Retail banking	33.4	33.0	33.3	35.4	35.8	1%	7%
U.S. Personal Banking	$ 158.9	$ 166.9	$ 163.3	$ 172.8	$ 176.2	2%	11%
Global Wealth Management	150.3	151.3	150.2	148.8	151.1	2%	1%
Total	**$ 309.2**	**$ 318.2**	**$ 313.5**	**$ 321.6**	**$ 327.3**	**2%**	**6%**
Legacy Franchises - Consumer							
Asia Consumer(3)	$ 42.9	$ 41.1	$ 19.5	$ 17.3	$ 13.4	(23%)	(69%)
Mexico Consumer	13.0	13.3	13.6	13.5	13.7	1%	5%
Legacy Holdings Assets	4.2	3.9	3.7	3.2	3.2	-	(24%)
Total	**$ 60.1**	**$ 58.3**	**$ 36.8**	**$ 34.0**	**$ 30.3**	(11%)	(50%)
Total consumer loans	**$ 369.3**	**$ 376.5**	**$ 350.3**	**$ 355.6**	**$ 357.6**	**1%**	**(3%)**
Total loans	**$ 664.8**	**$ 667.8**	**$ 659.7**	**$ 657.3**	**$ 646.0**	**(2%)**	**(3%)**

(1) Corporate loans include loans managed by ICG and Legacy Franchises-Mexico SBMM.
(2) Consumer loans include loans managed by PBWM and Legacy Franchises (other than Mexico Small Business & Middle-Market Banking (Mexico SBMM) loans).
(3) Asia Consumer includes loans of certain EMEA countries for all periods presented.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

DEPOSITS
(In billions of dollars)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q21
ICG by region							
North America	$ 408.0	$ 382.8	$ 390.5	$ 404.3	$ 391.0	(3%)	(4%)
EMEA	200.3	193.1	208.6	210.7	197.7	(6%)	(1%)
Latin America	38.8	37.7	38.9	37.7	35.5	(6%)	(9%)
Asia	185.5	175.8	187.5	176.0	172.7	(2%)	(7%)
Total	$ 832.6	$ 789.4	$ 825.5	$ 828.7	$ 796.9	(4%)	(4%)
ICG by reporting unit							
Treasury and trade solutions	$ 667.8	$ 627.9	$ 657.5	$ 663.5	$ 647.1	(2%)	(3%)
Securities services	136.7	133.8	138.7	136.3	127.8	(6%)	(7%)
Services	$ 804.5	$ 761.7	$ 796.2	$ 799.8	$ 774.9	(3%)	(4%)
Markets	26.7	26.4	27.8	27.7	20.5	(26%)	(23%)
Banking	1.4	1.3	1.5	1.2	1.5	25%	7%
Total	$ 832.6	$ 789.4	$ 825.5	$ 828.7	$ 796.9	(4%)	(4%)
Personal Banking and Wealth Management							
U.S. Personal Banking	$ 113.5	$ 116.8	$ 119.5	$ 115.7	$ 115.2	-	1%
Global Wealth Management	316.5	329.2	332.1	311.9	312.1	-	(1%)
Total	$ 430.0	$ 446.0	$ 451.6	$ 427.6	$ 427.3	-	(1%)
Legacy Franchises							
Asia Consumer[(1)]	$ 46.6	$ 43.3	$ 17.5	$ 17.2	$ 14.6	(15%)	(69%)
Mexico Consumer/SBMM	31.4	32.7	33.9	35.5	35.8	1%	14%
Legacy Holdings Assets	-	-	-	-	-	-	-
Total	$ 78.0	$ 76.0	$ 51.4	$ 52.7	$ 50.4	(4%)	(35%)
Corporate/Other	6.9	5.8	5.2	12.8	31.9	NM	NM
Total deposits - EOP	**$ 1,347.5**	**$ 1,317.2**	**$ 1,333.7**	**$ 1,321.8**	**$ 1,306.5**	**(1%)**	**(3%)**
Total deposits - average	**$ 1,343.0**	**$ 1,370.3**	**$ 1,334.3**	**$ 1,322.5**	**$ 1,315.9**	**-**	**(2%)**

(1) Asia Consumer includes deposits of certain EMEA countries for all periods presented.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

ALLOWANCE FOR CREDIT LOSSES (ACL) ROLLFORWARD
(In millions of dollars, except for ratios)

	Balance	Builds / (releases)					FY 2021	Balance	Builds / (releases)				YTD 2022	Balance	ACLL/EOP Loans
	12/31/20	1Q21	2Q21	3Q21	4Q21	FY 2021	FX/Other	12/31/21	1Q22	2Q22	3Q22	YTD 2022	FX/Other	9/30/22	9/30/22
Allowance for credit losses on loans (ACLL)															
ICG	$ 4,356	$ (1,103)	$ (812)	$ 14	$ (192)	$ (2,093)	$ (22)	$ 2,241	$ 596	$ (76)	$ 75	$ 595	$ (31)	$ 2,805	
Legacy Franchises corporate (Mexico SBMM)	420	(124)	(51)	(61)	(1)	(237)	(9)	174	5	(3)	(34)	(32)	1	143	
Total corporate ACLL	**$ 4,776**	**$ (1,227)**	**$ (863)**	**$ (47)**	**$ (193)**	**$ (2,330)**	**$ (31)**	**$ 2,415**	**$ 601**	**$ (79)**	**$ 41**	**$ 563**	**$ (30)**	**$ 2,948**	**1.04%**
U.S. Cards	$ 14,665	$ (1,301)	$ (840)	$ (763)	$ (921)	$ (3,825)	$ -	$ 10,840	$ (1,009)	$ 447	$ 303	$ (259)	$ (2)	$ 10,579	**7.53%**
Retail banking and Global Wealth Management	1,643	(241)	(200)	(73)	55	(459)	(3)	1,181	(53)	191	57	195	(7)	1,369	
Total PBWM	$ 16,308	$ (1,542)	$ (1,040)	$ (836)	$ (866)	$ (4,284)	$ (3)	$ 12,021	$ (1,062)	$ 638	$ 360	$ (64)	$ (9)	$ 11,948	
Legacy Franchises - consumer	3,872	(458)	(543)	(266)	(117)	(1,384)	(469)	2,019	(151)	(25)	40	(136)	(470)	1,413	
Total consumer ACLL	**$ 20,180**	**$ (2,000)**	**$ (1,583)**	**$ (1,102)**	**$ (983)**	**$ (5,668)**	**$ (472)**	**$ 14,040**	**$ (1,213)**	**$ 613**	**$ 400**	**$ (200)**	**$ (479)**	**$ 13,361**	**3.74%**
Total ACLL	**$ 24,956**	**$ (3,227)**	**$ (2,446)**	**$ (1,149)**	**$ (1,176)**	**$ (7,998)**	**$ (503)**	**$ 16,455**	**$ (612)**	**$ 534**	**$ 441**	**$ 363**	**$ (509)**	**$ 16,309**	**2.54%**
Allowance for credit losses on unfunded lending commitments (ACLUC)	2,655	(626)	44	(13)	(193)	(788)	4	1,871	474	(159)	(71)	244	(26)	2,089	
Total ACLL and ACLUC (EOP)	27,611							18,326						18,398	
Other[(1)]	146	1	1	(13)	11	-	2	148	(6)	27	83	104	4	256	
Total allowance for credit losses (ACL)	**$ 27,757**	**$ (3,852)**	**$ (2,401)**	**$ (1,175)**	**$ (1,358)**	**$ (8,786)**	**$ (497)**	**$ 18,474**	**$ (144)**	**$ 402**	**$ 453**	**$ 711**	**$ (531)**	**$ 18,654**	

(1) Includes ACL on HTM securities and Other assets.

Reclassified to conform to the current period's presentation.

ALLOWANCE FOR CREDIT LOSSES ON LOANS AND UNFUNDED LENDING COMMITMENTS
Page 1
(In millions of dollars)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q22 Increase/ (Decrease) from 3Q21	Nine Months 2021	Nine Months 2022	YTD 2022 vs. YTD 2021 Increase/ (Decrease)
Total Citigroup										
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 19,238**	**$ 17,715**	**$ 16,455**	**$ 15,393**	**$ 15,952**	4%	(17%)	**$ 24,956**	**$ 16,455**	
Gross credit (losses) on loans	(1,389)	(1,279)	(1,240)	(1,212)	(1,237)	(2%)	11%	(5,441)	(3,689)	32%
Gross recoveries on loans	428	413	368	362	350	(3%)	(18%)	1,412	1,080	(24%)
Net credit (losses) / recoveries on loans (NCLs)	(961)	(866)	(872)	(850)	(887)	4%	(8%)	(4,029)	(2,609)	(35%)
Replenishment of NCLs	961	866	872	850	887	4%	(8%)	4,029	2,609	(35%)
Net reserve builds / (releases) for loans	(1,149)	(1,176)	(612)	534	441	(17%)	NM	(6,822)	363	NM
Provision for credit losses on loans (PCLL)	**(188)**	**(310)**	**260**	**1,384**	**1,328**	**(4%)**	**NM**	**(2,793)**	**2,972**	**NM**
Other, net(1)(2)(3)(4)(5)(6)	(374)	(84)	(450)	25	(84)	NM	78%	(419)	(509)	
ACLL at end of period (a)	**$ 17,715**	**$ 16,455**	**$ 15,393**	**$ 15,952**	**$ 16,309**	2%	(8%)	**$ 17,715**	**$ 16,309**	
Allowance for credit losses on unfunded lending commitments (ACLUC)(7) (a)	**$ 2,063**	**$ 1,871**	**$ 2,343**	**$ 2,193**	**$ 2,089**	(5%)	1%	**$ 2,063**	**$ 2,089**	
Provision (release) for credit losses on unfunded lending commitments	**$ (13)**	**$ (193)**	**$ 474**	**$ (159)**	**$ (71)**	55%	NM	**$ (595)**	**$ 244**	
Total allowance for credit losses on loans, leases and unfunded lending commitments [sum of (a)]	**$ 19,778**	**$ 18,326**	**$ 17,736**	**$ 18,145**	**$ 18,398**	1%	(7%)	**$ 19,778**	**$ 18,398**	
Total ACLL as a percentage of total loans(8)	2.69%	2.49%	2.35%	2.44%	2.54%					
Consumer										
ACLL at beginning of period	**$ 16,566**	**$ 15,105**	**$ 14,040**	**$ 12,368**	**$ 12,983**	5%	(22%)	**$ 20,180**	**$ 14,040**	
NCLs	(922)	(781)	(841)	(827)	(881)	7%	(4%)	(3,728)	(2,549)	(32%)
Replenishment of NCLs	922	781	841	827	881	7%	(4%)	3,728	2,549	(32%)
Net reserve builds / (releases) for loans	(1,102)	(983)	(1,213)	613	400	(35%)	NM	(4,685)	(200)	96%
Provision for credit losses on loans (PCLL)	**(180)**	**(202)**	**(372)**	**1,440**	**1,281**	**(11%)**	**NM**	**(957)**	**2,349**	**NM**
Other, net(1)(2)(3)(4)(5)(6)	(359)	(82)	(459)	2	(22)	NM	94%	(390)	(479)	**(23%)**
ACLL at end of period (b)	**$ 15,105**	**$ 14,040**	**$ 12,368**	**$ 12,983**	**$ 13,361**	3%	(12%)	**$ 15,105**	**$ 13,361**	
Consumer ACLUC(7) (b)	**$ 35**	**$ 29**	**$ 139**	**$ 165**	**$ 143**	(13%)	NM	**$ 35**	**$ 143**	
Provision (release) for credit losses on unfunded lending commitments	**$ (9)**	**$ (5)**	**$ 109**	**$ 19**	**$ (8)**	NM	11%	**$ (23)**	**$ 120**	
Total allowance for credit losses on loans, leases and unfunded lending commitments [sum of (b)]	**$ 15,140**	**$ 14,069**	**$ 12,507**	**$ 13,148**	**$ 13,504**	3%	(11%)	**$ 15,140**	**$ 13,504**	
Consumer ACLL as a percentage of total consumer loans	4.09%	3.73%	3.53%	3.65%	3.74%					
Corporate										
ACLL at beginning of period	**$ 2,672**	**$ 2,610**	**$ 2,415**	**$ 3,025**	**$ 2,969**	(2%)	11%	**$ 4,776**	**$ 2,415**	
NCLs	(39)	(85)	(31)	(23)	(6)	(74%)	(85%)	(301)	(60)	(80%)
Replenishment of NCLs	39	85	31	23	6	(74%)	(85%)	301	60	(80%)
Net reserve builds / (releases) for loans	(47)	(193)	601	(79)	41	NM	NM	(2,137)	563	NM
Provision for credit losses on loans (PCLL)	**(8)**	**(108)**	**632**	**(56)**	**47**	**NM**	**NM**	**(1,836)**	**623**	**NM**
Other, net(1)	(15)	(2)	9	23	(62)	NM	NM	(29)	(30)	
ACLL at end of period (c)	**$ 2,610**	**$ 2,415**	**$ 3,025**	**$ 2,969**	**$ 2,948**	(1%)	13%	**$ 2,610**	**$ 2,948**	
Corporate ACLUC(7) (c)	**$ 2,028**	**$ 1,842**	**$ 2,204**	**$ 2,028**	**$ 1,946**	(4%)	(4%)	**$ 2,028**	**$ 1,946**	
Provision (release) for credit losses on unfunded lending commitments	**$ (4)**	**$ (188)**	**$ 365**	**$ (178)**	**$ (63)**	65%	NM	**$ (572)**	**$ 124**	
Total allowance for credit losses on loans, leases and unfunded lending commitments [sum of (c)]	**$ 4,638**	**$ 4,257**	**$ 5,229**	**$ 4,997**	**$ 4,894**	(2%)	6%	**$ 4,638**	**$ 4,894**	
Corporate ACLL as a percentage of total corporate loans(8)	0.91%	0.85%	1.00%	1.00%	1.04%					

Footnotes to this table are on the following page (page 16).

The following footnotes relate to the table on the preceding page (page 15):

(1) Includes all adjustments to the allowance for credit losses, such as changes in the allowance from acquisitions, dispositions, securitizations, foreign currency translation (FX translation), purchase accounting adjustments, etc.
(2) 3Q21 includes an approximate $280 million reclass related to the announced sale of Citi's consumer banking operations in Australia. The ACLL was reclassified to Other assets during 3Q21. 3Q21 consumer also includes a decrease of approximately $80 million related to FX translation.
(3) 4Q21 includes an approximate $90 million reclass related to the announced sale of Citi's consumer banking operations in the Philippines. The ACLL was reclassified to Other assets during 4Q21. 4Q21 consumer also includes a decrease of approximately $6 million related to FX translation.
(4) 1Q22 includes an approximate $350 million reclass related to the announced sales of Citi's consumer banking businesses in Thailand, India, Malaysia, Taiwan, Indonesia, Bahrain, and Vietnam. The ACLL was reclassified to Other assets during 1Q22. 1Q22 consumer also includes a decrease of approximately $100 million related to FX translation.
(5) 2Q22 primarily relates to FX translation.
(6) 3Q22 primarily relates to FX translation.
(7) Represents additional credit reserves recorded as other liabilities on the Consolidated Balance Sheet.
(8) September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022 and September 30, 2022 exclude $7.2 billion, $6.1 billion, $5.7 billion, $4.5 billion, and $3.9 billion respectively, of loans that are carried at fair value.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

NON-ACCRUAL ASSETS
(In millions of dollars)

	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	3Q22 Increase/ (Decrease) from 2Q22	3Q21
Corporate non-accrual loans by region[1]							
North America	$ 923	$ 510	$ 462	$ 304	$ 276	(9%)	(70%)
EMEA	407	367	688	712	598	(16%)	47%
Latin America	679	568	631	563	555	(1%)	(18%)
Asia	110	108	85	76	56	(26%)	(49%)
Total	**$ 2,119**	**$ 1,553**	**$ 1,866**	**$ 1,655**	**$ 1,485**	**(10%)**	**(30%)**
Corporate non-accrual loans[1]							
Banking	$ 1,739	$ 1,239	$ 1,323	$ 1,015	$ 1,085	7%	(38%)
Services	74	70	297	353	185	(48%)	NM
Markets	13	12	13	11	-	(100%)	(100%)
Mexico SBMM	293	232	233	276	215	(22%)	(27%)
Total	**$ 2,119**	**$ 1,553**	**$ 1,866**	**$ 1,655**	**$ 1,485**	**(10%)**	**(30%)**
Consumer non-accrual loans[1]							
U.S. Personal Banking and Global Wealth Management	$ 637	$ 680	$ 586	$ 536	$ 585	9%	(8%)
Asia Consumer[2]	259	209	38	34	30	(12%)	(88%)
Mexico Consumer	549	524	512	493	486	(1%)	(11%)
Legacy Holdings Assets - Consumer	425	413	381	317	300	(5%)	(29%)
Total	**$ 1,870**	**$ 1,826**	**$ 1,517**	**$ 1,380**	**$ 1,401**	**2%**	**(25%)**
Total non-accrual loans (NAL)	**$ 3,989**	**$ 3,379**	**$ 3,383**	**$ 3,035**	**$ 2,886**	**(5%)**	**(28%)**
Other real estate owned (OREO)[3]	**$ 21**	**$ 27**	**$ 26**	**$ 13**	**$ 16**	**23%**	**(24%)**
NAL as a percentage of total loans	0.60%	0.51%	0.51%	0.46%	0.45%		
ACLL as a percentage of NAL	444%	487%	455%	526%	565%		

(1) Corporate loans are placed on non-accrual status based upon a review by Citigroup's risk officers. Corporate non-accrual loans may still be current on interest payments. With limited exceptions, the following practices are applied for consumer loans: consumer loans, excluding credit cards and mortgages, are placed on non-accrual status at 90 days past due, and are charged off at 120 days past due; residential mortgage loans are placed on non-accrual status at 90 days past due and written down to net realizable value at 180 days past due. Consistent with industry conventions, Citigroup generally accrues interest on credit card loans until such loans are charged off, which typically occurs at 180 days contractual delinquency. As such, the non-accrual loan disclosures do not include credit card loans. The balances above represent non-accrual loans within *Consumer Loans and Corporate Loans on the Consolidated Balance Sheet.*

(2) Asia Consumer includes balances for certain EMEA countries for all periods presented.

(3) Represents the carrying value of all property acquired by foreclosure or other legal proceedings when Citigroup has taken possession of the collateral. Also includes former premises and property for use that is no longer contemplated.

NM Not meaningful.
Reclassified to conform to the current period's presentation.

CITIGROUP
CET1 CAPITAL AND SUPPLEMENTARY LEVERAGE RATIOS, TANGIBLE COMMON EQUITY, BOOK VALUE PER SHARE AND TANGIBLE BOOK VALUE PER SHARE
(In millions of dollars or shares, except per share amounts and ratios)

Common Equity Tier 1 Capital Ratio and Components[1]	September 30, 2021[2]	December 31, 2021[2]	March 31, 2022[2]	June 30, 2022	September 30, 2022[3]
Citigroup common stockholders' equity[4]	$ 183,005	$ 183,108	$ 178,845	$ 180,150	$ 179,696
Add: qualifying noncontrolling interests	136	143	126	129	113
Regulatory capital adjustments and deductions:					
Add:					
CECL transition provision[5]	3,389	3,028	2,271	2,271	2,271
Less:					
Accumulated net unrealized gains (losses) on cash flow hedges, net of tax	663	101	(1,440)	(2,106)	(2,869)
Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax	(1,317)	(896)	27	2,145	3,211
Intangible assets:					
Goodwill, net of related deferred tax liabilities (DTLs)[6]	20,689	20,619	20,120	19,504	18,796
Identifiable intangible assets other than mortgage servicing rights (MSRs), net of related DTLs	3,899	3,800	3,698	3,599	3,492
Defined benefit pension plan net assets; other	2,068	2,080	2,230	2,038	1,931
Deferred tax assets (DTAs) arising from net operating loss, foreign tax credit and general business credit carry-forwards	10,897	11,270	11,701	11,679	11,690
Excess over 10% / 15% limitations for other DTAs, certain common stock investments and MSRs[8]	-	-	1,157	798	1,261
Common Equity Tier 1 Capital (CET1)	$ 149,631	$ 149,305	$ 143,749	$ 144,893	$ 144,568
Risk-Weighted Assets (RWA)[5]	$ 1,284,316	$ 1,219,175	$ 1,263,298	$ 1,217,459	$ 1,189,800
Common Equity Tier 1 Capital ratio (CET1/RWA)	11.65%	12.25%	11.38%	11.90%	12.2%
Supplementary Leverage Ratio and Components					
Common Equity Tier 1 Capital (CET1)[5]	$ 149,631	$ 149,305	$ 143,749	$ 144,893	$ 144,568
Additional Tier 1 Capital (AT1)[7]	19,271	20,263	20,266	20,266	20,265
Total Tier 1 Capital (T1C) (CET1 + AT1)	$ 168,902	$ 169,568	$ 164,015	$ 165,159	$ 164,833
Total Leverage Exposure (TLE)[5]	$ 2,911,050	$ 2,957,764	$ 2,939,533	$ 2,935,289	$ 2,888,592
Supplementary Leverage ratio (T1C/TLE)	5.80%	5.73%	5.58%	5.63%	5.7%
Tangible Common Equity, Book Value and Tangible Book Value Per Share					
Common stockholders' equity	$ 182,880	$ 182,977	$ 178,714	$ 180,019	$ 179,565
Less:					
Goodwill	21,573	21,299	19,865	19,597	19,326
Intangible assets (other than MSRs)	4,144	4,091	4,002	3,926	3,838
Goodwill and identifiable intangible assets (other than MSRs) related to assets HFS	257	510	1,384	1,081	794
Tangible common equity (TCE)	$ 156,906	$ 157,077	$ 153,463	$ 155,415	$ 155,607
Common shares outstanding (CSO)	1,984.3	1,984.4	1,941.9	1,936.7	1,936.9
Book value per share (common equity/CSO)	$ 92.16	$ 92.21	$ 92.03	$ 92.95	$ 92.71
Tangible book value per share (TCE/CSO)	$ 79.07	$ 79.16	$ 79.03	$ 80.25	$ 80.34

(1) See footnote 8 on page 1.
(2) See footnote 5 on page 3.
(3) 3Q22 is preliminary.
(4) Excludes issuance costs related to outstanding preferred stock in accordance with Federal Reserve Board regulatory reporting requirements.
(5) See footnote 9 on page 1.
(6) Includes goodwill “embedded” in the valuation of significant common stock investments in unconsolidated financial institutions.
(7) Additional Tier 1 Capital primarily includes qualifying noncumulative perpetual preferred stock and qualifying trust preferred securities.
(8) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. As of March 31, 2022, June 30, 2022 and September 30, 2022, the deduction related only to DTAs arising from temporary differences that exceeded the 10% limitation.

Reclassified to conform to the current period's presentation.