

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

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: 001-31343

ASSOCIATED BANC-CORP

(Exact name of registrant as specified in its charter)

Wisconsin

(State or other jurisdiction of incorporation or organization)

433 Main Street

Green Bay, Wisconsin

(Address of principal executive offices)

39-1098068

(I.R.S. Employer Identification No.)

54301

(Zip Code)

Registrant's telephone number, including area code: (920) 491-7500

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

| <u>Title of each class</u> | <u>Trading symbol</u> | <u>Name of each exchange on which registered</u> |
|---|-----------------------|--|
| Common stock, par value \$0.01 per share | ASB | The New York Stock Exchange |
| Depository Shrs, each representing 1/40th intrst in a shr of 5.875% Non-Cum. Perp Pref Stock, Srs E | ASB PrE | The New York Stock Exchange |
| Depository Shrs, each representing 1/40th intrst in a shr of 5.625% Non-Cum. Perp Pref Stock, Srs F | ASB PrF | The New York Stock Exchange |

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.

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 controls 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.

Yes No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes No

As of June 30, 2021, (the last business day of the registrant's most recently completed second fiscal quarter) the aggregate market value of the voting stock held by nonaffiliates of the registrant was \$3,085,259,987. This excludes \$45,406,591 of market value representing the outstanding shares of the registrant owned by all directors and officers who may be deemed affiliates. This includes \$53,789,061 of market value representing 1.72% of the outstanding shares of the registrant held in a fiduciary capacity by the trust company subsidiary of the registrant.

As of January 31, 2022, 149,604,819 shares of common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the Annual Meeting of Shareholders to be held on April 26, 2022 are incorporated by reference in this Form 10-K into Part III.

Auditor Name: KPMG LLP Auditor Location: Chicago, Illinois Auditor Firm ID: 185

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ASSOCIATED BANC-CORP
Commonly Used Acronyms and Abbreviations

The following listing provides a reference of common acronyms and abbreviations used throughout the document:

| | |
|--|---|
| 2020 Plan | 2020 Incentive Compensation Plan |
| ABRC | Associated Benefits and Risk Consulting, the Corporation's insurance division which was sold on June 30, 2020 |
| ABL | Asset-Based Lending |
| ACL | Allowance for Credit Losses on Loans and Investments |
| ACLL | Allowance for Credit Losses on Loans |
| ADC | Acquisition, Development, or Construction |
| AFS | Available for Sale |
| AFX | American Financial Exchange |
| ALCO | Asset / Liability Committee |
| Ameribor | American Interbank Offered Rate |
| AML | Anti-Money Laundering |
| APR | Annual Percentage Rate |
| ARRC | Alternative Reference Rate Committee |
| ASC | Accounting Standards Codification |
| Associated / Corporation / our / us / we | Associated Banc-Corp collectively with all of its subsidiaries and affiliates |
| Associated Bank / the Bank | Associated Bank, National Association |
| ASU | Accounting Standards Update |
| ATR | Ability-to-Repay |
| Basel III | International framework established by the Basel Committee on Banking Supervision for the regulation of capital and liquidity |
| BHC Act | Bank Holding Company Act of 1956, as amended |
| bp | basis point(s) |
| BSA | Bank Secrecy Act |
| CAMELS | Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity |
| CARES Act | Coronavirus Aid, Relief, and Economic Security Act |
| CDs | Certificates of Deposit |
| CDIs | Core Deposit Intangibles |
| CECL | Current Expected Credit Losses |
| CET1 | Common Equity Tier 1 |
| CFPB | Consumer Financial Protection Bureau |
| CFTC | Commodity Futures Trading Commission |
| CMBS | Commercial Mortgage-Backed Securities |
| CMOs | Collateralized Mortgage Obligations |
| CRA | Community Reinvestment Act |
| CRE | Commercial Real Estate |
| DE&I | Diversity, Equity & Inclusion |
| DIF | Deposit Insurance Fund |
| Dodd-Frank Act | Dodd-Frank Wall Street Reform and Consumer Protection Act |
| DOL | Department of Labor |
| DTAs | Deferred Tax Assets |
| DTCC | Depository Trust & Clearing Corporation |
| DTI | Debt-to-Income |

| | |
|---------------------|--|
| EAR | Earnings at Risk |
| Economic Aid Act | Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act |
| Economic Growth Act | Economic Growth, Regulatory Relief, and Consumer Protection Act |
| ESG | Environmental, Social, and Governance |
| Exchange Act | Securities Exchange Act of 1934, as amended |
| FASB | Financial Accounting Standards Board |
| FCA | United Kingdom Financial Conduct Authority |
| FDIC | Federal Deposit Insurance Corporation |
| FDICIA | Federal Deposit Insurance Corporation Improvement Act |
| Federal Reserve | Board of Governors of the Federal Reserve System |
| FFELP | Federal Family Education Loan Program |
| FHLB | Federal Home Loan Bank |
| FHLMC | Federal Home Loan Mortgage Corporation |
| FICC | Fixed Income Clearing Corporation |
| FICO | Financing Corporation, established by the Competitive Equality Banking Act of 1987 |
| FICO Score | Fair Isaac Corporation score, a broad-based risk score to aid in credit decisions |
| FinCEN | Financial Crimes Enforcement Network |
| FINRA | Financial Industry Regulatory Authority |
| First Staunton | First Staunton Bancshares, Incorporated |
| FNMA | Federal National Mortgage Association |
| FOMC | Federal Open Market Committee |
| FRBNY | Federal Reserve Bank of New York |
| FTEs | Full-time equivalent employees |
| FTP | Funds Transfer Pricing |
| GAAP | Generally Accepted Accounting Principles |
| GNMA | Government National Mortgage Association |
| GSEs | Government-Sponsored Enterprises |
| HTM | Held to Maturity |
| HVCRE | High Volatility Commercial Real Estate |
| IDIs | Insured Depository Institutions |
| LGBTQ+ | Lesbian, Gay, Bisexual, Transgender, Queer, and Plus |
| LIBOR | London Interbank Offered Rate |
| LOCOM | Lower of Cost or Market |
| LTV | Loan-to-Value |
| MBS | Mortgage-Backed Securities |
| MMLF | Money Market Mutual Fund Liquidity Facility |
| MSAs | Mortgage Servicing Assets |
| MSLP | Main Street Lending Program |
| MSRs | Mortgage Servicing Rights |
| MVE | Market Value of Equity |
| NAICS | North American Industry Classification System |
| Net Free Funds | Noninterest-bearing sources of funds |
| NII | Net Interest Income |
| NPAs | Nonperforming Assets |
| NYSE | New York Stock Exchange |
| OCC | Office of the Comptroller of the Currency |
| OCI | Other Comprehensive Income |
| OREO | Other Real Estate Owned |
| Parent Company | Associated Banc-Corp individually |

| | |
|--------------------------------|---|
| Patriot Act | Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 |
| PCD | Purchased Credit Deteriorated |
| PPP | Paycheck Protection Program |
| PPPLF | Paycheck Protection Program Liquidity Facility |
| QM | Qualified Mortgage |
| RAP | Retirement Account Plan - the Corporation's noncontributory defined benefit retirement plan |
| Repurchase Agreements | Securities sold under agreements to repurchase |
| RESPA | Real Estate Settlement Procedures Act |
| Restricted Stock Awards | Restricted common stock and restricted common stock units to certain key employees |
| Retirement Eligible Colleagues | Colleagues whose retirement meets the early retirement or normal retirement definitions under the applicable equity compensation plan |
| Rockefeller | Rockefeller Capital Management |
| S&P | Standard & Poor's |
| SARs | Suspicious Activity Reports |
| SBA | Small Business Administration |
| SEC | U.S. Securities and Exchange Commission |
| Securities Act | Securities Act of 1933, as amended |
| Series C Preferred Stock | The Corporation's 6.125% Non-Cumulative Perpetual Preferred Stock, Series C, liquidation preference \$1,000 per share |
| Series D Preferred Stock | The Corporation's 5.375% Non-Cumulative Perpetual Preferred Stock, Series D, liquidation preference \$1,000 per share |
| Series E Preferred Stock | The Corporation's 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, liquidation preference \$1,000 per share |
| Series F Preferred Stock | The Corporation's 5.625% Non-Cumulative Perpetual Preferred Stock, Series F, liquidation preference \$1,000 per share |
| SOFR | Secured Overnight Finance Rate |
| Tax Act | U.S. Tax Cuts and Jobs Act of 2017 |
| TDR | Troubled Debt Restructuring |
| TILA | Truth in Lending Act |
| USI | USI Insurance Services LLC |
| Whitnell | Whitnell & Co. |

Special Note Regarding Forward-Looking Statements

This document, including the documents that are incorporated by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Exchange Act. You can identify forward-looking statements by words such as "may," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "potential," "continue," "could," "future," "outlook," or the negative of those terms or other words of similar meaning. You should read statements that contain these words carefully because they discuss our future expectations or state other "forward-looking" information. Such forward-looking statements may relate to our financial condition, results of operations, plans, objectives, future performance, or business and are based upon the beliefs and assumptions of our management and the information available to our management at the time these disclosures are prepared. These forward-looking statements involve risks and uncertainties that we may not be able to accurately predict or control and our actual results may differ materially from those we described in our forward-looking statements. Shareholders should be aware that the occurrence of the events discussed under the heading Risk Factors in this document, and in the information incorporated by reference herein, could have an adverse effect on our business, results of operations, and financial condition. These factors, many of which are beyond our control, include the following.

- Credit risks, including changes in economic conditions and risk relating to our ACL.
- Liquidity and interest rate risks, including the impact of capital market conditions and changes in monetary policy on our borrowings and net interest income.
- Operational risks, including processing, information systems, cybersecurity, vendor problems, business interruption, and fraud risks.
- Strategic and external risks, including economic, political, and competitive forces impacting our business.
- Legal, compliance, and reputational risks, including regulatory and litigation risks.
- The risk that our analyses of these risks and forces could be incorrect and / or that the strategies developed to address them could be unsuccessful.

For a discussion of these and other risks that may cause actual results to differ from expectations, please refer to the Risk Factors Summary and Risk Factors sections of this document. The forward-looking statements contained or incorporated by reference in this document relate only to circumstances as of the date on which the statements are made. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Risk Factors Summary

Our business is subject to a number of risks, a summary of which is set forth below. These risks are discussed more fully in Part I, Item 1A. Risk Factors herein.

Risks Related to the COVID-19 Pandemic

- The coronavirus (COVID-19) pandemic has resulted in significant deterioration and disruption in national and local economic conditions and record levels of unemployment, which may have a material impact on our business, financial condition or results of operations.
- Regulatory and governmental actions to mitigate the impact of the COVID-19 pandemic on borrowers could result in a material decline in our earnings.
- Our loan portfolios have been significantly affected by the COVID-19 pandemic.

Credit Risks

- Changes in economic and political conditions could adversely affect our earnings, as our borrowers' ability to repay loans and the value of the collateral securing our loans decline.
- Changes in U.S. trade policies, including the imposition of tariffs and retaliatory tariffs, may adversely impact our business, financial condition, and results of operations.
- Our allowance for credit losses may be insufficient.
- We are subject to lending concentration risks.
- CRE lending may expose us to increased lending risks.
- We depend on the accuracy and completeness of information furnished by and on behalf of our customers and counterparties.
- Lack of system integrity or credit quality related to funds settlement could result in a financial loss.
- We are subject to environmental liability risk associated with lending activities.

Liquidity and Interest Rate Risks

- Liquidity is essential to our businesses.
- We are subject to interest rate risk.
- The impact of interest rates on our mortgage banking business can have a significant impact on revenues.

- Changes in interest rates could reduce the value of our investment securities holdings.
- Changes in interest rates could also reduce the value of our residential mortgage-related securities and MSRs, which could negatively affect our earnings.
- The replacement of LIBOR as a financial benchmark presents risks to the financial instruments originated or held by the Corporation.
- We rely on dividends from our subsidiaries for most of our revenue.

Operational Risks

- We face significant operational risks due to the high volume and the high dollar value nature of transactions we process.
- Unauthorized disclosure of sensitive or confidential client or customer information, whether through a cyber-attack, other breach of our computer systems or otherwise, could severely harm our business.
- Information security risks for financial institutions like us continue to increase in part because of new technologies, the increased use of the internet and telecommunications technologies (including mobile devices and cloud computing) to conduct financial and other business transactions, political activism, and the increased sophistication and activities of organized crime, perpetrators of fraud, hackers, terrorists and others.
- From time to time, the Corporation engages in acquisitions, including acquisitions of depository institutions. The integration of core systems and processes for such transactions often occur after the closing, which may create elevated risk of cyber incidents.
- Our information systems may experience an interruption or breach in security. We rely heavily on communications and information systems to conduct our business.
- We are dependent upon third parties for certain information system, data management and processing services, and to provide key components of our business infrastructure.
- The potential for business interruption exists throughout our organization.
- Changes in the federal, state, or local tax laws may negatively impact our financial performance.
- Impairment of investment securities, goodwill, other intangible assets, or DTAs could require charges to earnings, which could result in a negative impact on our results of operations.
- Revenues from our investment management and asset servicing businesses are significant to our earnings.
- Climate change and related legislative and regulatory initiatives may result in operational changes and expenditures that could significantly impact our business.
- Severe weather, natural disasters, public health issues, acts of war or terrorism, and other external events could significantly impact our ability to conduct business.
- We are subject to ESG risks that could adversely affect our reputation and the market price of our securities.

Strategic and External Risks

- Our earnings are significantly affected by the fiscal and monetary policies of the federal government and its agencies.
- Our financial condition and results of operations could be negatively affected if we fail to grow or fail to manage our growth effectively.
- We operate in a highly competitive industry and market area.
- Fiscal challenges facing the U.S. government could negatively impact financial markets which in turn could have an adverse effect on our financial position or results of operations.
- Consumers may increasingly decide not to use banks to complete their financial transactions.
- Our profitability depends significantly on economic conditions in the states within which we do business.
- The earnings of financial services companies are significantly affected by general business and economic conditions.
- New lines of business or new products and services may subject us to additional risk.
- Failure to keep pace with technological change could adversely affect our business.
- We may be adversely affected by risks associated with potential and completed acquisitions.
- Acquisitions may be delayed, impeded, or prohibited due to regulatory issues.

Legal, Regulatory, Compliance and Reputational Risks

- We are subject to extensive government regulation and supervision.
- The Bank faces risks related to the adoption of future legislation and potential changes in federal regulatory agency leadership, policies, and priorities.
- Changes in requirements relating to the standard of conduct for broker-dealers under applicable federal and state law may adversely affect our business.
- The CFPB has reshaped the consumer financial laws through rulemaking and enforcement of the prohibitions against unfair, deceptive and abusive business practices. Compliance with any such change may impact the business operations of depository institutions offering consumer financial products or services, including the Bank.
- The Bank is periodically examined for mortgage-related issues, including mortgage loan and default services, fair lending, and mortgage banking.
- We may experience unanticipated losses as a result of residential mortgage loan repurchase or reimbursement obligations under agreements with secondary market purchasers.

- Fee revenues from overdraft protection programs constitute a significant portion of our noninterest income and may be subject to increased supervisory scrutiny.
- We are subject to examinations and challenges by tax authorities.
- We are subject to claims and litigation pertaining to fiduciary responsibility.
- We are a defendant in a variety of litigation and other actions, which may have a material adverse effect on our financial condition and results of operation.
- The Economic Growth Act did not eliminate many of the aspects of the Dodd-Frank Act that have increased our compliance costs, and remains subject to further rulemaking.
- Negative publicity could damage our reputation.
- Ethics or conflict of interest issues could damage our reputation.

Risks Related to an Investment in Our Securities

- The price of our securities can be volatile.
- There may be future sales or other dilution of our equity, which may adversely affect the market price of our securities.
- We may reduce or eliminate dividends on our common stock.
- Common stock is equity and is subordinate to our existing and future indebtedness and preferred stock and effectively subordinated to all the indebtedness and other non-common equity claims against our subsidiaries.
- Our articles of incorporation, bylaws, and certain banking laws may have an anti-takeover effect.
- An investment in our common stock is not an insured deposit.
- An entity holding as little as a 5% interest in our outstanding common stock could, under certain circumstances, be subject to regulation as a "bank holding company."
- Our ability to originate residential mortgage loans for portfolio has been adversely affected by the increased competition resulting from the unprecedented involvement of the U.S. government and GSEs in the residential mortgage market.

General Risk Factors

- Changes in our accounting policies or in accounting standards could materially affect how we report our financial results.
- Our internal controls may be ineffective.
- We may not be able to attract and retain skilled people.
- Loss of key employees may disrupt relationships with certain customers.

PART I

ITEM 1. Business

General

Associated Banc-Corp is a bank holding company registered pursuant to the BHC Act. Our bank subsidiary, Associated Bank traces its history back to the founding of the Bank of Neenah in 1861. We were incorporated in Wisconsin in 1964 and were inactive until 1969 when permission was received from the Federal Reserve to acquire three banks. At December 31, 2021, we owned one nationally chartered commercial bank headquartered in Green Bay, Wisconsin, which serves local communities across the upper Midwest, one nationally chartered trust company headquartered in Wisconsin, and 12 limited purpose banking and nonbanking subsidiaries either located in or conducting business primarily in our three state branch footprint (Wisconsin, Illinois, and Minnesota) that are closely related or incidental to the business of banking or financial in nature. Measured by total assets reported at December 31, 2021, we are the largest commercial bank holding company headquartered in Wisconsin.

Services

Through Associated Bank and various nonbanking subsidiaries, we provide a broad array of banking and nonbanking products and services to individuals and businesses through 215 banking branches at December 31, 2021, serving more than 100 communities, primarily within our three state branch footprint. Our business is primarily relationship-driven and is organized into three reportable segments: Corporate and Commercial Specialty; Community, Consumer, and Business; and Risk Management and Shared Services.

See Note 21 Segment Reporting of the notes to consolidated financial statements in Part II, Item 8, Financial Statements and Supplementary Data, for additional information concerning our reportable segments.

We are not dependent upon a single or a few customers, the loss of which would have a material adverse effect on us.

Human Capital Matters

We are very fortunate to have a diverse, committed team of approximately 4,000 colleagues who are capable, determined and empowered to drive our company forward. None of our colleagues are represented by unions.

Colleague Engagement: By strengthening our workforce and providing opportunities for all colleagues to apply their talent and grow as professionals, we strive to foster pride in working for Associated and to be recognized as the employer of choice among Midwestern financial services firms. Our colleagues and communities have responded to and recognized our efforts:

- 85% of our colleagues provided feedback through an annual workplace survey conducted by a third party on key topics related to the overall health and culture of the organization. Colleague engagement has continued to be a focus for the company since our first survey in 2015.
- Associated Bank continues to be recognized as a Top Workplace. In 2021, we earned the Top Workplaces USA Award, Top Workplaces Financial Services 2021, and Top Workplaces for Top Leaders 2021 awards. Regionally, Associated Bank was named a Top Workplaces 2021 award winner in Chicago, Milwaukee, and Madison.

Training and Development: Through internal and external training and development programs, we help our colleagues improve their skills so they can achieve their career goals and transition to more challenging roles. In 2021, 22% of colleagues, through nearly 900 internal promotions or lateral moves, advanced their careers at the Corporation.

Health and Wellness: We focus on the whole person by offering wide-ranging healthcare programs, community volunteering opportunities, retirement plans, support for parents and families, and more. As of December 31, 2021:

- Approximately 62%, or more than 2,500 colleagues, are enrolled in the Corporation's well-being platform.
- Nearly 3,500 colleagues and spouses participated in the Corporation's confidential biometric screening.
- More than 1,400 colleagues received well-being reimbursement for the purchase of item(s) such as gym memberships, home fitness equipment and/or fitness tracking devices.

Market-based Pay and Rewards: We regularly review our pay and benefits programs to ensure we are offering a total compensation package, including salary, incentive pay, and benefits that is fair, equitable, and competitive in our marketplace.

Culture: We believe our success begins and ends with people. For this reason, fostering a culture where people feel valued, respected, and comfortable sharing ideas and perspectives is at the core of the Bank. Our culture is anchored in the belief that we are better together, and great ideas can come from anywhere in the Bank. Further, we feel a critical component of our success is our ability to recognize and value diversity and inclusion, both internally and in the communities we serve.

Diversity, Equity and Inclusion: Our DE&I efforts focus on enhancing our workforce, strengthening our markets, and fostering a culture of belonging for our colleagues, customers, and the communities we serve. These efforts are supported by members of the Corporation's seven Colleague Resource Groups (CRGs) who work to drive greater organizational awareness of and to address the unique needs of young professionals, women, veterans, LGBTQ+, people of color and various cultures, and disability communities.

As of December 31, 2021, as a result of these efforts, our colleague diversity representation is as follows:

- People of color represented 16%, protected veterans represented 2%, and people with disabilities represented 12% of our workforce.
- We continue to advance diversity representation at all levels across our organization. At year end, women or people of color represented 63% of all Assistant Vice President roles; women represented 32% of all Senior Vice President roles.
- In addition, 33% of our Executive Leadership Team and 36% of our Board of Directors are represented by women or people of color.

We continue to develop and implement programs to support DE&I:

- All colleagues participate in annual DE&I training; leaders have the opportunity for specialized training to understand the unique opportunities for hiring, and retaining, underrepresented groups.
- To specifically support the LGBTQ+ community, we have recently added the option to include gender pronouns to email signatures and candidate applications and have reinstated domestic partner benefits.
- We launched the Black Colleague Resource Group to promote the hiring, retention, advancement, and development of Black and African American talent at Associated Bank while representing and supporting the Black and African American community.
- We created the Associated Bank Honors Program that includes a wide range of veteran-focused initiatives in an effort to reach and recruit military veterans.

In 2021, we supported our diverse customers and communities as follows:

- Provided loan and investments to create affordable housing options, support community services, and promote economic development in our markets.

- Provided financial support to promote affordable housing and small-business development in all of our neighborhoods.
- Donated millions of dollars in charitable grants to local nonprofits that support, enhance, and build our communities.
- Invested in renewable energy sources and continued to improve the environmental impacts of our community branches.

Our DE&I efforts have been recognized by our communities as follows:

- Achieved a score of 100/100 on Human Rights Campaign Corporate Equality Index, thus earning the designation as a "Best Place to Work for LGBTQ+ Equality!"
- Recipient of the 2021 Secretary of Defense Employer Support Freedom Award, in recognition of our exemplary support of its National Guard and Reserve colleagues.

Competition

The financial services industry is highly competitive. We compete for loans, deposits, and financial services in all of our principal markets. We compete directly with other bank and nonbank institutions located within our markets, internet-based banks, out-of-market banks and bank holding companies that advertise or otherwise serve our markets, money market funds and other mutual funds, brokerage houses, and various other financial institutions. Additionally, we compete with insurance companies, leasing companies, regulated small loan companies, credit unions, governmental agencies and commercial entities offering financial services products, including nonbank lenders and so-called financial technology companies. Competition involves, among other things, efforts to retain current customers and to obtain new loans and deposits, the scope and types of services offered, interest rates paid on deposits and charged on loans, as well as other aspects of banking. We also face direct competition from subsidiaries of bank holding companies that have far greater assets and resources than ours.

Supervision and Regulation

Overview

The Corporation and its banking and nonbanking subsidiaries are subject to extensive regulation and oversight both at the federal and state levels. The following is an overview of the statutory and regulatory framework that affects the business of the Corporation and our subsidiaries.

BHC Act Requirements

As a registered bank holding company under the BHC Act, we are regulated, supervised, and examined by the Federal Reserve. In connection with applicable requirements, bank holding companies file periodic reports and other information with the Federal Reserve. The BHC Act also governs the activities that are permissible for bank holding companies and their affiliates and permits the Federal Reserve, in certain circumstances, to issue cease and desist orders and other enforcement actions against bank holding companies and their nonbanking affiliates to correct and curtail unsafe or unsound banking practices. Under the Dodd-Frank Act and longstanding Federal Reserve policy, bank holding companies are required to act as a source of financial strength to each of their banking subsidiaries pursuant to which such holding company may be required to commit financial resources to support such subsidiaries in circumstances when, absent such requirements, they might not otherwise do so. The BHC Act further regulates holding company activities, including requirements and limitations relating to capital, transactions with officers, directors and affiliates, securities issuances, dividend payments, inter-affiliate liabilities, extensions of credit, and expansion through mergers and acquisitions.

The BHC Act allows certain qualifying bank holding companies that elect treatment as “financial holding companies” to engage in activities that are financial in nature and that explicitly include the underwriting and sale of insurance. The Parent Company thus far has not elected to be treated as a financial holding company. Bank holding companies that have not elected such treatment generally must limit their activities to banking activities and activities that are closely related to banking.

Effective September 30, 2020, the Federal Reserve finalized a rule that simplifies and increases transparency of its rules for determining when one company controls another company for purposes of the BHC Act and, on March 31, 2021, the Federal Reserve published interpretive guidance regarding the final rule and related regulatory control matters. The amended control rule thus far has had, and will likely continue to have, a meaningful impact on control determinations related to investments in banks and bank holding companies and investments by bank holding companies in nonbank companies.

Regulation of Associated Bank and Trust Company Subsidiaries

Associated Bank and our nationally chartered trust company subsidiary are regulated, supervised and examined by the OCC. The OCC has primary supervisory and regulatory authority over the operations of Associated Bank and the Corporation's trust

company subsidiary. As part of this authority, Associated Bank and our trust company subsidiaries are required to file periodic reports with the OCC and are subject to regulation, supervision and examination by the OCC. To support its supervisory function, the OCC has the authority to assess and charge fees on all national banks according to a set fee schedule. Due to increased operating efficiencies, the OCC reduced the rates in all fee schedules by 3 percent for the 2021 calendar year, thus reducing the assessment fees that Associated Bank paid in 2021. This reduction was in addition to the OCC's final rule passed in 2020, which reduced the assessments paid to the OCC on September 30, 2020 in response to the impact of the COVID-19 pandemic. On December 1, 2021, the OCC published its assessment rates for the 2022 calendar year, maintaining the rates from 2021.

Associated Bank, our only subsidiary that accepts insured deposits, is also subject to examination by the FDIC. We are subject to the enforcement and rule-making authority of the CFPB regarding consumer financial products. The CFPB has the authority to create and enforce consumer protection rules and regulations and has the power to examine us for compliance with such rules and regulations. The CFPB also has the authority to prohibit “unfair, deceptive or abusive” acts and practices. The CFPB has examination and enforcement authority over all banks with more than \$10 billion in assets, such as Associated Bank. The Dodd-Frank Act weakened the federal preemption available for national banks and gave broader rights to state attorneys general to enforce certain federal consumer protection laws. The Economic Growth Act, enacted in 2018, repealed or modified several important provisions of the Dodd-Frank Act. Among other things, the Economic Growth Act raised the total asset thresholds to \$250 billion for Dodd-Frank Act annual company-run stress testing, leverage limits, liquidity requirements, and resolution planning requirements for bank holding companies, subject to the ability of the Federal Reserve to apply such requirements to institutions with assets of \$100 billion or more to address financial stability risks or safety and soundness concerns. In 2019, the OCC adopted a final rule implementing portions of the Economic Growth Act, which, among other things, raised the minimum threshold for national banks to conduct stress tests from \$10 billion to \$250 billion. As a result of the final rule, the Bank is no longer subject to Dodd-Frank Act stress testing requirements.

The Economic Growth Act also enacted several important changes in some technical compliance areas, for which the banking agencies have now issued certain corresponding guidance documents and implemented regulations, including:

- Prohibiting federal banking regulators from imposing higher capital standards on HVCRE exposures unless they are for ADC, and clarifying ADC status;
- Requiring the federal banking agencies to amend the Liquidity Coverage Ratio Rule such that all qualifying investment-grade, liquid and readily-marketable municipal securities are treated as level 2B liquid assets, making them more attractive investment alternatives;
- Exempting from appraisal requirements certain transactions involving real property in rural areas and valued at less than \$400,000; and
- Directing the CFPB to provide guidance on the applicability of the TILA-RESPA Integrated Disclosure rule to mortgage assumption transactions and construction-to-permanent home loans, as well the extent to which lenders can rely on model disclosures that do not reflect recent regulatory changes.

Legislative and Regulatory Responses to the COVID-19 Pandemic

The COVID-19 pandemic has continued to cause extensive disruptions to the global economy, to businesses, and to the lives of individuals throughout the world. On March 27, 2020, the CARES Act was signed into law. The CARES Act was a \$2.2 trillion economic stimulus bill that was intended to provide relief in the wake of the COVID-19 pandemic. There have also been a number of regulatory actions intended to help mitigate the adverse economic impact of the COVID-19 pandemic on borrowers, including several mandates from the bank regulatory agencies, requiring financial institutions to work constructively with borrowers affected by the COVID-19 pandemic.

The bank regulatory agencies ensured that adequate flexibility will be given to financial institutions who work with borrowers affected by the COVID-19 pandemic, and indicated that they would not criticize institutions who do so in a safe and sound manner. Further, the bank regulatory agencies have encouraged financial institutions to report accurate information to credit bureaus regarding relief provided to borrowers and have urged the importance of financial institutions to continue assisting those borrowers impacted by the COVID-19 pandemic. Also, on April 3, 2020, the bank regulatory agencies issued a joint policy statement to facilitate mortgage servicers’ ability to place consumers in short-term payment forbearance programs. This policy statement was followed by an interim final rule, on June 23, 2020, that makes it easier for consumers to transition out of financial hardship caused by the COVID-19 pandemic. The rule makes it clear that servicers do not violate Regulation X (which places restrictions and requirements upon lenders, mortgage brokers, or servicers of home loans related to consumers when they apply for and receive mortgage loans) by offering certain COVID-19-related loss mitigation options based on an evaluation of limited application information collected from the borrower. A final rule issued by the bank regulatory agencies

on June 28, 2021 permits servicers to also offer certain COVID-19 related loan modification options based on the evaluation of an incomplete application. Federal and state moratoria on evictions and foreclosures that were implemented during 2020 in response to COVID-19 were extended late into 2021. Although these programs generally have expired, governmental authorities may take additional actions in the future to limit the adverse impact of COVID-19 on borrowers and tenants.

The PPP, originally established under the CARES Act and extended under the Coronavirus Response and Relief Supplemental Appropriations Act of 2021, authorized financial institutions to make federally-guaranteed loans to qualifying small businesses and non-profit organizations. These loans carry an interest rate of 1% per annum and a maturity of 2 years for loans originated prior to June 5, 2020 and 5 years for loans originated on or after June 5, 2020. The PPP provides that such loans may be forgiven if the borrowers meet certain requirements with respect to maintaining employee headcount and payroll and the use of the loan proceeds after the loan is originated. The initial phase of the PPP, after being extended multiple times by Congress, expired on August 8, 2020. However, on January 11, 2021, the SBA reopened the PPP for First Draw PPP loans to small businesses and non-profit organizations that did not receive a loan through the initial PPP phase. Further, on January 13, 2021, the SBA reopened the PPP for Second Draw PPP loans to small businesses and non-profit organizations that did receive a loan through the initial PPP phase. Maximum loan amounts were also increased for accommodation and food service businesses. Although the PPP ended in accordance with its terms on May 31, 2021, outstanding PPP loans continue to go through the process of either obtaining forgiveness from the SBA or pursuing claims under the SBA guaranty.

Banking Acquisitions

We are required to obtain prior Federal Reserve approval before acquiring more than 5% of the voting shares, or substantially all of the assets, of a bank holding company, bank or savings association. In addition, the prior approval of the OCC is required for a national bank to merge with another bank or purchase the assets or assume the deposits of another bank. In determining whether to approve a proposed bank acquisition, federal bank regulators will consider, among other factors, the effect of the acquisition on competition, the public benefits expected to be received from the acquisition, the projected capital ratios and levels on a post-acquisition basis, and the acquiring institution's record of addressing the credit needs of the communities it serves, including the needs of low and moderate income neighborhoods, consistent with the safe and sound operation of the bank, under the CRA.

On July 9, 2021, President Biden issued an Executive Order on Promoting Competition in the American Economy. Among other initiatives, the Executive Order encouraged the federal banking agencies to review their current merger oversight practices under the BHC Act and the Bank Merger Act and adopt a plan for revitalization of such practices. There are many steps that must be taken by the agencies before any formal changes to the framework for evaluating bank mergers can be finalized and the prospects for such action are uncertain at this time; however, the adoption of more expansive or prescriptive standards may have an impact on our acquisition activities. See the Risk Factors section for a more extensive discussion of this topic.

Banking Subsidiary Dividends

The Parent Company is a legal entity separate and distinct from the Bank and other nonbanking subsidiaries. A substantial portion of our cash flow comes from dividends paid to us by Associated Bank. The OCC's prior approval of the payment of dividends by Associated Bank to the Parent Company is required only if the total of all dividends declared by the Bank in any calendar year exceeds the sum of the Bank's retained net income for that year and its retained net income for the preceding two calendar years, less any required transfers to surplus. Federal law also prohibits national banks from paying dividends that would be greater than the bank's undivided profits after deducting statutory bad debt in excess of the bank's allowance for loan losses. In addition, under the FDICIA, an IDI, such as the Bank, is prohibited from making capital distributions, including the payment of dividends, if, after making such distribution, the institution would become "undercapitalized" (as such term is used in the FDICIA).

Holding Company Dividends

In addition, we and the Bank are subject to various general regulatory policies and requirements relating to the payment of dividends, including requirements to maintain adequate capital above regulatory minimums. The appropriate federal regulatory authority is authorized to determine under certain circumstances relating to the financial condition of a bank or bank holding company that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. Under the Dodd-Frank Act and the requirements of the Federal Reserve, the Parent Company, as a bank holding company, is required to serve as a source of financial strength to the Bank and to commit resources to support the Bank. In addition, consistent with its "source of strength" policy, the Federal Reserve has stated that, as a matter of prudent banking, a bank holding company should not maintain a level of cash dividends to its shareholders that places undue pressure on the capital of its bank subsidiaries, or that can be funded only through additional borrowings or other arrangements that may undermine the bank holding company's ability to serve as a source of strength. The appropriate federal regulatory authorities have indicated that paying dividends that

deplete a bank's capital base to an inadequate level would be an unsafe and unsound banking practice and that banking organizations should generally pay dividends only out of current operating earnings.

Capital Requirements

We are subject to various regulatory capital requirements both at the Parent Company and at the Bank level administered by the Federal Reserve and the OCC, respectively. Failure to meet minimum capital requirements could result in certain mandatory and possible additional discretionary actions by regulators that, if undertaken, could have an adverse material effect on our financial condition and results of operations. Under capital adequacy guidelines and the regulatory framework for prompt corrective action (described below), we must meet specific capital guidelines that involve quantitative measures of our assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting policies. Our capital amounts and classification are also subject to judgments by the regulators regarding qualitative components, risk weightings, and other factors. We have consistently maintained regulatory capital ratios at or above the well capitalized standards.

In 2013, the Federal Reserve and the OCC issued final rules establishing a new comprehensive capital framework for U.S. banking organizations. These rules implemented certain provisions of the Dodd-Frank Act and Basel III. The final rules seek to strengthen the components of regulatory capital, increase risk-based capital requirements, and make selected changes to the calculation of risk-weighted assets. The final rules, among other things:

- revised minimum capital requirements and adjusted prompt corrective action thresholds;
- revised the components of regulatory capital and created a new capital measure called "Common Equity Tier 1," which must constitute at least 4.5% of risk-weighted assets;
- specified that Tier 1 capital consists only of CET1 and certain "Additional Tier 1 Capital" instruments meeting specified requirements;
- applied most deductions/adjustments to regulatory capital measures to CET1 and not to other components of capital, potentially requiring higher levels of CET1 in order to meet minimum ratio requirements;
- increased the minimum Tier 1 capital ratio requirement from 4% to 6%;
- retained the existing risk-based capital treatment for 1-4 family residential mortgage exposures;
- permitted most banking organizations, including the Parent Company, to retain, through a one-time permanent election, the existing capital treatment for accumulated other comprehensive income;
- implemented a new capital conservation buffer of CET1 capital equal to 2.5% of risk-weighted assets, which is in addition to the 4.5% CET1 capital ratio, which buffer generally is required to make capital distributions and pay executive bonuses;
- increased capital requirements for past due loans, HVCRE exposures, and certain short-term loan commitments;
- required the deduction of MSAs and DTAs that exceed 10% of CET1 capital in each category and 15% of CET1 capital in the aggregate; and
- removed references to credit ratings consistent with the Dodd-Frank Act and established due diligence requirements for securitization exposures.

Through subsequent rulemaking, the federal banking agencies provided certain forms of relief to banking organizations that are not subject to the capital rule's advanced approaches, such as the Corporation.

For instance, non-advanced approaches institutions are subject to simpler regulatory capital requirements for MSAs, certain DTAs arising from temporary differences, investments in the capital of unconsolidated financial institutions, and requirements for the amount of capital issued by a consolidated subsidiary of a banking organization and held by third parties (sometimes referred to as a minority interest) that is includable in regulatory capital.

In addition, certain general requirements of the capital rules have been eliminated in respect of non-advanced approaches institutions, including (i) the capital rule's 10 percent CET 1 capital deduction threshold that applies individually to MSAs, temporary difference DTAs, and significant investments in the capital of unconsolidated financial institutions in the form of common stock; (ii) the aggregate 15 percent CET1 capital deduction threshold that subsequently applies on a collective basis across such items; (iii) the 10 percent CET1 capital deduction threshold for non-significant investments in the capital of unconsolidated financial institutions; and (iv) the deduction treatment for significant investments in the capital of

unconsolidated financial institutions not in the form of common stock. Accordingly, banking organizations not subject to the advanced approaches capital rule may deduct from CET1 capital any amount of MSAs, temporary difference DTAs, and investments in the capital of unconsolidated financial institutions that individually exceeds 25 percent of CET1 capital.

The Basel Committee on Banking Supervision published the last version of the Basel III accord in 2017, generally referred to as “Basel IV.” The Basel Committee stated that a key objective of the revisions incorporated into the framework is to reduce excessive variability of risk-weighted assets, which will be accomplished by enhancing the robustness and risk sensitivity of the standardized approaches for credit risk and operational risk. This will facilitate the comparability of banks’ capital ratios, constraining the use of internally modeled approaches, and complementing the risk-weighted capital ratio with a finalized leverage ratio and a revised and robust capital floor. Leadership of the Federal Reserve, OCC, and FDIC, who are tasked with implementing Basel IV, supported the revisions. Under the current U.S. capital rules, operational risk capital requirements and a capital floor apply only to advanced approaches institutions, and not to the Corporation. The impact of Basel IV on us will depend on the manner in which it is implemented by the federal bank regulators.

We continue to exceed all capital requirements necessary to be deemed “well-capitalized” for all regulatory purposes under the capital rules. For further detail on capital and capital ratios, see discussion under the Liquidity and Capital sections under Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations, and under Part II, Item 8, Financial Statements and Supplementary Data, Note 19 Regulatory Matters of the notes to consolidated financial statements.

Current Expected Credit Loss Treatment

In June 2016, the FASB issued an accounting standard update, “Financial Instruments-Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments,” which replaced the “incurred loss” model for recognizing credit losses with an “expected loss” model referred to as the CECL model. Under the CECL model, we are required to present certain financial assets carried at amortized cost, such as loans held for investment and HTM debt securities, at the net amount expected to be collected. The measurement of expected credit losses is to be based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. On December 21, 2018, the federal banking agencies approved a final rule modifying their regulatory capital rules and providing an option to phase in over a period of three years the day-one regulatory capital effects of the CECL model. The final rule also revises the agencies’ other rules to reflect the update to the accounting standards. The final rule took effect April 1, 2019. However, on August 26, 2020, the federal bank regulatory agencies issued a final rule that allows institutions that adopted the CECL accounting standard in 2020 the option to mitigate the estimated capital effects of CECL for two years, followed by a three-year transition period. Taken together, these measures offer institutions a transition period of up to five years. The Corporation elected to utilize the 2020 Capital Transition Relief as permitted under applicable regulations.

Capital Planning and Stress Testing Requirements

As part of the regulatory relief provided by the Economic Growth Act, the asset threshold requiring IDIs to conduct and report to their primary federal bank regulators annual company-run stress tests was raised from \$10 billion to \$250 billion in total consolidated assets and the requirement was made “periodic” rather than annual. The Economic Growth Act also provided that bank holding companies under \$100 billion in assets were no longer subject to stress testing requirements. The amended regulations also provide the Federal Reserve with discretion to subject bank holding companies with more than \$100 billion in total assets to enhanced supervision. In addition, Section 214 of the Economic Growth Act and its implementing regulation prohibit the federal banking agencies from requiring the Bank to assign a heightened risk weight to certain HVCRE ADC loans as previously required under the Basel III Capital Rules. Notwithstanding these regulatory amendments, the federal banking agencies indicated through interagency guidance that the capital planning and risk management practices of institutions with total assets less than \$100 billion would continue to be reviewed through the regular supervisory process. Although the Corporation will continue to monitor and stress test its capital consistent with the safety and soundness expectations of the federal regulators, the Corporation no longer publishes stress testing results as a result of the legislative and regulatory amendments.

Enforcement Powers of the Federal Banking Agencies; Prompt Corrective Action

The Federal Reserve, the OCC, and the CFPB have extensive supervisory authority over their regulated institutions, including, among other things, the power to compel higher reserves, the ability to assess civil money penalties, the ability to issue cease-and-desist or removal orders and the ability to initiate injunctive actions. In general, these enforcement actions may be initiated for violations of laws and regulations or for unsafe or unsound banking practices. Other actions or inactions by the Parent Company may provide the basis for enforcement action, including misleading or untimely reports.

Federal banking regulators are authorized and, under certain circumstances, required to take certain actions against banks that fail to meet their capital requirements. The federal banking agencies have additional enforcement authority with respect to undercapitalized depository institutions.

“Well capitalized” institutions may generally operate without supervisory restriction. “Adequately capitalized” institutions cannot normally pay dividends or make any capital contributions that would leave them undercapitalized; they cannot pay a management fee to a controlling person if, after paying the fee, they would be undercapitalized; and they cannot accept, renew or roll over any brokered deposit unless the bank has applied for and been granted a waiver by the FDIC.

We note that the Economic Growth Act provides that reciprocal deposits are not treated as brokered deposits in the case of a “well capitalized” institution that received an “outstanding” or a “good” rating on its most recent examination to the extent the amount of such deposits does not exceed the lesser of \$5 billion or 20% of the bank’s total liabilities.

The federal banking agencies are required to take action to restrict the activities of an “undercapitalized,” “significantly undercapitalized,” or “critically undercapitalized” IDI. Any such bank must submit a capital restoration plan that is guaranteed by the parent holding company. Until such plan is approved, it may not increase its assets, acquire another institution, establish a branch or engage in any new activities, and generally may not make capital distributions. In certain situations, a federal banking agency may reclassify a well-capitalized institution as adequately capitalized and may require an adequately capitalized or undercapitalized institution to comply with supervisory actions as if the institution were in the next lower category.

Institutions must file a capital restoration plan with the OCC within 45 days of the date it receives a notice from the OCC that it is “undercapitalized,” “significantly undercapitalized,” or “critically undercapitalized.” Compliance with a capital restoration plan must be guaranteed by a parent holding company. In addition, the OCC is permitted to take any one of a number of discretionary supervisory actions, including but not limited to the issuance of a capital directive and the replacement of senior executive officers and directors.

Finally, bank regulatory agencies have the ability to impose higher than normal capital requirements known as individual minimum capital requirements for institutions with a high-risk profile.

At December 31, 2021, the Bank satisfied the capital requirements necessary to be deemed “well capitalized.” In the event of a change to this status, the imposition of any of the measures described above could have a material adverse effect on the Corporation and on its profitability and operations. The Corporation’s shareholders do not have preemptive rights and, therefore, if the Corporation is directed by the OCC or the FDIC to issue additional shares of common stock, such issuance may result in dilution in shareholders’ percentage of ownership of the Corporation.

Deposit Insurance Premiums

Associated Bank is a member of the FDIC and pays an insurance premium to the FDIC based upon its assessment rates on a quarterly basis. Deposits are insured up to applicable limits by the FDIC and such insurance is backed by the full faith and credit of the United States Government.

Under the Dodd-Frank Act, a permanent increase in deposit insurance was authorized to \$250,000 per depositor, per IDI for each account ownership category.

The Dodd-Frank Act also set the minimum DIF reserve ratio at 1.35% of estimated insured deposits. The FDIC was required to attain this ratio by September 30, 2020. The Dodd-Frank Act also required the FDIC to define the deposit insurance assessment base for an IDI as an amount equal to the institution’s average consolidated total assets during the assessment period minus average tangible equity. The assessment rate schedule for larger institutions like Associated Bank (i.e., institutions with at least \$10 billion in assets) differentiates between such large institutions by use of a “scorecard” that combines an institution’s CAMELS ratings with certain forward-looking financial information to measure the risk to the DIF. Pursuant to this “scorecard” method, two scores (a performance score and a loss severity score) will be combined and converted to an initial base assessment rate. The performance score measures an institution’s financial performance and ability to withstand stress. The loss severity score measures the relative magnitude of potential losses to the DIF in the event of the institution’s failure. Total scores are converted pursuant to a predetermined formula into an initial base assessment rate. Assessment rates range from 2.5 bp to 45 bp for large institutions. Premiums for Associated Bank are now calculated based upon the average balance of total assets minus average tangible equity as of the close of business for each day during the calendar quarter.

On June 22, 2020, the FDIC issued a final rule that mitigates the deposit insurance assessment effects of participating in the PPP, the PPPLF and MMLF. Pursuant to the final rule, the FDIC generally removes the effect of PPP lending in calculating an institution's deposit insurance assessment. The final rule also provides an offset to an institution's total assessment amount for the increase in its assessment base attributable to participation in the PPP and MMLF. The final rule became effective on April

1, 2020 and treatment of PPP loans as liquid assets under the rule remained in effect until July 30, 2021, which date represented the expiration of the final extension of the PPPLF authorized by the Federal Reserve. Other adjustments remain in effect until further rulemaking.

The FDIC has the flexibility to adopt actual rates that are higher or lower than the total base assessment rates adopted without notice and comment, if certain conditions are met.

On September 30, 2018, the DIF reserve ratio reached 1.36 percent, exceeding the statutorily required minimum reserve ratio of 1.35 percent ahead of the September 30, 2020 deadline required under the Dodd-Frank Act. FDIC regulations provide that, upon reaching the minimum, surcharges on IDIs with total consolidated assets of \$10 billion or more will cease. The last quarterly surcharge was reflected in the Bank's December 2018 assessment invoice, which covered the assessment period from July 1, 2018 through September 30, 2018. The Bank's assessment invoices have not included a quarterly surcharge since that time.

Assessment rates, which declined for all banks when the reserve ratio first surpassed 1.15 percent in the third quarter of 2016, are expected to remain unchanged. Assessment rates are scheduled to decrease when the reserve ratio exceeds 2 percent.

DIF-insured institutions pay a FICO assessment in order to fund the interest on bonds issued in the 1980s in connection with the failures in the thrift industry. The FICO assessment was computed on assets as required by the Dodd-Frank Act. These assessments continued until the bonds matured in September 2019. The Corporation's assessment rate for FDIC was approximately 6 bp for 2021.

The FDIC is authorized to conduct examinations of and require reporting by FDIC-insured institutions. It is also authorized to terminate a depository bank's deposit insurance upon a finding by the FDIC that the bank's financial condition is unsafe or unsound or that the institution has engaged in unsafe or unsound practices or has violated any applicable rule, regulation, order or condition enacted or imposed by the bank's regulatory agency. The termination of deposit insurance for our national bank subsidiary would have a material adverse effect on our earnings, operations and financial condition.

Historically, deposit insurance premiums we have paid to the FDIC have been deductible for federal income tax purposes; however, the Tax Act disallows the deduction of such premium payments for banking organizations with total consolidated assets of \$50 billion or more. For banks with less than \$50 billion in total consolidated assets, such as ours, the premium deduction is phased out based on the proportion of a bank's assets exceeding \$10 billion.

Brokered Deposits

Section 29 of the Federal Deposit Insurance Act and FDIC regulations thereunder limit the ability of an IDI, such as the Bank, to accept, renew or roll over brokered deposits unless the institution is well-capitalized under the prompt corrective action framework described above, or unless it is adequately capitalized and obtains a waiver from the FDIC. In addition, less than well-capitalized banks are subject to restrictions on the interest rates they may pay on deposits. The characterization of deposits as "brokered" may result in the imposition of higher deposit assessments on such deposits. As mandated by the Economic Growth Act, the FDIC adopted a final rule in February 2019 to include a limited exception for reciprocal deposits for FDIC-IDIs that are well rated and well capitalized (or adequately capitalized and have obtained a waiver from the FDIC as mentioned above). Under the limited exception, qualified FDIC-IDIs, like the Bank, are able to except from treatment as "brokered" deposits up to \$5 billion or 20 percent of the institution's total liabilities in reciprocal deposits (which is defined as deposits received by a financial institution through a deposit placement network with the same maturity (if any) and in the same aggregate amount as deposits placed by the institution in other network member banks).

On December 15, 2020, the FDIC issued a final rule amending its regulations governing brokered deposits. The rule sought to clarify and modernize the FDIC's regulatory framework for brokered deposits. Notable aspects of the rule include (1) the establishment of bright-line standards for determining whether an entity meets the statutory definition of "deposit broker"; (2) the identification of a number of business relationships in which the agent of nominee is automatically not deemed to be a "deposit broker" because their primary purpose is not the placement of funds with depository institutions (the "primary purpose exception"; (3) the establishment of a more transparent application process for entities that seek the "primary purpose exception", but do not qualify as one of the identified business relationships to which the exception is automatically applicable; and (4) the clarification that third parties that have an exclusive deposit-placement arrangement with only one IDI are not considered a "deposit broker." The final rule took effect on April 1, 2021 and full compliance is required by January 1, 2022.

Standards for Safety and Soundness

The federal banking agencies have adopted the Interagency Guidelines for Establishing Standards for Safety and Soundness (the "Guidelines"). The Guidelines establish certain safety and soundness standards for all depository institutions. The

operational and managerial standards in the Guidelines relate to the following: (1) internal controls and information systems; (2) internal audit systems; (3) loan documentation; (4) credit underwriting; (5) interest rate exposure; (6) asset growth; (7) compensation, fees and benefits; (8) asset quality; and (9) earnings. Rather than providing specific rules, the Guidelines set forth basic compliance considerations and guidance with respect to a depository institution. Failure to meet the standards in the Guidelines, however, could result in a request by the OCC to one of the nationally chartered banks to provide a written compliance plan to demonstrate its efforts to come into compliance with such Guidelines. Failure to provide a plan or to implement a provided plan requires the appropriate federal banking agency to issue an order to the institution requiring compliance.

Transactions with Affiliates and Insiders

Transactions between our national banking subsidiary and its related parties or any affiliate are governed by Sections 23A and 23B of the Federal Reserve Act. An affiliate is any company or entity, which controls, is controlled by or is under common control with the bank. In a holding company context, at a minimum, the parent holding company of a national bank, and any companies that are controlled by such parent holding company, are affiliates of the bank. Generally, Sections 23A and 23B (i) limit the extent to which an institution or its subsidiaries may engage in “covered transactions” with any one affiliate to an amount equal to 10% of such institution’s capital stock and surplus, and contain an aggregate limit on all such transactions with all affiliates to an amount equal to 20% of such capital stock and surplus, and (ii) require that all such transactions be on terms substantially the same, or at least as favorable, to the institution or subsidiary as those provided to a nonaffiliate. The term “covered transaction” includes the making of loans, purchase of assets, issuance of a guarantee and similar types of transactions. Certain types of covered transactions must be collateralized according to a schedule set forth in the statute based on the type of collateral.

Certain transactions with our directors, officers or controlling persons are also subject to conflicts of interest regulations. Among other things, these regulations require that loans to such persons and their related interests be made on terms substantially the same as for loans to unaffiliated individuals and must not create an abnormal risk of repayment or other unfavorable features for the financial institution. See Note 4 Loans of the notes to consolidated financial statements in Part II, Item 8, Financial Statements and Supplementary Data, for additional information on loans to related parties.

Community Reinvestment Act Requirements

Associated Bank is subject to periodic CRA reviews by the OCC. The CRA does not establish specific lending requirements or programs for financial institutions and does not limit the ability of such institutions to develop products and services believed best-suited for a particular community. An institution’s CRA assessment may be used by its regulators in their evaluation of certain applications, including a merger, acquisition or the establishment of a branch office. An unsatisfactory rating may be used as the basis for denial of such an application. The Bank received a “Satisfactory” CRA rating in its most recent evaluation.

Privacy, Data Protection, and Cybersecurity

We are subject to a number of U.S. federal, state, local and foreign laws and regulations relating to consumer privacy and data protection. Under privacy protection provisions of the Gramm-Leach-Bliley Act of 1999 and its implementing regulations and guidance, we are limited in our ability to disclose certain non-public information about consumers to nonaffiliated third parties. Financial institutions, such as the Bank, are required by statute and regulation to notify consumers of their privacy policies and practices and, in some circumstances, allow consumers to prevent disclosure of certain personal information to a nonaffiliated third party. In addition, such financial institutions must appropriately safeguard their customers’ nonpublic, personal information.

Consumers must be notified in the event of a data breach under applicable state laws. The changing privacy laws in the United States, Europe and elsewhere, including the California Consumer Privacy Act, which became effective in January 2020 and was amended in November 2020 by a ballot initiative titled the California Privacy Rights Act, create new individual privacy rights and impose increased obligations on companies handling personal data. In addition, multiple states, Congress and regulators outside the United States are considering similar laws or regulations which could create new individual privacy rights and impose increased obligations on companies handling personal data. For example, on November 23, 2021, the federal financial regulatory agencies published a final rule that will impose upon banking organizations and their service providers new notification requirements for significant cybersecurity incidents. Specifically, the final rule requires banking organizations to notify their primary federal regulator as soon as possible and no later than 36 hours after the discovery of a "computer-security incident" that rises to the level of a "notification incident" within the meaning attributed to those terms by the final rule. Banks' service providers are required under the final rule to notify any affected bank to or on behalf of which the service provider provides services "as soon as possible" after determining that it has experienced an incident that materially disrupts or degrades, or is reasonably likely to materially disrupt or degrade, covered services provided to such bank for as much as four hours. The

final rule will take effect on April 1, 2022 and banks and their service providers must be in compliance with the requirements of the rule by May 1, 2022.

Federal banking agencies, including the OCC, have adopted guidelines for establishing information security standards and cybersecurity programs for implementing safeguards under the supervision of the board of directors. These guidelines, along with related regulatory materials, increasingly focus on risk management and processes related to information technology and the use of third parties in the provision of financial services. In October 2016, the federal banking agencies issued an advance notice of proposed rulemaking on enhanced cybersecurity risk-management and resilience standards that would apply to large and interconnected banking organizations and to services provided by third parties to these firms. These enhanced standards would apply only to depository institutions and depository institution holding companies with total consolidated assets of \$50 billion or more, which would not currently include the Corporation.

Recent cyberattacks against banks and other financial institutions that resulted in unauthorized access to confidential customer information have prompted the federal banking regulators to issue extensive guidance on cybersecurity. Among other things, financial institutions are expected to design multiple layers of security controls to establish lines of defense and ensure that their risk management processes address the risks posed by compromised customer credentials, including security measures to authenticate customers accessing internet-based services. A financial institution also should have a robust business continuity program to recover from a cyberattack and procedures for monitoring the security of third-party service providers that may have access to nonpublic data at the institution. During 2021, the Corporation did not discover any material cybersecurity incidents.

Bank Secrecy Act / Anti-Money Laundering

The BSA, which is intended to require financial institutions to develop policies, procedures, and practices to prevent and deter money laundering, mandates that every national bank have a written, board-approved program that is reasonably designed to assure and monitor compliance with the BSA. The program must, at a minimum: (1) provide for a system of internal controls to assure ongoing compliance; (2) provide for independent testing for compliance; (3) designate an individual responsible for coordinating and monitoring day-to-day compliance; and (4) provide training for appropriate personnel. In addition, national banks are required to adopt a customer identification program as part of their BSA compliance program. National banks are also required to file SARs when they detect certain known or suspected violations of federal law or suspicious transactions related to a money laundering activity or a violation of the BSA. In May 2016, the regulations implementing the BSA were amended, effective May 2018, to explicitly include risk-based procedures for conducting ongoing customer due diligence and procedures for understanding the nature and purpose of customer relationships for the purpose of developing a customer risk profile. In addition, FinCEN promulgated customer due diligence and customer identification rules that require banks to identify and verify the identity of the beneficial owners of all legal entity customers (other than those that are excluded) at the time a new account is opened (other than accounts that are exempted), which rules became effective on May 11, 2018.

In addition to complying with the BSA, the Bank is subject to the Patriot Act. The Patriot Act is designed to deny terrorists and criminals the ability to obtain access to the United States' financial system and has significant implications for depository institutions, brokers, dealers, and other businesses involved in the transfer of money. The Patriot Act mandates that financial service companies implement additional policies and procedures and take heightened measures designed to address any or all of the following matters: customer identification programs, money laundering, terrorist financing, identifying and reporting suspicious activities and currency transactions, currency crimes, and cooperation between financial institutions and law enforcement authorities.

On December 3, 2019, three federal banking agencies and FinCEN issued a joint statement clarifying the compliance procedures and reporting requirements that banks must file for customers engaged in the growth or cultivation of hemp, including a clear statement that banks need not file a SAR on customers engaged in the growth or cultivation of hemp in accordance with applicable laws and regulations. This statement does not apply to cannabis-related business; thus, the statement only pertains to customers who are lawfully growing or cultivating hemp and are not otherwise engaged in unlawful or suspicious activity.

Further, on January 1, 2021, Congress passed the National Defense Authorization Act, which enacted the most significant overhaul of the BSA and related AML laws since the Patriot Act. Notable amendments include (1) significant changes to the collection of beneficial ownership information and the establishment of a beneficial ownership registry, which requires corporate entities (generally, any corporation, LLC, or other similar entity with 20 or fewer employees and annual gross income of \$5 million or less) to report beneficial ownership information to FinCEN (which will be maintained by FinCEN and made available upon request to financial institutions); (2) enhanced whistleblower provisions, which provide that one or more whistleblowers who voluntarily provide original information leading to the successful enforcement of violations of the AML laws in any judicial or administrative action brought by the Secretary of the Treasury or the Attorney General resulting in monetary sanctions exceeding \$1 million (including disgorgement and interest but excluding forfeiture, restitution, or

compensation to victims) will receive not more than 30 percent of the monetary sanctions collected and will receive increased protections; (3) increased penalties for violations of the BSA; (4) improvements to existing information sharing provisions that permit financial institutions to share information relating to SARs with foreign branches, subsidiaries, and affiliates (except those located in China, Russia, or certain other jurisdictions) for the purpose of combating illicit finance risks; and (5) expanded duties and powers of FinCEN. Many of the amendments require the Department of Treasury and FinCEN to promulgate rules. On December 8, 2021, FinCEN issued proposing regulations that would implement the amendments with respect to beneficial ownership.

Interstate Branching

Pursuant to the Dodd-Frank Act, national and state-chartered banks may open an initial branch in a state other than its home state (e.g., a host state) by establishing a *de novo* branch at any location in such host state at which a bank chartered in such host state could establish a branch. Applications to establish such branches must still be filed with the appropriate primary federal regulator.

Volcker Rule

The Dodd-Frank Act prohibits IDIs and their holding companies from engaging in proprietary trading except in limited circumstances, and prohibits them from owning equity interests in excess of three percent of Tier 1 Capital in private equity and hedge funds (known as the “Volcker Rule”). On December 10, 2013, five U.S. financial regulators, including the Federal Reserve and the OCC, adopted regulations implementing the Volcker Rule. Those regulations prohibit banking entities from (1) engaging in short-term proprietary trading for their own accounts, and (2) having certain ownership interests in and relationships with hedge funds or private equity funds, which are referred to as “covered funds.” The regulations also require each regulated entity to establish an internal compliance program that is consistent with the extent to which it engages in activities covered by the Volcker Rule. Historically, this meant that the largest banking entities (*i.e.*, those with \$50 billion or more in assets) had higher reporting requirements, but in November 2019, five federal banking agencies issued a final rule revising certain aspects of the Volcker Rule. The final rule simplifies and streamlines compliance requirements for firms that do not have significant trading activities and enhances requirements for firms that do. Under the rule, compliance requirements are based on the amount of assets and liabilities that a bank trades. Firms with significant trading activities (*i.e.*, those with \$20 billion or more in trading assets and liabilities) have heightened compliance obligations.

The rule became effective on January 1, 2020, and banking entities were required to comply as of January 1, 2021. Although we benefit from significantly reduced compliance obligations due to the level of our trading assets being below the \$20 billion threshold, we remain subject to the modified rules and requirements related to covered funds. On June 25, 2020, the five U.S. financial regulators with responsibility for implementing the Volcker Rule issued a final rule that modifies the Volcker Rule's prohibition on banking entities' investing in or sponsoring "covered funds." The final rule (1) streamlines the covered funds portion of the rule; (2) addresses the extraterritorial treatment of certain foreign funds; and (3) permits banking entities to offer financial services and engage in other activities that do not raise concerns that the Volcker Rule was intended to address.

Incentive Compensation Policies and Restrictions

In July 2010, the federal banking agencies issued guidance on sound incentive compensation policies that applies to all banking organizations supervised by the agencies (thereby including both the Parent Company and the Bank). Pursuant to the guidance, to be consistent with safety and soundness principles, a banking organization's incentive compensation arrangements should: (1) provide employees with incentives that appropriately balance risk and reward; (2) be compatible with effective controls and risk management; and (3) be supported by strong corporate governance including active and effective oversight by the banking organization's board of directors. Monitoring methods and processes used by a banking organization should be commensurate with the size and complexity of the organization and its use of incentive compensation.

The Dodd-Frank Act requires the federal banking agencies and the SEC to establish joint regulations or guidelines for specified regulated entities, such as us, having at least \$1 billion in total assets, to prohibit incentive-based payment arrangements that encourage inappropriate risk taking by providing an executive officer, employee, director or principal shareholder with excessive compensation, fees, or benefits or that could lead to material financial loss to the entity. In addition, these regulators must establish regulations or guidelines requiring enhanced disclosure to regulators of incentive-based compensation arrangements. The agencies have not yet finalized these rules; however, on October 14, 2021, the SEC signaled a renewed interest in this rulemaking initiative by re-opening the comment period on a proposed rule issued originally in 2015 regarding "clawbacks" of incentive-based executive compensation.

The Federal Reserve will review, as part of its standard, risk-focused examination process, the incentive compensation arrangements of banking organizations, such as the Corporation, that are not “large, complex banking organizations.” These

reviews will be tailored to each organization based on the scope and complexity of the organization's activities and the prevalence of incentive compensation arrangements. The findings of the supervisory initiatives will be included in reports of examination. Deficiencies will be incorporated into the organization's supervisory ratings, which can affect the organization's ability to make acquisitions and take other actions. Enforcement actions may be taken against a banking organization if its incentive compensation arrangements, or related risk-management control or governance processes, pose a risk to the organization's safety and soundness and the organization is not taking prompt and effective measures to correct the deficiencies.

The scope and content of the U.S. banking regulators' policies on executive compensation may continue to evolve in the near future. It cannot be determined at this time whether compliance with such policies will adversely affect the Corporation's ability to hire, retain and motivate its key employees.

Consumer Financial Services Regulations

Federal and applicable state banking laws also require us to take steps to protect consumers. Bank regulatory agencies are increasingly focusing attention on compliance with consumer protection laws and regulations. These laws include disclosures regarding truth in lending, truth in savings, and funds availability.

To promote fairness and transparency for mortgages, credit cards, and other consumer financial products and services, the Dodd-Frank Act established the CFPB. This agency is responsible for interpreting and enforcing federal consumer financial laws, as defined by the Dodd-Frank Act, that, among other things, govern the provision of deposit accounts along with mortgage origination and servicing. Some federal consumer financial laws enforced by the CFPB include the Equal Credit Opportunity Act, TILA, the Truth in Savings Act, the Home Mortgage Disclosure Act, RESPA, the Fair Debt Collection Practices Act, and the Fair Credit Reporting Act. The CFPB is also authorized to prevent any institution under its authority from engaging in an unfair, deceptive, or abusive act or practice in connection with consumer financial products and services.

Under TILA as implemented by Regulation Z, mortgage lenders are required to make a reasonable and good faith determination based on verified and documented information that a consumer applying for a mortgage loan has a reasonable ability to repay the loan according to its terms. Mortgage lenders are required to determine consumers' ability to repay in one of two ways. The first alternative requires the mortgage lender to consider the following eight underwriting factors when making the credit decision: (1) current or reasonably expected income or assets; (2) current employment status; (3) the monthly payment on the covered transaction; (4) the monthly payment on any simultaneous loan; (5) the monthly payment for mortgage-related obligations; (6) current debt obligations, alimony, and child support; (7) the monthly DTI ratio or residual income; and (8) credit history. Alternatively, the mortgage lender can originate QMs, which are entitled to a presumption that the creditor making the loan satisfied the ATR requirements. In general, a QM is a mortgage loan without negative amortization, interest-only payments, balloon payments, or terms exceeding 30 years. In addition, to be a QM the points and fees paid by a consumer cannot exceed 3% of the total loan amount. Further, on December 10, 2020, the CFPB issued two final rules related to QM loans. The first rule replaces the strict 43 percent DTI threshold for QM loans and provides that, in addition to existing requirements, a loan receives a conclusive presumption that the consumer had the ability to repay if the APR does not exceed the average prime offer rate for a comparable transaction by 1.5 percentage points or more as of the date the interest rate is set. Further, a loan receives a rebuttable presumption that the consumer had the ability to repay if the APR exceeds the average prime offer rate for a comparable transaction by 1.5 percentage points or more but by less than 2.25 percentage points. The second rule creates a new category of "seasoned" QMs for loans that meet certain performance requirements. That rule allows a non-QM loan or a "rebuttable presumption" QM loan to receive a safe harbor from ATR liability at the end of a "seasoning" period of at least 36 months as a "seasoned QM" if it satisfies certain product restrictions, points-and-fees limits, and underwriting requirements, and the loan meets the designated performance and portfolio requirements during the "seasoning period." The mandatory compliance date under the first final rule was July 1, 2021, but subsequently was delayed by the CFPB to October 1, 2022. The second final rule will apply to covered transactions for which institutions receive an application after the compliance date for the first final rule. The Corporation is predominantly an originator of compliant QMs.

Additionally, the CFPB has the authority to take supervisory and enforcement action against banks and other financial services companies under the agency's jurisdiction that fail to comply with federal consumer financial laws. As an IDI with total assets of more than \$10 billion, the Bank is subject to the CFPB's supervisory and enforcement authorities. The Dodd-Frank Act also permits states to adopt stricter consumer protection laws and state attorneys general to enforce consumer protection rules issued by the CFPB. As a result of these aspects of the Dodd-Frank Act, the Bank operates in a stringent consumer compliance environment. Therefore, the Bank is likely to incur additional costs related to consumer protection compliance, including but not limited to potential costs associated with CFPB examinations, regulatory and enforcement actions and consumer-oriented litigation, which is likely to increase as a result of the consumer protection provisions of the Dodd-Frank Act. The CFPB has been active in bringing enforcement actions against banks and other financial institutions to enforce consumer financial laws. The federal financial regulatory agencies, including the OCC and states attorneys general, also have become increasingly active

in this area with respect to institutions over which they have jurisdiction. We have incurred and may in the future incur additional costs in complying with these requirements.

Pursuant to the Dodd-Frank Act, the FDIC has backup enforcement authority over a depository institution holding company, such as the Parent Company, if the conduct or threatened conduct of such holding company poses a risk to the DIF, although such authority may not be used if the holding company is generally in sound condition and does not pose a foreseeable and material risk to the DIF. The Dodd-Frank Act may have a material impact on the Corporation's and the Bank's operations, particularly through increased compliance costs resulting from possible future consumer and fair lending regulations. See the Risk Factors section for a more extensive discussion of this topic.

Climate-Related Risk Management and Regulation

In recent years the federal banking agencies have increased their focus on climate-related risks impacting the operations of banks, the communities they serve and the broader financial system. Accordingly, the agencies have begun to enhance their supervisory expectations regarding the climate risk management practices of larger banking organizations, including by encouraging such banks to: ensure that management of climate-related risk exposures has been incorporated into existing governance structures; evaluate the potential impact of climate-related risks on the bank's financial condition, operations and business objectives as part of its strategic planning process; account for the effects of climate change in stress testing scenarios and systemic risk assessments; revise expectations for credit portfolio concentrations based on climate-related factors; consider investments in climate-related initiatives and lending to communities disproportionately impacted by the effects of climate change; evaluate the impact of climate change on the bank's borrowers and consider possible changes to underwriting criteria to account for climate-related risks to mortgaged properties; incorporate climate-related financial risk into the bank's internal reporting, monitoring and escalation processes; and prepare for the transition risks to the bank associated with the adjustment to a low-carbon economy and related changes in laws, regulations, governmental policies, technology, and consumer behavior and expectations.

On October 21, 2021, the Financial Stability Oversight Council published a report identifying climate-related financial risks as an "emerging threat" to financial stability. On December 16, 2021, the OCC issued proposed principles for climate-related financial risk management for national banks with more than \$100 billion in total assets. Although these risk management principles, if adopted as proposed, would not apply to the Bank directly based upon our current size, the OCC has indicated that all banks, regardless of their size, may have material exposures to climate-related financial and other risks that require prudent management. The federal banking agencies, either independently or on an interagency basis, are expected to adopt a more formal climate risk management framework for larger banking organizations in the coming months. As climate-related supervisory guidance is formalized, and relevant risk areas and corresponding control expectations are further refined, we may be required to expend significant capital and incur compliance, operating, maintenance and remediation costs in order to conform to such requirements.

In addition, states are considering taking similar actions on climate-related financial risks, including certain states in which we operate. For example, in November 2021 a group of lawmakers in the Wisconsin legislature introduced a series of 22 bills addressing, through a mix of funding and legal requirements, enhanced energy efficiency standards, sustainable farming practices, the promotion of clean energy jobs and renewable energy sources. The Minnesota legislature has enacted more targeted legislation addressing clean energy job training and energy efficient public transportation. State-level legislative initiatives such as these may require us to expend capital to conform to any requirements that apply to us.

During 2021, the Corporation established an Environmental Sustainability Risk Policy and Environmental Sustainability Statement focused on environmental risk management; climate change, carbon emissions and natural resources; and environmental and social lending which will serve as the foundation to Associated's Environmental Sustainability Risk Management System (EMS), a system for supporting the Environmental Sustainability Risk Policy and environmental sustainability risk reporting. The EMS is intended to ensure management of environmental and climate risk in a comprehensive, systematic, planned and documented manner, and to ensure all policy practices are integrated into the Corporation's Enterprise Risk Management program and align with business objectives. Reporting metrics are intended to align with the Task Force on Climate-related Financial Disclosures (TCFD) Framework. The Corporation joined the TCFD and Value Reporting Foundation (SASB) in 2021. Oversight for climate-related risks includes Board-level, senior management and committee oversight.

The Corporation's Board of Directors is responsible for overseeing the corporate ESG strategies and risks of Associated, including risks and opportunities related to environmental sustainability. In fulfilling its responsibilities, the Board has delegated responsibilities to the following Board-level committees:

- **The Corporate Governance and Social Responsibility Committee (CGSRC)** has oversight responsibility for the company's ESG Framework and ESG Disclosures.
- **The Enterprise Risk Committee of the Board of Directors (ERC)** is the approval authority for enterprise risk-related oversight, such as risk-related policies and the Risk Appetite Statement. With regard to environmental

sustainability, this includes Environmental Risk Management; Climate Change, Carbon Emissions and Natural Resources; and Environmental and Social Lending.

The CGSRC has appointed senior management responsibility to the Environmental, Social and Governance Committee (ESGC), an executive level committee chaired by the Corporation's General Counsel. Additional committee members include the President and Chief Executive Officer; Head of Consumer and Business Banking; Chief Human Resources Officer; Director of Diversity, Equity and Inclusion; Director of Community Accountability; and Director of Enterprise Risk Management and Corporate Risk Strategy.

The ERC has delegated to senior management responsibility for managing and maintaining enterprise risks through approved policies and within the risk appetite. The Corporation senior management carries out this mandate through the Enterprise Risk Management Committee (ERMC). The Chief Risk Officer oversees all aspects of environmental risk. As such, this role provides indirect strategic guidance into the Environmental Sustainability Risk Policy and gives second level approval for all policy components. The Chief Credit Officer oversees lending aspects of environmental risk.

To help identify, implement and effectuate priorities for the Corporation's environmental initiatives, the Corporation also established an Environmental Sustainability Council. The Council is led by the Head of Consumer and Business Banking and includes representatives from our Community Accountability, Corporate Communications, Corporate Risk, Facilities and Real Estate, Marketing, Operations and Technology, Purchasing, Retail Bank, and Wholesale Bank teams.

Other Banking Regulations

The Bank is also subject to a variety of other regulations with respect to the operation of its businesses, including but not limited to the Dodd-Frank Act, which among other restrictions placed limitations on the interchange fees charged for debit card transactions, TILA, Truth in Savings Act, Equal Credit Opportunity Act, Electronic Funds Transfer Act, Fair Housing Act, Home Mortgage Disclosure Act, Fair Debt Collection Practices Act, Fair Credit Reporting Act, Expedited Funds Availability (Regulation CC), Reserve Requirements (Regulation D), Insider Transactions (Regulation O), Privacy of Consumer Information (Regulation P), Margin Stock Loans (Regulation U), Right To Financial Privacy Act, Flood Disaster Protection Act, Homeowners Protection Act, Servicemembers Civil Relief Act, RESPA, Telephone Consumer Protection Act, CAN-SPAM Act, Children's Online Privacy Protection Act, and the John Warner National Defense Authorization Act. Further, in January 2021, the OCC issued a notice of proposed rulemaking to amend current rules related to national banks' ownership of real property. The proposal would provide a set of general standards, including an occupancy test and excess capacity standards, that the OCC will use to determine whether the acquisition and holding of real estate is necessary for the transaction of an institution's business. The prospects and timing for the adoption of a final rule are uncertain at this time.

The laws and regulations to which we are subject are constantly under review by Congress, the federal regulatory agencies, and the state authorities. These laws and regulations could be changed drastically in the future, which could affect our profitability, our ability to compete effectively, or the composition of the financial services industry in which we compete.

Government Monetary Policies and Economic Controls

Our earnings and growth, as well as the earnings and growth of the banking industry, are affected by the credit policies of monetary authorities, including the Federal Reserve. An important function of the Federal Reserve is to regulate the national supply of bank credit in order to combat recession and curb inflationary pressures. Among the instruments of monetary policy used by the Federal Reserve to implement these objectives are open market operations in U.S. government securities, changes in reserve requirements against member bank deposits, and changes in the Federal Reserve discount rate. These instruments are used in varying combinations to influence overall growth of bank loans, investments, and deposits, and may also affect interest rates charged on loans or paid for deposits. The monetary policies of the Federal Reserve authorities have had a significant effect on the operating results of commercial banks in the past and are expected to continue to have such an effect in the future.

In view of changing conditions in the national economy and in money markets, as well as the effect of credit policies by monetary and fiscal authorities, including the Federal Reserve, it is difficult to predict the impact of possible future changes in interest rates, deposit levels, and loan demand, or their effect on our business and earnings or on the financial condition of our various customers.

Other Regulatory Authorities

In addition to regulation, supervision and examination by federal banking agencies, the Corporation and certain of its subsidiaries, including those that engage in securities brokerage, dealing and investment advisory activities, are subject to other federal and applicable state securities laws and regulations, and to supervision and examination by other regulatory authorities, including the SEC, FINRA, NYSE, DOL and others.

Separately, in June 2019, pursuant to the Dodd-Frank Act, the SEC adopted Regulation Best Interest, which, among other things, establishes a new standard of conduct for a broker-dealer to act in the best interest of a retail customer when making a recommendation of any securities transaction or investment strategy involving securities to such customer. The new rule requires us to review and possibly modify our compliance activities, which is causing us to incur some additional costs. In addition, state laws that impose a fiduciary duty also may require monitoring, as well as require that we undertake additional compliance measures.

Available Information

We file annual, quarterly, and current reports, proxy statements, and other information with the SEC. These filings are available to the public on the Internet at the SEC's web site at www.sec.gov.

Our principal internet address is www.associatedbank.com. We make available free of charge on or through our website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. In addition, shareholders may request a copy of any of our filings (excluding exhibits) at no cost by writing at Associated Banc-Corp, Attn: Investor Relations, 433 Main Street, Green Bay, WI 54301 or e-mailing us at investor.relations@associatedbank.com.

ITEM 1A.

Risk Factors

An investment in our common stock is subject to risks inherent to our business. The material risks and uncertainties that management believes affect us are described below. Before making an investment decision, you should carefully consider the risks and uncertainties described below, together with all of the other information included or incorporated by reference herein. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties that management is not aware of or focused on or that management currently deems immaterial may also impair our business operations. This report is qualified in its entirety by these risk factors. See also, Special Note Regarding Forward-Looking Statements and Risk Factors Summary.

If any of the events described in the risk factors should actually occur, our financial condition and results of operations could be materially and adversely affected. If this were to happen, the value of our securities could decline significantly, and you could lose all or part of your investment.

Risks Related to the COVID-19 Pandemic

The coronavirus (COVID-19) pandemic has resulted in significant deterioration and disruption in national and local economic conditions and record levels of unemployment, which may have a material impact on our business, financial condition or results of operations.

The COVID-19 pandemic has created extensive disruptions to the global economy, to businesses, and to the lives of individuals throughout the world. Federal and state governments have taken unprecedented actions to contain the spread of the disease, including quarantines, travel bans, shelter-in-place orders, closures of businesses and schools, fiscal stimulus, and legislation designed to deliver monetary aid and other relief. In many locations throughout the United States the spread of COVID-19 decreased substantially throughout the spring and summer of 2021 and, as a result, several of the activity restrictions listed above were lifted in whole or in part in many jurisdictions. However, due in large part to the increased spread of new, more transmissible coronavirus variants, the number of individuals diagnosed with COVID-19 has again increased substantially in recent months. The substantial increase in COVID-19 infections has caused state and local governments to consider, and in some cases implement, various activity restrictions and containment measures that previously had been lifted.

The widespread availability of multiple COVID-19 vaccines and corresponding rates of vaccination generally have been effective in curtailing rates of infection in many parts of the United States and, in turn, mitigating many of the adverse social and economic effects of the pandemic; however, a significant portion of the population remains unvaccinated and the efficacy of the vaccines in preventing infection and serious illness is believed to wane over time and may be diminished in the face of new coronavirus variants. Accordingly, the pandemic, and related efforts to contain it, continue to disrupt global economic activity and functioning of the financial markets, impact interest rates and monetary policy decisions, increase economic and market uncertainty, and disrupt trade and supply chains. There have been trillions of dollars in economic stimulus packages initiated by the Federal Reserve and the federal government, including the \$2.2 trillion CARES Act, as expanded by the PPP and Health Care Enhancement Act, and more recently, the Economic Aid Act, in an effort to counteract the significant economic disruption from the COVID-19 pandemic. However, there can be no assurance that these packages will continue to be effective in stimulating and sustaining economic activity, and additional governmental stimulus and related interventions may be needed. Moreover, as economic conditions relating to the pandemic have improved over time, the Federal Reserve has

shifted its focus to limiting the inflationary and other potentially adverse effects of the extensive pandemic-related government stimulus, which signals the potential for a continued period of economic uncertainty even if the pandemic subsides.

To help address the impact of the COVID-19 pandemic on the economy and financial markets, the FOMC reduced the benchmark federal funds rate to a target range of 0% to 0.25%, the lowest since the 2008 economic crisis, and the yields on 10- and 30-year Treasury notes have declined to historic lows. Throughout 2021, the FOMC elected to continue to follow this approach as pandemic-related risks to the economy are likely to persist for the foreseeable future. The reduction in interest rates, especially if prolonged, could adversely affect our net interest income, net interest spread and net interest margin. Further, the overall impact of the COVID-19 pandemic on the financial markets could result in a significant decline in the market value of the Corporation's common stock, which may cause us to perform a goodwill impairment test in between annual tests. If that impairment test indicates that the fair value of any of our reporting units is less than its carrying amount, we may be required to record a goodwill impairment charge, which could adversely affect our results of operations.

The effects of the COVID-19 pandemic continue to vary significantly by region, and the full extent of the effects of the pandemic on the U.S. and global economies, labor markets and financial markets are still being determined. Any future development will be highly uncertain and cannot be predicted, including the scope and duration of the pandemic, the effectiveness of our remote working arrangements, third party providers' ability to support our operations, and any further action taken by governmental authorities and other third parties in response to the pandemic. The uncertain future development of this crisis could materially and adversely affect our business, operations, operating results, financial condition, liquidity or capital levels.

Regulatory and governmental actions to mitigate the impact of the COVID-19 pandemic on borrowers could result in a material decline in our earnings.

In addition to the COVID-19 pandemic's continued and ultimately cumulative impact on global economic activity, there have been a number of regulatory governmental actions that also impact our operations and financial condition. Due to the unforeseen nature of the pandemic, any future developments and resulting regulatory action is highly uncertain and cannot be predicted. However, to date, there have been a number of bank regulatory actions and legislative changes intended to help mitigate the adverse economic impact of the COVID-19 pandemic on borrowers, including temporary bans on evictions and foreclosures and mandates requiring financial institutions to work constructively with borrowers affected by the COVID-19 pandemic and mandatory loan forbearances.

On March 27, 2020, the CARES Act was signed into law. The CARES Act was a \$2.2 trillion economic stimulus bill that was intended to provide relief in the wake of the COVID-19 pandemic. Further, on December 27, 2020, The Economic Aid Act was signed into law as part of the Coronavirus Response and Relief Supplemental Appropriations Act of 2021, which, among other things, directed financial regulators to support community development financial institutions and minority depository institutions and directs Congress to re-appropriate \$429 billion in unobligated CARES Act funds.

Beginning in the fourth quarter of 2021 and continuing into early 2022, the Omicron variant of the coronavirus has spread substantially and rapidly throughout the United States and globally. As a result, social and economic activity has been disrupted in many parts of the country. In response, members of Congress have begun to evaluate the prospects of approving additional stimulus payments, principally for businesses that have been most impacted by the recent increase in COVID-19 infections; however, the prospects and timing for any additional COVID-19 relief measures are not clear at this time.

During 2020, the governors of many states in which we do business or in which our borrowers and loan collateral are located issued temporary bans on evictions and foreclosures, which have now expired. Similar bans were implemented by FNMA and FHLMC, which have also expired. To the extent similar bans are again implemented, we would again expect to experience declines in borrower loan payments which may have a material impact on our earnings.

Our loan portfolios have been significantly affected by the COVID-19 pandemic.

The economic disruption in response to the COVID-19 pandemic has resulted in a significant increase in delinquencies and loans on non-accrual status across all of our loan portfolios, particularly our commercial loan portfolio as certain industries have been particularly hard-hit by the COVID-19 pandemic, which has adversely affected the ability of many of our borrowers to repay their loans. As of December 31, 2021, our commercial loan portfolio includes \$1.4 billion of outstanding loans to borrowers in key industries which may see elevated risk as a result of the current economic dynamics, representing 5.7% of total loans. These key exposures include: \$830 million of loans to retailers and shopping centers, \$227 million of loans to borrowers in the hotel industry, \$98 million to restaurant-related borrowers, and approximately \$230 million across various exposures, which have been significantly impacted by the COVID-19 pandemic. The unemployment rate has improved in recent months; however, disruptions in the labor markets caused by or relating to the pandemic and associated fluctuations in

rates of employment may have a significant adverse impact on the ability of our residential and multi-family borrowers to repay their loans.

Credit Risks

Changes in economic and political conditions could adversely affect our earnings, as our borrowers' ability to repay loans and the value of the collateral securing our loans decline.

Our success depends, to a certain extent, upon local, national and global economic and political conditions, as well as governmental monetary policies. Conditions such as an economic recession, the impact of international trade negotiations on local and national economies, rising unemployment, changes in interest rates, money supply and other factors beyond our control may adversely affect our asset quality, deposit levels and loan demand and, therefore, our earnings. Because we have a significant amount of real estate loans, decreases in real estate values could adversely affect the value of property used as collateral. The OCC recently reported that although U.S. economic activity was strong throughout much of 2021, banks remain in strong condition with sound capital and liquidity levels and financial market conditions are favorable, U.S. economic activity is expected to moderate in 2022 due to factors including elevated levels of inflation and corresponding upward pressure on interest rates, high levels of commercial debt and uncertainty in both the commercial and residential real estate markets. As the COVID-19 pandemic continues to disrupt economic activity significantly, financial institutions face increased credit risk, strategic risk, operational risk, and compliance risk. Adverse changes in the economy may also have a negative effect on the ability of our borrowers to make timely repayments of their loans, which could have an adverse impact on our earnings. Consequently, declines in the economy could have a material adverse effect on our financial condition and results of operations.

Changes in U.S. trade policies, including the imposition of tariffs and retaliatory tariffs, may adversely impact our business, financial condition, and results of operations.

There continues to be discussion and dialogue regarding potential changes to U.S. trade policies, legislation, treaties and tariffs with countries such as China and those within the European Union. The prior Administration imposed certain tariffs and retaliatory tariffs, as well as other trade restrictions on products and materials that our customers import or export. These restrictions may cause the prices of our customers' products to increase, which could reduce demand for such products, or reduce our customers' margins, and adversely impact their revenues, financial results, and ability to service debt. This in turn could adversely affect our financial condition and results of operations. In addition, to the extent changes in the political environment have a negative impact on us or on the markets in which we operate our business, our results of operations and financial condition could be materially and adversely impacted in the future. Although the current Administration has expressed interest in improving relations with key transatlantic partners, including by relaxing certain tariffs imposed by the prior Administration, the trade policies of the current Administration remain somewhat unsettled. Accordingly, it remains unclear what the U.S. government or foreign governments will or will not do with respect to tariffs already imposed, additional tariffs that may be imposed, or international trade agreements and policies.

Our allowance for credit losses may be insufficient.

All borrowers have the potential to default, and our remedies in the event of such default (such as seizure and/or sale of collateral, legal actions, and guarantees) may not fully satisfy the debt owed to us. We maintain an allowance for credit losses, which is a reserve established through a provision for credit losses charged to expense, that represents management's best estimate of probable credit losses over the life of the loan within the existing portfolio of loans. The allowance for credit losses, in the judgment of management, is necessary to reserve for estimated credit losses and risks inherent in the loan portfolio. The level of the allowance for credit losses reflects management's continuing evaluation of industry concentrations; specific credit risks; loan loss experience; current loan portfolio quality; present economic, political, and regulatory conditions; and unidentified losses inherent in the current loan portfolio. The determination of the appropriate level of the allowance for credit losses inherently involves a high degree of subjectivity and requires us to make significant estimates of current credit risks using existing qualitative and quantitative information, all of which may undergo material changes. Changes in economic conditions affecting borrowers, new information regarding existing loans, identification of additional problem loans, and other factors, both within and outside of our control, may require an increase in the allowance for credit losses. In addition, bank regulatory agencies periodically review our allowance for credit losses and may require an increase in the provision for credit losses or the recognition of additional loan charge offs, based on judgments different than those of management. An increase in the allowance for credit losses would result in a decrease in net income, and possibly risk-based capital, and could have a material adverse effect on our financial condition and results of operations.

We are subject to lending concentration risks.

As of December 31, 2021, approximately 64% of our loan portfolio consisted of commercial and industrial, real estate construction, CRE loans, asset-based lending, and PPP loans (collectively, "commercial loans"). Commercial loans are generally viewed as having more inherent risk of default than residential mortgage loans or other consumer loans. Further, the commercial loan balance per borrower is typically larger than that for residential mortgage loans and other consumer loans, implying higher potential losses on an individual loan basis. Because our loan portfolio contains a number of commercial loans with balances over \$25 million, the deterioration of one or a few of these loans could cause a significant increase in nonaccrual loans, which could have a material adverse effect on our financial condition and results of operations.

CRE lending may expose us to increased lending risks.

Our policy generally has been to originate CRE loans primarily in the eight states in which the Bank operates. At December 31, 2021, CRE loans, including owner occupied, investor, and real estate construction loans, totaled \$7.2 billion, or 30%, of our total loan portfolio. As a result of our growth in this portfolio over the past several years and planned future growth, these loans require more ongoing evaluation and monitoring and we are implementing enhanced risk management policies, procedures and controls. CRE loans generally involve a greater degree of credit risk than residential mortgage loans because they typically have larger balances and are more affected by adverse conditions in the economy. Because payments on loans secured by CRE often depend upon the successful operation and management of the properties and the businesses which operate from within them, repayment of such loans may be affected by factors outside the borrower's control, such as adverse conditions in the real estate market or the economy or changes in government regulation. In recent years, CRE markets have been experiencing substantial growth, and increased competitive pressures have contributed significantly to historically low capitalization rates and rising property values. CRE prices, according to many U.S. CRE indices, are currently above the 2007 peak levels that contributed to the financial crisis. Accordingly, the federal bank regulatory agencies have expressed concerns about weaknesses in the current CRE market and have applied increased regulatory scrutiny to institutions with CRE loan portfolios that are fast growing or large relative to the institutions' total capital. Our failure to adequately implement enhanced risk management policies, procedures and controls could adversely affect our ability to increase this portfolio going forward and could result in an increased rate of delinquencies in, and increased losses from, this portfolio. At December 31, 2021, nonaccrual CRE loans totaled \$61 million, or approximately 1% of our total portfolio of CRE loans.

We depend on the accuracy and completeness of information furnished by and on behalf of our customers and counterparties.

In deciding whether to extend credit or enter into other transactions, we may rely on information furnished by or on behalf of customers and counterparties, including financial statements, credit reports, and other financial information. We may also rely on representations of those customers, counterparties, or other third parties, such as independent auditors, as to the accuracy and completeness of that information. Reliance on inaccurate or misleading financial statements, credit reports, or other financial information could cause us to enter into unfavorable transactions, which could have a material adverse effect on our financial condition and results of operations.

Lack of system integrity or credit quality related to funds settlement could result in a financial loss.

We settle funds on behalf of financial institutions, other businesses and consumers and receive funds from clients, card issuers, payment networks and consumers on a daily basis for a variety of transaction types. Transactions we facilitate include wire transfers, debit card, credit card and electronic bill payment transactions, supporting consumers, financial institutions and other businesses. These payment activities rely upon the technology infrastructure that facilitates the verification of activity with counterparties and the facilitation of the payment. If the continuity of operations or integrity of processing were compromised, this could result in a financial loss to us due to a failure in payment facilitation. In addition, we may issue credit to consumers, financial institutions or other businesses as part of the funds settlement. A default on this credit by a counterparty could result in a financial loss to us.

We are subject to environmental liability risk associated with lending activities.

A significant portion of our loan portfolio is secured by real property. During the ordinary course of business, we may foreclose on and take title to properties securing certain loans. In doing so, there is a risk that hazardous or toxic substances could be found on these properties. If hazardous or toxic substances are found, we may be liable for remediation costs, as well as for personal injury and property damage. Environmental laws may require us to incur substantial expenses which may materially reduce the affected property's value or limit our ability to use or sell the affected property. In addition, future laws or more stringent interpretations or enforcement policies with respect to existing laws may increase our exposure to environmental liability. Although we have policies and procedures to perform an environmental review before lending against or initiating any

foreclosure action on real property, these reviews may not be sufficient to detect all potential environmental hazards. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our financial condition and results of operations.

Liquidity and Interest Rate Risks

Liquidity is essential to our businesses.

The Corporation requires liquidity to meet its deposit and debt obligations as they come due. Access to liquidity could be impaired by an inability to access the capital markets or unforeseen outflows of deposits. Risk factors that could impair our ability to access capital markets include a downturn in our Midwest markets, difficult credit markets, credit rating downgrades, or regulatory actions against the Corporation. The Corporation's access to deposits can be impacted by the liquidity needs of our customers as a substantial portion of the Corporation's liabilities are demand while a substantial portion of the Corporation's assets are loans that cannot be sold in the same timeframe. Historically, the Corporation has been able to meet its cash flow needs as necessary. If a sufficiently large number of depositors sought to withdraw their deposits for whatever reason, the Corporation may be unable to obtain the necessary funding at favorable terms.

We are subject to interest rate risk.

Our earnings and cash flows are largely dependent upon our net interest income. Interest rates are highly sensitive to many factors that are beyond our control, including general economic conditions and policies of various governmental and regulatory agencies and, in particular, the Federal Reserve. Changes in monetary policy, including changes in interest rates, could influence not only the interest we receive on loans and investments and the amount of interest we pay on deposits and borrowings, but such changes could also affect (i) our ability to originate loans and obtain deposits; (ii) the fair value of our financial assets and liabilities; and (iii) the average duration of our mortgage portfolio and other interest-earning assets. In response to the economic conditions resulting from the outbreak of the COVID-19 pandemic, the Federal Reserve's target federal funds rate has been reduced nearly to 0%. Despite recent elevated levels of inflation and corresponding pressure to raise interest rates, the Federal Reserve recently has indicated that it intends to continue this approach until such time that substantial further progress has been made towards achieving the Federal Reserve's maximum employment objectives. Accordingly, the yield on our assets may decline to a greater extent than the decline in our cost of interest-bearing liabilities which, in turn, could reduce our net interest margin, spread and net income.

If the interest rates paid on deposits and other borrowings increase at a faster rate than the interest rates received on loans and other investments, our net interest income, and therefore earnings, could be adversely affected. Earnings could also be adversely affected if the interest rates received on loans and other investments fall more quickly than the interest rates paid on deposits and other borrowings. The Corporation's interest rate risk profile is such that a higher or steeper yield curve adds to income while a flatter yield curve is relatively neutral, and a lower or inverted yield curve, such as experienced during the past year, generally has a negative impact on earnings. Our most significant interest rate risk may be further declines in the absolute level of interest rates or the prolonged continuation of the current low rate environment, as this would generally lead to further compression of our net interest margin, reduced net interest income, and devaluation of our deposit base.

Although management believes it has implemented effective asset and liability management strategies, including the potential use of derivatives as hedging instruments, to reduce the potential effects of changes in interest rates on our results of operations, any substantial, unexpected, prolonged change in market interest rates could have a material adverse effect on our financial condition and results of operations. Also, our interest rate risk modeling techniques and assumptions likely may not fully predict or capture the impact of actual interest rate changes on our balance sheet.

The impact of interest rates on our mortgage banking business can have a significant impact on revenues.

Changes in interest rates can impact our mortgage-related revenues and net revenues associated with our mortgage activities. A decline in mortgage rates generally increases the demand for mortgage loans as borrowers refinance, but also generally leads to accelerated payoffs. Conversely, in a constant or increasing rate environment, we would expect fewer loans to be refinanced and a decline in payoffs. Although we use models to assess the impact of interest rates on mortgage-related revenues, the estimates of revenues produced by these models are dependent on estimates and assumptions of future loan demand, prepayment speeds and other factors which may differ from actual subsequent experience.

Changes in interest rates could reduce the value of our investment securities holdings.

The Corporation maintains an investment portfolio consisting of various high quality liquid fixed-income securities. The total book value of the securities portfolio, which includes FHLB and Federal Reserve Bank stocks, as of December 31, 2021, was \$6.8 billion and the estimated duration of the aggregate portfolio was approximately 5.4 years. The nature of fixed-income

securities is such that changes in market interest rates impact the value of these assets. Based on the duration of the Corporation's investment securities portfolio, a one percent decrease in market rates is projected to increase the market value of the investment securities portfolio by approximately \$331 million, while a one percent increase in market rates is projected to decrease the market value of the investment securities portfolio by approximately \$366 million.

Changes in interest rates could also reduce the value of our residential mortgage-related securities and MSRs, which could negatively affect our earnings.

The Corporation earns revenue from the fees it receives for originating mortgage loans and for servicing mortgage loans. When rates rise, the demand for mortgage loans tends to fall, reducing the revenue the Corporation receives from loan originations. At the same time, revenue from MSRs can increase through increases in fair value. When rates fall, mortgage originations tend to increase and the value of MSRs tends to decline, also with some offsetting revenue effect. Even though the origination of mortgage loans can act as a "natural hedge," the hedge is not perfect, either in amount or timing. For example, the negative effect on revenue from a decrease in the fair value of residential MSRs is immediate, but any offsetting revenue benefit from more originations and the MSRs relating to the new loans would accrue over time. It is also possible that even if interest rates were to fall, mortgage originations may also fall or any increase in mortgage originations may not be enough to offset the decrease in the MSRs value caused by the lower rates.

The Corporation typically uses derivatives and other instruments to hedge its mortgage banking interest rate risk. The Corporation generally does not hedge all of its risks and the fact that hedges are used does not mean they will be successful. Hedging is a complex process, requiring sophisticated models and constant monitoring. The Corporation could incur significant losses from its hedging activities. There may be periods where the Corporation elects not to use derivatives and other instruments to hedge mortgage banking interest rate risk. See Item 8, Financial Statements and Supplementary Data, Note 24 Recent Developments, for details on the accounting policy change from LOCOM to fair value accounting.

The replacement of the LIBOR as a financial benchmark presents risks to the financial instruments originated or held by the Corporation.

The LIBOR is the reference rate used for many of our transactions, including our lending and borrowing and our purchase and sale of securities, as well as the derivatives that we use to manage risk related to such transactions. However, a reduced volume of interbank unsecured term borrowing coupled with recent legal and regulatory proceedings related to rate manipulation by certain financial institutions has led to international reconsideration of LIBOR as a financial benchmark. The FCA, which regulates the process for establishing LIBOR, announced in July 2017 that the sustainability of LIBOR cannot be guaranteed. Accordingly, although the FCA confirmed the extension of overnight and 1-, 3-, 6-, and 12-month LIBOR through June 30, 2023 in order to accord financial institutions greater time with which to manage the transition from LIBOR, the FCA is no longer persuading, or compelling, banks to submit to LIBOR. The federal banking agencies, including the OCC, previously determined that banks must cease entering into any new contract that uses LIBOR as a reference rate by no later than December 31, 2021. In addition, banks have been encouraged to identify contracts that extend beyond June 30, 2023 and implement plans to identify and address insufficient contingency provisions in those contracts.

The Corporation has multiple alternative reference rates available to customers, and there can be no assurances on which benchmark rate(s) may become the primary replacement to LIBOR for purposes of financial instruments that are currently referencing LIBOR. Following the discontinuance of LIBOR, there may be uncertainty or differences in the calculation of the applicable interest rate or payment amount depending on the terms of the governing instruments, and such discontinuation may increase operational and other risks to the Corporation and the industry.

While there is no consensus on what rate or rates may become accepted alternatives to LIBOR, and the OCC has opined that national banks may use any reference rate for its loans that a bank determines to be appropriate for its funding model and customer needs, a group of large banks, the ARRC, selected the SOFR as an alternative to LIBOR. SOFR has been published by the FRBNY since May 2018, and it is intended to be a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. The FRBNY reports that SOFR includes all trades in the Broad General Collateral Rate, plus bilateral U.S. Treasury repurchase agreement transactions cleared through the delivery-versus-payment service offered by the FICC, a subsidiary of DTCC.

The FRBNY currently publishes SOFR daily on its website at <https://apps.newyorkfed.org/markets/autorates/sofr>. The FRBNY states on its publication page for SOFR that use of SOFR is subject to important disclaimers, limitations and indemnification obligations, including that the FRBNY may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice.

Because SOFR is published by the FRBNY based on data received from other sources, the Bank has no control over its determination, calculation or publication. There can be no assurance that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the parties that utilize SOFR as the reference rate for transactions. There is no assurance that SOFR will be widely adopted as the replacement reference rate for LIBOR (or that the Corporation will ultimately decide to adopt SOFR as the reference rate for its lending or borrowing transactions).

The AFX has also created the Ameribor as another potential replacement for LIBOR. Ameribor is calculated daily as the volume-weighted average interest rate of the overnight unsecured loans on AFX. Because of the difference in how it is constructed, Ameribor may diverge significantly from LIBOR in a range of situations and market conditions.

The market transition away from LIBOR to an alternative reference rate, including SOFR or Ameribor, is complex and could have a range of adverse effects on the Corporation's business, financial condition, and results of operations. In particular, any such transition could:

- adversely affect the interest rates paid or received on, and the revenue and expenses associated with, the Corporation's floating rate obligations, loans, deposits, derivatives and other financial instruments tied to LIBOR rates, or other securities or financial arrangements given LIBOR's role in determining market interest rates globally;
- adversely affect the value of the Corporation's floating rate obligations, loans, deposits, derivatives and other financial instruments tied to LIBOR rates, or other securities or financial arrangements given LIBOR's role in determining market interest rates globally;
- prompt inquiries or other actions from regulators in respect of the Corporation's preparation and readiness for the replacement of LIBOR with an alternative reference rate;
- result in disputes, litigation or other actions with counterparties regarding the interpretation and enforceability of certain fallback language in LIBOR-based securities; and
- require the transition to or development of appropriate systems and analytics to effectively transition our risk management processes from LIBOR-based products to those based on the applicable alternative pricing benchmark.

In addition, the implementation of LIBOR reform proposals may result in increased compliance costs and operational costs, including costs related to continued participation in LIBOR and the transition to a replacement reference rate or rates. We cannot reasonably estimate the expected cost.

We rely on dividends from our subsidiaries for most of our revenue.

The Parent Company is a separate and distinct legal entity from its banking and other subsidiaries. A substantial portion of the Parent Company's revenue comes from dividends from its subsidiaries. These dividends are the principal source of funds to pay dividends on the Parent Company's common and preferred stock, and to pay interest and principal on the Parent Company's debt. Various federal and/or applicable state laws and regulations limit the amount of dividends that the Bank and certain of our nonbanking subsidiaries may pay to us. Also, our right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of the subsidiary's creditors. In the event the Bank subsidiary is unable to pay dividends to us, we may not be able to service debt, pay obligations, or pay dividends on our common and preferred stock. The inability to receive dividends from the Bank could have a material adverse effect on our business, financial condition, and results of operations.

Operational Risks

We face significant operational risks due to the high volume and the high dollar value nature of transactions we process.

We operate in many different businesses in diverse markets and rely on the ability of our employees and systems to process transactions. Operational risk is the risk of loss resulting from our operations, including but not limited to, the risk of fraud by employees or persons outside the Corporation, the execution of unauthorized transactions, errors relating to transaction processing and technology, breaches of our internal control systems or failures of those of our suppliers or counterparties, compliance failures, cyber-attacks, technology failures, or unforeseen problems encountered while implementing new computer systems or upgrades to existing systems, business continuation and disaster recovery issues, and other external events. Insurance coverage may not be available for such losses, or where available, such losses may exceed insurance limits. This risk of loss also includes the potential legal actions that could arise as a result of an operational deficiency or as a result of noncompliance with applicable regulatory standards, adverse business decisions or their implementation, and customer attrition

due to potential negative publicity. The occurrence of any of these events could cause us to suffer financial loss, face regulatory action and suffer damage to our reputation.

Unauthorized disclosure of sensitive or confidential client or customer information, whether through a cyber-attack, other breach of our computer systems or otherwise, could severely harm our business.

In the normal course of our business, we collect, process, and retain sensitive and confidential client and customer information on our behalf and on behalf of other third parties. Despite the security measures we have in place, our facilities and systems may be vulnerable to cyber-attacks, security breaches, acts of vandalism, computer viruses, malware, misplaced or lost data, programming and/or human errors, or other similar events.

Information security risks for financial institutions like us continue to increase in part because of new technologies, the increased use of the internet and telecommunications technologies (including mobile devices and cloud computing) to conduct financial and other business transactions, political activism, and the increased sophistication and activities of organized crime, perpetrators of fraud, hackers, terrorists and others.

In addition to cyber-attacks or other security breaches involving the theft of sensitive and confidential information, hackers have engaged in attacks against large financial institutions, designed to disrupt key business services, such as customer-facing web sites. Critical infrastructure sectors, including financial services, increasingly have been the targets of cyber-attacks, including attacks emanating from foreign countries such as the attack on the information technology company SolarWinds, which affected many Fortune 500 companies as well as U.S. government agencies. Cyber-attacks involving large financial institutions, including denial of service attacks designed to disrupt external customer-facing services, nation state cyberattacks and ransomware attacks designed to deny organizations access to key internal resources or systems, as well as targeted social engineering and email attacks designed to allow unauthorized persons to obtain access to an institution's information systems and data or that of its customers, are becoming more common and increasingly sophisticated. Further, threat actors are increasingly seeking to target vulnerabilities in software systems used by large numbers of banking organizations in order to conduct malicious cyber activities. These types of attacks have resulted in increased supply chain and third-party risk. Because the methods of cyber-attacks change frequently or, in some cases, are not recognized until launch, we are not able to anticipate or implement effective preventive measures against all possible security breaches and the probability of a successful attack cannot be predicted. Although we employ detection and response mechanisms designed to contain and mitigate security incidents, early detection may be thwarted by persistent sophisticated attacks and malware designed to avoid detection.

We also face risks related to cyber-attacks and other security breaches in connection with card transactions that typically involve the transmission of sensitive information regarding our customers through various third parties. Some of these parties have in the past been the target of security breaches and cyber-attacks, and because the transactions involve third parties and environments that we do not control or secure, future security breaches or cyber-attacks affecting any of these third parties could impact us through no fault of our own, and in some cases we may have exposure and suffer losses for breaches or attacks relating to them. We also rely on numerous other third party service providers to conduct other aspects of our business operations and face similar risks relating to them. While we conduct security assessments on our higher risk third party service providers, we cannot be sure that their information security protocols are sufficient to withstand a cyber-attack or other security breach.

Cyber security risks for financial institutions also have evolved as a result of the use of new technologies, devices and delivery channels to transmit data and conduct financial transactions. The adoption of new products, services and delivery channels contribute to a more complex operating environment, which enhances operation risk and presents the potential for additional structural vulnerabilities. In addition, the ongoing and widespread remote work environment necessitated by the COVID-19 pandemic has subjected institutions to additional cybersecurity vulnerabilities and risks.

The Corporation regularly evaluates its systems and controls and implements upgrades as necessary. The additional cost to the Corporation of our cyber security monitoring and protection systems and controls includes the cost of hardware and software, third party technology providers, consulting and forensic testing firms, insurance premium costs and legal fees, in addition to the incremental cost of our personnel who focus a substantial portion of their responsibilities on cyber security.

Any successful cyber-attack or other security breach involving the misappropriation, loss or other unauthorized disclosure of confidential customer information or that compromises our ability to function could severely damage our reputation, erode confidence in the security of our systems, products and services, expose us to the risk of litigation and liability, disrupt our operations and have a material adverse effect on our business. Any successful cyber-attack may also subject the Corporation to regulatory investigations, litigation or enforcement, or require the payment of regulatory fines or penalties or undertaking costly remediation efforts with respect to third parties affected by a cyber security incident, all or any of which could adversely affect the Corporation's business, financial condition or results of operations and damage its reputation.

From time to time, the Corporation engages in acquisitions, including acquisitions of depository institutions. The integration of core systems and processes for such transactions often occur after the closing, which may create elevated risk of cyber incidents.

The Corporation may be subject to the data risks and cyber security vulnerabilities of the acquired company until the Corporation has sufficient time to fully integrate the acquiree's customers and operations. Although the Corporation conducts comprehensive due diligence of cyber-security policies, procedures and controls of our acquisition counterparties, and the Corporation maintains adequate policies, procedures, controls and information security protocols to facilitate a successful integration, there can be no assurance that such measures, controls and protocols are sufficient to withstand a cyber-attack or other security breach with respect to the companies we acquire, particularly during the period of time between closing and final integration.

Our information systems may experience an interruption or breach in security. We rely heavily on communications and information systems to conduct our business.

Any failure, interruption, or breach in security or operational integrity of these systems could result in failures or disruptions in our customer relationship management, general ledger, deposit, loan, and other systems. While we have policies and procedures designed to prevent or limit the effect of the failure, interruption, or security breach of our information systems, we cannot completely ensure that any such failures, interruptions, or security breaches will not occur or, if they do occur, that they will be adequately addressed. The occurrence of any failures, interruptions, or security breaches of our information systems could damage our reputation, result in a loss of customer business, subject us to additional regulatory scrutiny, or expose us to civil litigation and possible financial liability, any of which could have a material adverse effect on our financial condition and results of operations.

We are dependent upon third parties for certain information system, data management and processing services, and to provide key components of our business infrastructure.

We outsource certain information system and data management and processing functions to third party providers, including, among others, Fiserv, Inc. and its affiliates to compete in a rapidly evolving financial marketplace. These third party service providers are sources of operational and informational security risk to us, including risks associated with operational errors, information system interruptions or breaches, and unauthorized disclosures of sensitive or confidential client or customer information. Concentration among larger third party providers servicing large segments of the banking industry can also potentially affect wide segments of the financial industry. If third party service providers encounter any of these issues, or if we have difficulty communicating with them, we could be exposed to disruption of operations, loss of service or connectivity to customers, reputational damage, and litigation risk that could have a material adverse effect on our results of operations or our business.

Third party vendors provide key components of our business infrastructure, such as internet connections, network access and core application processing. While we have selected these third party vendors in accordance with supervisory requirements, we do not control their actions. Any problems caused by these third parties, including as a result of their not providing us their services for any reason or their performing their services poorly, could adversely affect our ability to deliver products and services to our customers and otherwise to conduct our business. Replacing these third party vendors could also entail significant delay and expense.

The potential for business interruption exists throughout our organization.

Integral to our performance is the continued efficacy of our technical systems, operational infrastructure, relationships with third parties and the vast array of associates and key executives in our day-to-day and ongoing operations. Failure by any or all of these resources subjects us to risks that may vary in size, scale and scope. This includes, but is not limited to, operational or technical failures, ineffectiveness or exposure due to interruption in third party support, as well as the loss of key individuals or failure on the part of key individuals to perform properly. Although management has established policies and procedures to address such failures, the occurrence of any such event could have a material adverse effect on our business, which, in turn, could have a material adverse effect on our financial condition and results of operations.

Changes in the federal, state, or local tax laws may negatively impact our financial performance.

We are subject to changes in tax law that could increase our effective tax rates. These law changes may be retroactive to previous periods and as a result could negatively affect our current and future financial performance. For example, legislation enacted in 2017 resulted in a reduction in our federal corporate tax rate from 35% in 2017 to 21% in 2018, which had a favorable impact on our earnings and capital generation abilities. However, this legislation also enacted limitations on certain deductions, such as the deduction of FDIC deposit insurance premiums, which partially offset the anticipated increase in net

earnings from the lower tax rate. During 2021, Congress debated various proposals for increase in the corporate tax rate and possible surcharges on corporate share repurchases as part of the funding for various spending initiatives. Any such increase in the corporate tax rate or surcharges would adversely affect our results of operations in future periods.

In addition, the Bank's customers experienced and likely will continue to experience varying effects from both the individual and business tax provisions of the Tax Act and other future changes in tax law and such effects, whether positive or negative, may have a corresponding impact on our business and the economy as a whole.

Impairment of investment securities, goodwill, other intangible assets, or DTAs could require charges to earnings, which could result in a negative impact on our results of operations.

In assessing whether the impairment of investment securities is related to a deterioration in credit factors, management considers the length of time and extent to which the fair value has been less than cost, the financial condition and near-term prospects of the issuer, and the intent and ability to retain our investment in the security for a period of time sufficient to allow for any anticipated recovery in fair value in the near term.

Under current accounting standards, goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis or more frequently if an event occurs or circumstances change that reduce the fair value of a reporting unit below its carrying amount. A decline in our stock price or occurrence of a triggering event following any of our quarterly earnings releases and prior to the filing of the periodic report for that period could, under certain circumstances, cause us to perform a goodwill impairment test and result in an impairment charge being recorded for that period which was not reflected in such earnings release. During 2021, the annual impairment test conducted in May, using a qualitative assessment, indicated that the estimated fair value of all of the Corporation's reporting units exceeded the carrying value. In the event that we conclude in a future assessment that all or a portion of our goodwill may be impaired, a non-cash charge for the amount of such impairment would be recorded to earnings. Such a charge would have no impact on tangible capital. At December 31, 2021, we had goodwill of \$1.1 billion, which represents approximately 27% of stockholders' equity.

In assessing the realizability of DTAs, management considers whether it is more likely than not that some portion or all of the DTAs will not be realized. Assessing the need for, or the sufficiency of, a valuation allowance requires management to evaluate all available evidence, both negative and positive, including the recent trend of quarterly earnings. Positive evidence necessary to overcome the negative evidence includes whether future taxable income in sufficient amounts and character within the carryback and carryforward periods is available under the tax law, including the use of tax planning strategies. When negative evidence (e.g., cumulative losses in recent years, history of operating loss or tax credit carryforwards expiring unused) exists, more positive evidence than negative evidence will be necessary.

The impact of each of these impairment matters could have a material adverse effect on our business, results of operations, and financial condition.

Revenues from our investment management and asset servicing businesses are significant to our earnings.

Generating returns that satisfy clients in a variety of asset classes is important to maintaining existing business and attracting new business. Administering or managing assets in accordance with the terms of governing documents and applicable laws is also important to client satisfaction. Failure in either of the foregoing areas can expose us to liability, and result in a decrease in our revenues and earnings.

Climate change and related legislative and regulatory initiatives may result in operational changes and expenditures that could significantly impact our business.

The current and anticipated effects of climate change are creating an increasing level of concern for the state of the global environment. As a result, political and social attention to the issue of climate change has increased. In recent years, governments across the world have entered into international agreements to attempt to reduce global temperatures, in part by limiting greenhouse gas emissions. The U.S. Congress, state legislatures and federal and state regulatory agencies have continued to propose and advance numerous legislative and regulatory initiatives seeking to mitigate the effects of climate change. Such initiatives have been pursued with rigor under the current Administration. The Financial Stability Oversight Council, of which the OCC is a member, published a report in October 2021 identifying climate-related financial risk as an "emerging threat" to financial stability. The leadership of the federal banking agencies, including the Comptroller of the Currency, have emphasized that climate-related risks are faced by banking organizations of all types and sizes, specifically including physical and transition risks, and are in the process of enhancing supervisory expectations regarding banks' risk management practices. To that end, in December 2021, the OCC published proposed principles for climate risk management by larger banking organizations. The OCC also has appointed its first ever Climate Change Risk Officer and established an internal

climate risk implementation committee in order to assist with these initiatives and to support the agency's efforts to enhance its supervision of climate change risk management.

The largest banks are being encouraged by their regulators to address the climate-related risks that they face by accounting for the effects of climate change in stress testing scenarios and systematic risk assessments, revising expectations for credit portfolio concentrations based on climate-related factors, evaluating the impact of climate change on the bank's borrowers and consider possible changes to underwriting criteria to account for climate-related risks to mortgaged properties, incorporating climate-related financial risk into the bank's internal reporting, monitoring and escalation process, planning for transition risk posed by the adjustments to a low-carbon economy, and investing in climate-related initiatives and lending to communities disproportionately impacted by the effects of climate change. Further, the Federal Reserve Board has signaled that it is in the process of developing scenario analysis to model the possible financial risks associated with climate change. When developed, the resilience of large banking organizations, as well as the broader financial system, will be evaluated against these climate change-related scenarios as part of the stress testing process. Although these requirements would not apply to a banking organization of our size, as the Corporation continues to grow and expand the scope of our operations, our regulators generally will expect us to enhance our internal control programs and processes, including with respect to stress testing under a variety of adverse scenarios and related capital planning. To the extent that these initiatives lead to the promulgation of new regulations or supervisory guidance applicable to the Corporation, we would expect to experience increased compliance costs and other compliance-related risks.

The above measures may also result in the imposition of taxes and fees, the required purchase of emission credits, and the implementation of significant operational changes, each of which may require the Corporation to expend significant capital and incur compliance, operating, maintenance and remediation costs. Given the lack of empirical data on the credit and other financial risks posed by climate change, it is impossible to predict how climate change may impact our financial condition and operations; however, as a banking organization, the physical effects of climate change may present certain unique risks to the Corporation. For example, weather disasters, shifts in local climates and other disruptions related to climate change may adversely affect the value of real properties securing our loans, which could diminish the value of our loan portfolio. Such events may also cause reductions in regional and local economic activity that may have an adverse effect on our customers, which could limit our ability to raise and invest capital in these areas and communities, each of which could have a material adverse effect on our financial condition and results of operations.

In recognition of the risks posed by climate change, as discussed above, the Corporation has taken a variety of actions to manage its carbon footprint and has sought to engage in sustainable lending and investment activities, specifically including supporting renewable energy projects. However, we cannot guarantee the success of these actions, nor can we make any assurances that our regulators, investors in our securities or other third parties, such as environmental advocacy organizations, will find our efforts to support climate-related initiatives to be sufficient.

Severe weather, natural disasters, public health issues, acts of war or terrorism, and other external events could significantly impact our ability to conduct business.

Such events could affect the stability of our deposit base, impair the ability of borrowers to repay outstanding loans, impair the value of collateral securing loans, adversely impact our employee base, cause significant property damage, result in loss of revenue, and/or cause us to incur additional expenses. Although management has established disaster recovery policies and procedures, the occurrence of any such event could have a material adverse effect on our business, which, in turn, could have a material adverse effect on our financial condition and results of operations.

We are subject to ESG risks that could adversely affect our reputation and the market price of our securities.

The Corporation is subject to a variety of risks arising from ESG matters. ESG matters include climate risk, hiring practices, the diversity of our work force, and racial and social justice issues involving our personnel, customers and third parties with whom we otherwise do business. Risks arising from ESG matters may adversely affect, among other things, our reputation and the market price of our securities.

Further, we may be exposed to negative publicity based on the identity and activities of those to whom we lend and with which we otherwise do business and the public's view of the approach and performance of our customers and business partners with respect to ESG matters. Any such negative publicity could arise from adverse news coverage in traditional media and could also spread through the use of social media platforms. The Corporation's relationships and reputation with its existing and prospective customers and third parties with which we do business could be damaged if we were to become the subject of any such negative publicity. This, in turn, could have an adverse effect on our ability to attract and retain customers and employees and could have a negative impact on the market price for securities.

Investors have begun to consider the steps taken and resources allocated by financial institutions and other commercial organizations to address ESG matters when making investment and operational decisions. Certain investors are beginning to incorporate the business risks of climate change and the adequacy of companies' responses to the risks posed by climate change and other ESG matters into their investment theses. These shifts in investing priorities may result in adverse effects on the market price of our securities to the extent that investors determine that the Corporation has not made sufficient progress on ESG matters.

Strategic and External Risks

Our earnings are significantly affected by the fiscal and monetary policies of the federal government and its agencies.

The policies of the Federal Reserve impact us significantly. The Federal Reserve regulates the supply of money and credit in the United States. Its policies directly and indirectly influence the rate of interest earned on loans and paid on borrowings and interest-bearing deposits and can also affect the value of financial instruments we hold. Those policies determine to a significant extent our cost of funds for lending and investing. Changes in those policies are beyond our control and are difficult to predict. Federal Reserve policies can also affect our borrowers, potentially increasing the risk that they may fail to repay their loans. For example, a tightening of the money supply by the Federal Reserve could reduce the demand for a borrower's products and services. This could adversely affect the borrower's earnings and ability to repay its loan, which could have a material adverse effect on our financial condition and results of operations.

Our financial condition and results of operations could be negatively affected if we fail to grow or fail to manage our growth effectively.

Our business strategy includes significant growth plans. We intend to continue pursuing a profitable growth strategy. Our prospects must be considered in light of the risks, expenses and difficulties frequently encountered by companies in significant growth stages of development. Sustainable growth requires that we manage our risks by balancing loan and deposit growth at acceptable levels of risk, maintaining adequate liquidity and capital, hiring and retaining qualified employees, successfully managing the costs and implementation risks with respect to strategic projects and initiatives, and integrating acquisition targets and managing the costs. We cannot assure you that we will be able to expand our market presence in our existing markets or successfully enter new markets or that any such expansion will not adversely affect our results of operations. Failure to manage our growth effectively could have a material adverse effect on our business, future prospects, financial condition or results of operations and could adversely affect our ability to successfully implement our business strategy. Also, if we grow more slowly than anticipated, our operating results could be materially adversely affected.

We operate in a highly competitive industry and market area.

We face substantial competition in all areas of our operations from a variety of different competitors, both within and beyond our principal markets, many of which are larger and may have more financial resources. Such competitors primarily include national, regional, and internet banks within the various markets in which we operate. We also face competition from many other types of financial institutions, including, without limitation, savings and loans, credit unions, finance companies, brokerage firms, insurance companies, and other financial intermediaries. The financial services industry could become even more competitive as a result of legislative and regulatory changes and continued consolidation. In July 2018, the OCC announced that it will begin accepting applications from financial technology companies to become special purpose national banks. Although the OCC's authority to issue special purpose bank charters to nonbank financial technology companies continues to be subject to ongoing litigation, similar developments are likely to result in even greater competition within all areas of our operations.

In addition, as customer preferences and expectations continue to evolve, technology has lowered barriers to entry and made it possible for nonbanks to offer products and services traditionally provided by banks, such as automatic transfer and automatic payment systems. In addition, some of the largest technology firms are engaging in joint ventures with the largest banks to provide and/or expand financial service offerings with a technological sophistication and breadth of marketing that smaller institutions do not have. Many of our competitors have fewer regulatory constraints and may have lower cost structures. Additionally, due to their size, many competitors may be able to achieve economies of scale and, as a result, may offer a broader range of products and services as well as better pricing for those products and services than we can.

Our ability to compete successfully depends on a number of factors, including, among other things:

- the ability to develop, maintain, and build upon long-term customer relationships based on top quality service, high ethical standards, and safe, sound assets;
- the ability to expand our market position;

- the scope, relevance, and pricing of products and services offered to meet customer needs and demands;
- the rate at which we introduce new products and services relative to our competitors;
- customer satisfaction with our level of service; and
- industry and general economic trends.

Failure to perform in any of these areas could significantly weaken our competitive position, which could adversely affect our growth and profitability, which, in turn, could have a material adverse effect on our financial condition and results of operations.

Fiscal challenges facing the U.S. government could negatively impact financial markets which in turn could have an adverse effect on our financial position or results of operations.

Federal budget deficit concerns and the potential for political conflict over legislation to raise the U.S. government's debt limit may increase the possibility of a default by the U.S. government on its debt obligations, related credit-rating downgrades, or an economic recession in the United States. Many of our investment securities are issued by the U.S. government and government agencies and sponsored entities. As a result of uncertain domestic political conditions, including potential future federal government shutdowns, the possibility of the federal government defaulting on its obligations for a period of time due to debt ceiling limitations or other unresolved political issues, investments in financial instruments issued or guaranteed by the federal government pose liquidity risks. In connection with prior political disputes over U.S. fiscal and budgetary issues leading to the U.S. government shutdown in 2011, S&P lowered its long term sovereign credit rating on the U.S. from AAA to AA+. A further downgrade, or a downgrade by other rating agencies, as well as sovereign debt issues facing the governments of other countries, could have a material adverse impact on financial markets and economic conditions in the U.S. and worldwide.

Consumers may decide not to use banks to complete their financial transactions.

Technology and other changes are allowing parties to complete financial transactions through alternative methods that historically have involved banks. For example, consumers can now maintain funds that would have historically been held as bank deposits in brokerage accounts, mutual funds or general-purpose reloadable prepaid cards. Consumers can also complete transactions, such as paying bills and/or transferring funds directly without the assistance of banks.

Transactions utilizing digital assets, including cryptocurrencies, stablecoins and other similar assets, have increased substantially. Certain characteristics of digital asset transactions, such as the speed with which such transactions can be conducted, the ability to transact without the involvement of regulated intermediaries, the ability to engage in transactions across multiple jurisdictions, and the anonymous nature of the transactions, are appealing to certain consumers notwithstanding the various risks posed by such transactions. Accordingly, digital asset service providers - which, at present are not subject to the extensive regulation as banking organizations and other financial institutions - have become active competitors for our customers' banking business. The process of eliminating banks as intermediaries, known as "disintermediation," could result in the loss of fee income, as well as the loss of customer deposits and the related income generated from those deposits. The loss of these revenue streams and the lower cost of deposits as a source of funds could have a material adverse effect on our financial condition and results of operations.

Our profitability depends significantly on economic conditions in the states within which we do business.

Our success depends on the general economic conditions of the specific local markets in which we operate, particularly Wisconsin, Illinois and Minnesota. Local economic conditions have a significant impact on the demand for our products and services, as well as the ability of our customers to repay loans, on the value of the collateral securing loans, and the stability of our deposit funding sources. A significant decline in general local economic conditions caused by inflation, recession, unemployment, changes in securities markets, changes in housing market prices, or other factors could have a material adverse effect on our financial condition and results of operations.

The earnings of financial services companies are significantly affected by general business and economic conditions.

Our operations and profitability are impacted by general business and economic conditions in the United States and abroad. These conditions include short-term and long-term interest rates, inflation, money supply, political issues, legislative and regulatory changes, fluctuations in both debt and equity capital markets, broad trends in industry and finance, the strength of the United States economy, and uncertainty in financial markets globally, all of which are beyond our control. A deterioration in economic conditions, including those arising from government shutdowns, defaults, anticipated defaults or rating agency downgrades of sovereign debt (including debt of the U.S.), or increases in unemployment, could result in an increase in loan

delinquencies and NPAs, decreases in loan collateral values, and a decrease in demand for our products and services, among other things, any of which could have a material adverse impact on our financial condition and results of operations.

New lines of business or new products and services may subject us to additional risk.

From time to time, we may implement new lines of business or offer new products and services within existing lines of business. There are substantial risks and uncertainties associated with these efforts, particularly in instances where the markets are not fully developed. In developing and marketing new lines of business and/or new products and services, we may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and/or new products or services may not be achieved and price and profitability targets may not prove feasible. External factors, such as competitive alternatives and shifting market preferences, may also impact the successful implementation of a new line of business and/or a new product or service. Furthermore, strategic planning remains important as we adopt innovative products, services, and processes in response to the evolving demands for financial services and the entrance of new competitors, such as out-of-market banks and financial technology firms. Any new line of business and/or new product or service could have a significant impact on the effectiveness of our system of internal controls, so we must responsibly innovate in a manner that is consistent with sound risk management and is aligned with the Bank's overall business strategies. Failure to successfully manage these risks in the development and implementation of new lines of business and/or new products or services could have a material adverse effect on our business, results of operations and financial condition.

Failure to keep pace with technological change could adversely affect our business.

The financial services industry is continually undergoing rapid technological change with frequent introductions of new technology-driven products and services, including the potential utilization of blockchain technology to provide alternative high speed payment systems. The effective use of technology increases efficiency and enables financial institutions to better serve customers and to reduce costs. Our future success depends, in part, upon our ability to address the needs of our customers by using technology to provide products and services that will satisfy customer demands, as well as to create additional efficiencies in our operations. Many of our competitors have substantially greater resources to invest in technological improvements. We may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers. Failure to successfully keep pace with technological change affecting the financial services industry could have a material adverse impact on our business and, in turn, our financial condition and results of operations.

We may be adversely affected by risks associated with potential and completed acquisitions.

As part of our growth strategy, we regularly evaluate merger and acquisition opportunities and conduct due diligence activities related to possible transactions with other financial institutions and financial services companies. As a result, negotiations may take place and future mergers or acquisitions involving cash, debt, or equity securities may occur at any time. We seek merger or acquisition partners that are culturally similar, have experienced management, and possess either significant market presence or have potential for improved profitability through financial management, economies of scale, or expanded services.

Acquiring other banks, businesses, or branches involves potential adverse impact to our financial results and various other risks commonly associated with acquisitions, including, among other things:

- incurring time and expense associated with identifying and evaluating potential acquisitions and negotiating potential transactions, and with integrating acquired businesses, resulting in the diversion of resources from the operation of our existing businesses;
- difficulty in estimating the value of target companies or assets and in evaluating credit, operations, management, and market risks associated with those companies or assets;
- payment of a premium over book and market values that may dilute our tangible book value and earnings per share in the short and long term;
- potential exposure to unknown or contingent liabilities of the target company, including, without limitation, liabilities for regulatory and compliance issues;
- exposure to potential asset quality issues of the target company;
- there may be volatility in reported income as goodwill impairment losses could occur irregularly and in varying amounts;
- difficulties, inefficiencies or cost overruns associated with the integration of the operations, personnel, technologies, services, and products of acquired companies with ours;

- inability to realize the expected revenue increases, cost savings, increases in geographic or product presence, and / or other projected benefits;
- potential disruption to our business;
- the possible loss of key employees and customers of the target company; and
- potential changes in banking or tax laws or regulations that may affect the target company.

Acquisitions also involve operational risks and uncertainties, and acquired companies may have unknown or contingent liabilities, exposure to unexpected asset quality problems that require write-downs or write-offs (as well as restructuring and impairment or other charges), difficulty retaining key employees and customers and other issues that could negatively affect our business. We may not be able to realize any projected cost savings, synergies or other benefits associated with any such acquisition we complete. Acquisitions typically involve the payment of a premium over book and market values and, therefore, some dilution of our tangible book value and net income per common share may occur in connection with any future transaction. Failure to successfully integrate the entities we acquire into our existing operations could increase our operating costs significantly and have a material adverse effect on our business, financial condition, and results of operations.

In addition, we face significant competition from other financial services institutions, some of which may have greater financial resources than we do, when considering acquisition opportunities. Accordingly, attractive opportunities may not be available to us and there can be no assurance that we will be successful in identifying or completing future acquisitions.

Acquisitions may be delayed, impeded, or prohibited due to regulatory issues.

Acquisitions by the Corporation, particularly those of financial institutions, are subject to approval by a variety of federal and state regulatory agencies (collectively, "regulatory approvals"). The process for obtaining these required regulatory approvals has become substantially more difficult in recent years. Regulatory approvals could be delayed, impeded, restrictively conditioned or denied due to existing or new regulatory issues the Corporation has, or may have, with regulatory agencies, including, without limitation, issues related to BSA compliance, CRA issues, fair lending laws, fair housing laws, consumer protection laws, unfair, deceptive, or abusive acts or practices regulations, and other similar laws and regulations. We may fail to pursue, evaluate or complete strategic and competitively significant acquisition opportunities as a result of our inability, or perceived or anticipated inability, to obtain regulatory approvals in a timely manner, under reasonable conditions or at all. The regulatory approvals may contain conditions on the completion of the merger that adversely affect our business following the closing, or which are not anticipated or cannot be met. Difficulties associated with potential acquisitions that may result from these factors could have a material adverse impact on our business, and, in turn, our financial condition and results of operations.

Moreover, in July 2021, President Biden issued an Executive Order on Promoting Competition in the American Economy which encouraged the federal banking agencies to review their current merger oversight practices. The Executive Order has received significant public support from members of Congress as well as a majority of the board members of the FDIC. In addition, the Director of the CFPB has publicly sought a greater role for the CFPB in the evaluation of proposed bank mergers. Any enhanced regulatory scrutiny of bank mergers and acquisitions and revision of the framework for merger application review may adversely affect the marketplace for such transactions, could result in our acquisitions in future periods being delayed, impeded or restricted in certain respects and result in new rules that possibly limit the size of financial institutions we may be able to acquire in the future and alter the terms for such transactions.

Legal, Regulatory, Compliance and Reputational Risks

We are subject to extensive government regulation and supervision.

We are subject to extensive federal and applicable state regulation and supervision, primarily through Associated Bank and certain nonbank subsidiaries. Banking regulations are primarily intended to protect depositors' funds, federal deposit insurance funds, and the banking system as a whole, not shareholders. These regulations affect our lending practices, capital structure, investment practices, dividend policy, and growth, among other things. Congress and federal regulatory agencies continually review banking laws, regulations, and policies for possible changes, and proposed changes can be expected from the new Administration. Changes to statutes, regulations, or regulatory policies, including changes in interpretation or implementation of statutes, regulations, or policies, could affect us in substantial and unpredictable ways. Such changes could subject us to additional costs, limit the types of financial services and products we may offer, and/or increase the ability of nonbanks to offer competing financial services and products, among other things. Failure to comply with laws, regulations, or policies could result in sanctions by regulatory agencies, civil money penalties, and/or reputation damage, which could have a material

adverse effect on our business, financial condition, and results of operations. While we have policies and procedures designed to prevent these types of violations, there can be no assurance that such violations will not occur.

Significantly, the enactment of the Economic Growth Act, and the promulgation of its implementing regulations, repealed or modified several important provisions of the Dodd-Frank Act. Among other things, the Economic Growth Act and its implementing regulations raised the total asset thresholds to \$250 billion for Dodd-Frank Act annual company-run stress testing, leverage limits, liquidity requirements, and resolution planning requirements for bank holding companies, subject to the ability of the Federal Reserve to apply such requirements to institutions with assets of \$100 billion or more to address financial stability risks or safety and soundness concerns.

Accordingly, the effect of banking legislation and regulations remains uncertain. The implementation, amendment, or repeal of federal banking laws or regulations may affect the banking industry as a whole, including our business and results of operations, in ways that are difficult to predict.

In addition, in September 2016, the CFPB and OCC entered into a consent order with a large national bank alleging widespread improper sales practices, which prompted the federal bank regulatory agencies to conduct a horizontal review of sales practices throughout the banking industry. The elevated attention has resulted in continued additional regulatory scrutiny and regulation of incentive arrangements, which could adversely impact the delivery of services and increase compliance costs.

The Bank faces risks related to the adoption of future legislation and potential changes in federal regulatory agency leadership, policies, and priorities.

Democrats assumed control of the U.S. House of Representatives and the U.S. Senate in 2021, albeit with a majority in the Senate found only in the tie-breaking vote of Vice President Kamala Harris. With control of the White House and both chambers of Congress, Democrats are now able to set the policy agenda both legislatively and in the regulatory agencies that have rulemaking and supervisory authority over the financial services industry generally and the Bank specifically. Congressional committees with jurisdiction over the banking sector have pursued oversight and legislative initiatives in a variety of areas, including addressing climate-related risks, promoting diversity and equality within the banking industry and addressing other ESG matters, improving competition in the banking sector and enhancing oversight of bank mergers and acquisitions, establishing a regulatory framework for digital assets and markets, and oversight of the COVID-19 pandemic response and economic recovery. The prospects for the enactment of major banking reform legislation under the new Congress are unclear at this time.

Moreover, the turnover of the presidential administration resulted in certain changes in the leadership and senior staffs of the federal banking agencies, the CFPB, CFTC, SEC, and the Treasury Department, with certain significant leadership positions yet to be filled, including the Comptroller of the Currency, the Chair of the FDIC and three vacancies among the Governors of the Federal Reserve Board, including the Vice Chair for Supervision. These changes have impacted the rulemaking, supervision, examination and enforcement priorities and policies of the agencies and likely will continue to do so over the next several years. The potential impact of any changes in agency personnel, policies and priorities on the financial services sector, including the Bank, cannot be predicted at this time.

Changes in requirements relating to the standard of conduct for broker-dealers under applicable federal and state law may adversely affect our business.

The SEC's Regulation Best Interest which was implemented in 2019 established a new standard of conduct for a broker-dealer to act in the best interest of a retail customer when making a recommendation of any securities transaction or investment strategy involving securities to such customer. The regulation required us to review and modify our compliance activities, including our policies, procedures, and controls, which caused us to incur additional costs. In addition, state laws that impose a fiduciary duty also may require monitoring, as well as require that we undertake additional compliance measures. In addition, the Bank's insurance agency subsidiary is also subject to regulation and supervision in the various states in which it operates. The implementation and administration by the SEC of Regulation Best Interest, as well as any new state laws that impose a fiduciary duty, may negatively impact our results of operation, as well as increase costs associated with legal, compliance, operations, and information technology.

The CFPB has reshaped the consumer financial laws through rulemaking and enforcement of the prohibitions against unfair, deceptive and abusive business practices. Compliance with any such change may impact the business operations of depository institutions offering consumer financial products or services, including the Bank.

The CFPB has broad rulemaking authority to administer and carry out the provisions of the Dodd-Frank Act with respect to financial institutions that offer covered financial products and services to consumers. As an independent bureau within the Federal Reserve System, the CFPB may impose requirements more severe than the previous bank regulatory agencies. The

CFPB has also been directed to write rules identifying practices or acts that are unfair, deceptive or abusive in connection with any transaction with a consumer for a consumer financial product or service, or the offering of a consumer financial product or service. The CFPB has initiated enforcement actions against a variety of bank and non-bank market participants with respect to a number of consumer financial products and services that has resulted in those participants expending significant time, money and resources to adjust to the initiatives being pursued by the CFPB. The CFPB has pursued a more aggressive enforcement policy with respect to a range of regulatory compliance matters under the current Administration. CFPB enforcement actions may serve as precedent for how the CFPB interprets and enforces consumer protection laws, including practices or acts that are deemed to be unfair, deceptive or abusive, with respect to all supervised institutions, which may result in the imposition of higher standards of compliance with such laws. Moreover, the Bank is subject to supervision and examination by the CFPB for compliance with the CFPB's regulations and policies. The costs and limitations related to this additional regulatory reporting regimen have yet to be fully determined, although they may be material, and the limitations and restrictions that will be placed upon the Bank with respect to its consumer product offerings and services may produce significant, material effects on the Bank's (and the Corporation's) profitability.

The Bank is periodically examined for mortgage-related issues, including mortgage loan and default services, fair lending, and mortgage banking.

Federal and state banking regulators closely examine the mortgage and mortgage servicing activities of depository financial institutions. Should any of these regulators have serious concerns with respect to our mortgage or mortgage servicing activities in this regard, the regulators' response to such concerns could result in material adverse effects on our growth strategy and profitability. Further, staff changes to key positions within the CFPB under the current administration have resulted in the CFPB pursuing more strict enforcement policies, specifically in the area of fair lending, loan servicing, collections and other consumer related areas.

We may experience unanticipated losses as a result of residential mortgage loan repurchase or reimbursement obligations under agreements with secondary market purchasers.

We may be required to repurchase residential mortgage loans, or to reimburse the purchaser for losses with respect to residential mortgage loans, which have been sold to secondary market purchasers in the event there are breaches of certain representations and warranties contained within the sales agreements, such as representations and warranties related to credit information, loan documentation, collateral and insurability. Consequently, we are exposed to credit risk, and potentially funding risk, associated with sold loans. As a result we have established reserves in our consolidated financial statements for potential losses related to the residential mortgage loans we have sold. The adequacy of the reserves and the ultimate amount of losses incurred will depend on, among other things, the actual future mortgage loan performance, the actual level of future repurchase and reimbursement requests, the actual success rate of claimants, actual recoveries on the collateral and macroeconomic conditions. Due to uncertainties relating to these factors, there can be no assurance that the reserves we establish will be adequate or that the total amount of losses incurred will not have a material adverse effect on our financial condition or results of operations.

Fee revenues from overdraft protection programs constitute a significant portion of our noninterest income and may be subject to increased supervisory scrutiny.

Revenues derived from transaction fees associated with overdraft protection programs offered to our customers represent a significant portion of our noninterest income. In 2021, the Corporation collected approximately \$22 million in overdraft transaction fees. In recent months, certain members of Congress and the leadership of the OCC and CFPB have expressed a heightened interest in bank overdraft protection programs. In December 2021, the CFPB published a report providing data on banks' overdraft and non-sufficient funds fee revenues as well as observations regarding consumer protection issues relating to participation in such programs. The CFPB has indicated that it intends to pursue enforcement actions against banking organizations, and their executives, that oversee overdraft practices that are deemed to be unlawful. In addition, the Comptroller of the Currency has identified potential options for reform of national bank overdraft protection practices, including providing a grace period before the imposition of a fee, refraining from charging multiple fees in a single day and eliminating fees altogether.

In response to this increased congressional and regulatory scrutiny, and in anticipation of enhanced supervision and enforcement of overdraft protection practices in the future, certain banking organizations have begun to modify their overdraft protection programs, including by discontinuing the imposition of overdraft transaction fees. These competitive pressures from our peers, as well as any adoption by our regulators of new rules or supervisory guidance or more aggressive examination and enforcement policies in respect of banks' overdraft protection practices, could cause us to modify our program and practices in ways that may have a negative impact on our revenue and earnings, which, in turn, could have an adverse effect on our financial condition and results of operations. In addition, as supervisory expectations and industry practices regarding overdraft

protection programs change, our continued offering of overdraft protection may result in negative public opinion and increased reputation risk.

We are subject to examinations and challenges by tax authorities.

We are subject to federal and applicable state income tax regulations. Income tax regulations are often complex and require interpretation. Changes in income tax regulations could negatively impact our results of operations. In the normal course of business, we are routinely subject to examinations and challenges from federal and applicable state tax authorities regarding the amount of taxes due in connection with investments we have made and the businesses in which we have engaged. Recently, federal and state taxing authorities have become increasingly aggressive in challenging tax positions taken by financial institutions. These tax positions may relate to tax compliance, sales and use, franchise, gross receipts, payroll, property and income tax issues, including tax base, apportionment and tax credit planning. The challenges made by tax authorities may result in adjustments to the timing or amount of taxable income or deductions or the allocation of income among tax jurisdictions. If any such challenges are made and are not resolved in our favor, they could have a material adverse effect on our financial condition and results of operations.

We are subject to claims and litigation pertaining to fiduciary responsibility.

From time to time, customers make claims and take legal action pertaining to the performance of our fiduciary responsibilities. Whether customer claims and legal action related to the performance of our fiduciary responsibilities are founded or unfounded, if such claims and legal actions are not resolved in a manner favorable to us, they may result in significant financial liability and/or adversely affect the market perception of us and our products and services, as well as impact customer demand for those products and services. Any financial liability or reputation damage could have a material adverse effect on our business, which, in turn, could have a material adverse effect on our financial condition and results of operations.

We are a defendant in a variety of litigation and other actions, which may have a material adverse effect on our financial condition and results of operation.

We may be involved from time to time in a variety of litigation arising out of our business. Our insurance may not cover all claims that may be asserted against us, and any claims asserted against us, regardless of merit or eventual outcome, may harm our reputation. Should the ultimate judgments or settlements in any litigation exceed our insurance coverage, they could have a material adverse effect on our financial condition and results of operation for any period. In addition, we may not be able to obtain appropriate types or levels of insurance in the future, nor may we be able to obtain adequate replacement policies with acceptable terms, if at all.

The Economic Growth Act did not eliminate many of the aspects of the Dodd-Frank Act that have increased our compliance costs, and remains subject to further rulemaking.

The Economic Growth Act, which was enacted in 2018, represents modest reform to the regulation of the financial services industry primarily through certain amendments of the Dodd-Frank Act. However, many provisions of the Dodd-Frank Act that have increased our compliance costs, such as the Volcker Rule, the Durbin amendment restricting interchange fees, and the additional supervisory authority of the CFPB, remain in place. Certain of the provisions amended by the Economic Growth Act took effect immediately, while others are subject to ongoing joint agency rulemakings. It is not possible to predict when any final rules would ultimately be issued through any such rulemakings, and what the specific content of such rules will be. Although we expect to benefit from many aspects of this legislative reform, the legislation and any implementing rules that are ultimately issued could have adverse implications on the financial industry, the competitive environment, and our ability to conduct business. In addition, the federal banking agencies indicated through interagency guidance that the capital planning and risk management practices of institutions with total assets less than \$100 billion would continue to be reviewed through the regular supervisory process, which may offset the impact of the Economic Growth Act's changes regarding stress testing and risk management.

Negative publicity could damage our reputation.

Reputation risk, or the risk to our earnings and capital from negative public opinion, is inherent in our business. Negative public opinion could adversely affect our ability to keep and attract customers and expose us to adverse legal and regulatory consequences. Negative public opinion could result from our actual or alleged conduct in any number of activities, including lending or foreclosure practices, corporate governance, regulatory compliance, mergers and acquisitions, and disclosure, sharing or inadequate protection of customer information, and from actions taken by government regulators and community organizations in response to that conduct. Because we conduct most of our business under the "Associated Bank" brand, negative public opinion about one business could affect our other businesses.

Ethics or conflict of interest issues could damage our reputation.

We have established a Code of Business Conduct and Ethics and Related Party Transaction Policies and Procedures to address the ethical conduct of business and to avoid potential conflicts of interest. Any system of controls, however well designed and operated, is based, in part, on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system are met. Any failure or circumvention of our related controls and procedures or failure to comply with the established Code of Business Conduct and Ethics and Related Party Transaction Policies and Procedures could have a material adverse effect on our reputation, business, results of operations, and/or financial condition.

Risks Related to an Investment in Our Securities

The price of our securities can be volatile.

Price volatility may make it more difficult for you to sell your securities when you want and at prices you find attractive. Our securities prices can fluctuate widely in response to a variety of factors including, among other things:

- actual or anticipated variations in quarterly results of operations or financial condition;
- operating results and stock price performance of other companies that investors deem comparable to us;
- news reports relating to trends, concerns, and other issues in the financial services industry;
- perceptions in the marketplace regarding us and / or our competitors;
- new technology used or services offered by competitors;
- significant acquisitions or business combinations, strategic partnerships, joint ventures, or capital commitments by or involving us or our competitors;
- failure to integrate acquisitions or realize anticipated benefits from acquisitions;
- changes in government regulations;
- changes in international trade policy and any resulting disputes or reprisals;
- geopolitical conditions, such as acts or threats of terrorism or military conflicts; and
- recommendations by securities analysts.

General market fluctuations, industry factors, and general economic and political conditions and events, such as economic slowdowns or recessions, interest rate changes, or credit loss trends, could also cause our securities prices to decrease regardless of our operating results.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our securities.

We are not restricted from issuing additional securities, including preferred stock, common stock and securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The issuance of additional shares of common stock or the issuance of convertible securities would dilute the ownership interest of our existing common shareholders. The market price of our common stock could decline as a result of an equity offering, as well as other sales of a large block of shares of our common stock or similar securities in the market after an equity offering, or the perception that such sales could occur. Both we and our regulators perform a variety of analyses of our assets, including the preparation of stress case scenarios, and as a result of those assessments we could determine, or our regulators could require us, to raise additional capital.

We may reduce or eliminate dividends on our common stock.

Although we have historically paid a quarterly cash dividend to the holders of our common stock, holders of our common stock are not entitled to receive dividends. Downturns in the domestic and global economies could cause our board of directors to consider, among other things, the elimination of dividends paid on our common stock. This could adversely affect the market price of our common stock. Furthermore, as a bank holding company, our ability to pay dividends is subject to the guidelines of the Federal Reserve regarding capital adequacy and dividends. Dividends also may be limited as a result of safety and soundness considerations.

Common stock is equity and is subordinate to our existing and future indebtedness and preferred stock and effectively subordinated to all the indebtedness and other non-common equity claims against our subsidiaries.

Shares of the common stock are equity interests in us and do not constitute indebtedness. As such, shares of the common stock will rank junior to all of our indebtedness and to other non-equity claims against us and our assets available to satisfy claims against us, including our liquidation. Additionally, holders of our common stock are subject to prior dividend and liquidation rights of holders of our outstanding preferred stock. Our board of directors is authorized to issue additional classes or series of preferred stock without any action on the part of the holders of our common stock, and we are permitted to incur additional debt. Upon liquidation, lenders and holders of our debt securities and preferred stock would receive distributions of our available assets prior to holders of our common stock. Furthermore, our right to participate in a distribution of assets upon any of our subsidiaries' liquidation or reorganization is subject to the prior claims of that subsidiary's creditors, including holders of any preferred stock of that subsidiary.

Our articles of incorporation, bylaws, and certain banking laws may have an anti-takeover effect.

Provisions of our articles of incorporation and bylaws, and federal banking laws, including regulatory approval requirements, could make it more difficult for a third party to acquire us, even if doing so would be perceived to be beneficial to our shareholders. The combination of these provisions may prohibit a non-negotiated merger or other business combination, which, in turn, could adversely affect the market price of our common stock.

An investment in our common stock is not an insured deposit.

Our common stock is not a bank deposit and, therefore, is not insured against loss by the FDIC, any other deposit insurance fund, or by any other public or private entity. An investment in our common stock is inherently risky for the reasons described in this "Risk Factors" section and elsewhere in this report and is subject to the same market forces that affect the price of common stock in any company. As a result, if you acquire our common stock, you may lose some or all of your investment.

An entity holding as little as a 5% interest in our outstanding common stock could, under certain circumstances, be subject to regulation as a "bank holding company."

An entity (including a "group" composed of natural persons) owning or controlling with the power to vote 25% or more of our outstanding common stock, or 5% or more if such holder otherwise exercises a "controlling influence" over us, may be subject to regulation as a "bank holding company" in accordance with the BHC Act. In addition, (1) any bank holding company or foreign bank with a U.S. presence may be required to obtain the approval of the Federal Reserve under the BHC Act to acquire or retain 5% or more of our outstanding common stock, and (2) any person not otherwise defined as a company by the BHC Act and its implementing regulations may be required to obtain the approval of the Federal Reserve under the Change in Bank Control Act to acquire or retain 10% or more of our outstanding common stock. Becoming a bank holding company imposes certain statutory and regulatory restrictions and obligations, such as providing managerial and financial strength for its bank subsidiaries. Regulation as a bank holding company could require the holder to divest all or a portion of the holder's investment in our common stock or such nonbanking investments that may be deemed impermissible or incompatible with bank holding company status, such as a material investment in a company unrelated to banking. Further, on January 30, 2020, the Federal Reserve finalized a rule that simplifies and increases the transparency of its rules for determining when one company controls another company for purposes of the BHC Act. The rule became effective September 30, 2020. The rule has and will likely continue to have a meaningful impact on control determinations related to investments in banks and bank holding companies and investments by bank holding companies in nonbank companies.

Our ability to originate residential mortgage loans for portfolio has been adversely affected by the increased competition resulting from the unprecedented involvement of the U.S. government and GSEs in the residential mortgage market.

Over the past several years, we have faced increased competition for residential mortgage loans due to the unprecedented involvement of the GSEs in the mortgage market as a result of the economic crisis, which has caused the interest rate for 30 year fixed-rate mortgage loans that conform to GSE guidelines to remain artificially low. In addition, the U.S. Congress has expanded the conforming loan limits in many of our operating markets, allowing larger balance loans to continue to be acquired by the GSEs. However, the President of the United States and proposed key cabinet nominees have indicated that reforming the GSE system is a priority item on the administration's regulatory agenda. It is unknown at this time what reforms, if any, will be made, the extent of the future involvement in the residential mortgage market and the impact of any reforms on that market and the United States economy as a whole.

General Risk Factors

Changes in our accounting policies or in accounting standards could materially affect how we report our financial results.

Our accounting policies are fundamental to understanding our financial results and condition. Some of these policies require the use of estimates and assumptions that may affect the value of our assets or liabilities and financial results. Some of our accounting policies are critical because they require management to make difficult, subjective and complex judgments about matters that are inherently uncertain and because it is likely that materially different amounts would be reported under different conditions or using different assumptions. If such estimates or assumptions underlying our financial statements are incorrect, we may experience material losses.

From time to time, the FASB and the SEC change the financial accounting and reporting standards or the interpretation of those standards that govern the preparation of our external financial statements. These changes are beyond our control, can be hard to predict and could materially impact how we report our results of operations and financial condition. We could be required to apply a new or revised standard retroactively, resulting in our restating prior period financial statements in material amounts.

Our internal controls may be ineffective.

Management regularly reviews and updates our internal controls, disclosure controls and procedures, and corporate governance policies and procedures. Any system of controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the controls are met. Any failure or circumvention of our controls and procedures or failure to comply with regulations related to controls and procedures could have a material adverse effect on our business, results of operations, and financial condition.

We may not be able to attract and retain skilled people.

Our success depends, in large part, on our ability to attract and retain skilled people. Competition for the best people in most activities engaged in by us can be intense, and we may not be able to hire sufficiently skilled people or to retain them. The unexpected loss of services of one or more of our key personnel could have a material adverse impact on our business because of their skills, knowledge of our markets, years of industry experience, and the difficulty of promptly finding qualified replacement personnel.

Loss of key employees may disrupt relationships with certain customers.

Our business is primarily relationship-driven in that many of our key employees have extensive customer relationships. Loss of a key employee with such customer relationships may lead to the loss of business if the customers were to follow that employee to a competitor or otherwise choose to transition to another financial services provider. While we believe our relationship with our key personnel is good, we cannot guarantee that all of our key personnel will remain with our organization. Loss of such key personnel could result in the loss of some of our customers.

ITEM 1B.

Unresolved Staff Comments

None.

ITEM 2.

Properties

The Corporation operated 2.6 million square feet of space spread across 242 facilities, including 215 banking branches at December 31, 2021. Our corporate headquarters is located at 433 Main Street in Green Bay, Wisconsin and is approximately 118,000 square feet. The Corporation owns two dedicated operations centers, located in Green Bay and Stevens Point, Wisconsin, with approximately 91,000 and 96,000 square feet, respectively. The Corporation also owns a 28 story, 374,000 square foot office tower located at 111 E. Kilbourn Avenue in Milwaukee, Wisconsin (formerly known as the "Milwaukee Center"), and an adjoining 37,000 square foot building at 815 Water Street, which serves as the headquarters for Associated Trust Company (both buildings are now part of the "Associated Bank River Center"). Associated Bank N.A. is headquartered in a 61,000 square foot building at 200 North Adams Street in Green Bay, Wisconsin. Based on gross square feet, at December 31, 2021, Associated Bank owned 89% of our total property portfolio.

At December 31, 2021, Associated Bank operated 215 banking branches serving over 100 different communities throughout Wisconsin, Illinois, and Minnesota. Most of the banking locations are freestanding buildings owned by us, with a drive thru and a parking lot; a smaller subset resides in supermarkets and office towers, which are generally leased. Associated Bank also operated loan production offices in Indiana, Michigan, Missouri, New York, Ohio and Texas.

ITEM 3.**Legal Proceedings**

The information required by this item is set forth in Part II, Item 8, Financial Statements and Supplementary Data, under Note 16 Commitments, Off-Balance Sheet Arrangements, and Legal Proceedings.

ITEM 4.**Mine Safety Disclosures**

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following is a list of names and ages of executive officers of Associated indicating all positions and offices held by each such person and each such person's principal occupation(s) or employment during the past five years. Officers are appointed annually by the Board of Directors at the meeting of directors immediately following the annual meeting of shareholders. There are no family relationships among these officers, nor any arrangement or understanding between any officer and any other person pursuant to which the officer was selected. No person other than those listed below has been chosen to become an executive officer of Associated. The information presented below is as of February 8, 2022.

Andrew J. Harmening - Age: 52

Mr. Harmening joined Associated Banc-Corp as President and Chief Executive Officer of Associated and Associated Bank and member of the Board of Directors in April 2021. Prior to joining Associated, he served as senior executive vice president, consumer and business banking director for Huntington Bank from 2017 to 2021. Mr. Harmening also held several key consumer, small business and commercial banking positions at Bank of The West from 2005 to 2017.

Patrick E. Ahern - Age: 55

Patrick E. Ahern has been Executive Vice President and Chief Credit Officer of Associated and Associated Bank since February 2020. He served as Deputy Chief Credit Officer from October 2019 to February 2020. Ahern joined Associated as a Senior Vice President in 2010 to manage the CRE portfolio underwriting and administrative teams, before moving into the role Corporate Senior Credit Officer in 2018. He has more than 30 years of experience in CRE and corporate credit, including experience with LaSalle Bank and Bank of America.

Matthew R. Braeger - Age: 46

Matthew R. Braeger has been Executive Vice President and Chief Audit Executive of Associated and Associated Bank since February 2018. He served as Deputy Chief Audit Executive from October 2017 to February 2018. He joined Associated in April 2013 as Senior Vice President, Business Support Audit Director. Previously, he held audit management positions with Fiserv, Inc. and public accounting audit roles with Ernst & Young, LLP. Braeger has more than 20 years of auditing experience, primarily in banking technology and financial services.

Christopher Del Moral-Niles - Age: 51

Christopher J. Del Moral-Niles has been Executive Vice President, Chief Financial Officer of Associated and Associated Bank since March 2012. He joined Associated in July 2010 and previously served as Associated's Deputy Chief Financial Officer, Principal Accounting Officer, and as Corporate Treasurer. From 2006 to 2010, he held various leadership roles for The First American Corporation and its subsidiaries, including serving as Corporate Treasurer and as divisional President of First American Trust, FSB. From 2003 to 2006, Mr. Niles held various positions with Union Bank, including serving as Senior Vice President and Director of Liability Management. Prior to his time with Union Bank, Mr. Niles spent a decade as a financial services investment banker supporting mergers and acquisitions of financial institutions, bank and thrift capital issuances, and bank funding transactions.

Dennis M. DeLoye - Age: 58

Dennis M. DeLoye has been Executive Vice President, Deputy Head of Community Markets and Regional President Northeast Wisconsin of Associated and Associated Bank since November 2021. DeLoye joined Associated in 2016 and has served as community market president for the Central and Northern Wisconsin markets.

Angie M. DeWitt - Age: 52

Angie M. DeWitt has been Executive Vice President and Chief Human Resources Officer of Associated and Associated Bank since April 2019. Most recently she served as Deputy Chief Human Resources Officer from October 2018 to April 2019 and Senior Vice President, Director of Human Resources from February 2018 to October 2018. She joined Associated in August 2008 as a member of the finance team and has held multiple leadership roles. Prior to joining Associated, she held a senior finance role at Schneider National, Inc. from January 2002 to August 2008.

Randall J. Erickson - Age: 62

Randall J. Erickson has been Executive Vice President, General Counsel and Corporate Secretary of Associated and Associated Bank since April 2012, and was Chief Risk Officer from May 2016 to February 2018. Prior to joining Associated, he served as senior vice president, chief administrative officer and general counsel of Milwaukee-based bank holding company Marshall & Ilsley Corporation from 2002 until it was acquired by BMO Financial in 2011. Upon leaving M&I, he became a member of Milwaukee law firm Godfrey & Kahn S.C.'s securities practice group. He had been a partner at Godfrey & Kahn S.C. from 1990 to 2002 prior to joining M&I as its general counsel. Mr. Erickson served as a director of Renaissance Learning, Inc., a publicly-held educational software company, from 2009 until it was acquired by Permira Funds in 2011.

Nicole M. Kitowski - Age: 46

Nicole M. Kitowski has been Executive Vice President and Chief Risk Officer of Associated and Associated Bank since February 2018. She joined Associated in 1992 and has held leadership roles in Consumer Banking, Operations and Technology, and Corporate Risk, including Deputy Chief Risk Officer from March 2016 to February 2018 and Corporate BSA, AML, OFAC Officer from June 2014 to March 2016.

Timothy J. Lau - Age: 59

Timothy J. Lau has been Executive Vice President, Head of Community Markets of Associated and Associated Bank since June 2014. Mr. Lau previously served as Executive Vice President, Head of Private Client and Institutional Services from December 2010 to June 2014. He joined Associated in 1989 and has held a number of senior management positions in Consumer and Small Business Banking, Residential Lending, and Commercial Banking.

Michael O. Meinolf - Age: 47

Michael O. Meinolf has been Executive Vice President and Chief Information Officer of Associated and Associated Bank since September 2018. He joined Associated in April 2015 as Senior Vice President, Director of Business Solutions. Mr. Meinolf has more than 20 years of information technology experience. Previously, he held the positions of Vice President, Technology Administration at The Clearing House Payments Company, LLC from February 2012 to April 2015 and Director of Information Technology, PayDirect Government Solutions at FIS from August 2009 to February 2012.

Paul G. Schmidt - Age: 59

Paul G. Schmidt has been Executive Vice President, Head of CRE of Associated and Associated Bank since January 2016. He joined Associated in April 2015 as Executive Vice President of CRE. He was named Deputy Head of CRE in September 2015. Mr. Schmidt brings more than 32 years of banking experience to Associated. Most recently, he held the position of Executive Vice President, Division Manager, CRE at Wells Fargo from 2002 to 2015.

Tammy C. Stadler - Age: 56

Tammy C. Stadler has been Executive Vice President, Corporate Controller and Chief Accounting Officer of Associated and Associated Bank since July 2021. She previously served as Executive Vice President, Principal Accounting Officer from April 2017 until July 2021. She joined Associated in April 1996 as Corporate Tax Director and has served as Executive Vice President, Corporate Controller since April 2014. From 1992 to 1996 she was the Assistant Treasurer and Taxes for Air Wisconsin Airline Corp. From 1990 to 1992 she held the position of Senior Tax Analyst with Fort Howard Paper Corp. Prior to her time with Fort Howard, Ms. Stadler worked as a certified public accountant with Coopers and Lybrand and Deloitte and Touche.

David L. Stein - Age: 58

David L. Stein has been Executive Vice President, Head of Consumer and Business Banking of Associated and Associated Bank since January 2017 and was named Madison Market President in January 2019. He was previously Executive Vice President, Head of Consumer and Commercial Banking from April 2014 until January 2017 and Executive Vice President, Head of Retail Banking from June 2007 until April 2014. He was the President of the Southwest Region of Associated Bank from January 2005 until June 2007. He held various positions with J.P. Morgan Chase & Co., and one of its predecessors, Bank One Corporation, from 1989 until joining Associated in 2005.

John P. Thayer - Age 68

John P. Thayer has been Executive Vice President, Head of Wealth Management of Associated and Associated Bank and Chief Executive Officer of Associated Trust Company, N.A. since July 2021. Mr. Thayer joined Associated in July 2000 and served as Executive Vice President and Chief Investment Officer for Associated Trust Company, N.A. He served as managing agent for Kellogg Asset Management, LLC from May 2009 to July 2021. He is also chairman of Associated Investment Services, Inc.

John A. Utz - Age: 53

John A. Utz has been Executive Vice President, Head of Corporate Banking and Milwaukee Market President of Associated and Associated Bank since September 2015 and was Head of Wealth Management from April 2020 to July 2021. He joined Associated in March 2010 with upwards of 20 years of banking experience, having previously served as President of Union Bank's UnionBanCal Equities and head of its Capital Markets division from September 2007 to March 2010, and as head of the National Banking and Asset Management teams from October 2002 to September 2007.

PART II

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Information in response to this item is incorporated by reference to the discussion of dividend restrictions under Part I, Item 1, Business - Supervision and Regulation - Holding Company Dividends, and in Note 10 Stockholders' Equity of the notes to consolidated financial statements included under Part II, Item 8, Financial Statements and Supplementary Data, of this Annual Report on Form 10-K. The Corporation's common stock is traded on the NYSE under the symbol ASB.

The number of shareholders of record of the Corporation's common stock, \$0.01 par value, as of January 31, 2022, was 7,456. Certain of the Corporation's shares are held in "nominee" or "street" name and the number of beneficial owners of such shares is 29,039.

Payment of future dividends is within the discretion of the Board of Directors and will depend, among other factors, on earnings, capital requirements, and the operating and financial condition of the Corporation. The Board of Directors makes the dividend determination on a quarterly basis.

During the fourth quarter of 2021, the Corporation repurchased \$25 million of common stock, including \$25 million of open market purchases and approximately \$285,000 of repurchases related to tax withholding settlements on equity compensation, or approximately 1.1 million shares, of common stock in the aggregate. The repurchase details are presented in the table below. For a detailed discussion of the common stock and depositary share purchases during 2021 and 2020, see Part II, Item 8, Note 10 Stockholders' Equity of the notes to consolidated financial statements.

Common Stock Purchases

| Period | Total Number of Shares Purchased ^(a) | Average Price Paid per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs ^(b) |
|--------------------------------------|--|---------------------------------|--|---|
| October 1, 2021 - October 31, 2021 | 5,310 | \$ 21.16 | — | — |
| November 1, 2021 - November 30, 2021 | 901,148 | 22.90 | 900,000 | — |
| December 1, 2021 - December 31, 2021 | 202,631 | 22.44 | 196,097 | — |
| Total | 1,109,089 | \$ 22.81 | 1,096,097 | 3,525,716 |

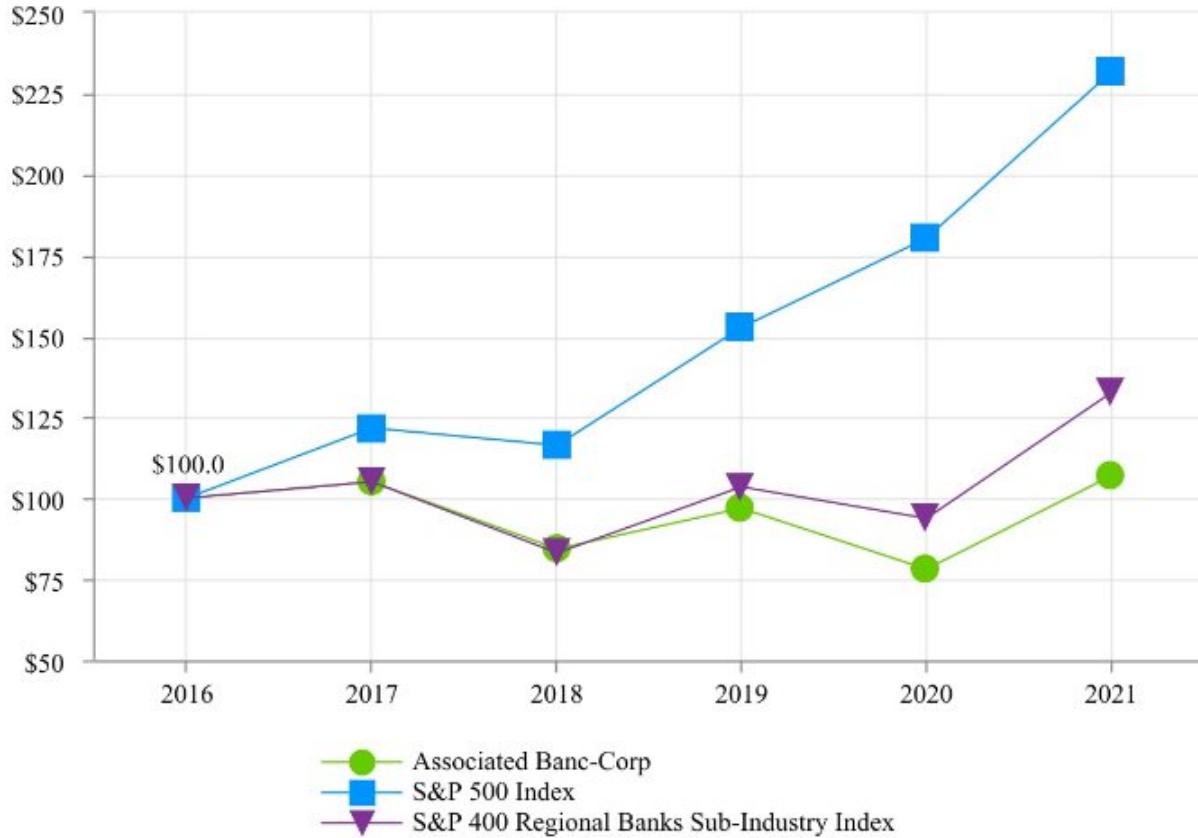
(a) During the fourth quarter of 2021, the Corporation repurchased 12,992 common shares for minimum tax withholding settlements on equity compensation. These purchases do not count against the maximum value of shares remaining available for purchase under the Board of Directors' authorization.

(b) On October 26, 2021, the Board of Directors authorized the repurchase of up to \$100 million of the Corporation's common stock. This repurchase authorization was in addition to the authority remaining under the previous programs. At December 31, 2021, there remained \$80 million authorized to be repurchased in the aggregate. Approximately 3.5 million shares of common stock remained available to be repurchased under this Board authorization given the closing share price on December 31, 2021.

Total Shareholder Return Performance Graph

Set forth below is a line graph (and the underlying data points) comparing the yearly percentage change in the cumulative total shareholder return (change in year-end stock price plus reinvested dividends) on the Corporation’s common stock with the cumulative total return of the S&P 500 Index and the S&P 400 Regional Banks Sub-Industry Index for the period of five fiscal years commencing on January 1, 2017 and ending December 31, 2021. The S&P 400 Regional Banks Sub-Industry Index is comprised of stocks on the S&P Total Market Index that are classified in the regional banks sub-industry. The graph assumes the respective values of the investment in the Corporation’s common stock and each index were \$100 on December 31, 2016. Historical stock price performance shown on the graph is not necessarily indicative of the future price performance.

5 Year Trend



| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|----------|----------|----------|----------|----------|----------|
| Associated Banc-Corp | \$ 100.0 | \$ 104.9 | \$ 84.3 | \$ 96.8 | \$ 78.0 | \$ 106.9 |
| S&P 500 Index | \$ 100.0 | \$ 121.6 | \$ 116.4 | \$ 152.8 | \$ 180.3 | \$ 231.7 |
| S&P 400 Regional Banks Sub-Industry Index | \$ 100.0 | \$ 105.1 | \$ 83.1 | \$ 103.3 | \$ 93.7 | \$ 132.5 |

Source: Bloomberg

The Total Shareholder Return Performance Graph shall not be deemed incorporated by reference by any general statement incorporating by reference this Annual Report on Form 10-K into any filing under the Securities Act or under the Exchange Act, except to the extent the Corporation specifically incorporates this information by reference, and shall not otherwise be deemed filed under such Acts.

ITEM 6.

Selected Financial Data

Table 1 Summary Results of Operations: Trends

| (\$ in Thousands, except per share data) | Years Ended December 31, | | | | |
|---|--------------------------|---------------|---------------|---------------|---------------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Interest income | \$ 798,189 | \$ 912,840 | \$ 1,172,610 | \$ 1,154,137 | \$ 886,605 |
| Interest expense | 72,334 | 149,883 | 336,936 | 274,557 | 145,385 |
| Net interest income | 725,855 | 762,957 | 835,674 | 879,580 | 741,220 |
| Provision for credit losses | (88,011) | 174,006 | 16,000 | — | 26,000 |
| Net interest income after provision for credit losses | 813,866 | 588,950 | 819,674 | 879,580 | 715,220 |
| Noninterest income | 332,364 | 514,056 | 380,824 | 355,568 | 332,680 |
| Noninterest expense | 709,924 | 776,034 | 793,988 | 821,799 | 709,133 |
| Income before income taxes | 436,307 | 326,972 | 406,509 | 413,349 | 338,767 |
| Income tax expense | 85,313 | 20,200 | 79,720 | 79,786 | 109,503 |
| Net income | 350,994 | 306,771 | 326,790 | 333,562 | 229,264 |
| Preferred stock dividends | 17,111 | 18,358 | 15,202 | 10,784 | 9,347 |
| Net income available to common equity | \$ 333,883 | \$ 288,413 | \$ 311,587 | \$ 322,779 | \$ 219,917 |
| Earnings per common share | | | | | |
| Basic | \$ 2.20 | \$ 1.87 | \$ 1.93 | \$ 1.92 | \$ 1.45 |
| Diluted | 2.18 | 1.86 | 1.91 | 1.89 | 1.42 |
| Cash dividends per common share | 0.76 | 0.72 | 0.69 | 0.62 | 0.50 |
| Weighted average common shares outstanding | | | | | |
| Basic | 150,773 | 153,005 | 160,534 | 167,345 | 150,877 |
| Diluted | 151,987 | 153,642 | 161,932 | 169,732 | 153,647 |
| Selected Financial Data | | | | | |
| Year-End Balances | | | | | |
| Loans | \$ 24,224,949 | \$ 24,451,724 | \$ 22,821,440 | \$ 22,940,429 | \$ 20,784,991 |
| Allowance for credit losses on loans | 319,791 | 431,478 | 223,278 | 262,359 | 290,280 |
| Investment securities, net ^(a) | 6,589,314 | 4,979,485 | 5,482,759 | 6,689,021 | 6,326,299 |
| Total assets | 35,104,253 | 33,419,783 | 32,386,478 | 33,615,122 | 30,443,626 |
| Deposits | 28,466,430 | 26,482,481 | 23,779,064 | 24,897,393 | 22,785,962 |
| Short- and long-term funding, and FHLB advances | 2,224,633 | 2,434,505 | 4,195,423 | 4,527,056 | 4,073,732 |
| Stockholders' equity | 4,024,853 | 4,090,933 | 3,922,124 | 3,780,888 | 3,237,443 |
| Book value per common share | 25.66 | 24.34 | 23.32 | 21.43 | 20.13 |
| Tangible book value per common share | 17.87 | 16.67 | 15.28 | 13.86 | 13.65 |
| Average Balances | | | | | |
| Loans | \$ 24,057,980 | \$ 24,537,648 | \$ 23,122,797 | \$ 22,718,297 | \$ 20,592,383 |
| Investment securities | 5,419,557 | 5,226,571 | 6,194,465 | 6,912,921 | 6,028,262 |
| Earning assets | 31,122,532 | 30,832,007 | 29,820,829 | 30,049,793 | 26,999,884 |
| Total assets | 34,464,257 | 34,265,207 | 33,046,604 | 33,007,859 | 29,467,324 |
| Deposits | 27,693,414 | 26,007,685 | 24,735,608 | 24,072,049 | 21,923,602 |
| Interest-bearing liabilities | 21,905,605 | 22,992,211 | 23,535,115 | 23,699,823 | 21,045,399 |
| Stockholders' equity | 4,079,449 | 3,944,572 | 3,871,869 | 3,692,433 | 3,172,634 |
| Risk-based Capital^(b) | | | | | |
| Total risk-weighted assets | \$ 27,242,735 | \$ 25,903,415 | \$ 24,296,382 | \$ 23,842,542 | \$ 21,504,495 |
| CET1 | 2,808,289 | 2,706,010 | 2,480,698 | 2,449,721 | 2,171,508 |
| CET1 capital ratio | 10.31 % | 10.45 % | 10.21 % | 10.27 % | 10.10 % |
| Return on average CET1 | 12.08 % | 11.23 % | 12.59 % | 13.15 % | 10.43 % |

(a) Includes AFS, HTM and equity securities.

(b) The Federal Reserve establishes regulatory capital requirements, including well-capitalized standards for the Corporation. The regulatory capital requirements effective for the Corporation follow Basel III, subject to certain transition provisions. These regulatory capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of our capital with the capital of other financial services companies. See Table 26 for a reconciliation of average CET1.

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion is management's analysis to assist in the understanding and evaluation of the consolidated financial condition and results of operations of the Corporation. It should be read in conjunction with the consolidated financial statements and footnotes and the selected financial data presented elsewhere in this report. Within the tables presented, certain columns and rows may not sum due to the use of rounded numbers for disclosure purposes.

The detailed financial discussion that follows focuses on 2021 results compared to 2020. For a discussion of 2020 results compared to 2019, see the Corporation's [Annual Report on Form 10-K for the year ended December 31, 2020](#).

Overview

The Corporation is a bank holding company headquartered in Wisconsin, providing a broad array of banking and nonbanking products and services to businesses and consumers primarily within our three-state footprint. The Corporation's primary sources of revenue, through the Bank, are net interest income (predominantly from loans and investment securities) and noninterest income (principally fees and other revenue from financial services provided to customers or ancillary services tied to loans and deposits).

Performance Summary and 2022 Outlook

- Diluted earnings per common share of \$2.18 in 2021 increased \$0.32, or 17%, from 2020.
- Average loans of \$24.1 billion for 2021 decreased \$480 million, or 2%, from a year ago, driven by decreases in residential mortgages and PPP loans. For 2022, the Corporation expects auto finance loan growth of more than \$1.2 billion and commercial loan growth, including asset-based lending and equipment finance, of \$750 million to \$1.0 billion.
- Average deposits of \$27.7 billion for 2021 increased \$1.7 billion, or 6%, from a year ago, driven by increases in low cost deposits partially offset by decreases in higher cost deposits.
- Net interest income of \$726 million in 2021 decreased \$37 million, or 5%, from 2020. Net interest margin of 2.39% in 2021 decreased 14 bp from 2.53% in 2020. The decrease was primarily driven by the continued low interest rate environment and increased liquidity during 2021. For 2022, the Corporation expects net interest income of more than \$800 million.
- Provision for credit losses had a release of \$88 million in 2021, compared to provision of \$174 million in 2020. For 2022, the Corporation expects to adjust the provision to reflect changes to risk grades, economic conditions, loan volumes, and other indications of credit quality.
- Noninterest income of \$332 million in 2021 decreased \$182 million, or 35%, from 2020, primarily due to a \$163 million gain on the sale of ABRC during the second quarter of 2020, and a reduction of \$45 million in insurance revenue in 2021, resulting from the sale of the business. For 2022, the Corporation expects noninterest income of more than \$300 million.
- Noninterest expense of \$710 million in 2021 decreased \$66 million, or 9%, from 2020, primarily driven by a \$45 million loss on prepayment of FHLB advances during the third quarter of 2020, and a \$5 million reduction in personnel expense. For 2022, the Corporation expects noninterest expense will be approximately \$725 million to \$740 million.

Income Statement Analysis

Net Interest Income

Table 2 Net Interest Income Analysis

| (\$ in Thousands) | Years Ended December 31, | | | | | | | | |
|--|--------------------------|---------------------------|----------------------|-----------------|---------------------------|----------------------|-----------------|---------------------------|----------------------|
| | 2021 | | | 2020 | | | 2019 | | |
| | Average Balance | Interest Income / Expense | Average Yield / Rate | Average Balance | Interest Income / Expense | Average Yield / Rate | Average Balance | Interest Income / Expense | Average Yield / Rate |
| Assets | | | | | | | | | |
| Earning assets | | | | | | | | | |
| Loans ^{(a)(b)(c)} | | | | | | | | | |
| Commercial PPP lending | \$ 472,216 | \$ 33,637 | 7.12 % | \$ 701,111 | \$ 21,867 | 3.12 % | \$ — | \$ — | — % |
| Asset-based lending | 120,903 | 3,704 | 3.06 % | 177,710 | 6,039 | 3.40 % | 273,949 | 13,966 | 5.10 % |
| Commercial and business lending (excl PPP & ABL) | 8,511,364 | 212,744 | 2.50 % | 8,531,333 | 252,699 | 2.96 % | 8,152,825 | 371,107 | 4.55 % |
| Commercial real estate lending | 6,156,214 | 178,354 | 2.90 % | 5,811,498 | 192,545 | 3.31 % | 5,150,464 | 255,582 | 4.96 % |
| Total commercial | 15,260,697 | 428,439 | 2.81 % | 15,221,651 | 473,150 | 3.11 % | 13,577,238 | 640,655 | 4.72 % |
| Residential mortgage | 7,847,564 | 221,099 | 2.82 % | 8,190,190 | 254,814 | 3.11 % | 8,311,914 | 282,134 | 3.39 % |
| Retail | 949,719 | 45,723 | 4.81 % | 1,125,806 | 58,655 | 5.21 % | 1,233,646 | 76,939 | 6.24 % |
| Total loans | 24,057,980 | 695,260 | 2.89 % | 24,537,648 | 786,619 | 3.21 % | 23,122,797 | 999,727 | 4.32 % |
| Investment securities | | | | | | | | | |
| Taxable | 3,383,528 | 37,916 | 1.12 % | 3,295,718 | 59,806 | 1.81 % | 4,284,991 | 100,304 | 2.34 % |
| Tax-exempt ^(a) | 2,036,030 | 73,975 | 3.63 % | 1,930,853 | 72,901 | 3.78 % | 1,909,474 | 71,956 | 3.77 % |
| Other short-term investments | 1,644,995 | 7,833 | 0.48 % | 1,067,788 | 9,473 | 0.89 % | 503,566 | 16,643 | 3.30 % |
| Investments and other | 7,064,552 | 119,724 | 1.69 % | 6,294,359 | 142,179 | 2.26 % | 6,698,032 | 188,903 | 2.82 % |
| Total earning assets | \$ 31,122,532 | \$ 814,984 | 2.62 % | \$ 30,832,007 | \$ 928,799 | 3.01 % | \$ 29,820,829 | \$ 1,188,630 | 3.99 % |
| Other assets, net | 3,341,725 | | | 3,433,200 | | | 3,225,775 | | |
| Total assets | \$ 34,464,257 | | | \$ 34,265,207 | | | \$ 33,046,604 | | |
| Liabilities and stockholders' equity | | | | | | | | | |
| Interest-bearing liabilities | | | | | | | | | |
| Interest-bearing deposits | | | | | | | | | |
| Savings | \$ 4,138,732 | \$ 1,435 | 0.03 % | \$ 3,306,385 | \$ 2,966 | 0.09 % | \$ 2,439,872 | \$ 7,086 | 0.29 % |
| Interest-bearing demand | 6,113,660 | 4,610 | 0.08 % | 5,583,144 | 12,496 | 0.22 % | 5,080,857 | 56,742 | 1.12 % |
| Money market | 6,940,513 | 4,028 | 0.06 % | 6,509,924 | 15,273 | 0.23 % | 7,005,265 | 74,467 | 1.06 % |
| Network transaction deposits | 929,544 | 1,120 | 0.12 % | 1,442,951 | 6,219 | 0.43 % | 1,860,951 | 42,523 | 2.29 % |
| Time deposits | 1,495,060 | 7,429 | 0.50 % | 2,281,040 | 30,685 | 1.35 % | 3,129,142 | 56,468 | 1.80 % |
| Total interest-bearing deposits | 19,617,508 | 18,622 | 0.09 % | 19,123,444 | 67,639 | 0.35 % | 19,516,088 | 237,286 | 1.22 % |
| Federal funds purchased and securities sold under agreements to repurchase | 207,132 | 143 | 0.07 % | 175,713 | 485 | 0.28 % | 137,679 | 1,579 | 1.15 % |
| Commercial paper | 49,546 | 22 | 0.04 % | 38,583 | 41 | 0.11 % | 32,123 | 138 | 0.43 % |
| PPPLF | — | — | — % | 565,371 | 1,984 | 0.35 % | — | — | — % |
| Other short-term funding | — | — | — % | 4,226 | 11 | 0.25 % | — | — | — % |
| FHLB advances | 1,623,508 | 36,493 | 2.25 % | 2,535,731 | 57,359 | 2.26 % | 3,106,279 | 69,816 | 2.25 % |
| Long-term funding | 407,912 | 17,053 | 4.18 % | 549,143 | 22,365 | 4.07 % | 742,946 | 28,116 | 3.78 % |
| Total short and long-term funding | 2,288,098 | 53,712 | 2.35 % | 3,868,767 | 82,245 | 2.13 % | 4,019,027 | 99,651 | 2.48 % |
| Total interest-bearing liabilities | \$ 21,905,605 | \$ 72,334 | 0.33 % | \$ 22,992,211 | \$ 149,883 | 0.65 % | \$ 23,535,115 | \$ 336,936 | 1.43 % |
| Noninterest-bearing demand deposits | 8,075,906 | | | 6,884,241 | | | 5,219,520 | | |
| Other liabilities | 403,296 | | | 444,183 | | | 420,100 | | |
| Stockholders' equity | 4,079,449 | | | 3,944,572 | | | 3,871,869 | | |
| Total liabilities and stockholders' equity | \$ 34,464,257 | | | \$ 34,265,207 | | | \$ 33,046,604 | | |
| Interest rate spread | | | 2.29 % | | | 2.36 % | | | 2.56 % |
| Net free funds | | | 0.10 % | | | 0.17 % | | | 0.30 % |
| Fully tax-equivalent net interest income and net interest margin | \$ 742,650 | | 2.39 % | \$ 778,915 | | 2.53 % | \$ 851,693 | | 2.86 % |
| Fully tax-equivalent adjustment | \$ 16,796 | | | \$ 15,959 | | | \$ 16,020 | | |
| Net interest income | \$ 725,855 | | | \$ 762,957 | | | \$ 835,674 | | |

(a) The yield on tax-exempt loans and securities is computed on a fully tax-equivalent basis using a tax rate of 21% and is net of the effects of certain disallowed interest deductions.

(b) Nonaccrual loans and loans held for sale have been included in the average balances.

(c) Interest income includes amortization of net deferred loan origination costs and net accreted purchase loan discount.

Net interest income is the primary source of the Corporation's revenue. Net interest income is the difference between interest income on interest-earning assets, such as loans and investment securities, and the interest expense on interest-bearing deposits and other borrowings used to fund interest-earning and other assets or activities. Net interest income is affected by the amount and composition of earning assets and interest-bearing liabilities, as well as the sensitivity of the balance sheet to changes in interest rates, including characteristics such as the fixed or variable nature of the financial instruments, contractual maturities, re-pricing frequencies, loan prepayment behavior, and the use of interest rate derivative financial instruments.

Interest rate spread and net interest margin are utilized to measure and explain changes in net interest income. Interest rate spread is the difference between the yield on earning assets and the rate paid on interest-bearing liabilities that fund those assets. The net interest margin is expressed as the percentage of net interest income to average earning assets. The net interest margin exceeds the interest rate spread because net free funds, principally noninterest-bearing demand deposits and stockholders' equity, also support earning assets. To compare tax-exempt asset yields to taxable yields, the yield on tax-exempt loans and investment securities is computed on a fully tax-equivalent basis. Net interest income, interest rate spread, and net interest margin are discussed on a fully tax-equivalent basis.

Table 2 provides average balances of earning assets and interest-bearing liabilities, the associated interest income and expense, and the corresponding interest rates earned and paid, as well as net interest income, interest rate spread, and net interest margin on a fully tax-equivalent basis for the years ended December 31, 2021, 2020, and 2019. Table 3 presents additional information to facilitate the review and discussion of fully tax-equivalent net interest income, interest rate spread, and net interest margin.

Notable Contributions to the Change in 2021 Net Interest Income

- Net interest income on the consolidated statements of income (which excludes the fully tax-equivalent adjustment) was \$726 million in 2021 compared to \$763 million in 2020. Fully tax-equivalent net interest income of \$743 million for 2021 was \$36 million, or 5%, lower than 2020. The decrease was attributable to the continued low interest rate environment. See sections Interest Rate Risk and Quantitative and Qualitative Disclosures about Market Risk for a discussion of interest rate risk and market risk.
- Average earning assets of \$31.1 billion in 2021 were \$291 million, or 1%, higher than 2020. The increase in average earning assets was driven by an increase of \$770 million, or 12%, in investments and other short-term investments primarily driven by excess liquidity at the Federal Reserve Bank which is part of short term investments, offset by a \$480 million, or 2%, decrease in average loans, primarily driven by decreases of \$343 million, or 4%, in residential mortgages and \$229 million, or 33%, in PPP loans, partially offset by CRE loans increasing \$345 million, or 6%.
- Average interest-bearing liabilities of \$21.9 billion in 2021 were down \$1.1 billion, or 5%, versus 2020. On average, short and long-term funding decreased \$1.6 billion, or 41%, with FHLB advances down \$912 million, or 36%, due to the prepayment of \$950 million of long-term FHLB advances in the third quarter of 2020 and PPPLF funding was down \$565 million as a result of paying off the PPPLF line in the fourth quarter of 2020. Interest-bearing deposits increased \$494 million, or 3%, primarily driven by increases in low cost deposits, partially offset by decreases in higher cost deposits. Average noninterest-bearing demand deposits of \$8.1 billion were up \$1.2 billion, or 17%, over 2020. This increase is primarily attributed to customers holding proceeds from government stimulus programs in their deposit accounts.
- The average cost of interest-bearing liabilities was 0.33% in 2021, 32 bp lower than 2020. The decrease was due to a 26 bp decrease in the average cost of interest-bearing deposits to 0.09%, while short and long-term funding increased 22 bp to 2.35%.
- The Federal Funds rate on December 31, 2021 was in the range of 0.00% to 0.25 %, which was unchanged from the previous year ended December 31, 2020.

Table 3 Rate/Volume Analysis^(a)

| (\$ in Thousands) | 2021 Compared to 2020 Increase (Decrease) Due to | | | 2020 Compared to 2019 Increase (Decrease) Due to | | |
|--|---|--------------|--------------|---|--------------|--------------|
| | Volume | Rate | Net | Volume | Rate | Net |
| Interest income | | | | | | |
| Loans^(b) | | | | | | |
| Commercial PPP lending | \$ (8,997) | \$ 20,767 | \$ 11,770 | \$ 21,867 | \$ — | \$ 21,867 |
| Asset-based lending | (1,785) | (551) | (2,336) | (4,067) | (3,859) | (7,926) |
| Commercial and business lending (excl PPP & ABL) | (590) | (39,365) | (39,955) | 16,523 | (134,931) | (118,408) |
| Commercial real estate lending | 10,961 | (25,152) | (14,191) | 29,765 | (92,803) | (63,037) |
| Total commercial | (411) | (44,300) | (44,711) | 64,089 | (231,593) | (167,504) |
| Residential mortgage | (10,351) | (23,364) | (33,715) | (4,080) | (23,240) | (27,320) |
| Retail | (8,705) | (4,227) | (12,933) | (6,342) | (11,942) | (18,283) |
| Total loans | (19,467) | (71,892) | (91,359) | 53,667 | (266,775) | (213,108) |
| Investment securities | | | | | | |
| Taxable | 1,554 | (23,444) | (21,890) | (20,520) | (19,978) | (40,498) |
| Tax-exempt ^(b) | 3,883 | (2,808) | 1,074 | 807 | 138 | 945 |
| Other short-term investments | 3,843 | (5,483) | (1,640) | 10,394 | (17,564) | (7,170) |
| Investments and other | 9,279 | (31,735) | (22,455) | (9,319) | (37,404) | (46,723) |
| Total earning assets | \$ (10,188) | \$ (103,626) | \$ (113,814) | \$ 44,348 | \$ (304,179) | \$ (259,831) |
| Interest expense | | | | | | |
| Savings | \$ 613 | \$ (2,144) | \$ (1,531) | \$ 1,926 | \$ (6,046) | \$ (4,120) |
| Interest-bearing demand | 1,089 | (8,975) | (7,886) | 5,116 | (49,361) | (44,246) |
| Money market | 949 | (12,194) | (11,245) | (4,924) | (54,270) | (59,194) |
| Network transaction deposits | (1,686) | (3,413) | (5,099) | (7,871) | (28,433) | (36,304) |
| Time deposits | (8,186) | (15,070) | (23,256) | (13,656) | (12,128) | (25,783) |
| Total interest-bearing deposits | (7,220) | (41,796) | (49,016) | (19,409) | (150,238) | (169,647) |
| Federal funds purchased and securities sold under agreements to repurchase | 74 | (417) | (342) | 348 | (1,442) | (1,094) |
| Commercial paper | 9 | (28) | (18) | 23 | (121) | (98) |
| PPPLF | (1,984) | — | (1,984) | 1,984 | — | 1,984 |
| Other short-term funding | (11) | — | (11) | 11 | — | 11 |
| FHLB advances | (20,507) | (359) | (20,866) | (12,903) | 446 | (12,457) |
| Long-term funding | (5,890) | 578 | (5,312) | (7,767) | 2,015 | (5,751) |
| Total short and long-term funding | (28,309) | (224) | (28,533) | (18,304) | 898 | (17,406) |
| Total interest-bearing liabilities | (35,529) | (42,020) | (77,549) | (37,713) | (149,340) | (187,053) |
| Fully tax-equivalent net interest income | \$ 25,341 | \$ (61,606) | \$ (36,265) | \$ 82,061 | \$ (154,839) | \$ (72,778) |

(a) The change in interest due to both rate and volume has been allocated in proportion to the relationship to the dollar amounts of the change in each.

(b) The yield on tax-exempt loans and securities is computed on a fully tax-equivalent basis using a tax rate of 21% and is net of the effects of certain disallowed interest deductions.

Provision for Credit Losses

The provision for credit losses is predominantly a function of the Corporation's reserving methodology and judgments as to other qualitative and quantitative factors used to determine the appropriate level of the ACLL, which focuses on changes in the size and character of the loan portfolio, changes in levels of individually evaluated and other nonaccrual loans, historical losses and delinquencies in each portfolio category, the risk inherent in specific loans, concentrations of loans to specific borrowers or industries, existing economic conditions and economic forecasts, the fair value of underlying collateral, and other factors which could affect potential credit losses. The forecast the Corporation used for December 31, 2021 was the Moody's baseline scenario from December 2021 over a 2 year reasonable and supportable period with straight-line reversion to historical losses over the second year of the period. See additional discussion under the sections titled Loans, Credit Risk, Nonperforming Assets, and Allowance for Credit Losses on Loans.

Noninterest Income

Table 4 Noninterest Income

| (\$ in Thousands) | Years Ended December 31, | | | Change From Prior Year | | | |
|---|--------------------------|--------------|--------------|------------------------|---------------|----------------|---------------|
| | 2021 | 2020 | 2019 | \$ Change 2021 | % Change 2021 | \$ Change 2020 | % Change 2020 |
| Wealth management fees ^(a) | \$ 89,854 | \$ 84,957 | \$ 83,467 | \$ 4,897 | 6 % | \$ 1,490 | 2 % |
| Service charges and deposit account fees | 64,406 | 56,307 | 63,135 | 8,099 | 14 % | (6,828) | (11) % |
| Card-based fees | 43,014 | 38,534 | 39,755 | 4,480 | 12 % | (1,221) | (3) % |
| Other fee-based revenue | 17,086 | 19,238 | 18,942 | (2,152) | (11) % | 296 | 2 % |
| Total fee-based revenue | 214,360 | 199,036 | 205,299 | 15,324 | 8 % | (6,263) | (3) % |
| Capital markets, net | 30,602 | 27,966 | 19,862 | 2,636 | 9 % | 8,104 | 41 % |
| Mortgage servicing fees, net ^(b) | (434) | (648) | 10,141 | 214 | (33) % | (10,789) | N/M |
| Gains and fair value adjustment on loans held for sale | 34,999 | 60,000 | 17,344 | (25,001) | (42) % | 42,656 | N/M |
| Fair value adjustment on portfolio loans transferred to held for sale | — | 3,932 | 4,456 | (3,932) | (100) % | (524) | (12) % |
| Mortgage servicing rights (impairment) recovery | 16,186 | (17,704) | (63) | 33,890 | N/M | (17,641) | N/M |
| Mortgage banking, net | 50,751 | 45,580 | 31,878 | 5,171 | 11 % | 13,702 | 43 % |
| Bank and corporate owned life insurance | 13,254 | 13,771 | 14,845 | (517) | (4) % | (1,074) | (7) % |
| Insurance commissions and fees | 336 | 45,245 | 89,104 | (44,909) | (99) % | (43,859) | (49) % |
| Other | 11,031 | 10,200 | 11,165 | 831 | 8 % | (965) | (9) % |
| Subtotal | 320,333 | 341,798 | 372,154 | (21,465) | (6) % | (30,356) | (8) % |
| Asset gains, net ^(c) | 11,009 | 155,589 | 2,713 | (144,580) | (93) % | 152,876 | N/M |
| Investment securities gains (losses), net | (16) | 9,222 | 5,957 | (9,238) | N/M | 3,265 | 55 % |
| Gains on sale of branches, net ^(d) | 1,038 | 7,449 | — | (6,411) | (86) % | 7,449 | N/M |
| Total noninterest income | \$ 332,364 | \$ 514,056 | \$ 380,824 | \$ (181,692) | (35) % | \$ 133,232 | 35 % |
| Mortgage loans originated for sale during period | \$ 1,749,556 | \$ 1,642,135 | \$ 1,090,792 | \$ 107,421 | 7 % | \$ 551,343 | 51 % |
| Mortgage loan settlements during period | 1,774,791 | 1,959,571 | 1,317,077 | (184,780) | (9) % | 642,494 | 49 % |
| Mortgage portfolio loans transferred to held for sale during period | — | 269,203 | 242,382 | (269,203) | (100) % | 26,821 | 11 % |
| Assets under management, at market value ^(e) | 13,679 | 13,314 | 12,104 | 365 | 3 % | 1,210 | 10 % |

N/M = Not Meaningful

(a) Includes trust, asset management, brokerage, and annuity fees.

(b) Includes mortgage origination and servicing fees, net of mortgage servicing rights amortization.

(c) 2020 includes a gain of \$163 million from the sale of ABRC.

(d) Includes the deposit premium on the sale of branches net of miscellaneous costs to sell. See Note 2 Acquisitions and Dispositions for addition details on the branch sales.

(e) \$ in millions. Excludes assets held in brokerage accounts.

Notable Contributions to the Change in 2021 Noninterest Income

- Service charges and deposit account fees increased from 2020 as a result of service charges that were waived during 2020 in response to the COVID-19 pandemic.
- Mortgage banking, net increased compared to 2020 due to a \$16 million recovery of MSR impairment during 2021 as a result of market rates recovering, compared to impairment of \$18 million during 2020 partially offset by decreased gains on sold loans due to lower mortgage settlements as well as contracting margins on the loans sold.
- Insurance commissions and fees decreased from 2020, driven by the sale of ABRC during the second quarter of 2020 which largely eliminated the source of noninterest income.
- Asset gains, net was down from 2020, primarily driven by a gain of \$163 million from the sale of ABRC during the second quarter of 2020, offset by a gain of \$2 million from the sale of Whitnell and higher gains from private equity investments during 2021.
- Investment securities gains (losses), net decreased due to more securities sales in 2020 to reposition the portfolio based on prepayment expectations.
- Gains on sale of branches, net decreased from 2020 primarily due to branch sales resulting in higher deposit premiums in 2020.

Noninterest Expense

Table 5 Noninterest Expense

| (\$ in Thousands) | Years Ended December 31, | | | Change From Prior Year | | | |
|--------------------------------------|--------------------------|------------|------------|------------------------|---------------|----------------|---------------|
| | 2021 | 2020 | 2019 | \$ Change 2021 | % Change 2021 | \$ Change 2020 | % Change 2020 |
| Personnel | \$ 426,687 | \$ 432,151 | \$ 487,063 | \$ (5,464) | (1) % | \$ (54,912) | (11) % |
| Technology | 81,689 | 81,214 | 82,429 | 475 | 1 % | (1,215) | (1) % |
| Occupancy | 63,513 | 64,064 | 62,399 | (551) | (1) % | 1,665 | 3 % |
| Business development and advertising | 21,149 | 18,428 | 29,600 | 2,721 | 15 % | (11,172) | (38) % |
| Equipment | 21,104 | 21,705 | 23,550 | (601) | (3) % | (1,845) | (8) % |
| Legal and professional | 21,923 | 21,546 | 19,901 | 377 | 2 % | 1,645 | 8 % |
| Loan and foreclosure costs | 8,143 | 12,600 | 8,861 | (4,457) | (35) % | 3,739 | 42 % |
| FDIC assessment | 18,150 | 20,350 | 16,250 | (2,200) | (11) % | 4,100 | 25 % |
| Other intangible amortization | 8,844 | 10,192 | 9,948 | (1,348) | (13) % | 244 | 2 % |
| Loss on prepayments of FHLB advances | — | 44,650 | — | (44,650) | (100) % | 44,650 | N/M |
| Other | 38,721 | 49,135 | 53,986 | (10,414) | (21) % | (4,851) | (9) % |
| Total noninterest expense | \$ 709,924 | \$ 776,034 | \$ 793,988 | \$ (66,110) | (9) % | \$ (17,954) | (2) % |
| Average FTEs ^(a) | 4,003 | 4,459 | 4,702 | (456) | (10) % | (243) | (5) % |

N/M = Not Meaningful

(a) Average FTEs without overtime

Notable Contributions to the Change in 2021 Noninterest Expense

- Personnel costs decreased from 2020, primarily due to having fewer employees as a result of the sales of ABRC and Whitnell, corporate restructurings, and branch sales, partially offset by an increase in funding for the management incentive plan.
- Loan and foreclosure costs decreased from 2020 driven by lower costs associated with collections on loans.
- During the third quarter of 2020, the Corporation prepaid \$950 million of long-term FHLB advances and incurred a loss of \$45 million on the prepayment.

Income Taxes

The Corporation recognized income tax expense of \$85 million for 2021, compared to income tax expense of \$20 million for 2020. The Corporation's effective tax rate was 19.55% for 2021, compared to an effective tax rate of 6.18% for 2020. The increase in income tax expense during 2021 was primarily driven by an increase in income in 2021 and by tax planning strategies which occurred during the third quarter of 2020. The increase in the effective tax rate during 2021 was primarily driven by the tax planning strategies which occurred in 2020.

See Note 1 Summary of Significant Accounting Policies of the notes to consolidated financial statements for the Corporation's income tax accounting policy. Income tax expense recorded on the consolidated statements of income involves the interpretation and application of certain accounting pronouncements and federal and state tax laws and regulations. The Corporation is subject to examination by various taxing authorities. Examination by taxing authorities may impact the amount of tax expense and/or the reserve for uncertainty in income taxes if their interpretations differ from those of management, based on their judgments about information available to them at the time of their examinations. See Note 13 Income Taxes of the notes to consolidated financial statements for more information.

Balance Sheet Analysis

- At December 31, 2021, total assets were \$35.1 billion, up \$1.7 billion, or 5%, from December 31, 2020.
- Interest-bearing deposits in other financial institutions were \$682 million at December 31, 2021, up \$383 million from December 31, 2020, due to excess liquidity being held at the Federal Reserve Bank.
- At December 31, 2021, total investment securities were \$6.6 billion, up \$1.6 billion, or 32%, from December 31, 2020, resulting from the deployment of cash into higher yielding assets. See section Investment Securities Portfolio and Note 3 Investment Securities of the notes to consolidated financial statements for additional information on investment securities.
- At December 31, 2021, total deposits of \$28.5 billion were up \$2.0 billion, or 7%, from December 31, 2020, driven by increases in demand deposits and savings deposits of \$1.8 billion and \$760 million, respectively. See section Deposits and Customer Funding and Note 8 Deposits of the notes to consolidated financial statements for additional information on deposits.
- Other long-term funding was \$249 million at December 31, 2021, down \$300 million, or 55%, from December 31, 2020, primarily driven by the redemption of the Bank's senior notes on July 13, 2021. See section Other Funding Sources and Note 9 Short and Long-Term Funding of the notes to consolidated financial statements for additional details on funding.
- At December 31, 2021, preferred equity was \$193 million, down \$160 million, or 45%, from December 31, 2020, as a result of the redemption of the Corporation's Series C Preferred Stock during the second quarter of 2021 and the redemption of the Corporation's Series D Preferred Stock during the third quarter of 2021. See Note 10 Stockholders' Equity of the notes to consolidated financial statements for additional information on the Corporation's preferred stock.

Loans

Table 6 Period End Loan Composition

| (\$ in Thousands) | As of December 31, | | | | | | | | | |
|--|--------------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|
| | 2021 | | 2020 | | 2019 | | 2018 | | 2017 | |
| | Amount | % of Total | Amount | % of Total | Amount | % of Total | Amount | % of Total | Amount | % of Total |
| PPP | \$ 66,070 | — % | \$ 767,757 | 3 % | \$ — | — % | \$ — | — % | \$ — | — % |
| Asset-based lending | 178,027 | 1 % | 137,476 | 1 % | 239,182 | 1 % | 306,433 | 1 % | 252,125 | 1 % |
| Commercial and industrial | 8,208,289 | 34 % | 7,563,945 | 31 % | 7,115,411 | 31 % | 7,091,612 | 31 % | 6,147,568 | 30 % |
| Commercial real estate — owner occupied | 971,326 | 4 % | 900,912 | 4 % | 911,265 | 4 % | 920,443 | 4 % | 802,209 | 4 % |
| Commercial and business lending | 9,423,711 | 39 % | 9,370,091 | 38 % | 8,265,858 | 36 % | 8,318,487 | 36 % | 7,201,902 | 35 % |
| Commercial real estate — investor | 4,384,569 | 18 % | 4,342,584 | 18 % | 3,794,517 | 17 % | 3,751,554 | 16 % | 3,315,254 | 16 % |
| Real estate construction | 1,808,976 | 7 % | 1,840,417 | 8 % | 1,420,900 | 6 % | 1,335,031 | 6 % | 1,451,684 | 7 % |
| Commercial real estate lending | 6,193,545 | 26 % | 6,183,001 | 25 % | 5,215,417 | 23 % | 5,086,585 | 22 % | 4,766,938 | 23 % |
| Total commercial | 15,617,256 | 64 % | 15,553,091 | 64 % | 13,481,275 | 59 % | 13,405,072 | 58 % | 11,968,840 | 58 % |
| Residential mortgage | 7,567,310 | 31 % | 7,878,324 | 32 % | 8,136,980 | 36 % | 8,277,712 | 36 % | 7,546,534 | 36 % |
| Home equity | 595,615 | 2 % | 707,255 | 3 % | 852,025 | 4 % | 894,473 | 4 % | 883,804 | 4 % |
| Other consumer | 301,723 | 1 % | 301,876 | 1 % | 348,177 | 2 % | 361,049 | 2 % | 384,576 | 2 % |
| Auto | 143,045 | 1 % | 11,177 | — % | 2,982 | — % | 2,123 | — % | 1,237 | — % |
| Total consumer | 8,607,693 | 36 % | 8,898,632 | 36 % | 9,340,164 | 41 % | 9,535,357 | 42 % | 8,816,151 | 42 % |
| Total loans | \$ 24,224,949 | 100 % | \$ 24,451,724 | 100 % | \$ 22,821,440 | 100 % | \$ 22,940,429 | 100 % | \$ 20,784,991 | 100 % |
| Commercial real estate and real estate construction loan detail | | | | | | | | | | |
| Non-owner occupied | \$ 2,972,584 | 68 % | \$ 2,969,906 | 68 % | \$ 2,589,838 | 68 % | \$ 2,545,751 | 68 % | \$ 2,361,382 | 71 % |
| Multi-family | 1,405,264 | 32 % | 1,360,305 | 31 % | 1,201,835 | 32 % | 1,204,552 | 32 % | 952,473 | 29 % |
| Farmland | 6,720 | — % | 12,373 | — % | 2,844 | — % | 1,250 | — % | 1,399 | — % |
| Commercial real estate — investor | \$ 4,384,569 | 100 % | \$ 4,342,584 | 100 % | \$ 3,794,517 | 100 % | \$ 3,751,554 | 100 % | \$ 3,315,254 | 100 % |
| 1-4 family construction | \$ 380,160 | 21 % | \$ 270,467 | 15 % | \$ 261,908 | 18 % | \$ 289,558 | 22 % | \$ 353,902 | 24 % |
| All other construction | 1,428,816 | 79 % | 1,569,950 | 85 % | 1,158,992 | 82 % | 1,045,474 | 78 % | 1,097,782 | 76 % |
| Real estate construction | \$ 1,808,976 | 100 % | \$ 1,840,417 | 100 % | \$ 1,420,900 | 100 % | \$ 1,335,031 | 100 % | \$ 1,451,684 | 100 % |

The Corporation has long-term guidelines relative to the proportion of Commercial and Business, CRE, and Consumer loans within the overall loan portfolio, with each targeted to represent 30-40% of the overall loan portfolio. The targeted long-term guidelines were unchanged during 2021 and 2020. Furthermore, certain sub-asset classes within the respective portfolios are further defined and dollar limitations are placed on these sub-portfolios. These guidelines and limits are reviewed quarterly and approved annually by the Enterprise Risk Committee of the Corporation's Board of Directors. These guidelines and limits are designed to create balance and diversification within the loan portfolios.

The Corporation's loan distribution and interest rate sensitivity as of December 31, 2021 are summarized in the following table:

Table 7 Loan Distribution and Interest Rate Sensitivity

| (\$ in Thousands) | Within 1 Year ^(a) | 1-5 Years | 5-15 Years | Over 15 Years | Total | % of Total |
|--|------------------------------|---------------------|---------------------|---------------------|----------------------|--------------|
| PPP | \$ 18,619 | \$ 47,450 | \$ — | \$ — | 66,070 | — % |
| Commercial and industrial ^(b) | 7,789,298 | 485,387 | 99,803 | 11,827 | 8,386,316 | 35 % |
| Commercial real estate — owner occupied | 543,313 | 306,415 | 121,014 | 584 | 971,326 | 4 % |
| Commercial real estate — investor | 4,006,186 | 287,569 | 90,532 | 282 | 4,384,569 | 18 % |
| Real estate construction | 1,752,512 | 45,062 | 1,581 | 9,821 | 1,808,976 | 7 % |
| Commercial - adjustable | 8,469,106 | 152,890 | 17,122 | 2,068 | 8,641,186 | 36 % |
| Commercial - fixed | 5,640,822 | 1,018,993 | 295,809 | 20,446 | 6,976,070 | 29 % |
| Residential mortgage - adjustable | 416,447 | 651,500 | 1,377,357 | 83,818 | 2,529,122 | 10 % |
| Residential mortgage - fixed | 34,991 | 77,907 | 730,567 | 4,194,723 | 5,038,188 | 21 % |
| Home equity | 25,856 | 70,968 | 108,399 | 390,391 | 595,615 | 2 % |
| Other consumer | 52,802 | 52,646 | 160,866 | 35,410 | 301,723 | 1 % |
| Auto | 368 | 22,368 | 120,310 | — | 143,045 | 1 % |
| Total loans | \$ 14,640,391 | \$ 2,047,272 | \$ 2,810,430 | \$ 4,726,856 | \$ 24,224,949 | 100 % |
| Fixed-rate | \$ 5,672,236 | \$ 1,178,997 | \$ 938,990 | \$ 4,619,411 | 12,409,634 | 51 % |
| Floating or adjustable rate | 8,968,155 | 868,275 | 1,871,440 | 107,446 | 11,815,315 | 49 % |
| Total | \$ 14,640,391 | \$ 2,047,272 | \$ 2,810,430 | \$ 4,726,856 | \$ 24,224,949 | 100 % |

(a) Demand loans, past due loans, overdrafts, and credit cards are reported in the "Within 1 Year" category.

(b) Includes asset-based lending.

At December 31, 2021, \$17.5 billion, or 72%, of the total loans outstanding and \$14.3 billion, or 91%, of the commercial loans outstanding were floating rate, adjustable rate, re-pricing within one year, or maturing within one year.

Credit Risk

An active credit risk management process is used for commercial loans to ensure that sound and consistent credit decisions are made. Credit risk is controlled by detailed underwriting procedures, comprehensive loan administration, and periodic review of borrowers' outstanding loans and commitments. Borrower relationships are formally reviewed and graded on an ongoing basis for early identification of potential problems. Further analysis by customer, industry, and geographic location are performed to monitor trends, financial performance, and concentrations. See Note 4 Loans of the notes to consolidated financial statements for additional information on managing overall credit quality.

The loan portfolio is widely diversified by types of borrowers, industry groups, and market areas within the Corporation's branch footprint. Significant loan concentrations are considered to exist when there are amounts loaned to numerous borrowers engaged in similar activities that would cause them to be similarly impacted by economic or other conditions. At December 31, 2021, no significant concentrations existed in the Corporation's loan portfolio in excess of 10% of total loans.

Commercial and business lending: The commercial and business lending classification primarily includes commercial loans to large corporations, middle market companies, small businesses, and lease financing.

Table 8 Largest Commercial and Industrial Industry Group Exposures, by NAICS Subsector

| December 31, 2021 | NAICS Subsector | Outstanding Balance | Total Exposure | % of Total Loan Exposure |
|---|-----------------|---------------------|----------------|--------------------------|
| Credit Intermediation and Related Activities ^(a) | 522 | \$ 1,333,524 | \$ 2,798,507 | 8 % |
| Real Estate ^(b) | 531 | 1,462,003 | 2,688,293 | 8 % |
| Utilities ^(c) | 221 | 1,807,926 | 1,958,668 | 6 % |

(a) Includes mortgage warehouse lines

(b) Includes REIT lines

(c) 60% of the total exposure supports wind and solar projects

The remaining commercial and industrial portfolio is spread over a diverse range of industries, none of which exceed 2% of total loan exposure.

The CRE-owner occupied portfolio is spread over a diverse range of industries, none of which exceed 2% of total loan exposure.

The credit risk related to commercial loans is largely influenced by general economic conditions and the resulting impact on a borrower's operations or on the value of underlying collateral, if any.

Commercial real estate - investor: CRE-investor is comprised of loans secured by various non-owner occupied or investor income producing property types.

Table 9 Largest Commercial Real Estate Investor Property Type Exposures

| December 31, 2021 | % of Total Loan Exposure | % of Total Commercial Real Estate - Investor Loan Exposure |
|-------------------|--------------------------|--|
| Multi-Family | 4 % | 30 % |
| Office | 3 % | 25 % |
| Industrial | 3 % | 21 % |

The remaining CRE-investor portfolio is spread over various other property types, none of which exceed 2% of total loan exposure.

Credit risk is managed in a similar manner to commercial and business lending by employing sound underwriting guidelines, lending primarily to borrowers in local markets and businesses, periodically evaluating the underlying collateral, and formally reviewing the borrower's financial soundness and relationship on an ongoing basis.

Real estate construction: Real estate construction loans are primarily short-term or interim loans that provide financing for the acquisition or development of commercial income properties, multi-family projects or residential development, both single family and condominium. Real estate construction loans are made to developers and project managers who are generally well known to the Corporation and have prior successful project experience. The credit risk associated with real estate construction loans is generally confined to specific geographic areas but is also influenced by general economic conditions. The Corporation controls the credit risk on these types of loans by making loans in familiar markets to developers, reviewing the merits of individual projects, controlling loan structure, and monitoring project progress and construction advances.

Table 10 Largest Real Estate Construction Property Type Exposures

| December 31, 2021 | % of Total Loan Exposure | % of Total Real Estate Construction Loan Exposure |
|-------------------|--------------------------|---|
| Multi-Family | 4 % | 37 % |
| Single-Family | 3 % | 23 % |
| Industrial | 3 % | 23 % |

The remaining real estate construction portfolio is spread over various other property types, none of which exceed 2% of total loan exposure.

The Corporation's current lending standards for CRE and real estate construction lending are determined by property type and specifically address many criteria, including: maximum loan amounts, maximum LTV, requirements for pre-leasing and / or presales, minimum borrower equity, and maximum loan-to-cost. Currently, the maximum standard for LTV is 80%, with lower limits established for certain higher risk types, such as raw land that has a 50% LTV maximum. The Corporation's LTV guidelines are in compliance with regulatory supervisory limits. In most cases, for real estate construction loans, the loan

amounts include interest reserves, which are built into the loans and sized to fund loan payments through construction and lease up and/or sell out.

Residential mortgages: Residential mortgage loans are primarily first lien home mortgages with a maximum loan-to-collateral value without credit enhancement (e.g., private mortgage insurance) of 80%. The residential mortgage portfolio is focused primarily in the Corporation's three-state branch footprint, with approximately 87% of the outstanding loan balances in the Corporation's branch footprint at December 31, 2021. The majority of the on balance sheet residential mortgage portfolio consists of constant maturity treasury based, hybrid, adjustable rate mortgage loans with initial fixed-rate terms of 3, 5, 7, or 10 years. The rates on these mortgages adjust based upon the movement in the underlying index which is then added to a margin and rounded to the nearest 0.125%. That result is then subjected to any periodic caps to produce the borrower's interest rate for the coming term.

The Corporation generally retains certain fixed-rate residential real estate mortgages in its loan portfolio, including retail and private banking jumbo mortgages and CRA-related mortgages. As part of management's historical practice of originating and servicing residential mortgage loans, generally the Corporation's 30 year, agency conforming, fixed-rate residential real estate mortgage loans have been sold in the secondary market with servicing rights retained. Subject to management's analysis of the current interest rate environment, among other market factors, the Corporation may choose to retain 30 year mortgage loan production on its balance sheet. See section Loans for additional information on loans.

The Corporation's underwriting and risk-based pricing guidelines for residential mortgage loans include minimum borrower FICO score and maximum LTV of the property securing the loan. Residential mortgage products generally are underwritten using FHLMC and FNMA secondary marketing guidelines.

Home equity: Home equity consists of both home equity lines of credit and closed-end home equity loans. The Corporation's credit risk monitoring guidelines for home equity is based on an ongoing review of loan delinquency status, as well as a quarterly review of FICO score deterioration and property devaluation. The Corporation does not routinely obtain appraisals on performing loans to update LTV ratios after origination; however, the Corporation monitors the local housing markets by reviewing the various home price indices and incorporates the impact of the changing market conditions in its ongoing credit monitoring process. For junior lien home equity loans, the Corporation is unable to track the performance of the first lien loan if it does not own or service the first lien loan. However, the Corporation obtains a refreshed FICO score on a quarterly basis and monitors this as part of its assessment of the home equity portfolio.

The Corporation's underwriting and risk-based pricing guidelines for home equity lines and loans consist of a combination of both borrower FICO score and the original cumulative LTV against the property securing the loan. Currently, the Corporation's policy sets the maximum acceptable LTV at 90% and the minimum acceptable FICO score at 670. The Corporation's current home equity line of credit offering is priced based on floating rate indices and generally allows 10 years of interest-only payments followed by a 20-year amortization of the outstanding balance. The loans in the Corporation's portfolio generally have an original term of 20 years with principal and interest payments required. See section Loans for additional information on loans.

Indirect Auto: The Corporation currently purchases retail auto sales contracts via a network of 665 approved auto dealerships across 13 states throughout the Northeast, Mid-Atlantic and Mid-Western United States. The auto dealerships finance the sale of automobiles as the initial lender and then assign the contracts to the Corporation pursuant to dealer agreements. The Corporation's underwriting and pricing guidelines are based on a dual risk grade derived from a combination of FICO auto score and proprietary internal custom score. Minimum grade and FICO score standards ensure the credit risk is appropriately managed to the Corporation's risk appetite. Further, the grade influences loan-specific parameters such as vehicle age, term, LTV, loan amount, mileage, payment and debt service thresholds and pricing. Maximum loan terms offered are 84 months on select grades with vehicle age, mileage and other limitations in place to qualify. The program is designed to capture primarily prime and super prime contracts. Over time, the Corporation expects roughly 60% of originations to be secured by used vehicles.

Other consumer: Other consumer consists of student loans, short-term personal installment loans, and credit cards. The Corporation had \$101 million and \$118 million of student loans at December 31, 2021 and December 31, 2020, respectively, the majority of which are government guaranteed. As a result of the COVID-19 pandemic, the passage of the CARES Act, and subsequent executive orders, the federal student loan relief was extended through May 1, 2022. Credit risk for non-government guaranteed student loans, short-term personal installment loans, and credit cards is influenced by general economic conditions, the characteristics of individual borrowers, and the nature of the loan collateral. Risks of loss are generally on smaller average balances per loan spread over many borrowers. Once charged off, there is usually less opportunity for recovery of these smaller consumer loans. Credit risk is primarily controlled by reviewing the creditworthiness of the borrowers, monitoring payment

histories, and taking appropriate collateral and guarantee positions. The student loan portfolio is in run-off and no new student loans are being originated.

SBA Loans under the PPP:

The Corporation began submitting PPP forgiveness applications to the SBA on behalf of our customers on September 14, 2020. On December 27, 2020, the Economic Aid Act was signed into law, which included another round of PPP funding. The Corporation began originating the new round of PPP loans in January 2021 until the statutory end of the program in May 2021.

The following table summarizes the balance segmentation of the PPP loans and associated deferred fees as of December 31, 2021:

Table 11 Paycheck Protection Program Loan Segmentation

| (\$ in Thousands) | Round 1 & 2 | | | Round 3 | | | Total |
|-------------------------------|------------------|--------------------|---------------------|------------------|--------------------|---------------------|---------------------|
| | Originated Loans | Originated Balance | Outstanding Balance | Originated Loans | Originated Balance | Outstanding Balance | Outstanding Balance |
| >=\$2,000,000 | 99 | \$ 335,534 | \$ 15,043 | 11 | \$ 22,000 | \$ 8,000 | \$ 23,043 |
| < \$2,000,000 And > \$350,000 | 485 | 386,245 | 2,017 | 158 | 118,491 | 19,864 | 21,882 |
| <=\$350,000 | 7,495 | 344,032 | 1,876 | 5,332 | 188,514 | 19,269 | 21,145 |
| Total | 8,079 | \$ 1,065,811 | \$ 18,936 | 5,501 | \$ 329,004 | \$ 47,134 | \$ 66,070 |
| Deferred Fees | | | \$ 80 | | | \$ 1,722 | \$ 1,803 |

Nonperforming Assets

Management is committed to a proactive nonaccrual and problem loan identification philosophy. This philosophy is implemented through the ongoing monitoring and review of all pools of risk in the loan portfolio to ensure that problem loans are identified quickly and the risk of loss is minimized. Table 12 provides detailed information regarding NPAs, which include nonaccrual loans, OREO, and other NPAs:

Table 12 Nonperforming Assets

| (\$ in Thousands) | As of December 31, | | | | |
|--|--------------------|------------|------------|------------|------------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Nonperforming assets | | | | | |
| PPP | \$ 46 | \$ — | \$ — | \$ — | \$ — |
| Commercial and industrial | 6,233 | 61,859 | 46,312 | 41,021 | 112,786 |
| Commercial real estate — owner occupied | — | 1,058 | 67 | 3,957 | 22,740 |
| Commercial and business lending | 6,279 | 62,917 | 46,380 | 44,978 | 135,526 |
| Commercial real estate — investor | 60,677 | 78,220 | 4,409 | 1,952 | 4,729 |
| Real estate construction | 177 | 353 | 493 | 979 | 974 |
| Commercial real estate lending | 60,855 | 78,573 | 4,902 | 2,931 | 5,703 |
| Total commercial | 67,134 | 141,490 | 51,282 | 47,909 | 141,229 |
| Residential mortgage | 55,362 | 59,337 | 57,844 | 67,574 | 53,632 |
| Home equity | 7,726 | 9,888 | 9,104 | 12,339 | 13,514 |
| Other consumer | 170 | 91 | 152 | 79 | 163 |
| Auto | 52 | 49 | — | — | 8 |
| Total consumer | 63,309 | 69,364 | 67,099 | 79,992 | 67,317 |
| Total nonaccrual loans | 130,443 | 210,854 | 118,380 | 127,901 | 208,546 |
| Commercial real estate owned | 984 | 2,185 | 3,530 | 4,047 | 6,735 |
| Residential real estate owned | 3,666 | 1,194 | 5,696 | 2,963 | 5,873 |
| Bank properties real estate owned ^(a) | 24,969 | 10,889 | 11,874 | 4,974 | — |
| OREO | 29,619 | 14,269 | 21,101 | 11,984 | 12,608 |
| Other nonperforming assets | — | — | 6,004 | — | 7,418 |
| Total nonperforming assets | \$ 160,062 | \$ 225,123 | \$ 145,485 | \$ 139,885 | \$ 228,572 |
| Accruing loans past due 90 days or more | | | | | |
| Commercial | \$ 151 | \$ 175 | \$ 342 | \$ 311 | \$ 418 |
| Consumer | 1,111 | 1,423 | 1,917 | 1,853 | 1,449 |
| Total accruing loans past due 90 days or more | \$ 1,263 | \$ 1,598 | \$ 2,259 | \$ 2,165 | \$ 1,867 |
| Restructured loans (accruing)^(b) | | | | | |
| Commercial | \$ 22,763 | \$ 41,119 | \$ 18,944 | \$ 28,668 | \$ 48,735 |
| Consumer | 19,768 | 10,973 | 7,097 | 24,595 | 25,883 |
| Total restructured loans (accruing) | \$ 42,530 | \$ 52,092 | \$ 26,041 | \$ 53,263 | \$ 74,618 |
| Nonaccrual restructured loans (included in nonaccrual loans) | \$ 17,426 | \$ 20,190 | \$ 22,494 | \$ 26,292 | \$ 23,486 |
| Ratios | | | | | |
| Nonaccrual loans to total loans | 0.54 % | 0.86 % | 0.52 % | 0.56 % | 1.00 % |
| NPAs to total loans plus OREO | 0.66 % | 0.92 % | 0.64 % | 0.61 % | 1.10 % |
| NPAs to total assets | 0.46 % | 0.67 % | 0.45 % | 0.42 % | 0.75 % |
| Allowance for credit losses on loans to nonaccrual loans | 245.16 % | 204.63 % | 188.61 % | 205.13 % | 139.19 % |

Table 12 Nonperforming Assets (continued)

| (\$ in Thousands) | As of December 31, | | | | |
|---|--------------------|------------|------------|------------|------------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Accruing loans 30-89 days past due | | | | | |
| PPP | \$ 83 | \$ — | \$ — | \$ — | \$ — |
| Commercial and industrial | 632 | 6,119 | 821 | 525 | 271 |
| Commercial real estate — owner occupied | 163 | 373 | 1,369 | 2,699 | 48 |
| Commercial and business lending | 878 | 6,492 | 2,190 | 3,224 | 319 |
| Commercial real estate — investor | 616 | 12,793 | 1,812 | 3,767 | 374 |
| Real estate construction | 1,620 | 991 | 97 | 330 | 251 |
| Commercial real estate lending | 2,236 | 13,784 | 1,909 | 4,097 | 625 |
| Total commercial | 3,114 | 20,276 | 4,099 | 7,321 | 944 |
| Residential mortgage | 6,169 | 10,385 | 9,274 | 9,706 | 9,552 |
| Home equity | 3,711 | 4,802 | 5,647 | 6,049 | 6,825 |
| Other consumer | 2,307 | 1,543 | 2,083 | 2,269 | 2,005 |
| Auto | 11 | 57 | — | — | 2 |
| Total consumer | 12,198 | 16,786 | 17,005 | 18,024 | 18,328 |
| Total accruing loans 30-89 days past due | \$ 15,312 | \$ 37,062 | \$ 21,104 | \$ 25,345 | \$ 19,328 |
| Potential problem loans | | | | | |
| PPP ^(c) | \$ 2,000 | \$ 18,002 | \$ — | \$ — | \$ — |
| Commercial and industrial | 138,258 | 121,487 | 110,308 | 116,578 | 113,778 |
| Commercial real estate — owner occupied | 26,723 | 26,179 | 19,889 | 55,964 | 41,997 |
| Commercial and business lending | 166,981 | 165,668 | 130,197 | 172,542 | 155,775 |
| Commercial real estate — investor | 106,138 | 91,396 | 29,449 | 67,481 | 19,291 |
| Real estate construction | 21,408 | 19,046 | — | 3,834 | — |
| Commercial real estate lending | 127,546 | 110,442 | 29,449 | 71,315 | 19,291 |
| Total commercial | 294,527 | 276,111 | 159,646 | 243,856 | 175,066 |
| Residential mortgage | 2,214 | 3,749 | 1,451 | 5,975 | 1,616 |
| Home equity | 165 | 2,068 | — | 103 | 195 |
| Total consumer | 2,379 | 5,817 | 1,451 | 6,078 | 1,811 |
| Total potential problem loans | \$ 296,905 | \$ 281,928 | \$ 161,097 | \$ 249,935 | \$ 176,877 |

(a) Primarily closed branches and other bank operated real estate facilities, pending disposition.

(b) Does not include any restructured loans related to the COVID-19 pandemic in accordance with Section 4013 of the CARES Act.

(c) The Corporation's policy is to assign risk ratings at the borrower level. PPP loans are 100% guaranteed by the SBA and therefore the Corporation considers these loans to have a risk profile similar to pass rated loans.

Nonaccrual loans: Nonaccrual loans are considered to be one indicator of potential future loan losses. See management's accounting policy for nonaccrual loans in Note 1 Summary of Significant Accounting Policies and Note 4 Loans of the notes to consolidated financial statements for additional nonaccrual loan disclosures. See also sections Credit Risk and Allowance for Credit Losses on Loans.

Accruing loans past due 90 days or more: Loans past due 90 days or more but still accruing interest are classified as such where the underlying loans are both well secured (the collateral value is sufficient to cover principal and accrued interest) and are in the process of collection.

Restructured loans: Loans are considered restructured loans if concessions have been granted to borrowers that are experiencing financial difficulty. See also Note 4 Loans of the notes to consolidated financial statements for additional restructured loans disclosures.

Potential problem loans: The level of potential problem loans is another predominant factor in determining the relative level of risk in the loan portfolio and in determining the appropriate level of the ACLL. Potential problem loans are generally defined by management to include loans rated as substandard by management that are collectively evaluated (not nonaccrual loans or accruing TDRs); however, there are circumstances present to create doubt as to the ability of the borrower to comply with present repayment terms. The decision of management to include performing loans in potential problem loans does not necessarily mean that the Corporation expects losses to occur, but that management recognizes a higher degree of risk associated with these loans.

OREO: Management actively seeks to ensure OREO properties held are monitored to minimize the Corporation's risk of loss.

Foregone Loan Interest: The following table shows, for those loans accounted for on a nonaccrual basis and restructured loans for the years ended as indicated, the approximate gross interest that would have been recorded if the loans had been current in accordance with their original terms and the amount of interest income that was included in interest income for the period:

Table 13 Foregone Loan Interest

| (\$ in Thousands) | Years Ended December 31, | | | | |
|---|--------------------------|-----------|-----------|-----------|-----------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Interest income in accordance with original terms | \$ 6,537 | \$ 11,262 | \$ 12,032 | \$ 10,606 | \$ 16,205 |
| Interest income recognized | (4,495) | (6,891) | (5,015) | (5,500) | (9,339) |
| Reduction in interest income | \$ 2,042 | \$ 4,371 | \$ 7,016 | \$ 5,106 | \$ 6,866 |

Allowance for Credit Losses on Loans

Credit risks within the loan portfolio are inherently different for each loan type. Credit risk is controlled and monitored through the use of lending standards, a thorough review of potential borrowers, and ongoing review of loan payment performance. Active asset quality administration, including early problem loan identification and timely resolution of problems, aids in the management of credit risk and the minimization of loan losses. Credit risk management for each loan type is discussed in the section entitled Credit Risk. See Note 4 Loans of the notes to consolidated financial statements for additional disclosures on the ACLL.

To assess the appropriateness of the ACLL, the Corporation focuses on the evaluation of many factors, including but not limited to: evaluation of facts and issues related to specific loans, management's ongoing review and grading of the loan portfolio, credit report refreshes, consideration of historical loan loss and delinquency experience on each portfolio category, trends in past due and nonaccrual loans, the level of potential problem loans, the risk characteristics of the various classifications of loan segments, changes in the size and character of the loan portfolio, concentrations of loans to specific borrowers or industries, existing economic conditions and economic forecasts, the fair value of underlying collateral, funding assumptions on lines, and other qualitative and quantitative factors which could affect potential credit losses. The Corporation utilized the Moody's baseline forecast for December 2021 in the allowance model. The forecast is applied over a 2 year reasonable and supportable period with straight-line reversion to historical losses over the second year of the period. Assessing these factors involves significant judgment. Because each of the criteria used is subject to change, the ACLL is not necessarily indicative of the trend of future credit losses on loans in any particular segment. Therefore, management considers the ACLL a critical accounting estimate, see section Critical Accounting Estimates for additional information on the ACLL. See section Nonperforming Assets for a detailed discussion on asset quality. See also Note 4 Loans of the notes to consolidated financial statements for additional ACLL disclosures. Table 6 provides information on loan growth and period end loan composition, Table 12 provides additional information regarding NPAs, and Table 14 and Table 15 provide additional information regarding activity in the ACLL.

The loan segmentation used in calculating the ACLL at December 31, 2021 and December 31, 2020 was generally comparable. The methodology to calculate the ACLL consists of the following components: a valuation allowance estimate is established for commercial and consumer loans determined by the Corporation to be individually evaluated, using discounted cash flows, estimated fair value of underlying collateral, and/or other data available. Loans are segmented for criticized loan pools by loan type as well as for non-criticized loan pools by loan type, primarily based on historical loss rates after considering loan type, historical loss and delinquency experience, credit quality, and industry classifications. Loans that have been criticized are considered to have a higher risk of default than non-criticized loans, as circumstances were present to support the lower loan grade, warranting higher loss factors. The loss factors applied in the methodology are periodically re-evaluated and adjusted to reflect changes in historical loss levels or other risks. Additionally, management allocates ACLL to absorb losses that may not be provided for by the other components due to qualitative factors evaluated by management, such as limitations within the credit risk grading process, known current economic or business conditions that may not yet show in trends, industry or other concentrations with current issues that impose higher inherent risks than are reflected in the loss factors, and other relevant considerations. The total allowance is available to absorb losses from any segment of the loan portfolio.

Table 14 Allowance for Credit Losses on Loans

| (\$ in Thousands) | Years Ended December 31, | | | | | |
|--|--------------------------|------------|------------|------------|------------|--|
| | 2021 | 2020 | 2019 | 2018 | 2017 | |
| Allowance for loan losses | | | | | | |
| Balance at beginning of period | \$ 383,702 | \$ 201,371 | \$ 238,023 | \$ 265,880 | \$ 278,335 | |
| Cumulative effect of ASU 2016-13 adoption (CECL) | N/A | 112,457 | N/A | N/A | N/A | |
| Balance at beginning of period, adjusted | 383,702 | 313,828 | 238,023 | 265,880 | 278,335 | |
| Provision for loan losses | (80,000) | 164,457 | 18,500 | 2,500 | 27,000 | |
| Provision for loan losses recorded at acquisition | — | 2,543 | — | — | — | |
| Gross up of allowance for PCD loans at acquisition | — | 3,504 | — | — | — | |
| Loans charged off | | | | | | |
| Asset-based lending | — | (6,650) | (8,777) | — | — | |
| Commercial and industrial | (21,564) | (73,670) | (54,538) | (30,837) | (44,533) | |
| Commercial real estate — owner occupied | — | (419) | (222) | (1,363) | (344) | |
| Commercial and business lending | (21,564) | (80,739) | (63,537) | (32,200) | (44,877) | |
| Commercial real estate — investor | (14,346) | (22,920) | — | (7,914) | (991) | |
| Real estate construction | (5) | (19) | (60) | (298) | (604) | |
| Commercial real estate lending | (14,351) | (22,938) | (60) | (8,212) | (1,595) | |
| Total commercial | (35,915) | (103,677) | (63,597) | (40,412) | (46,472) | |
| Residential mortgage | (880) | (1,867) | (3,322) | (1,627) | (2,611) | |
| Home equity | (668) | (1,719) | (1,846) | (3,236) | (2,724) | |
| Other consumer | (3,168) | (4,783) | (5,548) | (5,257) | (4,439) | |
| Auto | (22) | (7) | — | (4) | — | |
| Total consumer | (4,738) | (8,376) | (10,716) | (10,124) | (9,774) | |
| Total loans charged off | (40,652) | (112,053) | (74,313) | (50,536) | (56,246) | |
| Recoveries of loans previously charged off | | | | | | |
| Asset-based lending | 412 | 561 | 519 | — | — | |
| Commercial and industrial | 8,152 | 6,444 | 11,356 | 13,714 | 11,465 | |
| Commercial real estate — owner occupied | 120 | 147 | 2,795 | 639 | 173 | |
| Commercial and business lending | 8,684 | 7,151 | 14,670 | 14,353 | 11,638 | |
| Commercial real estate — investor | 3,162 | 643 | 31 | 668 | 242 | |
| Real estate construction | 126 | 49 | 302 | 446 | 74 | |
| Commercial real estate lending | 3,288 | 692 | 333 | 1,114 | 316 | |
| Total commercial | 11,972 | 7,844 | 15,003 | 15,467 | 11,954 | |
| Residential mortgage | 841 | 500 | 692 | 1,271 | 927 | |
| Home equity | 2,854 | 1,978 | 2,599 | 2,628 | 3,194 | |
| Other consumer | 1,267 | 1,076 | 858 | 803 | 701 | |
| Auto | 31 | 25 | 10 | 10 | 15 | |
| Total consumer | 4,993 | 3,579 | 4,158 | 4,712 | 4,837 | |
| Total recoveries | 16,965 | 11,422 | 19,161 | 20,179 | 16,791 | |
| Net (charge offs) | (23,687) | (100,631) | (55,152) | (30,358) | (39,455) | |
| Balance at end of period | \$ 280,015 | \$ 383,702 | \$ 201,371 | \$ 238,023 | \$ 265,880 | |
| Allowance for unfunded commitments | | | | | | |
| Balance at beginning of period | \$ 47,776 | \$ 21,907 | \$ 24,336 | \$ 24,400 | \$ 25,400 | |
| Cumulative effect of ASU 2016-13 adoption (CECL) | N/A | 18,690 | N/A | N/A | N/A | |
| Balance at beginning of period, adjusted | 47,776 | 40,597 | 24,336 | 24,400 | 25,400 | |
| Provision for unfunded commitments | (8,000) | 7,000 | (2,500) | (2,500) | (1,000) | |
| Amount recorded at acquisition | — | 179 | 70 | 2,436 | — | |
| Balance at end of period | \$ 39,776 | \$ 47,776 | \$ 21,907 | \$ 24,336 | \$ 24,400 | |
| Allowance for credit losses on loans | \$ 319,791 | \$ 431,478 | \$ 223,278 | \$ 262,359 | \$ 290,280 | |
| Provision for credit losses on loans | (88,000) | 174,000 | 16,000 | — | 26,000 | |

Table 14 Allowance for Credit Losses on Loans (continued)

| (\$ in Thousands) | Years Ended December 31, | | | | |
|---|--------------------------|---------------|---------------|---------------|---------------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Net loan (charge offs) recoveries | | | | | |
| Asset-based lending | \$ 412 | \$ (6,090) | \$ (8,259) | \$ — | \$ — |
| Commercial and industrial | (13,412) | (67,226) | (43,182) | (17,124) | (33,067) |
| Commercial real estate — owner occupied | 120 | (272) | 2,573 | (724) | (171) |
| Commercial and business lending | (12,880) | (73,588) | (48,868) | (17,848) | (33,239) |
| Commercial real estate — investor | (11,184) | (22,277) | 31 | (7,246) | (749) |
| Real estate construction | 121 | 31 | 243 | 149 | (530) |
| Commercial real estate lending | (11,063) | (22,246) | 274 | (7,098) | (1,279) |
| Total commercial | (23,943) | (95,834) | (48,594) | (24,946) | (34,518) |
| Residential mortgage | (38) | (1,367) | (2,630) | (355) | (1,684) |
| Home equity | 2,186 | 259 | 753 | (608) | 470 |
| Other consumer | (1,901) | (3,707) | (4,690) | (4,455) | (3,738) |
| Auto | 9 | 19 | 10 | 6 | 15 |
| Total consumer | 256 | (4,797) | (6,558) | (5,412) | (4,937) |
| Total net (charge offs) | \$ (23,687) | \$ (100,631) | \$ (55,152) | \$ (30,358) | \$ (39,455) |
| Ratios | | | | | |
| Allowance for credit losses on loans to total loans | 1.32 % | 1.76 % | 0.98 % | 1.14 % | 1.40 % |
| Allowance for credit losses on loans to net charge offs | 13.5x | 4.3x | 4.0x | 8.6x | 7.4x |
| Loan Evaluation Method for ACLL | | | | | |
| Individually evaluated for impairment | \$ 15,194 | \$ 79,831 | \$ 14,026 | \$ 11,053 | \$ 21,308 |
| Collectively evaluated for impairment | 304,597 | 351,646 | 209,252 | 251,306 | 268,972 |
| Total ACLL | \$ 319,791 | \$ 431,478 | \$ 223,278 | \$ 262,359 | \$ 290,280 |
| Loan Balance | | | | | |
| Individually evaluated for impairment | \$ 115,643 | \$ 259,497 | \$ 111,595 | \$ 138,543 | \$ 247,575 |
| Collectively evaluated for impairment | 24,109,306 | 24,192,227 | 22,709,845 | 22,801,887 | 20,537,416 |
| Total loan balance | \$ 24,224,949 | \$ 24,451,724 | \$ 22,821,440 | \$ 22,940,429 | \$ 20,784,991 |

Table 15 Net (Charge Offs) Recoveries^(a)

| (In Basis Points) | Years Ended December 31, | | | | |
|--|--------------------------|-------|-------|-------|------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Net loan (charge offs) recoveries | | | | | |
| Asset-based lending | 34 | (343) | (301) | — | — |
| Commercial and industrial | (18) | (88) | (60) | (26) | (54) |
| Commercial real estate — owner occupied | 1 | (3) | 28 | (9) | (2) |
| Commercial and business lending | (14) | (78) | (58) | (23) | (46) |
| Commercial real estate — investor | (26) | (54) | — | (18) | (2) |
| Real estate construction | 1 | — | 2 | 1 | (3) |
| Commercial real estate lending | (18) | (38) | 1 | (13) | (3) |
| Total commercial | (16) | (63) | (36) | (19) | (28) |
| Residential mortgage | — | (2) | (3) | — | (2) |
| Home equity | 34 | 3 | 9 | (6) | 5 |
| Other consumer | (65) | (117) | (133) | (120) | (99) |
| Auto | 4 | 14 | 37 | 36 | 131 |
| Total consumer | — | (5) | (7) | (6) | (6) |
| Total net (charge offs) | (10) | (41) | (24) | (13) | (19) |

(a) Ratio of net charge offs to average loans by loan type

Notable Contributions to the Change in the Allowance for Credit Losses on Loans

- Loans decreased \$227 million, or 1%, from December 31, 2020, primarily driven by decreases in PPP, residential mortgage, and home equity, which were partially offset by increases in the commercial and industrial and auto portfolios. See section Loans for additional information on the changes in the loan portfolio and see section Credit Risk for discussion about credit risk management for each loan type.
- Potential problem loans increased \$15 million, or 5%, from December 31, 2020, largely driven by increases in potential problem loans across the Corporation's commercial and industrial and CRE-investor portfolios, which were partially offset by a decrease in PPP loans. See also Note 4 Loans of the notes to consolidated financial statements and section Nonperforming Assets for additional disclosures on the changes in asset quality.
- For the year ended December 31, 2021, net charge offs decreased \$77 million, or 76%, from December 31, 2020, primarily driven by decreased charge off amounts in the commercial and industrial portfolio, due to better performance within the remaining oil and gas portfolio, as well as lower charge offs in the CRE-investor portfolio. See Tables 14 and 15 for additional information regarding the activity in the ACLL.
- Total nonaccrual loans decreased \$80 million, or 38%, from December 31, 2020, primarily driven by decreases in nonaccrual commercial and industrial, over half of the decrease was due to better performance within the remaining oil and gas portfolio, and CRE-investor loans, stemming in part from the economic recovery seen throughout 2021. See also Note 4 Loans of the notes to consolidated financial statements and section Nonperforming Assets for additional disclosures on the changes in asset quality.

Management believes the level of ACLL to be appropriate at December 31, 2021.

Consolidated net income and stockholders' equity could be affected if management's estimate of the ACLL is subsequently materially different, requiring additional or less provision for credit losses to be recorded. Management carefully considers numerous detailed and general factors, its assumptions, and the likelihood of materially different conditions that could alter its assumptions. While management uses currently available information to recognize losses on loans, future adjustments to the ACLL may be necessary based on newly received appraisals, updated commercial customer financial statements, rapidly deteriorating customer cash flow, and changes in economic conditions that affect our customers. Additionally, larger credit relationships do not inherently create more risk, but can create wider fluctuations in net charge offs and asset quality measures. As an integral part of their examination processes, various federal and state regulatory agencies also review the ACLL. These agencies may require additions to the ACLL or may require that certain loan balances be charged off or downgraded into criticized loan categories when their credit evaluations differ from those of management, based on their judgments about information available to them at the time of their examinations.

Investment Securities Portfolio

Management of the investment securities portfolio involves the maximization of income while actively monitoring the portfolio's liquidity, market risk, quality of the investment securities, and its role in balance sheet and capital management. The Corporation classifies its investment securities as AFS, HTM, or equity securities on the consolidated balance sheets at the time of purchase or adoption of a new accounting standard. Securities classified as AFS may be sold from time to time in order to help manage interest rate risk, liquidity, credit quality, capital levels, or to take advantage of relative value opportunities in the marketplace. Investment securities classified as AFS and equity are carried at fair value on the consolidated balance sheets, while investment securities classified as HTM are carried at amortized cost on the consolidated balance sheets.

Table 16 Investment Securities Portfolio

| (\$ in Thousands) | At December 31, | | | | | |
|--|-----------------|------------|--------------|------------|--------------|------------|
| | 2021 | % of Total | 2020 | % of Total | 2019 | % of Total |
| Investment securities AFS | | | | | | |
| Amortized cost | | | | | | |
| U.S. Treasury securities | \$ 124,291 | 3 % | \$ 26,436 | 1 % | \$ — | — % |
| Agency securities | 15,000 | — % | 24,985 | 1 % | — | — % |
| Obligations of state and political subdivisions (municipal securities) | 381,517 | 9 % | 425,057 | 14 % | 529,908 | 16 % |
| Residential mortgage-related securities | | | | | | |
| FNMA / FHLMC | 2,709,399 | 62 % | 1,448,806 | 48 % | 131,158 | 4 % |
| GNMA | 66,189 | 2 % | 231,364 | 8 % | 982,941 | 30 % |
| Private-label | 332,028 | 8 % | — | — % | — | — % |
| Commercial mortgage-related securities | | | | | | |
| FNMA / FHLMC | 357,240 | 8 % | 19,654 | 1 % | 19,929 | 1 % |
| GNMA | 165,439 | 4 % | 511,429 | 17 % | 1,314,836 | 40 % |
| Asset backed securities | | | | | | |
| FFELP | 177,974 | 4 % | 329,030 | 11 % | 270,178 | 8 % |
| SBA | 6,594 | — % | 8,637 | — % | — | — % |
| Other debt securities | 3,000 | — % | 3,000 | — % | 3,000 | — % |
| Total amortized cost | \$ 4,338,671 | 100 % | \$ 3,028,399 | 100 % | \$ 3,251,950 | 100 % |
| Fair value | | | | | | |
| U.S. Treasury securities | \$ 122,957 | 3 % | \$ 26,531 | 1 % | \$ — | — % |
| Agency securities | 14,897 | — % | 25,038 | 1 % | — | — % |
| Obligations of state and political subdivisions (municipal securities) | 400,457 | 9 % | 450,662 | 15 % | 546,160 | 17 % |
| Residential mortgage-related securities | | | | | | |
| FNMA / FHLMC | 2,691,879 | 62 % | 1,461,241 | 47 % | 132,660 | 4 % |
| GNMA | 67,780 | 2 % | 235,537 | 8 % | 985,139 | 30 % |
| Private-label | 329,724 | 8 % | — | — % | — | — % |
| Commercial mortgage-related securities | | | | | | |
| FNMA / FHLMC | 350,623 | 8 % | 22,904 | 1 % | 21,728 | 1 % |
| GNMA | 166,799 | 4 % | 524,756 | 17 % | 1,310,207 | 40 % |
| Asset backed securities | | | | | | |
| FFELP | 177,325 | 4 % | 327,189 | 11 % | 263,693 | 8 % |
| SBA | 6,580 | — % | 8,584 | — % | — | — % |
| Other debt securities | 2,994 | — % | 3,000 | — % | 3,000 | — % |
| Total fair value and carrying value | \$ 4,332,015 | 100 % | \$ 3,085,441 | 100 % | \$ 3,262,586 | 100 % |
| Net unrealized holding gains (losses) | \$ (6,656) | | \$ 57,043 | | \$ 10,636 | |

Table 16 Investment Securities Portfolio (continued)

| (\$ in Thousands) | At December 31, | | | | | |
|--|---------------------|--------------|---------------------|--------------|---------------------|--------------|
| | 2021 | % of Total | 2020 | % of Total | 2019 | % of Total |
| Investment securities HTM | | | | | | |
| Amortized cost | | | | | | |
| U.S. Treasury securities | \$ 1,000 | — % | \$ 999 | — % | \$ 999 | — % |
| Obligations of state and political subdivisions (municipal securities) | 1,628,759 | 73 % | 1,441,900 | 77 % | 1,418,569 | 64 % |
| Residential mortgage-related securities | | | | | | |
| FNMA / FHLMC | 34,347 | 2 % | 54,599 | 3 % | 81,676 | 4 % |
| GNMA | 48,053 | 2 % | 114,553 | 6 % | 269,523 | 12 % |
| Commercial mortgage-related securities | | | | | | |
| FNMA/FHLMC | 425,937 | 19 % | 11,211 | 1 % | — | — % |
| GNMA | 100,907 | 5 % | 255,742 | 14 % | 434,317 | 20 % |
| Total amortized cost and carrying value | <u>\$ 2,239,003</u> | <u>100 %</u> | <u>\$ 1,879,005</u> | <u>100 %</u> | <u>\$ 2,205,083</u> | <u>100 %</u> |
| Fair value | | | | | | |
| U.S. Treasury securities | \$ 1,001 | — % | \$ 1,024 | — % | \$ 1,018 | — % |
| Obligations of state and political subdivisions (municipal securities) | 1,739,988 | 74 % | 1,575,445 | 78 % | 1,487,227 | 65 % |
| Residential mortgage-related securities | | | | | | |
| FNMA / FHLMC | 36,139 | 2 % | 57,490 | 3 % | 83,420 | 4 % |
| GNMA | 49,631 | 2 % | 118,813 | 6 % | 270,296 | 12 % |
| Commercial mortgage-related securities | | | | | | |
| FNMA/FHLMC | 419,400 | 18 % | 11,211 | 1 % | — | — % |
| GNMA | 102,506 | 4 % | 264,960 | 13 % | 434,503 | 19 % |
| Total fair value | <u>\$ 2,348,664</u> | <u>100 %</u> | <u>\$ 2,028,943</u> | <u>100 %</u> | <u>\$ 2,276,465</u> | <u>100 %</u> |
| Net unrealized holding gains (losses) | <u>\$ 109,662</u> | | <u>\$ 149,938</u> | | <u>\$ 71,381</u> | |
| Equity securities | | | | | | |
| Equity securities carrying value and fair value | \$ 18,352 | 100 % | \$ 15,106 | 100 % | \$ 15,090 | 100 % |

At December 31, 2021, the Corporation's investment securities portfolio did not contain securities of any single non-government or non-GSE issuer that were payable from and secured by the same source of revenue or taxing authority where the aggregate carrying value of such securities exceeded 5% of stockholders' equity.

The Corporation did not recognize any credit-related write-downs to the allowance for credit losses on investments during 2021 or 2020, or any other than temporary impairment write-downs in 2019. See Note 1 Summary of Significant Accounting Policies for management's accounting policy for investment securities and Note 3 Investment Securities of the notes to consolidated financial statements for additional investment securities disclosures.

AFS Securities

U.S. Treasury Securities: U.S. Treasury Securities, including Treasury bills, notes, and bonds, are debt obligations issued by the U.S. Department of the Treasury and are backed by the full faith and credit of the U.S. government.

Municipal Securities: The municipal securities relate to various state and political subdivisions and school districts. The municipal securities portfolio is regularly assessed for credit quality and deterioration.

Agency Securities: Agency securities are debt obligations that are issued by a U.S. GSE or other federally related entity, and have an implied guarantee from the U.S. government.

Agency Residential and Agency Commercial Mortgage-Related Securities: Residential and commercial mortgage-related securities include predominantly GNMA, FNMA, and FHLMC MBS and CMOs. The fair value of these mortgage-related securities is subject to inherent risks, such as prepayment risk and interest rate changes. The Corporation regularly assesses valuation of these securities.

Private Label Residential Mortgage-Related Securities: Private label residential mortgage-related securities are the most senior AAA-rated tranche CMO securities issued by a non-agency sponsor and collateralized by Prime Jumbo residential mortgage loans.

FFELP Asset Backed Securities: FFELP asset backed securities are collateralized with government guaranteed student loans.

SBA Asset Backed Securities: SBA asset backed securities are securities whose underlying assets are loans from the SBA. These loans are backed by the U.S. government.

Other Debt Securities: Other debt securities are primarily comprised of debt securities that mature within 3 years and have a rating of A.

HTM Securities

Municipal Securities: The municipal securities relate to various state and political subdivisions and school districts. The municipal securities portfolio is regularly assessed for credit quality and deterioration.

Agency Residential and Agency Commercial Mortgage-Related Securities: Residential and commercial mortgage-related securities in HTM are comprised of select MBS and CMOs, such as when a component qualifies for CRA purposes.

Equity Securities

Equity Securities with Readily Determinable Fair Values: The Corporation's portfolio of equity securities with readily determinable fair values is primarily comprised of CRA Qualified Investment mutual funds and other mutual funds.

Equity Securities without Readily Determinable Fair Values: The Corporation's portfolio of equity securities without readily determinable fair values primarily consists of Visa Class B restricted shares that the Corporation received in 2008 as part of Visa's initial public offering as well as additional Visa Class B restricted shares that were acquired during the acquisition of First Staunton during the first quarter of 2020.

Regulatory Stock (FHLB and Federal Reserve System)

In addition to the AFS, HTM, and equity investment securities noted above, the Corporation is also required to hold certain regulatory stock. The Corporation is required to maintain Federal Reserve Bank stock and FHLB stock as member banks of both the Federal Reserve System and the FHLB, and in amounts as required by these institutions. See Note 3 Investment Securities of the notes to consolidated financial statements for additional information on the regulatory stock.

Table 17 Investment Securities Portfolio Maturity Distribution^(a)

| (\$ in Thousands) | December 31, 2021 | | |
|---|---------------------|---------------------|---------------------------------------|
| | Amortized Cost | Fair Value | Weighted Average Yield ^(b) |
| AFS securities | | | |
| U. S. Treasury securities | | | |
| After one but within five years | \$ 34,516 | \$ 34,022 | 0.84 % |
| After five years but within ten years | 89,775 | 88,935 | 1.22 % |
| Total U. S. Treasury securities | \$ 124,291 | \$ 122,957 | 1.11 % |
| Agency securities | | | |
| After one but within five years | \$ 15,000 | \$ 14,897 | 0.91 % |
| Total agency securities | \$ 15,000 | \$ 14,897 | 0.91 % |
| Obligations of state and political subdivisions (municipal securities) | | | |
| Within one year | \$ 5,799 | \$ 5,810 | 3.38 % |
| After one but within five years | 22,733 | 23,228 | 3.39 % |
| After five years but within ten years | 315,570 | 330,007 | 3.24 % |
| After ten years | 37,416 | 41,412 | 4.27 % |
| Total obligations of state and political subdivisions (municipal securities) | \$ 381,517 | \$ 400,457 | 3.35 % |
| Agency residential mortgage-related securities | | | |
| Within one year | \$ 2,371 | \$ 2,385 | 2.41 % |
| After one but within five years | 1,344,549 | 1,340,493 | 1.32 % |
| After five years but within ten years | 602,003 | 598,577 | 1.38 % |
| After ten years | 826,666 | 818,204 | 1.92 % |
| Total agency residential mortgage-related securities | \$ 2,775,589 | \$ 2,759,659 | 1.51 % |
| Private-label residential mortgage-related securities | | | |
| After one but within five years | \$ 262,180 | \$ 259,980 | 2.26 % |
| After five years but within ten years | 69,848 | 69,744 | 2.43 % |
| Total private-label residential mortgage-related securities | \$ 332,028 | \$ 329,724 | 2.30 % |
| Agency commercial mortgage-related securities | | | |
| Within one year | \$ 30,683 | \$ 30,902 | 2.42 % |
| After one but within five years | 148,374 | 149,090 | 2.19 % |
| After five years but within ten years | 343,622 | 337,431 | 1.47 % |
| Total agency commercial mortgage-related securities | \$ 522,679 | \$ 517,423 | 1.73 % |
| Asset backed securities | | | |
| Within one year | \$ 114 | \$ 114 | 3.13 % |
| After one but within five years | 34,225 | 33,865 | 1.04 % |
| After five years but within ten years | 150,229 | 149,926 | 0.83 % |
| Total asset backed securities | \$ 184,568 | \$ 183,905 | 0.87 % |
| Other debt securities | | | |
| Within one year | \$ 1,000 | \$ 999 | 2.82 % |
| After one but within five years | 2,000 | 1,995 | 1.33 % |
| Total other debt securities | \$ 3,000 | \$ 2,994 | 1.83 % |
| Total AFS securities | \$ 4,338,671 | \$ 4,332,015 | 1.72 % |

Table 17 Investment Securities Portfolio Maturity Distribution (continued) (a)

| (\$ in Thousands) | December 31, 2021 | | |
|---|-------------------|--------------|---------------------------------------|
| | Amortized Cost | Fair Value | Weighted Average Yield ^(b) |
| HTM securities | | | |
| U. S. Treasury securities | | | |
| Within one year | \$ 1,000 | \$ 1,001 | 2.56 % |
| Total U. S. Treasury securities | \$ 1,000 | \$ 1,001 | 2.56 % |
| Obligations of state and political subdivisions (municipal securities) | | | |
| Within one year | \$ 33,646 | \$ 33,842 | 3.66 % |
| After one but within five years | 34,697 | 35,820 | 3.37 % |
| After five years but within ten years | 161,627 | 167,967 | 3.69 % |
| After ten years | 1,398,789 | 1,502,359 | 3.72 % |
| Total obligations of state and political subdivisions (municipal securities) | \$ 1,628,759 | \$ 1,739,988 | 3.71 % |
| Agency residential mortgage-related securities | | | |
| Within one year | \$ 2,521 | \$ 2,602 | 2.10 % |
| After one but within five years | 67,770 | 70,515 | 2.78 % |
| After five years but within ten years | 5,218 | 5,437 | 3.19 % |
| After ten years | 6,891 | 7,216 | 3.53 % |
| Total agency residential mortgage-related securities | \$ 82,400 | \$ 85,770 | 2.85 % |
| Agency commercial mortgage-related securities | | | |
| Within one year | \$ 37 | \$ 37 | 2.12 % |
| After one but within five years | 100,870 | 102,469 | 2.28 % |
| After five years but within ten years | 276,533 | 273,173 | 2.04 % |
| After ten years | 149,404 | 146,226 | 2.11 % |
| Total agency commercial mortgage-related securities | \$ 526,844 | \$ 521,905 | 2.10 % |
| Total HTM securities | \$ 2,239,003 | \$ 2,348,664 | 3.30 % |
| Equity securities | | | |
| Equity securities with readily determinable fair values | \$ 4,810 | \$ 4,810 | — % |
| Equity securities without readily determinable fair values | 13,542 | 13,542 | — % |
| Total equity securities | \$ 18,352 | \$ 18,352 | — % |

(a) Expected maturities will differ from contractual maturities, as borrowers may have the right to call or repay obligations with or without call or prepayment penalties.

(b) Yields on tax-exempt securities are computed on a fully tax-equivalent basis using a tax rate of 21% and are net of the effects of certain disallowed interest deductions.

Analysis of Deposits and Funding**Deposits and Customer Funding**

The following table summarizes the composition of our deposits and customer funding:

Table 18 Period End Deposit and Customer Funding Composition

| (\$ in Thousands) | As of December 31, | | |
|---|----------------------|----------------------|----------------------|
| | 2021 | 2020 | 2019 |
| Noninterest-bearing demand | \$ 8,504,077 | \$ 7,661,728 | \$ 5,450,709 |
| Savings | 4,410,198 | 3,650,085 | 2,735,036 |
| Interest-bearing demand | 7,019,782 | 6,090,869 | 5,329,717 |
| Money market | 7,185,111 | 7,322,769 | 7,640,798 |
| Brokered CDs | — | — | 5,964 |
| Other time deposits | 1,347,262 | 1,757,030 | 2,616,839 |
| Total deposits | 28,466,430 | 26,482,481 | 23,779,064 |
| Customer funding ^(a) | 354,142 | 245,247 | 103,113 |
| Total deposits and customer funding | \$ 28,820,572 | \$ 26,727,727 | \$ 23,882,177 |
| Network transaction deposits ^(b) | \$ 766,965 | \$ 1,197,093 | \$ 1,336,286 |
| Brokered CDs | — | — | 5,964 |
| Total network and brokered funding | 766,965 | 1,197,093 | 1,342,250 |
| Net deposits and customer funding (total deposits and customer funding, excluding Brokered CDs and network transaction deposits) | \$ 28,053,607 | \$ 25,530,634 | \$ 22,539,927 |

(a) Securities sold under agreement to repurchase and commercial paper.

(b) Included above in interest-bearing demand and money market.

- Total deposits, which are the Corporation's largest source of funds, increased \$2.0 billion, or 7%, from December 31, 2020 driven by a change in customer savings habits and government stimulus in response to the pandemic.
- Time deposits decreased \$410 million, or 23%, from December 31, 2020 due to maturing higher priced time deposits rolling off.
- Included in the above amounts were \$767 million of network deposits, primarily sourced from other financial institutions and intermediaries. These account for 3% of the Corporation's total deposits at December 31, 2021. Network deposits decreased \$430 million, or 36%, from December 31, 2020.

Table 19 Maturity Distribution – Uninsured Time Deposits

| (\$ in Thousands) | December 31, 2021 | |
|---------------------------------------|-------------------|----------------|
| Three months or less | \$ | 50,090 |
| Over three months through six months | | 46,106 |
| Over six months through twelve months | | 22,327 |
| Over twelve months | | 9,826 |
| Total | \$ | 128,350 |

Selected period end deposit information is detailed in Note 8 Deposits of the notes to consolidated financial statements, including a maturity distribution of all time deposits at December 31, 2021. See Table 2 for additional information on average deposit balances and deposit rates.

Other Funding Sources

Short-Term Funding: Short-term funding is comprised of federal funds purchased, securities sold under agreements to repurchase, and commercial paper. Many short-term funding sources are expected to be reissued and, therefore, do not represent an immediate need for cash. Short-term funding sources at December 31, 2021 were \$354 million, an increase of \$102 million from December 31, 2020.

Long-Term Funding: Long-term funding is comprised of long-term FHLB advances (with original contractual maturities greater than one year), senior notes, subordinated notes, and finance leases. Long-term funding at December 31, 2021 was \$1.9 billion, a decrease of \$312 million from December 31, 2020. The decrease in long-term funding is due to the redemption of the Bank senior notes on July 13, 2021, the initial redemption date under the terms of the notes.

See Note 9 Short and Long-Term Funding of the notes to consolidated financial statements for additional information on short-term and long-term funding. See Table 2 for additional information on average funding and rates.

Contractual Obligations, Commitments, Off-Balance Sheet Arrangements, and Contingent Liabilities

The following table summarizes significant contractual obligations and other commitments at December 31, 2021, at those amounts contractually due to the recipient, including any unamortized premiums or discounts, hedge basis adjustments, or other similar carrying value adjustments.

Table 20 Contractual Obligations and Other Commitments^(a)

| (\$ in Thousands) | Note Reference | One Year or Less | One to Three Years | Three to Five Years | Over Five Years | Total |
|------------------------------|----------------|---------------------|---------------------|---------------------|-------------------|----------------------|
| Time deposits | 8 | \$ 1,055,614 | \$ 243,820 | \$ 47,823 | \$ 5 | 1,347,262 |
| Short-term funding | 9 | 354,262 | — | — | — | 354,262 |
| FHLB advances | 9 | 11,759 | 2,885 | 1,005,028 | 601,375 | 1,621,047 |
| Other long-term funding | 9 | 140 | 22 | 249,161 | — | 249,324 |
| Operating leases | 7 | 6,494 | 10,402 | 6,997 | 7,452 | 31,345 |
| Commitments to extend credit | 14 & 16 | 5,350,135 | 3,613,885 | 1,889,106 | 240,026 | 11,093,152 |
| Total | | \$ 6,778,405 | \$ 3,871,014 | \$ 3,198,116 | \$ 848,858 | \$ 14,696,393 |

(a) Based on original contractual maturity

Through the normal course of operations, the Corporation has entered into certain contractual obligations and other commitments, including but not limited to those most usually related to funding of operations through deposits or funding, commitments to extend credit, derivative contracts to assist management of interest rate exposure, and to a lesser degree leases for premises and equipment. Further discussion of the nature of each obligation is included in the referenced note to the consolidated financial statements.

The Corporation also has obligations under its retirement plans as described in Note 12 Retirement Plans of the notes to consolidated financial statements.

The Corporation may have a variety of financial transactions that, under GAAP, are either not recorded on the consolidated balance sheets or are recorded on the consolidated balance sheets in amounts that differ from the full contract or notional amounts.

Liquidity

The objective of liquidity risk management is to ensure that the Corporation has the ability to generate sufficient cash or cash equivalents in a timely and cost effective manner to satisfy the cash flow requirements of depositors and borrowers and to meet its other commitments as they become due. The Corporation's liquidity risk management process is designed to identify, measure, and manage the Corporation's funding and liquidity risk to meet its daily funding needs in the ordinary course of business, as well as to address expected and unexpected changes in its funding requirements. The Corporation engages in various activities to manage its liquidity risk, including diversifying its funding sources, stress testing, and holding readily-marketable assets which can be used as a source of liquidity, if needed.

The Corporation performs dynamic scenario analysis in accordance with industry best practices. Measures have been established to ensure the Corporation has sufficient high quality short-term liquidity to meet cash flow requirements under stressed scenarios. In addition, the Corporation also reviews static measures such as deposit funding as a percent of total assets and liquid asset levels. Strong capital ratios, credit quality, and core earnings are also essential to maintaining cost effective access to wholesale funding markets. At December 31, 2021, the Corporation was in compliance with its internal liquidity objectives and had sufficient asset-based liquidity to meet its obligations even under a stressed scenario.

The Corporation maintains diverse and readily available liquidity sources, including:

- Investment securities, which are an important tool to the Corporation's liquidity objective and can be pledged or sold to enhance liquidity, if necessary. See Note 3 Investment Securities of the notes to consolidated financial statements for additional information on the Corporation's investment securities portfolio, including pledged investment securities.
- Pledgeable loan collateral, which is eligible collateral with both the Federal Reserve Bank and the FHLB under established lines of credit. Based on the amount of collateral pledged, the FHLB established a collateral value from which the Bank may draw advances, and issue letters of credit in favor of public fund depositors, against the collateral. As of December 31, 2021, the Bank had \$3.8 billion available for future funding needs. The Federal Reserve Bank also establishes a collateral value of assets to support borrowings from the discount window. As of December 31, 2021, the Bank had \$761 million available for discount window borrowings.
- A \$200 million Parent Company commercial paper program, of which \$35 million was outstanding at December 31, 2021.
- Dividends and service fees from subsidiaries, as well as the proceeds from issuance of capital, which are also funding sources for the Parent Company.
- Acquisition related equity issuances by the Parent Company; the Corporation has filed a shelf registration statement with the SEC under which the Parent Company may, from time to time, offer shares of the Corporation's common stock in connection with acquisitions of businesses, assets, or securities of other companies.
- Other issuances by the Parent Company; the Corporation maintains on file with the SEC a universal shelf registration statement, under which the Parent Company may offer the following securities, either separately or in units: debt securities, preferred stock, depositary shares, common stock, and warrants.
- Bank issuances; the Bank may also issue institutional CDs, network transaction deposits, and brokered CDs.
- Global Bank Note Program issuances; the Bank has implemented a program pursuant to which it may from time to time offer up to \$2.0 billion aggregate principal amount of its unsecured senior and subordinated notes.

Based on contractual obligations and ongoing operations, the Corporation's sources of liquidity are sufficient to meet present and future liquidity needs. See Table 20 for information about the Corporation's contractual obligations and other commitments.

Credit ratings relate to the Corporation's ability to issue debt securities and the cost to borrow money, and should not be viewed as an indication of future stock performance or a recommendation to buy, sell, or hold securities. Adverse changes in these

factors could result in a negative change in credit ratings and impact not only the ability to raise funds in the capital markets but also the cost of these funds. The credit ratings of the Parent Company and the Bank at December 31, 2021 are displayed below:

Table 21 Credit Ratings

| | Moody's | S&P |
|--|----------|--------|
| Bank short-term deposits | P-1 | — |
| Bank long-term deposits/issuer | A1 | BBB+ |
| Corporation commercial paper | P-2 | — |
| Corporation long-term senior debt/issuer | Baa1 | BBB |
| Outlook | Negative | Stable |

For the year ended December 31, 2021, net cash provided by operating and financing activities was \$530 million and \$1.4 billion, respectively, while investing activities used net cash of \$1.6 billion, for a net increase in cash and cash equivalents of \$309 million since year-end 2020. During 2021, total assets increased to \$35.1 billion, up \$1.7 billion compared to year-end 2020, primarily due to an increase of \$1.6 billion in total investment securities, which was driven by the deployment of cash into higher yielding assets. On the funding side, deposits increased \$2.0 billion, mainly driven by increases in demand deposits and savings deposits of \$1.8 billion and \$760 million, respectively. Additionally, total short and long-term funding was down \$210 million. The decrease in funding was primarily driven by the redemption of the Bank's senior notes on July 13, 2021.

For the year ended December 31, 2020, net cash provided by operating and financing activities was \$550 million and \$371 million, respectively, while investing activities used net cash of \$794 million, for a net increase in cash and cash equivalents of \$127 million since year-end 2019. During 2020, total assets increased to \$33.4 billion, up \$1.0 billion compared to year-end 2019, primarily due to an increase of \$1.6 billion in loans. The increase was primarily driven by PPP loan originations, growth in CRE loans, and loans acquired as a result of the First Staunton acquisition. On the funding side, deposits increased \$2.7 billion, mainly driven by customers holding proceeds from government stimulus programs in their deposit accounts, while funding, including short-term, long-term, and FHLB advances, was down \$1.8 billion. The decrease in funding was primarily driven by the prepayment of \$950 million of long-term FHLB advances and the paydown of \$520 million of short-term FHLB advances.

Quantitative and Qualitative Disclosures about Market Risk

Market risk and interest rate risk are managed centrally. Market risk is the potential for loss arising from adverse changes in the fair value of fixed-income securities, equity securities, other earning assets, and derivative financial instruments as a result of changes in interest rates or other factors. Interest rate risk is the potential for reduced net interest income resulting from adverse changes in the level of interest rates. As a financial institution that engages in transactions involving an array of financial products, the Corporation is exposed to both market risk and interest rate risk. In addition to market risk, interest rate risk is measured and managed through a number of methods. The Corporation uses financial modeling simulation techniques that measure the sensitivity of future earnings due to changing rate environments to measure interest rate risk.

Policies established by the Corporation's ALCO and approved by the Board of Directors are intended to limit these risks. The Board has delegated day-to-day responsibility for managing market and interest rate risk to ALCO. The primary objectives of market risk management are to minimize any adverse effect that changes in market risk factors may have on net interest income and to offset the risk of price changes for certain assets recorded at fair value.

Interest Rate Risk

The primary goal of interest rate risk management is to control exposure to interest rate risk within policy limits approved by the Board of Directors. These limits and guidelines reflect the Corporation's risk appetite for interest rate risk over both short-term and long-term horizons. No interest rate limit breaches occurred during 2021.

The major sources of the Corporation's non-trading interest rate risk are timing differences in the maturity and re-pricing characteristics of assets and liabilities, changes in the shape of the yield curve, and the potential exercise of explicit or embedded options. We measure these risks and their impact by identifying and quantifying exposures through the use of sophisticated simulation and valuation models which are employed by management to understand NII at risk, interest rate sensitive EAR, and MVE at risk. The Corporation's interest rate risk profile is such that a higher or steeper yield curve adds to income while a flatter yield curve is relatively neutral, and a lower or inverted yield curve generally has a negative impact on earnings. The Corporation's EAR profile is asset sensitive at December 31, 2021.

MVE and EAR are complementary interest rate risk metrics and should be viewed together. NII and EAR sensitivity capture asset and liability re-pricing mismatches for the first year inclusive of forecast balance sheet changes and are considered shorter

term measures, while MVE sensitivity captures mismatches within the period end balance sheets through the financial instruments' respective maturities and is considered a longer term measure.

A positive NII and EAR sensitivity in a rising rate environment indicates that over the forecast horizon of one year, asset-based income will increase more quickly than liability based expense due to the balance sheet composition. A negative MVE sensitivity in a rising rate environment indicates that the value of financial assets will decrease more than the value of financial liabilities.

One of the primary methods that we use to quantify and manage interest rate risk is simulation analysis, which we use to model NII and rate sensitive noninterest items from the Corporation's balance sheet and derivative positions under various interest rate scenarios. As the future path of interest rates is not known with certainty, we use simulation analysis to project rate sensitive income under many scenarios including implied forward and deliberately extreme and perhaps unlikely scenarios. The analyses may include rapid and gradual ramping of interest rates, rate shocks, basis risk analysis, and yield curve twists. Specific balance sheet management strategies are also analyzed to determine their impact on NII and EAR.

Key assumptions in the simulation analysis (and in the valuation analysis discussed below) relate to the behavior of interest rates and pricing spreads, the changes in product balances, and the behavior of loan and deposit clients in different rate environments. This analysis incorporates several assumptions, the most material of which relate to the re-pricing characteristics and balance fluctuations of deposits with indeterminate or non-contractual maturities, and prepayment of loans and securities.

The sensitivity analysis included below is measured as a percentage change in NII and EAR due to gradual moves in benchmark interest rates from a baseline scenario over 12 months. We evaluate the sensitivity using: 1) a dynamic forecast incorporating expected growth in the balance sheet, and 2) a static forecast where the current balance sheet is held constant.

While a gradual shift in interest rates was used in this analysis to provide an estimate of exposure under a probable scenario, an instantaneous shift in interest rates would have a much more significant impact.

Table 22 Estimated % Change in Rate Sensitive EAR Over 12 Months

| | Dynamic Forecast December 31, 2021 | Static Forecast December 31, 2021 | Dynamic Forecast December 31, 2020 | Static Forecast December 31, 2020 |
|-----------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|
| Gradual Rate Change | | | | |
| 100 bp increase in interest rates | 5.0% | 5.4% | 6.2% | 6.3% |
| 200 bp increase in interest rates | 10.6% | 11.7% | 12.8% | 12.7% |

We also perform valuation analysis, which we use for discerning levels of risk present in the balance sheet and derivative positions that might not be taken into account in the NII simulation analysis. Whereas, NII and EAR simulation highlights exposures over a relatively short time horizon, valuation analysis incorporates all cash flows over the estimated remaining life of all balance sheet and derivative positions. The valuation of the balance sheet, at a point in time, is defined as the discounted present value of all asset cash flows and derivative cash flows, minus the discounted present value of all liability cash flows, the net of which is referred to as MVE. The sensitivity of MVE to changes in the level of interest rates is a measure of the longer-term re-pricing risk and options risk embedded in the balance sheet. Unlike the NII simulation, MVE uses instantaneous changes in rates. Additionally, MVE values only the current balance sheet and does not incorporate the growth assumptions that are used in the NII and EAR simulations. As with NII and EAR simulations, assumptions about the timing and variability of balance sheet cash flows are critical in the MVE analysis. Particularly important are the assumptions driving prepayments and the expected changes in balances and pricing of the indeterminate deposit portfolios. At December 31, 2021, the MVE profile indicates a decrease in net balance sheet value due to instantaneous upward changes in rates.

Table 23 Market Value of Equity Sensitivity

| | December 31, 2021 | | December 31, 2020 | |
|-----------------------------------|-------------------|---|-------------------|---|
| Instantaneous Rate Change | | | | |
| 100 bp increase in interest rates | (1.8) | % | 1.9 | % |
| 200 bp increase in interest rates | (3.7) | % | 2.8 | % |

In the current rate environment, an increase in rates would result in a decrease in MVE versus an increase in 2020. The growth of our investment securities portfolio was the main driver of the change. Since MVE measures the discounted present value of cash flows over the estimated lives of instruments, the change in MVE does not directly correlate to the degree that earnings would be impacted over a shorter time horizon (i.e., the current year). Further, MVE does not take into account factors such as future balance sheet growth, changes in product mix, changes in yield curve relationships, and changes in product spreads that could mitigate the adverse impact of changes in interest rates.

The above NII, EAR, and MVE measures do not include all actions that management may undertake to manage this risk in response to anticipated changes in interest rates.

In 2014, the Financial Stability Oversight Council and Financial Stability Board raised concerns about the reliability and robustness of LIBOR and called for the development of alternative interest rate benchmarks. The ARRC, through authority from the Federal Reserve, has selected the SOFR as the alternative rate and developed a paced transition plan which addresses the risk that LIBOR may not exist beyond June 2023.

As part of the Corporation's efforts to limit exposure to LIBOR based loans, performing borrowers can modify or refinance their residential mortgage loans to a fixed interest rate or an adjustable rate mortgage tied to the one-year treasury adjusted to a constant maturity of one-year with an appropriate margin. This provides the Bank and borrower with greater certainty around the loan structure. The Bank has not booked a LIBOR adjustable rate mortgage since the first quarter of 2020.

Additionally, the Corporation has been monitoring its volume of commercial credits tied to LIBOR. In 2021, the Corporation began prioritizing SOFR, Prime and Ameribor as the preferred alternative reference rates with plans to cease booking LIBOR based commitments after the end of 2021. Loans with a maturity after June 2023 are being reviewed and monitored to ensure there is appropriate fallback language in place when LIBOR is no longer published. Loans with a maturity date before that time should naturally mature and be re-underwritten with an appropriate alternative index rate.

As of December 31, 2021, the notional amount of our LIBOR-referenced interest rate derivative contracts was \$7.0 billion.

The following table summarizes the outstanding LIBOR loan exposures at December 31, 2021 and the exposures based upon loan maturity at June 30, 2023.

Table 24 LIBOR Loan Exposure

| Outstanding LIBOR Loan Commitments | December 31, 2021 | | June 30, 2023 |
|--|---------------------|----------------------|---------------------------------------|
| | Balance | Commitment | Contractual Commitment ^(a) |
| Commercial and industrial ^(b) | \$ 2,621,076 | \$ 5,966,356 | \$ 1,680,370 |
| Commercial real estate - owner occupied | 436,256 | 477,352 | 383,351 |
| Commercial and business lending | 3,057,332 | 6,443,708 | 2,063,720 |
| Commercial real estate - investor | 3,138,568 | 3,420,456 | 2,249,849 |
| Real estate construction | 1,181,921 | 2,895,912 | 1,900,557 |
| Commercial real estate lending | 4,320,489 | 6,316,368 | 4,150,406 |
| Total commercial | 7,377,821 | 12,760,076 | 6,214,126 |
| Residential mortgage | 481,998 | 481,998 | 481,867 |
| Other consumer | 13,446 | 30,338 | 5,577 |
| Total consumer | 495,444 | 512,336 | 487,444 |
| Total | \$ 7,873,265 | \$ 13,272,412 | \$ 6,701,570 |

(a) Based on current December 31, 2021 balances not factoring in amortization between December 31, 2021 and June 30, 2023.

(b) Includes asset-based lending

Capital

Management actively reviews capital strategies for the Corporation and each of its subsidiaries in light of perceived business risks, future growth opportunities, industry standards, and compliance with regulatory requirements. The assessment of overall capital adequacy depends on a variety of factors, including asset quality, liquidity, stability of earnings, changing competitive forces, economic condition in markets served, and strength of management. At December 31, 2021, the capital ratios of the Corporation and its banking subsidiaries were in excess of regulatory minimum requirements. The Corporation's capital ratios are summarized in the following table.

Table 25 Capital Ratios

| (\$ in Thousands) | As of December 31, | | |
|---|--------------------|--------------|--------------|
| | 2021 | 2020 | 2019 |
| Risk-based Capital^(a) | | | |
| CET1 | \$ 2,808,289 | \$ 2,706,010 | \$ 2,480,698 |
| Tier 1 capital | 3,001,074 | 3,058,809 | 2,736,776 |
| Total capital | 3,570,026 | 3,632,807 | 3,208,625 |
| Total risk-weighted assets | 27,242,735 | 25,903,415 | 24,296,382 |
| Modified CECL transitional amount | 89,702 | 117,624 | — |
| CET1 capital ratio | 10.31 % | 10.45 % | 10.21 % |
| Tier 1 capital ratio | 11.02 % | 11.81 % | 11.26 % |
| Total capital ratio | 13.10 % | 14.02 % | 13.21 % |
| Tier 1 leverage ratio | 8.83 % | 9.37 % | 8.83 % |
| Selected Equity and Performance Ratios | | | |
| Total stockholders' equity / total assets | 11.47 % | 12.24 % | 12.11 % |
| Dividend payout ratio ^(b) | 34.55 % | 38.50 % | 35.75 % |
| Return on average assets | 1.02 % | 0.90 % | 0.99 % |
| Noninterest expense / average assets | 2.06 % | 2.26 % | 2.40 % |

(a) The Federal Reserve establishes regulatory capital requirements, including well-capitalized standards for the Corporation. The Corporation follows Basel III, subject to certain transition provisions. These regulatory capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of the Corporation's capital with the capital of other financial services companies.

(b) Ratio is based upon basic earnings per common share.

See Part II, Item 5, Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities, for information on the shares repurchased during the fourth quarter of 2021.

During the second quarter of 2021, the Corporation redeemed all outstanding Series C Preferred Stock, for \$65 million.

During the third quarter of 2021, the Corporation redeemed all outstanding Series D Preferred Stock, for \$99 million.

Table 26 Non-GAAP Measures

| (\$ in Thousands) | At or for the Year Ended December 31, | | | | |
|--|---------------------------------------|---------------|---------------|---------------|---------------|
| | 2021 | 2020 | 2019 | 2018 | 2017 |
| Selected equity and performance ratios^{(a)(b)} | | | | | |
| Tangible common equity / tangible assets | 7.86 % | 7.94 % | 7.71 % | 7.04 % | 7.08 % |
| Return on average equity | 8.60 % | 7.78 % | 8.44 % | 9.03 % | 7.23 % |
| Return on average tangible common equity | 12.74 % | 11.99 % | 13.21 % | 14.06 % | 10.86 % |
| Return on average CET1 | 12.08 % | 11.23 % | 12.59 % | 13.15 % | 10.43 % |
| Return on average tangible assets | 1.05 % | 0.93 % | 1.03 % | 1.05 % | 0.81 % |
| Average stockholders' equity / average assets | 11.84 % | 11.51 % | 11.72 % | 11.19 % | 10.77 % |
| Tangible common equity reconciliation^(a) | | | | | |
| Common equity | \$ 3,831,658 | \$ 3,737,421 | \$ 3,665,407 | \$ 3,524,171 | \$ 3,077,514 |
| Goodwill and other intangible assets, net | (1,163,085) | (1,177,554) | (1,264,531) | (1,244,859) | (991,819) |
| Tangible common equity | \$ 2,668,573 | \$ 2,559,867 | \$ 2,400,876 | \$ 2,279,312 | \$ 2,085,695 |
| Tangible assets reconciliation^(a) | | | | | |
| Total assets | \$ 35,104,253 | \$ 33,419,783 | \$ 32,386,478 | \$ 33,615,122 | \$ 30,443,626 |
| Goodwill and other intangible assets, net | (1,163,085) | (1,177,554) | (1,264,531) | (1,244,859) | (991,819) |
| Tangible assets | \$ 33,941,167 | \$ 32,242,230 | \$ 31,121,947 | \$ 32,370,263 | \$ 29,451,807 |
| Average tangible common equity and average CET1 reconciliation^{(a)(b)} | | | | | |
| Common equity | \$ 3,789,331 | \$ 3,633,259 | \$ 3,615,153 | \$ 3,505,075 | \$ 3,012,704 |
| Goodwill and other intangible assets, net | (1,168,560) | (1,227,561) | (1,256,668) | (1,209,311) | (988,073) |
| Tangible common equity | 2,620,771 | 2,405,698 | 2,358,485 | 2,295,764 | 2,024,631 |
| Modified CECL transitional amount | 102,307 | 115,052 | N/A | N/A | N/A |
| Accumulated other comprehensive loss (income) | 1,234 | 2,643 | 68,946 | 117,408 | 53,879 |
| Deferred tax assets (liabilities), net | 40,011 | 43,789 | 46,980 | 41,747 | 30,949 |
| Average CET1 | \$ 2,764,323 | \$ 2,567,182 | \$ 2,474,411 | \$ 2,454,919 | \$ 2,109,459 |
| Average tangible assets reconciliation^(a) | | | | | |
| Total assets | \$ 34,464,257 | \$ 34,265,207 | \$ 33,046,604 | \$ 33,007,859 | \$ 29,467,324 |
| Goodwill and other intangible assets, net | (1,168,560) | (1,227,561) | (1,256,668) | (1,209,311) | (988,073) |
| Tangible assets | \$ 33,295,697 | \$ 33,037,646 | \$ 31,789,936 | \$ 31,798,548 | \$ 28,479,252 |
| Efficiency ratio reconciliation^(c) | | | | | |
| Federal Reserve efficiency ratio | 66.33 % | 61.76 % | 65.38 % | 66.23 % | 65.97 % |
| Fully tax-equivalent adjustment | (1.04)% | (0.77)% | (0.85)% | (0.71)% | (1.28)% |
| Other intangible amortization | (0.84)% | (0.80)% | (0.82)% | (0.66)% | (0.18)% |
| Fully tax-equivalent efficiency ratio | 64.47 % | 60.20 % | 63.72 % | 64.87 % | 64.51 % |
| Provision for unfunded commitments adjustment | 0.74 % | (0.55)% | 0.20 % | 0.20 % | 0.09 % |
| Asset gains (losses), net adjustment | 0.67 % | 8.20 % | 0.14 % | — % | (0.07)% |
| Acquisitions, branch sales, and initiatives | (0.53)% | (5.08)% | (0.60)% | (2.42)% | — % |
| Adjusted efficiency ratio | 65.36 % | 62.76 % | 63.47 % | 62.65 % | 64.53 % |

(a) The ratio tangible common equity to tangible assets excludes goodwill and other intangible assets, net. This financial measure has been included as it is considered to be a critical metric with which to analyze and evaluate financial condition and capital strength.

(b) These capital measurements are used by management, regulators, investors, and analysts to assess, monitor, and compare the quality and composition of our capital with the capital of other financial services companies.

(c) The efficiency ratio as defined by the Federal Reserve guidance is noninterest expense (which includes the provision for unfunded commitments) divided by the sum of net interest income plus noninterest income, excluding investment securities gains / losses, net. The fully tax-equivalent efficiency ratio is noninterest expense (which includes the provision for unfunded commitments), excluding other intangible amortization, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains / losses, net. The adjusted efficiency ratio is noninterest expense, which excludes the provision for unfunded commitments, other intangible amortization, acquisition related costs, and announced initiatives, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains (losses), net, acquisition related costs, asset gains (losses), net, and gain on sale of branches, net. Management believes the adjusted efficiency ratio is a meaningful measure as it enhances the comparability of net interest income arising from taxable and tax-exempt sources and provides a better measure as to how the Corporation is managing its expenses by adjusting for acquisition related costs, provision for unfunded commitments, asset gains (losses), net, branch sales, and announced initiatives.

See Note 10 Stockholders' Equity and Note 19 Regulatory Matters of the notes to consolidated financial statements for additional capital disclosures.

Segment Review

As discussed in Note 21 Segment Reporting of the notes to consolidated financial statements, the Corporation's reportable segments have been determined based upon its internal profitability reporting system, which is organized by strategic business unit. Certain strategic business units have been combined for segment information reporting purposes where the nature of the products and services, the type of customer, and the distribution of those products and services are similar. The reportable segments are Corporate and Commercial Specialty; Community, Consumer and Business; and Risk Management and Shared Services. The financial information of the Corporation's segments was compiled utilizing the accounting policies described in

Note 1 Summary of Significant Accounting Policies and Note 21 Segment Reporting of the notes to consolidated financial statements.

FTP is an important tool for managing the Corporation's balance sheet structure and measuring risk-adjusted profitability. By appropriately allocating the cost of funding and contingent liquidity to business units, the FTP process improves product pricing which influences the volume and terms of new business and helps to optimize the risk / reward profile of the balance sheet. This process helps align the Corporation's funding and contingent liquidity risk with its risk appetite and complements broader liquidity and interest rate risk management programs. FTP methodologies are designed to promote more resilient, sustainable business models and centralize the management of funding and contingent liquidity risks. Through FTP, the Corporation transfers these risks to a central management function that can take advantage of natural off-sets, centralized hedging activities, and a broader view of these risks across business units. The net FTP allocation is reflected as net intersegment interest income (expense) shown in Note 21 Segment Reporting of the notes to consolidated financial statements.

Table 27 Selected Segment Financial Data

| (\$ in Thousands) | Year Ended December 31, | | | Change From Prior Year | |
|--|-------------------------|--------------|--------------|------------------------|---------------|
| | 2021 | 2020 | 2019 | % Change 2020 | % Change 2019 |
| Corporate and Commercial Specialty | | | | | |
| Total revenue | \$ 570,903 | \$ 554,991 | \$ 531,876 | 3 % | 4 % |
| Provision for credit losses | 62,795 | 59,780 | 49,341 | 5 % | 21 % |
| Noninterest expense | 229,444 | 209,507 | 233,655 | 10 % | (10) % |
| Income tax expense | 49,772 | 53,193 | 47,480 | (6) % | 12 % |
| Net income | 228,891 | 232,512 | 201,399 | (2) % | 15 % |
| Average earning assets | 14,591,044 | 14,247,664 | 12,836,136 | 2 % | 11 % |
| Average loans | 14,590,313 | 14,244,938 | 12,829,331 | 2 % | 11 % |
| Average deposits | 9,853,905 | 9,423,485 | 9,710,281 | 5 % | (3) % |
| Average allocated capital (Average CET1) ^(a) | 1,477,890 | 1,428,291 | 1,283,231 | 3 % | 11 % |
| Return on average allocated capital (ROCE1) ^(a) | 15.49 % | 16.28 % | 15.69 % | -79 bp | 59 bp |
| Community, Consumer, and Business | | | | | |
| Total revenue | \$ 476,978 | \$ 535,237 | \$ 618,606 | (11) % | (13) % |
| Provision for credit losses | 18,138 | 21,862 | 18,594 | (17) % | 18 % |
| Noninterest expense | 387,033 | 429,565 | 467,086 | (10) % | (8) % |
| Income tax expense | 15,080 | 17,600 | 27,914 | (14) % | (37) % |
| Net income | 56,728 | 66,210 | 105,011 | (14) % | (37) % |
| Average earning assets | 8,766,754 | 9,395,680 | 9,162,911 | (7) % | 3 % |
| Average loans | 8,766,754 | 9,395,680 | 9,162,911 | (7) % | 3 % |
| Average deposits | 16,817,803 | 15,026,889 | 12,957,467 | 12 % | 16 % |
| Average allocated capital (Average CET1) ^(a) | 473,937 | 533,954 | 541,992 | (11) % | (1) % |
| Return on average allocated capital (ROCE1) ^(a) | 11.97 % | 12.40 % | 19.38 % | -43 bp | N/M |
| Risk Management and Shared Services | | | | | |
| Total revenue ^(b) | \$ 10,338 | \$ 186,784 | \$ 66,017 | (94) % | 183 % |
| Provision for credit losses | (168,944) | 92,365 | (51,935) | N/M | N/M |
| Noninterest expense ^(c) | 93,446 | 136,962 | 93,247 | (32) % | 47 % |
| Income tax expense (benefit) ^(d) | 20,461 | (50,593) | 4,325 | N/M | N/M |
| Net income | 65,374 | 8,050 | 20,379 | N/M | (60) % |
| Average earning assets | 7,764,734 | 7,188,664 | 7,821,782 | 8 % | (8) % |
| Average loans | 700,913 | 897,030 | 1,130,555 | (22) % | (21) % |
| Average deposits | 1,021,706 | 1,557,311 | 2,067,860 | (34) % | (25) % |
| Average allocated capital (Average CET1) ^(a) | 812,495 | 604,937 | 649,188 | 34 % | (7) % |
| Return on average allocated capital (ROCE1) ^(a) | 8.05 % | (1.70) % | 0.80 % | N/M | N/M |
| Consolidated Total | | | | | |
| Total revenue | \$ 1,058,219 | \$ 1,277,012 | \$ 1,216,498 | (17) % | 5 % |
| Return on average allocated capital (ROCE1) ^(a) | 12.08 % | 11.23 % | 12.59 % | 85 bp | -136 bp |

N/M = Not Meaningful

(a) The Federal Reserve establishes capital adequacy requirements for the Corporation, including CET1. For segment reporting purposes, the return on CET1 ("ROCE1") reflects return on average allocated CET1. The ROCE1 for the Risk Management and Shared Services segment and the Consolidated Total is inclusive of the annualized effect of the preferred stock dividends. Please refer to Table 26 for a reconciliation of non-GAAP financial measures to GAAP financial measures.

(b) For the year ended December 31, 2020, the Corporation recognized a \$163 million asset gain related to the sale of ABRC.

(c) The Risk Management and Shared Services segment incurred a loss of \$45 million on the prepayment of FHLB advances during the third quarter of 2020.

(d) The Corporation recognized \$63 million in tax benefits in 2020, primarily driven by corporate restructuring which allowed for the recognition of built in capital losses and tax basis step-up yielding this tax benefit.

Segment Review 2021 Compared to 2020

The Corporate and Commercial Specialty segment consists of lending and deposit solutions to larger businesses, developers, not-for-profits, municipalities, and financial institutions, and the support to deliver, fund, and manage such banking solutions. In addition, this segment provides a variety of investment, fiduciary, and retirement planning products and services to individuals and small to mid-sized businesses. During the first quarter of 2021, the Corporation sold its wealth management subsidiary, Whitnell.

- Revenue increased \$16 million from the year ended December 31, 2020, primarily driven by higher asset gains on private equity investments and increases in trust and asset management fees, partially offset by lower net interest income.
- Noninterest expense increased \$20 million from the year ended December 31, 2020, primarily driven by an increase in the funding of the management incentive plan, partially offset by lower salary expense as a result of having fewer employees.
- Average loan balances increased \$345 million from the year ended December 31, 2020, largely due to growth in CRE lending.

The Community, Consumer, and Business segment consists of lending, deposit solutions, and historically offered ancillary financial services, primarily insurance and risk consulting, to individuals and small to mid-sized businesses.

- Revenue decreased \$58 million from the year ended December 31, 2020, largely driven by reduced insurance commissions and fees due to the sale of ABRC in 2020, and the lower interest rate environment.
- Noninterest expense decreased \$43 million from the year ended December 31, 2020, primarily driven by a decrease in personnel expense as a result of having fewer employees.
- Average deposit balances increased \$1.8 billion from the year ended December 31, 2020, largely driven by customers holding higher demand and saving deposit balances.

The Risk Management and Shared Services segment includes key shared Corporate functions, Parent Company activity, intersegment eliminations, and residual revenues and expenses.

- Revenue decreased \$176 million from the year ended December 31, 2020, primarily driven by a \$163 million gain from the sale of ABRC in 2020.
- Provision for credit losses decreased \$261 million from the year ended December 31, 2020, as a result of improving credit quality within the loan portfolio and the impact of a more positive economic forecast model as the COVID-19 pandemic became less uncertain.
- Noninterest expense decreased \$44 million from the year ended December 31, 2020, primarily due to a \$45 million loss on the prepayment of FHLB advances in 2020.
- Income tax expense increased \$71 million from the year ended December 31, 2020, primarily driven by corporate restructuring which allowed for the recognition of built in capital losses and tax basis step-up yielding a tax benefit of \$63 million, partially offset by the gain on sale of ABRC in 2020.
- Average earning assets increased \$576 million from the year ended December 31, 2020, driven by elevated liquidity.
- Average deposits decreased \$536 million from the year ended December 31, 2020, primarily driven by a decrease in higher cost network deposit accounts.

Critical Accounting Estimates

In preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the balance sheet and revenues and expenses for the period. Actual results could differ significantly from those estimates. Estimates that are particularly susceptible to significant change include the determination of the ACLL and MSRs valuation.

The consolidated financial statements of the Corporation are prepared in conformity with U.S. GAAP and follow general practices within the industries in which it operates. This preparation requires management to make estimates, assumptions, and judgments that affect the amounts reported in the financial statements and accompanying notes. These estimates, assumptions,

and judgments are based on information available as of the date of the financial statements; accordingly, as this information changes, actual results could differ from the estimates, assumptions, and judgments reflected in the financial statements. Certain estimates inherently have a greater reliance on the use of assumptions and judgments and, as such, have a greater possibility of producing results that could be materially different than originally reported. Management believes the following estimates are both important to the portrayal of the Corporation's financial condition and results of operations and require subjective or complex judgments and, therefore, management considers the following to be critical accounting estimates. The critical accounting estimates are discussed directly with the Audit Committee of the Corporation's Board of Directors.

Allowance for Credit Losses on Loans: Management's evaluation process used to determine the appropriateness of the ACLL is subject to the use of estimates, assumptions, and judgments. The evaluation process combines many factors: management's ongoing review and grading of the loan portfolio using a dual risk rating system leveraging probability of default and loss given default, consideration of historical loan loss and delinquency experience, trends in past due and nonaccrual loans, risk characteristics of the various classifications of loans, concentrations of loans to specific borrowers or industries, existing economic conditions and forecasts, the fair value of underlying collateral, and other qualitative and quantitative factors which could affect future credit losses. The Corporation uses Moody's baseline economic forecast within its model. Because current economic conditions and forecasts can change and future events are inherently difficult to predict, the anticipated amount of estimated credit losses on loans, and therefore the appropriateness of the ACLL, could change significantly. It is difficult to estimate how potential changes in any one economic factor or input might affect the overall allowance because a wide variety of factors and inputs are considered in estimating the allowance and changes in those factors and inputs considered may not occur at the same rate and may not be consistent across all product types. Additionally, changes in factors and inputs may be directionally inconsistent, such that improvement in one factor may offset deterioration in others. As an integral part of their examination process, various regulatory agencies also review the ACLL. Such agencies may require additions to the ACLL or may require that certain loan balances be charged off or downgraded into criticized loan categories when their credit evaluations differ from those of management, based on their judgments about information available to them at the time of their examination. The Corporation believes the level of the ACLL is appropriate. See Note 1 Summary of Significant Accounting Policies and Note 4 Loans of the notes to consolidated financial statements as well as the Allowance for Credit Losses on Loans section.

Mortgage Servicing Rights Valuation: The fair value of the Corporation's MSR asset is important to the presentation of the consolidated financial statements since the MSRs are carried on the consolidated balance sheets at the lower of amortized cost or estimated fair value. MSRs do not trade in an active open market with readily observable prices. As such, like other participants in the mortgage banking business, the Corporation relies on an independent valuation from a third party which uses a discounted cash flow model to estimate the fair value of its MSRs. The use of a discounted cash flow model involves judgment, particularly of estimated prepayment speeds of underlying mortgages serviced and the overall level of interest rates. Loan type and note interest rate are the predominant risk characteristics of the underlying loans used to stratify capitalized MSRs for purposes of measuring impairment. The Corporation periodically reviews the assumptions underlying the valuation of MSRs. While the Corporation believes that the values produced by the discounted cash flow model are indicative of the fair value of its MSRs portfolio, these values can change significantly depending upon key factors, such as the then current interest rate environment, estimated prepayment speeds of the underlying mortgages serviced, and other economic conditions. The proceeds that might be received should the Corporation actually consider a sale of some or all of the MSRs portfolio could differ from the amounts reported at any point in time.

To better understand the sensitivity of the impact of prepayment speeds and refinance rates on the value of the MSRs asset at December 31, 2021, (holding all other factors unchanged), if refinance rates were to decrease 50 bp, the estimated value of the MSRs asset would have been \$9 million, or 16%, lower. Conversely, if refinance rates were to increase 50 bp, the estimated value of the MSRs asset would have been \$10 million, or 18%, higher. However, the Corporation's potential recovery recognition due to valuation improvement is limited to the balance of the MSRs valuation reserve, which was \$2 million at December 31, 2021. The potential recovery recognition is constrained as the Corporation has elected to use the amortization method of accounting (rather than fair value measurement accounting). Under the amortization method, MSRs are carried at the lower of the initial capitalized amount, net of accumulated amortization, or estimated fair value. Therefore, the MSRs asset may only be marked up to the extent of the previously recognized valuation reserve. The Corporation believes the MSRs asset is properly recorded on the consolidated balance sheets. See Note 1 Summary of Significant Accounting Policies and Note 5 Goodwill and Other Intangible Assets of the notes to consolidated financial statements.

ITEM 7A.

Quantitative and Qualitative Disclosures About Market Risk

Information required by this item is set forth in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, under the captions Quantitative and Qualitative Disclosures about Market Risk and Interest Rate Risk.

ASSOCIATED BANC-CORP
Consolidated Balance Sheets

| (In Thousands, except share and per share data) | December 31, | |
|--|---------------|---------------|
| | 2021 | 2020 |
| Assets | | |
| Cash and due from banks | \$ 343,831 | \$ 416,154 |
| Interest-bearing deposits in other financial institutions | 681,684 | 298,759 |
| Federal funds sold and securities purchased under agreements to resell | — | 1,135 |
| Investment securities AFS, at fair value | 4,332,015 | 3,085,441 |
| Investment securities HTM, net, at amortized cost | 2,238,947 | 1,878,938 |
| Equity securities | 18,352 | 15,106 |
| Federal Home Loan Bank and Federal Reserve Bank stocks, at cost | 168,281 | 168,280 |
| Residential loans held for sale | 136,638 | 129,158 |
| Loans | 24,224,949 | 24,451,724 |
| Allowance for loan losses | (280,015) | (383,702) |
| Loans, net | 23,944,934 | 24,068,022 |
| Tax credit and other investments | 293,733 | 297,232 |
| Premises and equipment, net | 385,173 | 418,914 |
| Bank and corporate owned life insurance | 680,021 | 679,647 |
| Goodwill | 1,104,992 | 1,109,300 |
| Other intangible assets, net | 58,093 | 68,254 |
| Mortgage servicing rights, net | 54,862 | 41,961 |
| Interest receivable | 80,528 | 90,263 |
| Other assets | 582,168 | 653,219 |
| Total assets | \$ 35,104,253 | \$ 33,419,783 |
| Liabilities and Stockholders' Equity | | |
| Noninterest-bearing demand deposits | \$ 8,504,077 | \$ 7,661,728 |
| Interest-bearing deposits | 19,962,353 | 18,820,753 |
| Total deposits | 28,466,430 | 26,482,481 |
| Federal funds purchased and securities sold under agreements to repurchase | 319,532 | 192,971 |
| Commercial paper | 34,730 | 59,346 |
| FHLB advances | 1,621,047 | 1,632,723 |
| Other long-term funding | 249,324 | 549,465 |
| Allowance for unfunded commitments | 39,776 | 47,776 |
| Accrued expenses and other liabilities | 348,560 | 364,088 |
| Total liabilities | 31,079,399 | 29,328,850 |
| Stockholders' Equity | | |
| Preferred equity | 193,195 | 353,512 |
| Common equity | | |
| Common stock | 1,752 | 1,752 |
| Surplus | 1,713,851 | 1,720,329 |
| Retained earnings | 2,672,601 | 2,458,920 |
| Accumulated other comprehensive income (loss) | (10,317) | 12,618 |
| Treasury stock, at cost | (546,229) | (456,198) |
| Total common equity | 3,831,658 | 3,737,421 |
| Total stockholders' equity | 4,024,853 | 4,090,933 |
| Total liabilities and stockholders' equity | \$ 35,104,253 | \$ 33,419,783 |
| Preferred shares authorized (par value \$1.00 per share) | 750,000 | 750,000 |
| Preferred shares issued and outstanding | 200,000 | 364,458 |
| Common shares authorized (par value \$0.01 per share) | 250,000,000 | 250,000,000 |
| Common shares issued | 175,216,409 | 175,216,409 |
| Common shares outstanding | 149,342,641 | 153,540,224 |

Numbers may not sum due to rounding.

See accompanying notes to consolidated financial statements.

ASSOCIATED BANC-CORP
Consolidated Statements of Income

| (In Thousands, except per share data) | For the Years Ended December 31, | | |
|--|----------------------------------|------------|------------|
| | 2021 | 2020 | 2019 |
| Interest income | | | |
| Interest and fees on loans | \$ 693,729 | \$ 785,241 | \$ 998,099 |
| Interest and dividends on investment securities | | | |
| Taxable | 37,916 | 59,806 | 100,304 |
| Tax-exempt | 58,710 | 58,320 | 57,565 |
| Other interest | 7,833 | 9,473 | 16,643 |
| Total interest income | 798,189 | 912,840 | 1,172,610 |
| Interest expense | | | |
| Interest on deposits | 18,622 | 67,639 | 237,286 |
| Interest on federal funds purchased and securities sold under agreements to repurchase | 143 | 485 | 1,579 |
| Interest on other short-term funding | 22 | 51 | 138 |
| Interest on PPPLF | — | 1,984 | — |
| Interest on FHLB advances | 36,493 | 57,359 | 69,816 |
| Interest on long-term funding | 17,053 | 22,365 | 28,116 |
| Total interest expense | 72,334 | 149,883 | 336,936 |
| Net interest income | 725,855 | 762,957 | 835,674 |
| Provision for credit losses | (88,011) | 174,006 | 16,000 |
| Net interest income after provision for credit losses | 813,866 | 588,950 | 819,674 |
| Noninterest income | | | |
| Wealth management fees | 89,854 | 84,957 | 83,467 |
| Service charges and deposit account fees | 64,406 | 56,307 | 63,135 |
| Card-based fees | 43,014 | 38,534 | 39,755 |
| Other fee-based revenue | 17,086 | 19,238 | 18,942 |
| Capital markets, net | 30,602 | 27,966 | 19,862 |
| Mortgage banking, net | 50,751 | 45,580 | 31,878 |
| Bank and corporate owned life insurance | 13,254 | 13,771 | 14,845 |
| Insurance commissions and fees | 336 | 45,245 | 89,104 |
| Asset gains, net ^(a) | 11,009 | 155,589 | 2,713 |
| Investment securities gains (losses), net | (16) | 9,222 | 5,957 |
| Gains on sale of branches, net ^(b) | 1,038 | 7,449 | — |
| Other | 11,031 | 10,200 | 11,165 |
| Total noninterest income | 332,364 | 514,056 | 380,824 |
| Noninterest expense | | | |
| Personnel | 426,687 | 432,151 | 487,063 |
| Technology | 81,689 | 81,214 | 82,429 |
| Occupancy | 63,513 | 64,064 | 62,399 |
| Business development and advertising | 21,149 | 18,428 | 29,600 |
| Equipment | 21,104 | 21,705 | 23,550 |
| Legal and professional | 21,923 | 21,546 | 19,901 |
| Loan and foreclosure costs | 8,143 | 12,600 | 8,861 |
| FDIC assessment | 18,150 | 20,350 | 16,250 |
| Other intangible amortization | 8,844 | 10,192 | 9,948 |
| Loss on prepayments of FHLB advances | — | 44,650 | — |
| Other | 38,721 | 49,135 | 53,986 |
| Total noninterest expense | 709,924 | 776,034 | 793,988 |
| Income before income taxes | 436,307 | 326,972 | 406,509 |
| Income tax expense | 85,313 | 20,200 | 79,720 |
| Net income | 350,994 | 306,771 | 326,790 |
| Preferred stock dividends | 17,111 | 18,358 | 15,202 |
| Net income available to common equity | \$ 333,883 | \$ 288,413 | \$ 311,587 |
| Earnings per common share | | | |
| Basic | \$ 2.20 | \$ 1.87 | \$ 1.93 |
| Diluted | \$ 2.18 | \$ 1.86 | \$ 1.91 |
| Average common shares outstanding | | | |
| Basic | 150,773 | 153,005 | 160,534 |
| Diluted | 151,987 | 153,642 | 161,932 |

Numbers may not sum due to rounding.

(a) The year ended December 31, 2020 includes a gain of \$163 million from the sale of ABRC.

(b) Includes the deposit premium on the sale of branches net of miscellaneous costs to sell. See Note 2 Acquisitions and Dispositions for additional details on the branch sales.

See accompanying notes to consolidated financial statements.

ASSOCIATED BANC-CORP
Consolidated Statements of Comprehensive Income

| (\$ in Thousands) | For the Years Ended December 31, | | |
|---|----------------------------------|------------|------------|
| | 2021 | 2020 | 2019 |
| Net income | \$ 350,994 | \$ 306,771 | \$ 326,790 |
| Other comprehensive income (loss), net of tax | | | |
| Investment securities AFS | | | |
| Net unrealized gains (losses) | (63,714) | 55,628 | 111,592 |
| Amortization of net unrealized losses on AFS securities transferred to HTM securities | 1,551 | 3,359 | 895 |
| Reclassification adjustment for net losses (gains) realized in net income | 16 | (9,222) | (5,957) |
| Income tax (expense) benefit | 15,557 | (12,429) | (26,898) |
| Other comprehensive income (loss) on investment securities AFS | (46,591) | 37,336 | 79,631 |
| Defined benefit pension and postretirement obligations | | | |
| Amortization of prior service cost | (148) | (148) | (148) |
| Plan amendments | 1,494 | — | — |
| Net actuarial gain | 25,519 | 7,780 | 16,296 |
| Amortization of actuarial loss | 4,594 | 3,897 | 476 |
| Income tax (expense) | (7,803) | (3,064) | (4,465) |
| Other comprehensive income on pension and postretirement obligations | 23,656 | 8,465 | 12,158 |
| Total other comprehensive income (loss) | (22,935) | 45,801 | 91,789 |
| Comprehensive income | \$ 328,059 | \$ 352,572 | \$ 418,579 |

Numbers may not sum due to rounding.

See accompanying notes to consolidated financial statements.

ASSOCIATED BANC-CORP
Consolidated Statements of Changes in Stockholders' Equity

| (In Thousands, except per share data) | Preferred Equity | | Common Stock | | | | Accumulated Other Comprehensive Income (Loss) | Treasury Stock | Total |
|--|------------------|------------|--------------|----------|--------------|----------------------|--|-------------------|--------------|
| | Shares | Amount | Shares | Amount | Surplus | Retained Earnings | | | |
| Balance, December 31, 2018 | 264 | \$ 256,716 | 175,216 | \$ 1,752 | \$ 1,712,615 | \$ 2,181,414 | \$ (124,972) | \$ (246,638) | \$ 3,780,888 |
| Comprehensive income: | | | | | | | | | |
| Net income | — | — | — | — | — | 326,790 | — | — | 326,790 |
| Other comprehensive income | — | — | — | — | — | — | 91,789 | — | 91,789 |
| Comprehensive income | | | | | | | | | \$ 418,579 |
| Common stock issued: | | | | | | | | | |
| Stock-based compensation plans, net | — | — | — | — | (21,038) | — | — | 32,254 | 11,216 |
| Purchase of treasury stock, open market purchases | — | — | — | — | — | — | — | (177,484) | (177,484) |
| Purchase of treasury stock, stock-based compensation plans | — | — | — | — | — | — | — | (8,592) | (8,592) |
| Cash dividends: | | | | | | | | | |
| Common stock, \$0.69 per share | — | — | — | — | — | (111,804) | — | — | (111,804) |
| Preferred stock ^(a) | — | — | — | — | — | (15,202) | — | — | (15,202) |
| Stock-based compensation expense, net | — | — | — | — | 24,854 | — | — | — | 24,854 |
| Other | — | — | — | — | — | (331) | — | — | (331) |
| Balance, December 31, 2019 | 264 | \$ 256,716 | 175,216 | \$ 1,752 | \$ 1,716,431 | \$ 2,380,867 | \$ (33,183) | \$ (400,460) | \$ 3,922,124 |
| Cumulative effect of ASU 2016-13 adoption (CECL) | — | — | — | — | — | (98,337) | — | — | (98,337) |
| Total shareholder's equity at beginning of period, as adjusted | 264 | \$ 256,716 | 175,216 | \$ 1,752 | \$ 1,716,431 | \$ 2,282,530 | \$ (33,183) | \$ (400,460) | \$ 3,823,787 |
| Comprehensive income: | | | | | | | | | |
| Net income | — | — | — | — | — | 306,771 | — | — | 306,771 |
| Other comprehensive income | — | — | — | — | — | — | 45,801 | — | 45,801 |
| Comprehensive income | | | | | | | | | \$ 352,572 |
| Issuance of preferred stock | 100 | 96,796 | — | — | — | — | — | — | 96,796 |
| Common stock issued: | | | | | | | | | |
| Stock-based compensation plans, net | — | — | — | — | (17,663) | — | — | 21,629 | 3,966 |
| Purchase of treasury stock, open market purchases | — | — | — | — | — | — | — | (71,255) | (71,255) |
| Purchase of treasury stock, stock-based compensation plans | — | — | — | — | — | — | — | (6,113) | (6,113) |
| Cash dividends: | | | | | | | | | |
| Common stock, \$0.72 per share | — | — | — | — | — | (112,023) | — | — | (112,023) |
| Preferred stock ^(b) | — | — | — | — | — | (18,358) | — | — | (18,358) |
| Stock-based compensation expense, net | — | — | — | — | 21,561 | — | — | — | 21,561 |
| Balance, December 31, 2020 | 364 | \$ 353,512 | 175,216 | \$ 1,752 | \$ 1,720,329 | \$ 2,458,920 | \$ 12,618 | \$ (456,198) | \$ 4,090,933 |
| Comprehensive income: | | | | | | | | | |
| Net income | — | — | — | — | — | 350,994 | — | — | 350,994 |
| Other comprehensive (loss) | — | — | — | — | — | — | (22,935) | — | (22,935) |
| Comprehensive income | | | | | | | | | \$ 328,059 |
| Redemption of preferred stock | (164) | (160,317) | — | — | — | (4,141) | — | — | (164,458) |
| Common stock issued: | | | | | | | | | |
| Stock-based compensation plans, net | — | — | — | — | (22,069) | — | — | 47,771 | 25,702 |
| Purchase of treasury stock, open market purchases | — | — | — | — | — | — | — | (132,955) | (132,955) |
| Purchase of treasury stock, stock-based compensation plans | — | — | — | — | — | — | — | (4,847) | (4,847) |
| Cash dividends: | | | | | | | | | |
| Common stock, \$0.76 per share | — | — | — | — | — | (116,061) | — | — | (116,061) |
| Preferred stock ^(c) | — | — | — | — | — | (17,111) | — | — | (17,111) |
| Stock-based compensation expense, net | — | — | — | — | 15,591 | — | — | — | 15,591 |
| Balance, December 31, 2021 | 200 | \$ 193,195 | 175,216 | \$ 1,752 | \$ 1,713,851 | \$ 2,672,601 | \$ (10,317) | \$ (546,229) | \$ 4,024,853 |

Numbers may not sum due to rounding.

(a) Series C, \$1.53125 per share; Series D, \$1.34375 per share; and Series E, \$1.46875 per share.

(b) Series C, \$1.53125 per share; Series D, \$1.34375 per share; and Series E, \$1.46875 per share; and Series F, \$0.7881181 per share.

(c) Series C, \$0.70252 per share; Series D, \$0.95613 per share; Series E, \$1.46875 per share; and Series F, \$1.40625 per share.

See accompanying notes to consolidated financial statements.

ASSOCIATED BANC-CORP
Consolidated Statements of Cash Flows

| (\$ in Thousands) | For the Years Ended December 31, | | |
|---|----------------------------------|-------------|-------------|
| | 2021 | 2020 | 2019 |
| Cash Flows from Operating Activities | | | |
| Net income | \$ 350,994 | \$ 306,771 | \$ 326,790 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Provision for credit losses | (88,011) | 174,006 | 16,000 |
| Depreciation and amortization | 46,508 | 50,567 | 58,149 |
| Addition to (recovery of) valuation allowance on mortgage servicing rights, net | (16,186) | 17,704 | 63 |
| Amortization of mortgage servicing rights | 19,436 | 22,664 | 12,432 |
| Amortization of other intangible assets | 8,844 | 10,192 | 9,948 |
| Amortization and accretion on earning assets, funding, and other, net | 15,088 | 25,028 | 23,573 |
| Net amortization of tax credit investments | 34,070 | 25,556 | 20,062 |
| Losses (gains) on sales of investment securities, net | 16 | (9,222) | (5,957) |
| Asset (gains), net | (11,009) | (155,589) | (2,713) |
| (Gains) on sale of branches, net | (1,038) | (7,449) | — |
| (Gain) on mortgage banking activities, net | (39,106) | (59,379) | (20,120) |
| Mortgage loans originated for sale | (1,749,556) | (1,642,135) | (1,090,792) |
| Proceeds from sales of mortgage loans held for sale | 1,774,791 | 1,959,571 | 1,317,077 |
| Changes in certain assets and liabilities | | | |
| Decrease in interest receivable | 9,735 | 933 | 7,595 |
| Increase (decrease) in interest payable | (10,675) | (11,385) | 2,495 |
| Increase (decrease) in accrued expenses | 24,645 | (29,057) | 723 |
| Increase (decrease) in derivative position | 120,418 | (113,760) | (102,966) |
| Increase (decrease) in net income tax position | (13,931) | (47,268) | 43,908 |
| Net change in other assets and other liabilities | 54,520 | 32,270 | (42,005) |
| Net cash provided by operating activities | 529,551 | 550,020 | 574,260 |
| Cash Flows from Investing Activities | | | |
| Net decrease (increase) in loans | 198,631 | (1,640,524) | (137,990) |
| Purchases of | | | |
| AFS securities | (2,746,994) | (1,648,938) | (460,124) |
| HTM securities | (622,485) | (125,480) | (423,682) |
| Federal Home Loan Bank and Federal Reserve Bank stocks | (10) | (84,152) | (246,836) |
| Premises, equipment, and software | (52,281) | (54,682) | (67,459) |
| Other intangibles | — | (200) | — |
| Proceeds from | | | |
| Sales of AFS securities | 158,743 | 626,283 | 1,367,476 |
| Sale of Federal Home Loan Bank and Federal Reserve Bank stocks | — | 144,000 | 270,023 |
| Prepayments, calls, and maturities of AFS investment securities | 1,216,657 | 1,343,056 | 561,659 |
| Prepayments, calls, and maturities of HTM investment securities | 299,761 | 449,078 | 260,510 |
| Sales, prepayments, calls and maturities of other assets | 29,833 | 27,964 | 10,250 |
| Net cash received in sale of subsidiary | 2,415 | 256,511 | — |
| Net change in tax credit and alternative investments | (68,455) | (55,134) | (67,632) |
| Net cash (paid) received in acquisitions | — | (31,518) | 551,250 |
| Net cash provided by (used in) investing activities | (1,584,186) | (793,737) | 1,617,446 |
| Cash Flows from Financing Activities | | | |
| Net increase (decrease) in deposits | 2,015,423 | 2,497,378 | (1,842,748) |
| Net decrease in deposits due to branch sales | (31,083) | (222,878) | — |
| Net increase (decrease) in short-term funding | 101,946 | (238,655) | 308,039 |
| Net (decrease) in short-term FHLB advances | — | (520,000) | (380,000) |
| Repayment of long-term FHLB advances | (18,437) | (1,040,972) | (764,657) |
| Proceeds from long-term FHLB advances | 6,950 | 4,215 | 751,573 |
| Redemption of Corporation's senior notes | (300,000) | — | (250,000) |
| Repayment of finance lease principal | (965) | (1,081) | (1) |
| Proceeds from issuance of preferred stock | — | 96,796 | — |
| Proceeds from issuance of common stock for stock-based compensation plans | 25,702 | 3,966 | 11,216 |
| Purchase of treasury stock, open market purchases | (132,955) | (71,255) | (177,484) |
| Purchase of treasury stock, stock-based compensation plans | (4,847) | (6,113) | (8,592) |
| Redemption of preferred stock | (164,458) | — | — |
| Cash dividends on common stock | (116,061) | (112,023) | (111,804) |
| Cash dividends on preferred stock | (17,111) | (18,358) | (15,202) |
| Net cash provided by (used in) financing activities | 1,364,102 | 371,020 | (2,479,660) |
| Net increase (decrease) in cash and cash equivalents | 309,467 | 127,304 | (287,954) |
| Cash and cash equivalents at beginning of period | 716,048 | 588,744 | 876,698 |
| Cash and cash equivalents at end of period ^(a) | \$ 1,025,515 | \$ 716,048 | \$ 588,744 |

(a) No restricted cash due to the Federal Reserve reducing the required reserve ratio to zero in 2021 and 2020. In 2019, restricted cash was \$189 million, included in cash and cash equivalents at end of period.

ASSOCIATED BANC-CORP
Consolidated Statements of Cash Flows

| (\$ in Thousands) | For the Years Ended December 31, | | |
|--|----------------------------------|------------|------------|
| | 2021 | 2020 | 2019 |
| Supplemental disclosures of cash flow information | | | |
| Cash paid for interest | \$ 81,604 | \$ 159,291 | \$ 332,919 |
| Cash paid for income and franchise taxes | 57,728 | 17,734 | 41,131 |
| Loans and bank premises transferred to OREO | 35,553 | 19,261 | 10,513 |
| Capitalized mortgage servicing rights | 16,151 | 13,667 | 11,606 |
| Loans transferred into held for sale from portfolio, net | 6,010 | 264,570 | 313,570 |
| Transfer of HTM securities to AFS securities (adoption of ASU 2019-04) | — | — | 692,414 |
| Unsettled trades to purchase securities | 4,459 | — | — |
| Acquisitions | | | |
| Fair value of assets acquired, including cash and cash equivalents | — | 456,480 | 695,848 |
| Fair value ascribed to goodwill and intangible assets | — | 23,548 | 29,837 |
| Fair value of liabilities assumed | — | 480,028 | 725,764 |
| Common stock issued in acquisition | — | — | (79) |

See accompanying notes to consolidated financial statements.

ASSOCIATED BANC-CORP
Notes to Consolidated Financial Statements
December 31, 2021, 2020, and 2019

Note 1 Summary of Significant Accounting Policies

The accounting and reporting policies of the Corporation conform to U.S. GAAP and to general practice within the financial services industry. The following is a description of the more significant of those policies.

Business

Associated Banc-Corp is a bank holding company headquartered in Wisconsin. The Corporation provides a full range of banking and related financial services to consumer and commercial customers through its network of bank and nonbank subsidiaries. The Corporation is subject to competition from other financial and non-financial institutions that offer similar or competing products and services. The Corporation is regulated by federal and state agencies and is subject to periodic examinations by those agencies.

Basis of Financial Statement Presentation

The consolidated financial statements include the accounts of the Parent Company and its subsidiaries. Investments in unconsolidated entities (none of which are considered to be variable interest entities in which the Corporation is the primary beneficiary) are accounted for using the cost method of accounting when the Corporation has determined that the cost method is appropriate. Investments not meeting the criteria for cost method accounting are accounted for using the equity method of accounting. Investments in unconsolidated entities are included in tax credit and other investments on the consolidated balance sheets, and the Corporation's share of income or loss is recorded in other noninterest income, while distributions in excess of the investment are recorded in asset gains, net.

All significant intercompany balances and transactions have been eliminated in consolidation.

In preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the balance sheet and revenues and expenses for the period. Actual results could differ significantly from those estimates. Estimates that are particularly susceptible to significant change include the determination of the ACLL and MSRs valuation. Management has evaluated subsequent events for potential recognition or disclosure. Within the tables presented, certain columns and rows may not sum due to the use of rounded numbers for disclosure purposes.

Business Combinations

The Corporation accounts for its acquisitions using the purchase accounting method. Purchase accounting requires the total purchase price to be allocated to the estimated fair values of assets acquired and liabilities assumed, including certain intangible assets that must be recognized. Typically, this allocation results in the purchase price exceeding the fair value of net assets acquired, which is recorded as goodwill. CDIs are a measure of the value of checking, money market and savings deposits acquired in business combinations accounted for under the purchase method. CDIs and other identified intangibles with finite useful lives are amortized using the straight line method over their estimated useful lives of up to ten years.

Fair value of the loans involves estimating the amount and timing of principal and interest cash flows expected to be collected on the loans and discounting those cash flows at a market rate of interest.

For PCD loans, the credit discount includes estimated future credit losses expected over the life of the loan. The credit discount is recorded through a gross up of the allowance for loan loss and the corresponding loan. Adjustments to the allowance for loan losses are made through the provision for credit losses after the date of acquisition.

Purchased performing loans are recorded at fair value, including credit, interest, and liquidity discounts. The fair value discount is accreted as an adjustment to yield over the estimated lives of the loans. There is no gross up to the allowance for loan loss and the corresponding loan, but instead provision for credit losses is recorded against the allowance for loan loss. See Note 2 for additional information on the Corporation's acquisitions.

Investment Securities

Securities are classified as HTM, AFS, or equity on the consolidated balance sheets at the time of purchase. Investment securities classified as HTM, which management has the positive intent and ability to hold to maturity, are reported at amortized cost. Investment securities classified as AFS, which management has the intent and ability to hold for an indefinite

period of time, but not necessarily to maturity, are carried at fair value, with unrealized gains and losses, net of related deferred income taxes, included in stockholders' equity as a separate component of OCI. Investment securities classified as equity securities are carried at fair value with changes in fair value immediately reflected in the consolidated statements of income. Any decision to sell AFS securities would be based on various factors, including, but not limited to, asset / liability management strategies, changes in interest rates or prepayment risks, liquidity needs, or regulatory capital considerations. Realized gains or losses on investment security sales (using specific identification method) are included in investment securities gains (losses), net, on the consolidated statements of income. Premiums and discounts are amortized or accreted into interest income over the estimated life (earlier of call date, maturity, or estimated life) of the related security, using a prospective method that approximates level yield.

In certain situations, management may elect to transfer certain investment securities from the AFS classification to the HTM classification. In such cases, the investment securities are reclassified at fair value at the time of transfer. Any unrealized gain or loss included in accumulated other comprehensive income (loss) at the time of transfer is retained therein and amortized over the remaining life of the investment security as an adjustment to yield.

Management measures expected credit losses on HTM securities on a collective basis by major security type. Accrued interest receivable on HTM securities is excluded from the estimate of credit losses. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and reasonable and supportable forecasts and is included in investment securities HTM, net, at amortized cost on the consolidated balance sheets.

For AFS securities, the Corporation evaluates whether any decline in fair value has resulted from credit losses or other factors. In making this assessment, management considers the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and adverse conditions specifically related to the security, among other factors. If this assessment indicates that a credit loss exists, the present value of cash flows expected to be collected from the security are compared to the amortized cost basis of the security. If the present value of cash flows expected to be collected is less than the amortized cost basis, a credit loss exists and an allowance for credit losses on investments is recorded for the credit loss, limited by the amount that the fair value is less than the amortized cost basis. Any impairment that has not been recorded through an allowance for credit losses on investments is recognized in OCI.

Changes in the allowance for credit losses on investments are recorded as provision for, or reversal of, credit loss expense. Losses are charged against the allowance when management believes the AFS security is uncollectible or when either of the criteria regarding intent or requirement to sell is met. Accrued interest receivable on AFS debt securities is excluded from the estimate of credit losses. See Note 3 for additional information on investment securities.

FHLB and Federal Reserve Bank Stocks

The Corporation is required to maintain Federal Reserve Bank stock and FHLB stock as a member of both the Federal Reserve System and the FHLB, and in amounts as required by these institutions. These equity securities are "restricted" in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other marketable equity securities and their fair value is equal to amortized cost. See Note 3 for additional information on the FHLB and Federal Reserve Bank Stocks.

Loans Held for Sale

Residential Loans Held for Sale: Residential loans held for sale, which consist generally of current production of certain fixed-rate, first-lien residential mortgage loans, are carried at estimated fair value. As a result of holding these loans at fair value, changes in the secondary market are reflected in earnings immediately, as opposed to being dependent upon the timing of sales. The estimated fair value is based on what secondary markets are currently offering for portfolios with similar characteristics.

Commercial Loans Held for Sale: Commercial loans held for sale are carried at LOCOM. The estimated fair value is based on a discounted cash flow analysis.

Loans

Loans that management has the intent and ability to hold for the foreseeable future or until maturity or pay-off are reported at their outstanding principal balances, net of any deferred fees and costs on originated loans. Origination fee income received on loans and amounts representing the estimated direct costs of origination are deferred and amortized to interest income over the life of the loan using the effective interest method. An ACLL is established for estimated credit losses in the loan portfolio. See Allowance for Credit Losses on Loans below for further policy discussion. See Note 4 for additional information on loans.

Nonaccrual Loans: Management considers a loan to be nonaccrual when it believes it will be unable to collect all amounts due according to the original contractual terms of the note agreement, including both principal and interest.

Interest income on loans is based on the principal balance outstanding computed using the effective interest method. The accrual of interest income for commercial loans is discontinued when there is a clear indication that the borrower's cash flow may not be sufficient to meet payments as they become due, while the accrual of interest income for consumer loans is discontinued when loans reach specific delinquency levels. Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Loans are generally placed on nonaccrual status when contractually past due 90 days or more as to interest or principal payments, unless the loan is well secured and in the process of collection. Additionally, whenever management becomes aware of facts or circumstances that may adversely impact the collectability of principal or interest on loans, it is management's practice to place such loans on a nonaccrual status immediately, rather than delaying such action until the loans become 90 days past due. When a loan is placed on nonaccrual status, previously accrued and uncollected interest is reversed, amortization of related deferred loan fees or costs is suspended, and income is recorded only to the extent that interest payments are subsequently received in cash and a determination has been made that the principal and interest of the loan is collectible. If collectability of the principal and interest is in doubt, payments received are applied to loan principal.

While a loan is in nonaccrual status, some or all of the cash interest payments received may be treated as interest income on a cash basis as long as the remaining recorded investment in the loan (i.e., after charge off of identified losses, if any) is deemed to be fully collectible. The determination as to the ultimate collectability of the loan's remaining recorded investment must be supported by a current, well documented credit evaluation of the borrower's financial condition and prospects for repayment, including consideration of the borrower's sustained historical repayment performance and other relevant factors. A nonaccrual loan is returned to accrual status when all delinquent principal and interest payments become current in accordance with the terms of the loan agreement, the borrower has demonstrated a period of sustained repayment performance, and the ultimate collectability of the total contractual principal and interest is no longer in doubt. A sustained period of repayment performance generally would be a minimum of six months. See Note 4 for additional information on nonaccrual loans.

Troubled Debt Restructurings ("Restructured Loans"): Loans are considered restructured loans if concessions have been granted to borrowers that are experiencing financial difficulty. The concessions granted generally involve the modification of terms of the loan, such as changes in payment schedule or interest rate, which generally would not otherwise be considered. Restructured loans can involve loans remaining on nonaccrual, moving to nonaccrual, or continuing on accrual status, depending on the individual facts and circumstances of the borrower. Nonaccrual restructured loans are included and treated with all other nonaccrual loans. In addition, all accruing restructured loans are reported as TDRs, which are individually analyzed by management. Generally, restructured loans remain on nonaccrual until the customer has attained a sustained period of repayment performance under the modified loan terms (generally a minimum of six months). However, performance prior to the restructuring, or significant events that coincide with the restructuring, are considered in assessing whether the borrower can meet the new terms and whether the loan should be returned to or maintained on accrual status. If the borrower's ability to meet the revised payment schedule is not reasonably assured, the loan remains on nonaccrual status. See Note 4 for additional information on restructured loans.

Allowance for Credit Losses on Loans: The Corporation adopted ASU 2016-13 on January 1, 2020. As a result, the allowance for loan losses is now a reserve for estimated lifetime credit losses in the loan portfolio at the balance sheet date. The expected lifetime credit losses are the product of multiplying the Corporation's estimate of probability of default, loss given default, and the individual loan level exposure at default on an undiscounted basis. The Corporation estimates the lifetime expected loss using prepayment assumptions over the projected lifetime cash flow of these loans. Actual credit losses, net of recoveries, are deducted from the allowance for loan losses. A provision for credit losses, which is a charge against earnings, is recorded to bring the allowance for loan losses to a level that, in management's judgment, is appropriate to absorb the expected lifetime losses in the loan portfolio.

The methodology applied by the Corporation is designed to assess the appropriateness of the allowance for loan losses within the Corporation's loan segmentation. The methodology also focuses on evaluation of several factors, including but not limited to: evaluation of facts and issues related to specific loans, management's ongoing review and grading of the loan portfolio using a dual risk rating system consisting of probability of default and loss given default models, which are based on loan grades for commercial loans and credit reports for consumer loans applied based on portfolio segmentation leveraging industry breakouts in commercial and industrial and property types in CRE for commercial loans and loan types for consumer loans, consideration of historical loan loss and delinquency experience on each portfolio category, trends in past due and nonaccrual loans, the level of potential problem loans, the risk characteristics of the various classifications of loans, changes in the size and character of the loan portfolio, concentrations of loans to specific borrowers or industries, existing economic conditions and economic forecasts, the fair value of underlying collateral, and other qualitative and quantitative factors which could affect potential credit losses.

The Corporation utilizes the Moody's Baseline economic forecast in the allowance model and applies that forecast over a reasonable and supportable period with reversion to historical losses. For additional detail on the reasonable and supportable period and reversion inputs, see Note 4. The Corporation estimates the lifetime expected loss using prepayment assumptions over the projected lifetime cash flows of the loan. Because each of the criteria used is subject to change, the analysis of the allowance for loan losses is not necessarily indicative of the trend of future loan losses in any particular loan category. The total allowance for loan losses is available to absorb losses from any segment of the loan portfolio.

Management individually analyzes loans that do not share similar risk characteristics to other loans in the portfolio. Management has determined that commercial loan relationships that have nonaccrual status or commercial and retail loans that have had their terms restructured in a TDR meet this definition. Probable TDRs are loans the Corporation has reviewed individually to determine whether there is a high likelihood that the loans will default and will require restructuring in the near future. Probable TDRs could be classified as Pass, Special Mention, Potential Problem or Nonaccrual within the Corporation's credit quality analysis depending on the specific circumstances surrounding the individual credits. Accrued interest receivable on loans is excluded from the estimate of credit losses. The ACLL attributable to the loan is allocated based on management's estimate of the borrower's ability to repay the loan given the availability of collateral, other sources of cash flows, as well as evaluation of legal options available to the Corporation. The amount of expected loan loss is measured based upon the present value of expected future cash flows discounted at the loan's effective interest rate, the fair value of the underlying collateral less applicable selling costs, or the observable market price of the loan. If foreclosure is probable or the loan is collateral dependent, impairment is measured using the fair value of the loan's collateral, less costs to sell. Large groups of homogeneous loans, such as residential mortgage, home equity, auto, and other consumer, are collectively evaluated for impairment.

The allowance for unfunded commitments leverages the same methodology utilized to measure the allowance for loan losses. The Corporation estimates expected credit losses over the contractual period in which the Corporation is exposed to credit risk via a contractual obligation to extend credit, unless that obligation is unconditionally cancellable by the Corporation. The estimate includes consideration of the likelihood that funding will occur and an estimate of expected credit losses on commitments expected to be funded over its estimated life. See Note 4 for additional information on the ACLL and Note 16 for additional information on the allowance for unfunded commitments.

A portion of the ACLL is comprised of adjustments for qualitative factors not reflected in the quantitative model.

Management believes that the level of the ACLL is appropriate. While management uses currently available information to recognize losses on loans, future adjustments to the ACLL may be necessary based on newly received appraisals, updated commercial customer financial statements, rapidly deteriorating cash flow, and changes in economic conditions that affect our customers. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the Corporation's ACLL. Such agencies may require additions to the ACLL or may require that certain loan balances be charged off or downgraded into criticized loan categories when their credit evaluations differ from those of management based on their judgments about information available to them at the time of their examinations. See Loans above for further policy discussion and see Note 4 for additional information on the allowance for loan losses.

Prior to the adoption of ASU 2016-13 on January 1, 2020, the allowance for loan loss was recorded at a level deemed by management to be able to absorb probable losses inherent in the loan portfolio at the balance sheet date. Under this incurred loss methodology several factors were evaluated including, but not limited to ongoing loan grading, historical loan losses and delinquency experience, and other qualitative factors.

OREO

OREO is included in other assets on the consolidated balance sheets and is comprised of property acquired through a foreclosure proceeding or acceptance of a deed-in-lieu of foreclosure, and loans classified as in-substance foreclosure. OREO is recorded at the fair value of the underlying property collateral, less estimated selling costs. This fair value becomes the new cost basis for the foreclosed asset. The initial write-down, if any, will be recorded as a charge off against the allowance for loan losses. Any subsequent write-downs to reflect current fair value, as well as gains and losses on disposition and revenues and expenses incurred in maintaining such properties, are expensed as incurred. OREO also includes bank premises formerly but no longer used for banking, property originally acquired for future expansion but no longer intended to be used for that purpose, and property currently held for sale. Banking premises are transferred at the lower of carrying value or fair value, less estimated selling costs and any write-down is expensed as incurred.

Premises and Equipment and Software

Premises and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are computed on the straight-line method over the estimated useful lives of the related assets or the lease term. Maintenance and

repairs are charged to expense as incurred, while additions or major improvements are capitalized and depreciated over the estimated useful lives. Leasehold improvements are amortized on a straight-line basis over the lesser of the lease terms, including extension options which the Corporation has determined are reasonably certain to be exercised, or the estimated useful lives of the improvements. Software, included in other assets on the consolidated balance sheets, is amortized on a straight-line basis over the lesser of the contract terms or the estimated useful life of the software. See Note 6 for additional information on premises and equipment.

Goodwill and Intangible Assets

Goodwill and Other Intangible Assets: The excess of the cost of an acquisition over the fair value of the net assets acquired consists primarily of goodwill and CDIs. CDIs have estimated finite lives and are amortized on a straight-line basis to expense over a 10-year period. The Corporation reviews long-lived assets and certain identifiable intangibles for impairment at least annually, or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, in which case an impairment charge would be recorded.

Goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis, and more frequently 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. The impairment testing process is conducted by assigning net assets and goodwill to each reporting unit. An initial qualitative evaluation is made to assess the likelihood of impairment and determine whether further quantitative testing to calculate the fair value is necessary. When the qualitative evaluation indicates that impairment is more likely than not, quantitative testing is required whereby the fair value of each reporting unit is calculated and compared to the recorded book value, "step one." If the calculated fair value of the reporting unit exceeds its carrying value, goodwill is not considered impaired. If the carrying value of a reporting unit exceeds its calculated fair value, an impairment charge is assessed, limited to the amount of goodwill allocated to that reporting unit. See Note 5 for additional information on goodwill and other intangible assets.

Mortgage Servicing Rights: The Corporation sells residential mortgage loans in the secondary market and typically retains the right to service the loans sold. Upon sale, a MSR asset is capitalized, which represents the then current fair value of future net cash flows expected to be realized for performing servicing activities. MSRs, when purchased, are initially recorded at fair value. As the Corporation has not elected to subsequently measure any class of servicing assets under the fair value measurement method, the Corporation follows the amortization method. MSRs are amortized in proportion to and over the period of estimated net servicing income, and assessed for impairment at each reporting date. MSRs are carried at the lower of the initial capitalized amount, net of accumulated amortization, or estimated fair value, on the consolidated balance sheets.

The Corporation periodically evaluates its MSR asset for impairment. Impairment is assessed based on fair value at each reporting date using estimated prepayment speeds of the underlying mortgage loans serviced and stratifications based on the risk characteristics of the underlying loans (predominantly loan type and note interest rate). As mortgage interest rates fall, prepayment speeds are usually faster and the value of the MSR asset generally decreases, requiring additional valuation reserve. Conversely, as mortgage interest rates rise, prepayment speeds are usually slower and the value of the MSR asset generally increases, requiring less valuation reserve. A valuation allowance is established, through a charge to earnings, to the extent the amortized cost of the MSR exceeds the estimated fair value by stratification. If it is later determined that all or a portion of the temporary impairment no longer exists for a stratification, the valuation is reduced through a recovery to earnings. An other-than-temporary impairment (i.e., recoverability is considered remote when considering interest rates and loan pay off activity) is recognized as a write-down of the MSR asset and the related valuation allowance (to the extent a valuation allowance is available) and then against earnings. A direct write-down permanently reduces the carrying value of the MSR asset and valuation allowance, precluding subsequent recoveries. See Note 5 for additional information on MSRs.

Income Taxes

Amounts provided for income tax expense are based on income reported for financial statement purposes and do not necessarily represent amounts currently payable under tax laws. Deferred income taxes, which arise principally from temporary differences between the amounts reported in the financial statements and the tax bases of assets and liabilities, are included in the amounts provided for income taxes. In assessing the realizability of DTAs, management considers whether it is more likely than not that some portion or all of the DTAs will not be realized. The ultimate realization of DTAs is dependent upon the generation of future taxable income and tax planning strategies which will create taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, the amount of taxes paid in available carryback years, projected future taxable income, and, if necessary, tax planning strategies in making this assessment.

The Corporation files a consolidated federal income tax return and separate or combined state income tax returns. Accordingly, amounts equal to tax benefits of those subsidiaries having taxable federal or state losses or credits are offset by other subsidiaries that incur federal or state tax liabilities.

It is the Corporation's policy to provide for uncertainty in income taxes as a part of income tax expense based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. At December 31, 2021 and 2020, the Corporation believes it has appropriately accounted for any unrecognized tax benefits. To the extent the Corporation prevails in matters for which a liability for an unrecognized tax benefit was established or is required to pay amounts in excess of the liability established, the Corporation's effective tax rate in a given financial statement period may be impacted. See Note 13 for additional information on income taxes.

Derivative and Hedging Activities

Derivative instruments, including derivative instruments embedded in other contracts, are carried at fair value on the consolidated balance sheets with changes in the fair value recorded to earnings or accumulated other comprehensive income, as appropriate. On the date the derivative contract is entered into, the Corporation designates the derivative as a fair value hedge (i.e., a hedge of the fair value of a recognized asset or liability), a cash flow hedge (i.e., a hedge of the variability of cash flows to be received or paid related to a recognized asset or liability), or a free-standing derivative instrument. For a derivative designated as a fair value hedge, the changes in the fair value of the derivative instrument and the changes in the fair value of the hedged asset or liability are recognized in current period earnings as an increase or decrease to the carrying value of the hedged item on the balance sheet and in the related income statement account. Amounts within accumulated other comprehensive income are reclassified into earnings in the period the hedged item affects earnings. For a derivative designated as a free-standing derivative instrument, changes in fair value are reported in capital markets, net on the consolidated statements of income. The free-standing derivative instruments included: interest rate risk management, commodity hedging, and foreign currency exchange solutions.

The Corporation is exposed to counterparty credit risk, which is the risk that counterparties to the derivative contracts do not perform as expected. If a counterparty fails to perform, our counterparty credit risk is equal to the amount reported as a derivative asset on our balance sheet. The Corporation uses master netting arrangements to mitigate counterparty credit risk in derivative transactions. To the extent the derivatives are subject to master netting arrangements, the Corporation takes into account the impact of master netting arrangements that allow the Corporation to settle all derivative contracts executed with the same counterparty on a net basis, and to offset the net derivative position with the related cash collateral.

Federal regulations require the Corporation to clear all LIBOR interest rate swaps through a clearing house, if possible. For derivatives cleared through central clearing houses, the variation margin payments are legally characterized as daily settlements of the derivative rather than collateral. The Corporation's clearing agent for interest rate derivative contracts that are centrally cleared through the Chicago Mercantile Exchange (CME) and the London Clearing House (LCH) settles the variation margin daily. As a result, the variation margin payment and the related derivative instruments are considered a single unit of account for accounting and financial reporting purposes. Depending on the net position, the fair value is reported in other assets or accrued expenses and other liabilities on the consolidated balance sheets. The daily settlement of the derivative exposure does not change or reset the contractual terms of the instrument. See Note 14 for additional information on derivatives and hedging activities.

Securities Sold Under Agreement to Repurchase

The Corporation enters into agreements under which it sells securities subject to an obligation to repurchase the same or similar securities. Under these arrangements, the Corporation may transfer legal control over the assets but still retain effective control through an agreement that both entitles and obligates the Corporation to repurchase the assets. These repurchase agreements are accounted for as collateralized financing arrangements (i.e., secured borrowings whereby the collateral would be used to settle the fair value of the repurchase agreement should the Corporation be in default (e.g., fails to make an interest payment to the counterparty) and not as a sale and subsequent repurchase of securities (i.e., there is no offsetting or netting of the investment securities assets with the repurchase agreement liabilities). The obligation to repurchase the securities is reflected as a liability within federal funds purchased and securities sold under agreements to repurchase on the Corporation's consolidated balance sheets, while the securities underlying the repurchase agreements remain in the respective investment securities asset accounts. See Note 9 for additional information on repurchase agreements.

Retirement Plans

The funded status of the retirement plans is recognized as an asset or liability on the consolidated balance sheets and changes in that funded status are recognized in the year in which the changes occur through OCI. Plan assets and benefit obligations are

measured as of fiscal year end. The measurement of the projected benefit obligation and pension expense involve actuarial valuation methods and the use of various actuarial and economic assumptions. The Corporation monitors the assumptions and updates them periodically. Due to the long-term nature of the pension plan obligation, actual results may differ significantly from estimations. Such differences are adjusted over time as the assumptions are replaced by facts and values are recalculated. See Note 12 for additional information on the Corporation's retirement plans.

Stock-Based Compensation

The fair value of restricted common stock awards is their fair market value on the date of grant. Performance awards are based on performance goals of earnings per share and total shareholder return with vesting ranging from a minimum of 0% to a maximum of 150% of the target award. Performance awards are valued utilizing a Monte Carlo simulation model to estimate fair value of the awards at the grant date. The fair values of stock options and restricted stock awards are amortized as compensation expense on a straight-line basis over the vesting period of the grants. Expenses related to stock options and restricted stock awards are fully recognized on the date the colleague meets the definition of normal or early retirement. Compensation expense recognized is included in personnel expense on the consolidated statements of income. See Note 11 for additional information on stock-based compensation.

Comprehensive Income

Comprehensive income includes all changes in stockholders' equity during a period, except those resulting from transactions with stockholders. In addition to net income, other components of the Corporation's comprehensive income include the after tax effect of changes in net unrealized gain / loss on AFS securities and changes in net actuarial gain / loss on defined benefit pension and postretirement plans. Comprehensive income is reported on the accompanying consolidated statements of changes in stockholder's equity and consolidated statements of comprehensive income. See Note 22 for additional information on accumulated other comprehensive income (loss).

Fair Value Measurements

Fair value represents the estimated price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants at the measurement date under current market conditions (i.e., an exit price concept). As there is no active market for many of the Corporation's financial instruments, estimates are made using discounted cash flow or other valuation techniques. Inputs into the valuation methods are subjective in nature, involve uncertainties, and require significant judgment and therefore cannot be determined with precision. Accordingly, the derived fair value estimates presented herein are not necessarily indicative of the amounts the Corporation could realize in a current market exchange. Assets and liabilities are categorized into three levels based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy in which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety. The Corporation's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and considers factors specific to the asset or liability. See Note 18 for additional information on fair value measurements. Below is a brief description of each fair value level.

Level 1 — Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities that the Corporation has the ability to access.

Level 2 — Level 2 inputs are inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs may include quoted prices for similar assets and liabilities in active markets, as well as inputs that are observable for the asset or liability (other than quoted prices), such as interest rates, foreign exchange rates, and yield curves that are observable at commonly quoted intervals.

Level 3 — Level 3 inputs are unobservable inputs for the asset or liability, which are typically based on an entity's own assumptions, as there is little, if any, related market activity.

Cash and Cash Equivalents

For purposes of the consolidated statements of cash flows, cash and cash equivalents are considered to include cash and due from banks, interest-bearing deposits in other financial institutions, and federal funds sold and securities purchased under agreements to resell.

Earnings Per Common Share

Earnings per common share are calculated utilizing the two-class method. Basic earnings per common share are calculated by dividing the sum of distributed earnings to common shareholders and undistributed earnings allocated to common shareholders by the weighted average number of common shares outstanding. Diluted earnings per common share are calculated by dividing the sum of distributed earnings to common shareholders and undistributed earnings allocated to common shareholders by the weighted average number of common shares outstanding adjusted for the dilutive effect of common stock awards (outstanding stock options and unvested restricted stock awards) and common stock warrants. See Note 20 for additional information on earnings per common share.

New Accounting Pronouncements Adopted

| Standard | Description | Date of adoption | Effect on financial statements |
|--|--|------------------|---|
| ASU 2019-12 Income Taxes (Topic 740)-Simplifying the Accounting for Income Taxes | The FASB issued this amendment to simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendment also improves consistent application of and simplifies GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The amendments in this Update were effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption of the amendment was permitted. | 1st Quarter 2021 | Adoption of this amendment did not have a material impact on the Corporation's results of operation, financial position or liquidity. |
| ASU 2020-08 Codification Improvements to Subtopic 310-20, Receivables-Nonrefundable Fees and Other Costs | The FASB issued this amendment to clarify that an entity should reevaluate whether a callable debt security is within the scope of paragraph 310-20-35-33 for each reporting period. The amendments in this Update were effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption of the amendments was not permitted. | 1st Quarter 2021 | Adoption of this amendment did not have a material impact on the Corporation's results of operation, financial position or liquidity. |

Future Accounting Pronouncements

There are no applicable material accounting pronouncements recently issued that have not yet been adopted by the Corporation.

Note 2 Acquisitions and Dispositions

Acquisitions:

The Corporation did not have any acquisitions during 2021.

2020

First Staunton Acquisition

On February 14, 2020, the Corporation completed its acquisition of First Staunton. The purchase price was based on an assumed 4% deposit premium at announcement. The conversion of the branches was completed simultaneously with the close of the transaction, expanding the Bank's presence into nine new Metro-East St. Louis communities. As a result of the acquisition and other consolidations, a net of seven branch locations were added.

The Corporation recorded \$15 million in goodwill related to the First Staunton acquisition. Goodwill created by the acquisition is not tax deductible.

The following table presents the estimated fair values of the assets acquired and liabilities assumed as of the acquisition date related to the First Staunton acquisition:

| (\$ in Thousands) | Purchase Accounting Adjustments | | February 14, 2020 |
|--|---------------------------------|---------|-------------------|
| Assets | | | |
| Cash and cash equivalents | \$ | — | \$ 44,782 |
| Investment securities AFS | | (24) | 98,743 |
| Federal Home Loan Bank and Federal Reserve Bank stocks, at cost | | — | 781 |
| Loans | | (4,808) | 369,741 |
| Premises and equipment, net | | (3,005) | 4,865 |
| Bank owned life insurance | | 9 | 6,770 |
| Goodwill | | | 14,812 |
| Core deposit intangibles (included in other intangible assets, net on the face of the consolidated balance sheets) | | 7,379 | 7,379 |
| OREO (included in other assets on the face of the consolidated balance sheets) | | 670 | 762 |
| Other assets | | 2,795 | 7,692 |
| Total assets | | | \$ 556,328 |
| Liabilities | | | |
| Deposits | \$ | 1,285 | \$ 438,684 |
| Other borrowings | | 61 | 34,613 |
| Accrued expenses and other liabilities | | 179 | 6,730 |
| Total liabilities | | | \$ 480,028 |
| Total consideration paid | | | \$ 76,300 |

For a description of methods used to determine the fair value of significant assets and liabilities presented on the balance sheet above, see Assumptions section of this Note.

The Corporation has purchased loans with the First Staunton acquisition, for which there was, at acquisition, evidence of more than insignificant deterioration of credit quality since origination (PCD). The carrying amount of those loans is as follows:

| (\$ in Thousands) | February 14, 2020 | |
|--|-------------------|-----------|
| Purchase price of loans at acquisition | \$ | 77,221 |
| Allowance for credit losses at acquisition | | 3,504 |
| Non-credit (premium) at acquisition | | (951) |
| Par value of acquired loans at acquisition | | \$ 79,774 |

The Corporation acquired no PCD securities in connection with the acquisition.

Assumptions:

Investment Securities: The fair value of investments on the date of acquisition was determined utilizing an external third party broker opinion of the market value.

Loans: Fair values for loans were based on a discounted cash flow methodology that considered factors including the type of loan and related collateral, classification status, fixed or variable interest rate, term of loan, amortization status, and current discount rates. Loans were grouped together according to similar characteristics when applying various valuation techniques.

CDIs: This intangible asset represents the value of the relationships with deposit customers. The fair value was estimated based on a discounted cash flow methodology that gave appropriate consideration to expected customer attrition rates, net maintenance cost of the deposit base, alternative cost of funds, and the interest costs associated with customer deposits. The CDIs are being amortized on a straight-line basis over 10 years.

Time deposits: The fair values for time deposits are estimated using a discounted cash flow calculation that applies interest rates currently being offered to the contractual interest rates on such time deposits.

FHLB borrowings: The fair values of FHLB advances are estimated based on quoted market prices for the instrument if available, or for similar instruments if not available, or by using discounted cash flow analyses, based on current incremental borrowing rates for similar types of instruments.

Dispositions:

2021:

On March 1, 2021, the Corporation completed the sale of its wealth management subsidiary, Whitnell, to Rockefeller for a purchase price of \$8 million. Associated reported a first quarter 2021 pre-tax gain of \$2 million, included in asset gains, net on the consolidated statements of income, in conjunction with the sale.

On February 26, 2021, the Bank completed the sale of one branch located in Monroe, Wisconsin to Summit Credit Union. Under the terms of the transaction, the Bank sold \$31 million in total deposits and no loans. The Bank received an approximately 4% purchase premium on deposits transferred.

2020:

On June 30, 2020, the Corporation completed the sale of ABRC to USI for \$266 million in cash. Associated recorded a second quarter 2020 pre-tax book gain of \$163 million in conjunction with the sale.

On December 11, 2020, the Bank completed the sale of five branches in Peoria, IL to Morton Community Bank. Under the terms of the transaction, the Bank sold \$180 million in total deposits and no loans. The Bank received a 4% purchase premium on deposits transferred. With the sale of these branches, the Bank exited the Peoria market.

On December 11, 2020, the Bank closed on the sale of two branches in southwest Wisconsin to Royal Bank. Under the terms of the transaction, the Bank sold \$53 million in total deposits and no loans. The Bank received a 4% purchase premium on deposits transferred in the Prairie du Chien and Richland Center branches.

Note 3 Investment Securities

Investment securities are classified as AFS, HTM, or equity on the consolidated balance sheets at the time of purchase. The amortized cost and fair values of AFS and HTM securities at December 31, 2021 were as follows:

| (\$ in Thousands) | Amortized Cost | Gross Unrealized Gains | Gross Unrealized (Losses) | Fair Value |
|--|----------------|------------------------|---------------------------|--------------|
| Investment securities AFS | | | | |
| U.S. Treasury securities | \$ 124,291 | \$ — | \$ (1,334) | \$ 122,957 |
| Agency securities | 15,000 | — | (103) | 14,897 |
| Obligations of state and political subdivisions (municipal securities) | 381,517 | 18,940 | — | 400,457 |
| Residential mortgage-related securities | | | | |
| FNMA / FHLMC | 2,709,399 | 3,729 | (21,249) | 2,691,879 |
| GNMA | 66,189 | 1,591 | — | 67,780 |
| Private-label | 332,028 | 31 | (2,335) | 329,724 |
| Commercial mortgage-related securities | | | | |
| FNMA / FHLMC | 357,240 | 2,686 | (9,302) | 350,623 |
| GNMA | 165,439 | 1,360 | — | 166,799 |
| Asset backed securities | | | | |
| FFELP | 177,974 | 475 | (1,123) | 177,325 |
| SBA | 6,594 | 39 | (54) | 6,580 |
| Other debt securities | 3,000 | — | (6) | 2,994 |
| Total investment securities AFS | \$ 4,338,671 | \$ 28,850 | \$ (35,506) | \$ 4,332,015 |
| Investment securities HTM | | | | |
| U.S. Treasury securities | \$ 1,000 | \$ 1 | \$ — | \$ 1,001 |
| Obligations of state and political subdivisions (municipal securities) | 1,628,759 | 113,179 | (1,951) | 1,739,988 |
| Residential mortgage-related securities | | | | |
| FNMA / FHLMC | 34,347 | 1,792 | — | 36,139 |
| GNMA | 48,053 | 1,578 | — | 49,631 |
| Commercial mortgage-related securities | | | | |
| FNMA/FHLMC | 425,937 | 122 | (6,659) | 419,400 |
| GNMA | 100,907 | 1,799 | (200) | 102,506 |
| Total investment securities HTM | \$ 2,239,003 | \$ 118,471 | \$ (8,809) | \$ 2,348,664 |

The amortized cost and fair values of AFS and HTM securities at December 31, 2020 were as follows:

| (\$ in Thousands) | Amortized Cost | Gross Unrealized Gains | Gross Unrealized (Losses) | Fair Value |
|--|----------------|------------------------|---------------------------|--------------|
| Investment securities AFS | | | | |
| U.S. Treasury securities | \$ 26,436 | \$ 95 | \$ — | \$ 26,531 |
| Agency securities | 24,985 | 53 | — | 25,038 |
| Obligations of state and political subdivisions (municipal securities) | 425,057 | 25,605 | — | 450,662 |
| Residential mortgage-related securities: | | | | |
| FNMA / FHLMC | 1,448,806 | 12,935 | (500) | 1,461,241 |
| GNMA | 231,364 | 4,176 | (3) | 235,537 |
| Commercial mortgage-related securities | | | | |
| FNMA/FHLMC | 19,654 | 3,250 | — | 22,904 |
| GNMA | 511,429 | 13,327 | — | 524,756 |
| Asset backed securities | | | | |
| FFELP | 329,030 | 1,172 | (3,013) | 327,189 |
| SBA | 8,637 | — | (53) | 8,584 |
| Other debt securities | 3,000 | — | — | 3,000 |
| Total investment securities AFS | \$ 3,028,399 | \$ 60,612 | \$ (3,570) | \$ 3,085,441 |
| Investment securities HTM | | | | |
| U.S. Treasury securities | \$ 999 | \$ 25 | \$ — | \$ 1,024 |
| Obligations of state and political subdivisions (municipal securities) | 1,441,900 | 133,544 | — | 1,575,445 |
| Residential mortgage-related securities | | | | |
| FNMA / FHLMC | 54,599 | 2,891 | — | 57,490 |
| GNMA | 114,553 | 4,260 | — | 118,813 |
| Commercial mortgage-related securities | | | | |
| FNMA / FHLMC | 11,211 | — | — | 11,211 |
| GNMA | 255,742 | 9,218 | — | 264,960 |
| Total investment securities HTM | \$ 1,879,005 | \$ 149,938 | \$ — | \$ 2,028,943 |

Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. The expected maturities of AFS and HTM securities at December 31, 2021, are shown below:

| (\$ in Thousands) | AFS | | HTM | |
|--|----------------|--------------|----------------|--------------|
| | Amortized Cost | Fair Value | Amortized Cost | Fair Value |
| Due in one year or less | \$ 6,799 | \$ 6,809 | \$ 34,646 | \$ 34,842 |
| Due after one year through five years | 74,250 | 74,142 | 34,697 | 35,820 |
| Due after five years through ten years | 405,344 | 418,942 | 161,627 | 167,967 |
| Due after ten years | 37,416 | 41,412 | 1,398,789 | 1,502,359 |
| Total debt securities | 523,808 | 541,305 | 1,629,759 | 1,740,988 |
| Residential mortgage-related securities | | | | |
| FNMA / FHLMC | 2,709,399 | 2,691,879 | 34,347 | 36,139 |
| GNMA | 66,189 | 67,780 | 48,053 | 49,631 |
| Private-label | 332,028 | 329,724 | — | — |
| Commercial mortgage-related securities | | | | |
| FNMA / FHLMC | 357,240 | 350,623 | 425,937 | 419,400 |
| GNMA | 165,439 | 166,799 | 100,907 | 102,506 |
| Asset backed securities | | | | |
| FFELP | 177,974 | 177,325 | — | — |
| SBA | 6,594 | 6,580 | — | — |
| Total investment securities | \$ 4,338,671 | \$ 4,332,015 | \$ 2,239,003 | \$ 2,348,664 |
| Ratio of Fair Value to Amortized Cost | | 99.8 % | | 104.9 % |

On a quarterly basis, the Corporation refreshes the credit quality of each HTM security. The following table summarizes the credit quality indicators of HTM securities at amortized cost at December 31, 2021:

| (\$ in Thousands) | AAA | AA | A | Not Rated | Total |
|--|--------------|------------|-----------|-----------|--------------|
| U.S. Treasury securities | \$ 1,000 | \$ — | \$ — | \$ — | 1,000 |
| Obligations of state and political subdivisions (municipal securities) | 702,399 | 914,591 | 10,873 | 896 | 1,628,759 |
| Residential mortgage-related securities | | | | | |
| FNMA/FHLMC | 34,347 | — | — | — | 34,347 |
| GNMA | 48,053 | — | — | — | 48,053 |
| Commercial mortgage-related securities | | | | | |
| FNMA/FHLMC | 425,937 | — | — | — | 425,937 |
| GNMA | 100,907 | — | — | — | 100,907 |
| Total HTM securities | \$ 1,312,642 | \$ 914,591 | \$ 10,873 | \$ 896 | \$ 2,239,003 |

The following table summarizes the credit quality indicators of HTM securities at amortized cost at December 31, 2020:

| (\$ in Thousands) | AAA | AA | A | Total |
|--|--------------|------------|-----------|--------------|
| U.S. Treasury securities | \$ 999 | \$ — | \$ — | 999 |
| Obligations of state and political subdivisions (municipal securities) | 567,252 | 860,607 | 14,041 | 1,441,900 |
| Residential mortgage-related securities | | | | |
| FNMA/FHLMC | 54,599 | — | — | 54,599 |
| GNMA | 114,553 | — | — | 114,553 |
| Commercial mortgage-related securities | | | | |
| FNMA/FHLMC | 11,211 | — | — | 11,211 |
| GNMA | 255,742 | — | — | 255,742 |
| Total HTM securities | \$ 1,004,357 | \$ 860,607 | \$ 14,041 | \$ 1,879,005 |

Investment securities gains (losses), net includes proceeds from the sale of investment securities as well as any applicable write-ups or write-downs of investment securities. The proceeds from the sale and write-up of investment securities for each of the three years ended December 31 are shown below:

| (\$ in Thousands) | 2021 | 2020 | 2019 |
|--|------------|------------|--------------|
| Gross gains on AFS securities | \$ 421 | \$ 9,312 | \$ 6,374 |
| Gross (losses) on AFS securities | (437) | (90) | (13,861) |
| Write-up of equity securities without readily determinable fair values | — | — | 13,444 |
| Investment securities gains (losses), net | \$ (16) | \$ 9,222 | \$ 5,957 |
| Proceeds from sales of investment securities | \$ 158,708 | \$ 626,283 | \$ 1,367,476 |

During the second quarter of 2021, the Corporation sold \$107 million of lower yielding FFELP student loan asset backed securities at a slight gain and reinvested the proceeds into higher yielding MBS. During the first quarter of 2021, the Corporation sold \$51 million of lower yielding U.S. Treasury and Agency securities at a slight loss to take advantage of the steeper yield curve by reinvesting the proceeds into similar but higher yielding, longer duration securities.

During the second quarter of 2020, the Corporation sold \$261 million of less liquid securities at a gain of \$3 million, reinvesting the proceeds into more liquid securities in order to further improve portfolio liquidity. During the first quarter of 2020, the Corporation sold \$281 million of primarily prepayment sensitive mortgage-related securities at a gain of \$6 million. Additionally, in February 2020, the Corporation sold \$84 million of certain securities acquired in the First Staunton acquisition that did not fit the parameters of the Corporation's current investment strategy.

During the third quarter of 2019, the Corporation made a one-time election to transfer municipal securities with an amortized cost of \$692 million from HTM to AFS, as permitted by the adoption of ASU 2019-04 during the quarter. The Corporation sold shorter duration, lower yielding municipal securities that were included in the transfer for proceeds of \$157 million at a gain of \$3 million. Additionally, for the year ended December 31, 2019, the Corporation sold \$1.2 billion of taxable, floating rate asset backed securities and shorter duration MBS, CMBS, and CMOs Agency securities. The proceeds from both sales were utilized to pay down borrowings and to reinvest into higher yielding securities with slightly longer durations, repositioning the portfolio for a declining rate environment.

The Corporation also donated 42,039 shares of Visa Class B restricted shares to the Corporation's Charitable Remainder Trust during the second quarter of 2019, and the subsequent sale of those shares by the Trust resulted in an observable market price.

As a result, the Corporation wrote up its remaining 77,000 Visa Class B restricted shares to fair value. Based on the existing transfer restriction and the uncertainty of covered litigation, the shares were previously carried at a zero cost basis.

Investment securities with a carrying value of \$2.3 billion and \$2.1 billion at December 31, 2021 and 2020 respectively, were pledged to secure certain deposits or for other purposes.

Accrued interest receivable on HTM securities totaled \$15 million and \$14 million at December 31, 2021 and 2020, respectively. Accrued interest receivable on AFS securities totaled \$9 million and \$8 million at December 31, 2021 and 2020, respectively. Accrued interest receivable on both HTM and AFS securities is included in interest receivable on the consolidated balance sheets. There was no interest income reversed for investments going into nonaccrual at December 31, 2021 or 2020.

A security is considered past due once it is 30 days past due under the terms of the agreement. At both December 31, 2021 and 2020, the Corporation had no past due HTM securities.

The allowance for credit losses on HTM securities was approximately \$55,000 and \$67,000 at December 31, 2021 and 2020, respectively, attributable entirely to the Corporation's municipal securities, included in investment securities HTM, net, at amortized cost on the consolidated balance sheets. The Corporation also holds U.S. Treasury, municipal and mortgage-related securities issued by the U.S. government or a GSE which are backed by the full faith and credit of the U.S. government and, as a result, no allowance for credit losses has been recorded related to these securities.

The following represents gross unrealized losses and the related fair value of AFS and HTM securities, aggregated by investment category and length of time individual securities have been in a continuous unrealized loss position, at December 31, 2021:

| (\$ in Thousands) | Less than 12 months | | | 12 months or more | | | Total | |
|--|----------------------|---------------------|---------------------|----------------------|---------------------|------------------|---------------------|---------------------|
| | Number of Securities | Unrealized (Losses) | Fair Value | Number of Securities | Unrealized (Losses) | Fair Value | Unrealized (Losses) | Fair Value |
| Investment securities AFS | | | | | | | | |
| U.S. Treasury securities | 7 | \$ (1,334) | \$ 122,957 | — | \$ — | \$ — | \$ (1,334) | \$ 122,957 |
| Agency securities | 1 | (103) | 14,897 | — | — | — | (103) | 14,897 |
| Residential mortgage-related securities | | | | | | | | |
| FNMA / FHLMC | 74 | (21,249) | 2,172,837 | — | — | — | (21,249) | 2,172,837 |
| Private-label | 12 | (2,335) | 248,617 | — | — | — | (2,335) | 248,617 |
| FNMA / FHLMC commercial mortgage-related securities | 19 | (9,302) | 328,568 | — | — | — | (9,302) | 328,568 |
| Asset backed securities | | | | | | | | |
| FFELP | 4 | (256) | 64,282 | 8 | (867) | 62,576 | (1,123) | 126,858 |
| SBA | — | — | — | 9 | (54) | 3,902 | (54) | 3,902 |
| Other debt securities | 3 | (6) | 2,994 | — | — | — | (6) | 2,994 |
| Total | 120 | \$ (34,586) | \$ 2,955,152 | 17 | \$ (920) | \$ 66,478 | \$ (35,506) | \$ 3,021,630 |
| Investment securities HTM | | | | | | | | |
| Obligations of state and political subdivisions (municipal securities) | 49 | \$ (1,951) | \$ 112,038 | — | \$ — | \$ — | \$ (1,951) | \$ 112,038 |
| Commercial mortgage-related securities | | | | | | | | |
| FNMA / FHLMC | 18 | (6,272) | 388,072 | 1 | (387) | 10,775 | (6,659) | 398,847 |
| GNMA | 5 | (200) | 33,468 | — | — | — | (200) | 33,468 |
| Total | 72 | \$ (8,422) | \$ 533,577 | 1 | \$ (387) | \$ 10,775 | \$ (8,809) | \$ 544,352 |

For comparative purposes, the following represents gross unrealized losses and the related fair value of AFS and HTM securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, at December 31, 2020:

| (\$ in Thousands) | Less than 12 months | | | 12 months or more | | | Total | |
|--|----------------------|---------------------|------------|----------------------|---------------------|------------|---------------------|------------|
| | Number of Securities | Unrealized (Losses) | Fair Value | Number of Securities | Unrealized (Losses) | Fair Value | Unrealized (Losses) | Fair Value |
| Investment securities AFS | | | | | | | | |
| Residential mortgage-related securities | | | | | | | | |
| FNMA / FHLMC | 7 | \$ (500) | \$ 163,002 | — | \$ — | \$ — | \$ (500) | \$ 163,002 |
| GNMA | 2 | (3) | 9,784 | — | — | — | (3) | 9,784 |
| GNMA commercial mortgage-related securities | 1 | — | 287 | — | — | — | — | 287 |
| Asset backed securities | | | | | | | | |
| FFELP | 1 | (129) | 9,267 | 16 | (2,885) | 178,681 | (3,013) | 187,948 |
| SBA | 14 | (53) | 8,379 | — | — | — | (53) | 8,379 |
| Other debt securities | 2 | — | 2,000 | — | — | — | — | 2,000 |
| Total | 27 | \$ (685) | \$ 192,720 | 16 | \$ (2,885) | \$ 178,681 | \$ (3,570) | \$ 371,400 |
| Investment securities HTM | | | | | | | | |
| GNMA residential mortgage-related securities | 1 | \$ — | \$ 325 | — | \$ — | \$ — | \$ — | \$ 325 |
| Total | 1 | \$ — | \$ 325 | — | \$ — | \$ — | \$ — | \$ 325 |

The Corporation reviews the AFS investment securities portfolio on a quarterly basis to monitor its credit exposure. A determination as to whether a security's decline in fair value is the result of credit risk takes into consideration numerous factors and the relative significance of any single factor can vary by security. Some factors the Corporation may consider in this impairment analysis include the extent to which the security has been in an unrealized loss position, the change in security rating, financial condition and near-term prospects of the issuer, as well as security and industry specific economic conditions.

Based on the Corporation's evaluation, management does not believe any unrealized losses at December 31, 2021 represent credit deterioration as these unrealized losses are primarily attributable to changes in interest rates and the current market conditions. The U.S. Treasury 3 year and 5 year rates increased by 80 bp and 90 bp, respectively, from December 31, 2020. The Corporation does not intend to sell nor does it believe that it will be required to sell the securities in an unrealized loss position before recovery of their amortized cost basis.

FHLB and Federal Reserve Bank Stocks: The Corporation is required to maintain Federal Reserve Bank stock and FHLB stock as a member bank of both the Federal Reserve System and the FHLB, and in amounts as required by these institutions. These equity securities are "restricted" in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other marketable equity securities and their fair value is equal to amortized cost. The Corporation had FHLB stock of \$82 million at both December 31, 2021 and 2020. The Corporation had Federal Reserve Bank stock of \$87 million at both December 31, 2021 and 2020. Accrued interest receivable on FHLB stock totaled approximately \$975,000 and \$972,000 at December 31, 2021 and 2020, respectively. There was no accrued interest receivable on Federal Reserve Bank stock at either December 31, 2021 or 2020. Accrued interest receivable on both FHLB stock and Federal Reserve Bank stock is included in interest receivable on the consolidated balance sheets.

Equity Securities

Equity securities with readily determinable fair values: The Corporation's portfolio of equity securities with readily determinable fair values is primarily comprised of CRA Qualified Investment mutual funds and other mutual funds. At December 31, 2021 and 2020, the Corporation had equity securities with readily determinable fair values of \$5 million and \$2 million, respectively.

Equity securities without readily determinable fair values: The Corporation's portfolio of equity securities without readily determinable fair values primarily consists of 77,996 Visa Class B restricted shares, 77,000 of which the Corporation received in 2008 as part of Visa's initial public offering and carried at fair value after the Corporation donated 42,039 Visa Class B restricted shares to the Corporation's Charitable Remainder Trust during the second quarter of 2019, with the subsequent sale of those shares resulting in an observable market price after the shares were previously carried at a zero cost basis. During the first quarter of 2020, the Corporation acquired 996 Visa Class B restricted shares in the acquisition of First Staunton, and those shares are carried at a zero cost basis due to the lack of an observable market price since the time of acquisition. The Corporation had equity securities without readily determinable fair values of \$14 million and \$13 million at December 31, 2021 and 2020, respectively.

Note 4 Loans

The period end loan composition was as follows:

| (\$ in Thousands) | Dec 31, 2021 | Dec 31, 2020 |
|---|---------------|---------------|
| PPP | \$ 66,070 | \$ 767,757 |
| Asset-based lending | 178,027 | 137,476 |
| Commercial and industrial | 8,208,289 | 7,563,945 |
| Commercial real estate - owner occupied | 971,326 | 900,912 |
| Commercial and business lending | 9,423,711 | 9,370,091 |
| Commercial real estate - investor | 4,384,569 | 4,342,584 |
| Real estate construction | 1,808,976 | 1,840,417 |
| Commercial real estate lending | 6,193,545 | 6,183,001 |
| Total commercial | 15,617,256 | 15,553,091 |
| Residential mortgage | 7,567,310 | 7,878,324 |
| Home equity | 595,615 | 707,255 |
| Other consumer | 301,723 | 301,876 |
| Auto | 143,045 | 11,177 |
| Total consumer | 8,607,693 | 8,898,632 |
| Total loans | \$ 24,224,949 | \$ 24,451,724 |

Accrued interest receivable on loans totaled \$55 million at December 31, 2021, and \$66 million at December 31, 2020, and is included in interest receivable on the consolidated balance sheets. Interest accrued but not received for loans placed on nonaccrual is reversed against interest income. The amount of accrued interest reversed totaled approximately \$574,000 for the year ended December 31, 2021, and \$3 million for the year ended December 31, 2020.

The Corporation has granted loans to its directors, executive officers, or their related interests. These loans were made on substantially the same terms, including rates and collateral, as those prevailing at the time for comparable transactions with other unrelated customers, and do not involve more than a normal risk of collection. These loans to related parties are summarized below:

| (\$ in Thousands) | 2021 | 2020 |
|--|-----------|-----------|
| Balance at beginning of year | \$ 29,420 | \$ 16,772 |
| New loans | 24,218 | 19,140 |
| Repayments | (8,244) | (6,643) |
| Change due to status of executive officers and directors | (150) | 152 |
| Balance at end of year | \$ 45,245 | \$ 29,420 |

The following table presents commercial and consumer loans by credit quality indicator by vintage year at December 31, 2021:

| (\$ in Thousands) | Rev Loans Converted to Term ^(a) | Rev Loans Amortized Cost Basis | Term Loans Amortized Cost Basis by Origination Year ^(a) | | | | | | | Total |
|---|--|--------------------------------------|--|--------------|--------------|------------|------------|------------|--------------|-----------|
| | | | 2021 | 2020 | 2019 | 2018 | 2017 | Prior | | |
| PPP: ^(b) | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ — | \$ — | \$ 44,921 | \$ 18,610 | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 63,531 |
| Special Mention | — | — | 212 | 281 | — | — | — | — | — | 493 |
| Potential Problem | — | — | 2,000 | — | — | — | — | — | — | 2,000 |
| Nonaccrual | — | — | — | 46 | — | — | — | — | — | 46 |
| PPP | \$ — | \$ — | \$ 47,134 | \$ 18,936 | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 66,070 |
| Commercial and industrial: ^(c) | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 2,084 | \$ 2,371,605 | \$ 2,631,753 | \$ 852,758 | \$ 986,300 | \$ 710,491 | \$ 177,568 | \$ 493,876 | \$ 8,224,351 | |
| Special Mention | — | 7,068 | 5,900 | 1,695 | — | — | — | 2,811 | 17,474 | |
| Potential Problem | 2,706 | 26,387 | 23,415 | 19,960 | 46,296 | 20,924 | 104 | 1,172 | 138,258 | |
| Nonaccrual | 76 | — | 5,996 | 161 | 52 | 24 | — | — | 6,233 | |
| Commercial and industrial | \$ 4,867 | \$ 2,405,059 | \$ 2,667,064 | \$ 874,575 | \$ 1,032,647 | \$ 731,439 | \$ 177,671 | \$ 497,860 | \$ 8,386,316 | |
| Commercial real estate - owner occupied: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 10,092 | \$ 30,869 | \$ 261,418 | \$ 178,424 | \$ 187,073 | \$ 110,169 | \$ 54,538 | \$ 117,011 | \$ 939,503 | |
| Special Mention | — | 226 | — | 4,628 | — | — | — | 245 | 5,100 | |
| Potential Problem | — | 526 | 5,953 | 4,721 | 10,047 | 727 | 2,204 | 2,546 | 26,723 | |
| Commercial real estate - owner occupied | \$ 10,092 | \$ 31,621 | \$ 267,371 | \$ 187,773 | \$ 197,120 | \$ 110,896 | \$ 56,742 | \$ 119,802 | \$ 971,326 | |
| Commercial and business lending: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 12,176 | \$ 2,402,474 | \$ 2,938,092 | \$ 1,049,792 | \$ 1,173,373 | \$ 820,660 | \$ 232,106 | \$ 610,887 | \$ 9,227,385 | |
| Special Mention | — | 7,294 | 6,112 | 6,604 | — | — | — | 3,056 | 23,066 | |
| Potential Problem | 2,706 | 26,913 | 31,368 | 24,681 | 56,343 | 21,651 | 2,307 | 3,718 | 166,981 | |
| Nonaccrual | 76 | — | 5,996 | 207 | 52 | 24 | — | — | 6,279 | |
| Commercial and business lending | \$ 14,958 | \$ 2,436,680 | \$ 2,981,569 | \$ 1,081,284 | \$ 1,229,767 | \$ 842,335 | \$ 234,414 | \$ 617,662 | \$ 9,423,711 | |
| Commercial real estate - investor: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 37,430 | \$ 105,521 | \$ 1,650,936 | \$ 685,423 | \$ 867,606 | \$ 414,079 | \$ 139,320 | \$ 230,452 | \$ 4,093,337 | |
| Special Mention | — | — | 57,163 | 27,384 | 33,016 | 72 | — | 6,781 | 124,416 | |
| Potential Problem | — | — | 21,309 | 9,860 | 22,243 | 34,591 | 3,564 | 14,573 | 106,138 | |
| Nonaccrual | — | — | 45,502 | 8,158 | 6,820 | — | — | 197 | 60,677 | |
| Commercial real estate - investor | \$ 37,430 | \$ 105,521 | \$ 1,774,910 | \$ 730,825 | \$ 929,685 | \$ 448,741 | \$ 142,883 | \$ 252,003 | \$ 4,384,569 | |
| Real estate construction: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ — | \$ 31,773 | \$ 843,664 | \$ 614,469 | \$ 204,337 | \$ 48,647 | \$ 2,229 | \$ 12,212 | \$ 1,757,331 | |
| Special Mention | — | — | 2,203 | 11,929 | — | 15,885 | 41 | 2 | 30,060 | |
| Potential Problem | — | — | 37 | 120 | 21,251 | — | — | — | 21,408 | |
| Nonaccrual | — | — | — | — | — | — | — | 177 | 177 | |
| Real estate construction | \$ — | \$ 31,773 | \$ 845,903 | \$ 626,518 | \$ 225,588 | \$ 64,532 | \$ 2,270 | \$ 12,392 | \$ 1,808,976 | |
| Commercial real estate lending: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 37,430 | \$ 137,294 | \$ 2,494,600 | \$ 1,299,893 | \$ 1,071,943 | \$ 462,726 | \$ 141,549 | \$ 242,664 | \$ 5,850,668 | |
| Special Mention | — | — | 59,366 | 39,313 | 33,016 | 15,957 | 41 | 6,784 | 154,476 | |
| Potential Problem | — | — | 21,345 | 9,980 | 43,494 | 34,591 | 3,564 | 14,573 | 127,546 | |
| Nonaccrual | — | — | 45,502 | 8,158 | 6,820 | — | — | 374 | 60,855 | |
| Commercial real estate lending | \$ 37,430 | \$ 137,294 | \$ 2,620,814 | \$ 1,357,343 | \$ 1,155,273 | \$ 513,273 | \$ 145,153 | \$ 264,395 | \$ 6,193,545 | |

| (\$ in Thousands) | Rev Loans Converted to Term ^(a) | Rev Loans Amortized Cost Basis | Term Loans Amortized Cost Basis by Origination Year ^(a) | | | | | | | Total |
|------------------------------|--|--------------------------------------|--|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-------|
| | | | 2021 | 2020 | 2019 | 2018 | 2017 | Prior | | |
| Total commercial: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 49,606 | \$ 2,539,768 | \$ 5,432,693 | \$ 2,349,685 | \$ 2,245,316 | \$ 1,283,386 | \$ 373,655 | \$ 853,551 | \$ 15,078,053 | |
| Special Mention | — | 7,294 | 65,478 | 45,917 | 33,016 | 15,957 | 41 | 9,840 | 177,543 | |
| Potential Problem | 2,706 | 26,913 | 52,713 | 34,660 | 99,837 | 56,241 | 5,871 | 18,291 | 294,527 | |
| Nonaccrual | 76 | — | 51,498 | 8,365 | 6,872 | 24 | — | 374 | 67,134 | |
| Total commercial | \$ 52,388 | \$ 2,573,974 | \$ 5,602,382 | \$ 2,438,627 | \$ 2,385,040 | \$ 1,355,608 | \$ 379,567 | \$ 882,057 | \$ 15,617,256 | |
| Residential mortgage: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ — | \$ — | \$ 1,771,447 | \$ 1,945,029 | \$ 974,188 | \$ 428,459 | \$ 673,447 | \$ 1,716,419 | \$ 7,508,989 | |
| Special Mention | — | — | — | — | — | 285 | — | 461 | 746 | |
| Potential Problem | — | — | 475 | 332 | 404 | 265 | 81 | 658 | 2,214 | |
| Nonaccrual | — | — | 1,993 | 2,911 | 4,479 | 6,224 | 6,019 | 33,734 | 55,362 | |
| Residential mortgage | \$ — | \$ — | \$ 1,773,915 | \$ 1,948,272 | \$ 979,071 | \$ 435,233 | \$ 679,547 | \$ 1,751,272 | \$ 7,567,310 | |
| Home equity: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 6,728 | \$ 498,970 | \$ 1,216 | \$ 1,401 | \$ 7,640 | \$ 8,742 | \$ 7,660 | \$ 61,251 | \$ 586,880 | |
| Special Mention | 133 | 100 | — | 102 | 4 | — | — | 638 | 844 | |
| Potential Problem | 6 | — | 6 | — | — | 13 | — | 146 | 165 | |
| Nonaccrual | 925 | 35 | 9 | 92 | 211 | 305 | 302 | 6,772 | 7,726 | |
| Home equity | \$ 7,792 | \$ 499,104 | \$ 1,232 | \$ 1,595 | \$ 7,856 | \$ 9,059 | \$ 7,962 | \$ 68,807 | \$ 595,615 | |
| Other consumer: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 443 | \$ 180,312 | \$ 9,297 | \$ 4,987 | \$ 2,884 | \$ 371 | \$ 265 | \$ 103,075 | \$ 301,191 | |
| Special Mention | 7 | 351 | — | 4 | — | — | — | 7 | 363 | |
| Nonaccrual | 6 | 120 | — | 14 | 7 | — | 19 | 11 | 170 | |
| Other consumer | \$ 456 | \$ 180,783 | \$ 9,297 | \$ 5,005 | \$ 2,890 | \$ 371 | \$ 284 | \$ 103,093 | \$ 301,723 | |
| Auto: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ — | \$ — | \$ 137,952 | \$ 707 | \$ 2,675 | \$ 1,200 | \$ 352 | \$ 107 | \$ 142,993 | |
| Nonaccrual | — | — | — | — | 36 | 15 | — | — | 52 | |
| Auto | \$ — | \$ — | \$ 137,952 | \$ 707 | \$ 2,711 | \$ 1,216 | \$ 352 | \$ 107 | \$ 143,045 | |
| Total consumer: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 7,171 | \$ 679,353 | \$ 1,919,912 | \$ 1,952,124 | \$ 987,387 | \$ 438,771 | \$ 681,725 | \$ 1,880,781 | \$ 8,540,053 | |
| Special Mention | 140 | 451 | — | 106 | 4 | 285 | — | 1,106 | 1,952 | |
| Potential Problem | 6 | — | 481 | 332 | 404 | 277 | 81 | 804 | 2,379 | |
| Nonaccrual | 931 | 154 | 2,003 | 3,017 | 4,733 | 6,545 | 6,340 | 40,517 | 63,309 | |
| Total consumer | \$ 8,248 | \$ 679,959 | \$ 1,922,396 | \$ 1,955,579 | \$ 992,528 | \$ 445,878 | \$ 688,145 | \$ 1,923,208 | \$ 8,607,693 | |
| Total loans: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass^(d) | \$ 56,777 | \$ 3,219,121 | \$ 7,352,605 | \$ 4,301,809 | \$ 3,232,703 | \$ 1,722,157 | \$ 1,055,380 | \$ 2,734,332 | \$ 23,618,106 | |
| Special Mention | 140 | 7,745 | 65,478 | 46,023 | 33,021 | 16,241 | 41 | 10,946 | 179,495 | |
| Potential Problem | 2,713 | 26,913 | 53,194 | 34,992 | 100,240 | 56,519 | 5,952 | 19,095 | 296,905 | |
| Nonaccrual | 1,006 | 154 | 53,501 | 11,382 | 11,605 | 6,569 | 6,340 | 40,891 | 130,443 | |
| Total loans | \$ 60,636 | \$ 3,253,933 | \$ 7,524,778 | \$ 4,394,206 | \$ 3,377,569 | \$ 1,801,486 | \$ 1,067,713 | \$ 2,805,265 | \$ 24,224,949 | |

(a) Revolving loans converted to term loans are also reported in their year of origination.

(b) The Corporation's policy is to assign risk ratings at the borrower level. PPP loans are 100% guaranteed by the SBA and therefore the Corporation considers these loans to have a risk profile similar to pass rated loans.

(c) Includes asset-based lending.

(d) Accruing TDRs are included in pass unless otherwise rated as special mention.

The following table presents commercial and consumer loans by credit quality indicator by vintage year at December 31, 2020:

| (\$ in Thousands) | Rev Loans Converted to Term ^(a) | Rev Loans Amortized Cost Basis | Term Loans Amortized Cost Basis by Origination Year ^(a) | | | | | | | |
|---|--|--------------------------------------|--|--------------|--------------|------------|------------|------------|--------------|------------|
| | | | 2020 | 2019 | 2018 | 2017 | 2016 | Prior | Total | |
| PPP: ^(b) | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ — | \$ — | \$ 745,767 | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 745,767 |
| Special Mention | — | — | 3,988 | — | — | — | — | — | — | 3,988 |
| Potential Problem | — | — | 18,002 | — | — | — | — | — | — | 18,002 |
| PPP | \$ — | \$ — | \$ 767,757 | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 767,757 |
| Commercial and industrial: ^(c) | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 4,628 | \$ 2,177,138 | \$ 1,389,260 | \$ 1,435,519 | \$ 1,182,302 | \$ 483,957 | \$ 305,998 | \$ 453,734 | \$ 7,427,908 | |
| Special Mention | — | 10,159 | 2,719 | 39,854 | 37,042 | 113 | 215 | 67 | 90,169 | |
| Potential Problem | 2,565 | 7,237 | 19,331 | 28,413 | 56,580 | 2,269 | 6,477 | 1,179 | 121,487 | |
| Nonaccrual | 16,852 | — | 6,238 | 5,789 | 17,014 | 16,623 | 8,781 | 7,414 | 61,859 | |
| Commercial and industrial | \$ 24,045 | \$ 2,194,534 | \$ 1,417,548 | \$ 1,509,575 | \$ 1,292,938 | \$ 502,962 | \$ 321,471 | \$ 462,394 | \$ 7,701,422 | |
| Commercial real estate - owner occupied: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 1,150 | \$ 18,022 | \$ 185,861 | \$ 209,069 | \$ 128,360 | \$ 99,546 | \$ 147,366 | \$ 79,111 | \$ 867,335 | |
| Special Mention | — | 113 | 1,882 | 3,122 | 300 | 658 | 264 | — | 6,339 | |
| Potential Problem | — | 3,486 | 4,104 | 8,916 | — | 1,490 | 4,437 | 3,747 | 26,179 | |
| Nonaccrual | — | — | — | — | — | 318 | — | 740 | 1,058 | |
| Commercial real estate - owner occupied | \$ 1,150 | \$ 21,621 | \$ 191,847 | \$ 221,107 | \$ 128,660 | \$ 102,012 | \$ 152,067 | \$ 83,598 | \$ 900,912 | |
| Commercial and business lending: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 5,778 | \$ 2,195,160 | \$ 2,320,888 | \$ 1,644,588 | \$ 1,310,662 | \$ 583,503 | \$ 453,364 | \$ 532,845 | \$ 9,041,009 | |
| Special Mention | — | 10,272 | 8,589 | 42,976 | 37,342 | 771 | 479 | 67 | 100,496 | |
| Potential Problem | 2,565 | 10,723 | 41,437 | 37,329 | 56,580 | 3,759 | 10,915 | 4,926 | 165,668 | |
| Nonaccrual | 16,852 | — | 6,238 | 5,789 | 17,014 | 16,941 | 8,781 | 8,154 | 62,917 | |
| Commercial and business lending | \$ 25,195 | \$ 2,216,154 | \$ 2,377,152 | \$ 1,730,682 | \$ 1,421,598 | \$ 604,974 | \$ 473,539 | \$ 545,992 | \$ 9,370,091 | |
| Commercial real estate - investor: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 10,971 | \$ 171,497 | \$ 1,249,644 | \$ 976,332 | \$ 720,237 | \$ 271,987 | \$ 341,658 | \$ 211,360 | \$ 3,942,714 | |
| Special Mention | — | — | 90,235 | 97,333 | 12,339 | — | 21,882 | 8,465 | 230,254 | |
| Potential Problem | — | 838 | 16,343 | 13,575 | 30,911 | 2,279 | 239 | 27,209 | 91,396 | |
| Nonaccrual | 19,803 | — | 10,141 | 53,056 | 446 | 14,267 | — | 309 | 78,220 | |
| Commercial real estate - investor | \$ 30,774 | \$ 172,335 | \$ 1,366,364 | \$ 1,140,297 | \$ 763,933 | \$ 288,533 | \$ 363,779 | \$ 247,343 | \$ 4,342,584 | |
| Real estate construction: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 776 | \$ 47,880 | \$ 645,925 | \$ 738,561 | \$ 294,910 | \$ 25,219 | \$ 2,420 | \$ 16,768 | \$ 1,771,682 | |
| Special Mention | — | — | 487 | 494 | 48,283 | 42 | — | 30 | 49,336 | |
| Potential Problem | — | — | 135 | — | 18,803 | — | 93 | 15 | 19,046 | |
| Nonaccrual | — | — | — | — | — | 16 | — | 338 | 353 | |
| Real estate construction | \$ 776 | \$ 47,880 | \$ 646,547 | \$ 739,055 | \$ 361,996 | \$ 25,277 | \$ 2,513 | \$ 17,150 | \$ 1,840,417 | |
| Commercial real estate lending: | | | | | | | | | | |
| Risk rating: | | | | | | | | | | |
| Pass | \$ 11,746 | \$ 219,377 | \$ 1,895,569 | \$ 1,714,893 | \$ 1,015,146 | \$ 297,205 | \$ 344,078 | \$ 228,127 | \$ 5,714,396 | |
| Special Mention | — | — | 90,722 | 97,827 | 60,622 | 42 | 21,882 | 8,494 | 279,590 | |
| Potential Problem | — | 838 | 16,479 | 13,575 | 49,714 | 2,279 | 332 | 27,224 | 110,442 | |
| Nonaccrual | 19,803 | — | 10,141 | 53,056 | 446 | 14,283 | — | 647 | 78,573 | |
| Commercial real estate lending | \$ 31,549 | \$ 220,215 | \$ 2,012,911 | \$ 1,879,352 | \$ 1,125,929 | \$ 313,810 | \$ 366,292 | \$ 264,493 | \$ 6,183,001 | |

| (\$ in Thousands) | Rev Loans Converted to Term ^(a) | Rev Loans Amortized Cost Basis | Term Loans Amortized Cost Basis by Origination Year ^(a) | | | | | | |
|--------------------------------------|--|--------------------------------------|--|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| | | | 2020 | 2019 | 2018 | 2017 | 2016 | Prior | Total |
| Total commercial: | | | | | | | | | |
| Risk rating: | | | | | | | | | |
| Pass | \$ 17,524 | \$ 2,414,537 | \$ 4,216,457 | \$ 3,359,482 | \$ 2,325,808 | \$ 880,708 | \$ 797,441 | \$ 760,973 | \$ 14,755,405 |
| Special Mention | — | 10,272 | 99,311 | 140,803 | 97,964 | 813 | 22,361 | 8,562 | 380,086 |
| Potential Problem | 2,565 | 11,561 | 57,916 | 50,905 | 106,295 | 6,038 | 11,247 | 32,150 | 276,111 |
| Nonaccrual | 36,655 | — | 16,379 | 58,845 | 17,460 | 31,224 | 8,781 | 8,801 | 141,490 |
| Total commercial | \$ 56,745 | \$ 2,436,370 | \$ 4,390,063 | \$ 3,610,033 | \$ 2,547,526 | \$ 918,783 | \$ 839,831 | \$ 810,485 | \$ 15,553,091 |
| Residential mortgage: | | | | | | | | | |
| Risk rating: | | | | | | | | | |
| Pass | \$ — | \$ — | \$ 2,185,240 | \$ 1,490,589 | \$ 615,118 | \$ 998,072 | \$ 911,797 | \$ 1,612,971 | \$ 7,813,788 |
| Special Mention | — | — | — | 355 | 330 | 102 | 126 | 537 | 1,450 |
| Potential Problem | — | — | 1,200 | 689 | 652 | — | 179 | 1,028 | 3,749 |
| Nonaccrual | — | — | 1,478 | 2,271 | 5,882 | 7,116 | 11,003 | 31,587 | 59,337 |
| Residential mortgage | \$ — | \$ — | \$ 2,187,918 | \$ 1,493,903 | \$ 621,983 | \$ 1,005,290 | \$ 923,105 | \$ 1,646,124 | \$ 7,878,324 |
| Home equity: | | | | | | | | | |
| Risk rating: | | | | | | | | | |
| Pass | \$ 10,224 | \$ 569,389 | \$ 2,057 | \$ 12,968 | \$ 15,792 | \$ 11,594 | \$ 5,803 | \$ 76,165 | \$ 693,767 |
| Special Mention | 596 | 631 | — | 39 | 14 | 39 | 4 | 804 | 1,532 |
| Potential Problem | — | 1,922 | — | — | — | — | — | 146 | 2,068 |
| Nonaccrual | 1,600 | 100 | 965 | 134 | 410 | 319 | 711 | 7,249 | 9,888 |
| Home equity | \$ 12,421 | \$ 572,041 | \$ 3,022 | \$ 13,141 | \$ 16,216 | \$ 11,952 | \$ 6,518 | \$ 84,364 | \$ 707,255 |
| Other consumer:^(d) | | | | | | | | | |
| Risk rating: | | | | | | | | | |
| Pass | \$ 70 | \$ 165,114 | \$ 9,525 | \$ 10,309 | \$ 3,987 | \$ 1,872 | \$ 1,185 | \$ 120,425 | \$ 312,416 |
| Special Mention | 5 | 438 | 13 | 16 | 11 | 4 | 7 | 8 | 498 |
| Nonaccrual | 5 | 33 | 9 | 49 | 21 | 10 | — | 18 | 140 |
| Other consumer | \$ 81 | \$ 165,585 | \$ 9,547 | \$ 10,374 | \$ 4,019 | \$ 1,886 | \$ 1,192 | \$ 120,451 | \$ 313,054 |
| Total consumer: | | | | | | | | | |
| Risk rating: | | | | | | | | | |
| Pass | \$ 10,294 | \$ 734,502 | \$ 2,196,822 | \$ 1,513,865 | \$ 634,897 | \$ 1,011,539 | \$ 918,785 | \$ 1,809,561 | \$ 8,819,971 |
| Special Mention | 602 | 1,069 | 13 | 410 | 356 | 145 | 137 | 1,349 | 3,480 |
| Potential Problem | — | 1,922 | 1,200 | 689 | 652 | — | 179 | 1,174 | 5,817 |
| Nonaccrual | 1,605 | 133 | 2,452 | 2,454 | 6,313 | 7,445 | 11,714 | 38,854 | 69,364 |
| Total consumer | \$ 12,501 | \$ 737,626 | \$ 2,200,487 | \$ 1,517,417 | \$ 642,218 | \$ 1,019,128 | \$ 930,816 | \$ 1,850,939 | \$ 8,898,632 |
| Total loans: | | | | | | | | | |
| Risk rating: | | | | | | | | | |
| Pass^(e) | \$ 27,819 | \$ 3,149,039 | \$ 6,413,278 | \$ 4,873,347 | \$ 2,960,705 | \$ 1,892,247 | \$ 1,716,226 | \$ 2,570,534 | \$ 23,575,376 |
| Special Mention | 602 | 11,341 | 99,324 | 141,213 | 98,320 | 958 | 22,498 | 9,911 | 383,566 |
| Potential Problem | 2,565 | 13,483 | 59,116 | 51,593 | 106,947 | 6,038 | 11,426 | 33,324 | 281,928 |
| Nonaccrual | 38,260 | 133 | 18,831 | 61,298 | 23,773 | 38,669 | 20,496 | 47,655 | 210,854 |
| Total loans | \$ 69,246 | \$ 3,173,996 | \$ 6,590,550 | \$ 5,127,451 | \$ 3,189,745 | \$ 1,937,912 | \$ 1,770,647 | \$ 2,661,424 | \$ 24,451,724 |

(a) Revolving loans converted to term loans are also reported in their year of origination.

(b) The Corporation's policy is to assign risk ratings at the borrower level. PPP loans are 100% guaranteed by the SBA and therefore the Corporation considers these loans to have a risk profile similar to pass rated loans.

(c) Includes asset-based lending.

(d) Includes auto.

(e) Accruing TDRs are included in pass unless otherwise rated as special mention.

Factors that are important to managing overall credit quality are sound loan underwriting and administration, systematic monitoring of existing loans and commitments, effective loan review on an ongoing basis, early identification of potential problems, and appropriate policies for allowance for loan losses, allowance for unfunded commitments, nonaccrual loans, and charge offs. See Note 1 for the Corporation's accounting policy for loans.

For commercial loans, management has determined the pass credit quality indicator to include credits that exhibit acceptable financial statements, cash flow, and leverage. If any risk exists, it is mitigated by the loan structure, collateral, monitoring, or control. For consumer loans, performing loans include credits performing in accordance with the original contractual terms.

Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Special mention credits have potential weaknesses that deserve management's attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the credit. Potential problem loans are considered inadequately protected by the current net worth and paying capacity of the obligor or the collateral pledged. These loans generally have a well-defined weakness, or weaknesses, which may jeopardize liquidation of the debt, and are characterized by the distinct possibility that the Corporation will sustain some loss if the deficiencies are not corrected. Management has determined commercial loan relationships in nonaccrual status, and commercial and consumer loan relationships with their terms restructured in a TDR, meet the criteria to be individually evaluated. Commercial loans classified as special mention, potential problem, and nonaccrual are reviewed at a minimum on a quarterly basis, while pass credits, which are performing rated credits, are generally reviewed on an annual basis or more frequently if the loan renewal is less than one year or if otherwise warranted.

The following table presents loans by past due status at December 31, 2021:

| (\$ in Thousands) | Accruing | | | | | Nonaccrual ^{(b)(c)} | Total |
|---|------------------------|---------------------|---------------------|-------------------|------------|------------------------------|-------|
| | Current ^(a) | 30-59 Days Past Due | 60-89 Days Past Due | 90+ Days Past Due | | | |
| PPP | \$ 65,941 | \$ 40 | \$ 43 | \$ — | \$ 46 | \$ 66,070 | |
| Asset-based lending | 178,027 | — | — | — | — | 178,027 | |
| Commercial and industrial | 8,201,272 | 579 | 54 | 151 | 6,233 | 8,208,289 | |
| Commercial real estate - owner occupied | 971,163 | 163 | — | — | — | 971,326 | |
| Commercial and business lending | 9,416,403 | 781 | 97 | 151 | 6,279 | 9,423,711 | |
| Commercial real estate - investor | 4,323,276 | 142 | 474 | — | 60,677 | 4,384,569 | |
| Real estate construction | 1,807,178 | 1,618 | 2 | — | 177 | 1,808,976 | |
| Commercial real estate lending | 6,130,454 | 1,759 | 477 | — | 60,855 | 6,193,545 | |
| Total commercial | 15,546,857 | 2,541 | 573 | 151 | 67,134 | 15,617,256 | |
| Residential mortgage | 7,505,654 | 5,500 | 669 | 126 | 55,362 | 7,567,310 | |
| Home equity | 584,177 | 2,867 | 844 | — | 7,726 | 595,615 | |
| Other consumer | 298,261 | 1,835 | 472 | 986 | 170 | 301,723 | |
| Auto | 142,982 | 11 | — | — | 52 | 143,045 | |
| Total consumer | 8,531,074 | 10,213 | 1,985 | 1,111 | 63,309 | 8,607,693 | |
| Total loans | \$ 24,077,931 | \$ 12,754 | \$ 2,558 | \$ 1,263 | \$ 130,443 | \$ 24,224,949 | |

(a) Any loans deferred in connection with the COVID-19 pandemic are considered current in accordance with Section 4103 of the CARES Act.

(b) Of the total nonaccrual loans, \$84 million, or 65%, were current with respect to payment at December 31, 2021.

(c) No interest income was recognized on nonaccrual loans for the year ended December 31, 2021. In addition, there were \$9 million of nonaccrual loans for which there was no related ACLL at December 31, 2021.

The following table presents loans by past due status at December 31, 2020:

| (\$ in Thousands) | Accruing | | | | | Nonaccrual ^{(b)(c)} | Total |
|---|------------------------|---------------------|---------------------|-------------------|------------|------------------------------|-------|
| | Current ^(a) | 30-59 Days Past Due | 60-89 Days Past Due | 90+ Days Past Due | | | |
| PPP | \$ 767,757 | \$ — | \$ — | \$ — | \$ — | \$ 767,757 | |
| Asset-based lending | 137,476 | — | — | — | — | 137,476 | |
| Commercial and industrial | 7,495,792 | 2,819 | 3,300 | 175 | 61,859 | 7,563,945 | |
| Commercial real estate - owner occupied | 899,480 | 158 | 215 | — | 1,058 | 900,912 | |
| Commercial and business lending | 9,300,506 | 2,977 | 3,516 | 175 | 62,917 | 9,370,091 | |
| Commercial real estate - investor | 4,251,571 | 1,024 | 11,769 | — | 78,220 | 4,342,584 | |
| Real estate construction | 1,839,073 | 991 | — | — | 353 | 1,840,417 | |
| Commercial real estate lending | 6,090,644 | 2,015 | 11,769 | — | 78,573 | 6,183,001 | |
| Total commercial | 15,391,150 | 4,992 | 15,284 | 175 | 141,490 | 15,553,091 | |
| Residential mortgage | 7,808,294 | 8,975 | 1,410 | 308 | 59,337 | 7,878,324 | |
| Home equity | 692,565 | 3,071 | 1,731 | — | 9,888 | 707,255 | |
| Other consumer | 299,128 | 998 | 545 | 1,115 | 91 | 301,876 | |
| Auto | 11,072 | 41 | 15 | — | 49 | 11,177 | |
| Total consumer | 8,811,060 | 13,085 | 3,701 | 1,423 | 69,364 | 8,898,632 | |
| Total loans | \$ 24,202,209 | \$ 18,077 | \$ 18,985 | \$ 1,598 | \$ 210,854 | \$ 24,451,724 | |

(a) Any loans deferred in connection with the COVID-19 pandemic are considered current in accordance with Section 4103 of the CARES Act.

(b) Of the total nonaccrual loans, \$128 million, or 61%, were current with respect to payment at December 31, 2020.

(c) No interest income was recognized on nonaccrual loans for the year ended December 31, 2020. In addition, there were \$28 million of nonaccrual loans for which there was no related ACLL at December 31, 2020.

Troubled Debt Restructurings

Loans are considered restructured loans if concessions have been granted to borrowers that are experiencing financial difficulty. See Note 1 for the Corporation's accounting policy for TDRs.

The following table presents nonaccrual and performing restructured loans by loan portfolio:

| (\$ in Thousands) | December 31, 2021 | | December 31, 2020 | | December 31, 2019 | |
|---|-------------------------------|--|-------------------------------|--|-------------------------------|--|
| | Performing Restructured Loans | Nonaccrual Restructured Loans ^(a) | Performing Restructured Loans | Nonaccrual Restructured Loans ^(a) | Performing Restructured Loans | Nonaccrual Restructured Loans ^(a) |
| Commercial and industrial | \$ 8,687 | \$ — | \$ 12,713 | \$ 6,967 | \$ 16,678 | \$ 7,376 |
| Commercial real estate - owner occupied | 967 | — | 1,711 | — | 1,676 | — |
| Commercial real estate - investor | 12,866 | 3,093 | 26,435 | 225 | 293 | — |
| Real estate construction | 242 | 45 | 260 | 111 | 298 | 179 |
| Residential mortgage | 16,316 | 13,483 | 7,825 | 11,509 | 3,955 | 13,035 |
| Home equity | 2,648 | 806 | 1,957 | 1,379 | 1,896 | 1,904 |
| Other consumer | 803 | — | 1,191 | — | 1,246 | 1 |
| Total restructured loans ^(b) | \$ 42,530 | \$ 17,426 | \$ 52,092 | \$ 20,190 | \$ 26,041 | \$ 22,494 |

(a) Nonaccrual restructured loans have been included within nonaccrual loans.

(b) Does not include any restructured loans related to the COVID-19 pandemic in accordance with Section 4013 of the CARES Act.

The Corporation had a recorded investment of \$18 million in loans modified as TDRs during the year ended December 31, 2021, of which \$8 million were in accrual status, included in pass or special mention based on their risk rating within the credit quality tables, and \$10 million were in nonaccrual, within the credit quality tables, pending a sustained period of repayment. Short-term loan modifications made in good faith to help ease the adverse effects of the COVID-19 pandemic are not categorized as TDRs in accordance with the CARES Act. As of December 31, 2021, there were \$13 million of commitments to lend additional funds to borrowers with restructured loans. The following table provides the number of loans modified in a TDR by loan portfolio, the recorded investment, and unpaid principal balance:

| (\$ in Thousands) | Years Ended December 31, | | | | | | | | |
|---|--------------------------|------------------------------------|---|-----------------|------------------------------------|---|-----------------|------------------------------------|---|
| | 2021 | | | 2020 | | | 2019 | | |
| | Number of Loans | Recorded Investment ^(a) | Unpaid Principal Balance ^(b) | Number of Loans | Recorded Investment ^(a) | Unpaid Principal Balance ^(b) | Number of Loans | Recorded Investment ^(a) | Unpaid Principal Balance ^(b) |
| Commercial and industrial | 4 | \$ 610 | \$ 610 | 7 | \$ 1,823 | \$ 2,059 | 6 | \$ 7,588 | \$ 7,703 |
| Commercial real estate - owner occupied | — | — | — | 4 | 658 | 689 | — | — | — |
| Commercial real estate - investor | 6 | 4,259 | 10,166 | 10 | 26,563 | 26,567 | — | — | — |
| Real estate construction | — | — | — | — | — | — | 1 | 77 | 77 |
| Residential mortgage | 69 | 12,415 | 12,463 | 36 | 6,031 | 6,113 | 53 | 7,436 | 7,517 |
| Home equity | 9 | 932 | 963 | 20 | 1,078 | 1,697 | 24 | 831 | 845 |
| Other consumer | — | — | — | — | — | — | 1 | 8 | 8 |
| Total loans modified | 88 | \$ 18,216 | \$ 24,201 | 77 | \$ 36,154 | \$ 37,125 | 85 | \$ 15,940 | \$ 16,150 |

(a) Represents post-modification outstanding recorded investment.

(b) Represents pre-modification outstanding recorded investment.

Restructured loan modifications may include payment schedule modifications, interest rate concessions, maturity date extensions, modification of note structure (A/B Note), non-reaffirmed Chapter 7 bankruptcies, principal reduction, or some combination of these concessions. For the year ended December 31, 2021, restructured loan modifications of commercial loans primarily included maturity date extensions and payment schedule modifications. Restructured loan modifications of consumer loans primarily included maturity date extensions, interest rate concessions, non-reaffirmed Chapter 7 bankruptcies, or a combination of these concessions for the year ended December 31, 2021.

The following table provides the number of loans modified in a TDR during the previous twelve months which subsequently defaulted during the years ended December 31, 2021, 2020, and 2019, respectively, as well as the recorded investment in these restructured loans as of December 31, 2021, 2020, and 2019, respectively:

| (\$ in Thousands) | Years Ended December 31, | | | | | |
|-----------------------------------|--------------------------|---------------------|-----------------|---------------------|-----------------|---------------------|
| | 2021 | | 2020 | | 2019 | |
| | Number of Loans | Recorded Investment | Number of Loans | Recorded Investment | Number of Loans | Recorded Investment |
| Commercial real estate — investor | 1 | 164 | — | — | 1 | 461 |
| Residential mortgage | 11 | 1,171 | 5 | 1,036 | 38 | 5,630 |
| Home equity | — | — | 4 | 208 | 27 | 868 |
| Total loans modified | 12 | \$ 1,334 | 9 | \$ 1,244 | 66 | \$ 6,959 |

All loans modified in a TDR are individually evaluated for impairment. The nature and extent of the impairment of restructured loans, including those which have experienced a subsequent payment default, are considered in the determination of an appropriate level of the ACLL.

The Corporation analyzes loans for classification as a probable TDR. This analysis includes identifying customers that are showing possible liquidity issues in the near term without reasonable access to alternative sources of capital. At December 31, 2021, the Corporation had a single \$7 million oil & gas loan that met this classification, compared to \$68 million at December 31, 2020.

Allowance for Credit Losses on Loans

The ACLL is comprised of the allowance for loan losses and the allowance for unfunded commitments. The level of the ACLL represents management's estimate of an amount appropriate to provide for expected lifetime credit losses in the loan portfolio at the balance sheet date. The expected lifetime credit losses are the product of multiplying the Corporation's estimates of probability of default, loss given default, and the individual loan level exposure at default on an undiscounted basis. A main factor in the determination of the ACLL is the economic forecast. The Corporation utilized Moody's baseline forecast, updated during December 2021, in the allowance model. The forecast is applied over a 2 year reasonable and supportable period with straight-line reversion to the historical losses over the second year of the period. See Note 1 for the Corporation's accounting policy on the ACLL. The allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb expected lifetime losses related to unfunded credit facilities (including unfunded loan commitments and letters of credit). See Note 16 for additional information on the change in the allowance for unfunded commitments.

The following table presents a summary of the changes in the ACLL by portfolio segment for the year ended December 31, 2021:

| (\$ in Thousands) | Dec. 31, 2020 | Charge offs | Recoveries | Net Charge offs | Provision for credit losses | Dec. 31, 2021 | ACLL / Loans |
|--|---------------|-------------|------------|-----------------|-----------------------------|---------------|--------------|
| Allowance for loan losses | | | | | | | |
| PPP | \$ 531 | \$ — | \$ — | \$ — | \$ (480) | \$ 51 | |
| Asset-based lending | 2,077 | — | 412 | 412 | 1,693 | 4,182 | |
| Commercial and industrial | 140,716 | (21,564) | 8,152 | (13,412) | (41,680) | 85,624 | |
| Commercial real estate — owner occupied | 11,274 | — | 120 | 120 | 80 | 11,473 | |
| Commercial and business lending | 154,598 | (21,564) | 8,684 | (12,880) | (40,388) | 101,330 | |
| Commercial real estate — investor | 93,435 | (14,346) | 3,162 | (11,184) | (9,448) | 72,803 | |
| Real estate construction | 59,193 | (5) | 126 | 121 | (21,672) | 37,643 | |
| Commercial real estate lending | 152,629 | (14,351) | 3,288 | (11,063) | (31,120) | 110,446 | |
| Total commercial | 307,226 | (35,915) | 11,972 | (23,943) | (71,508) | 211,776 | |
| Residential mortgage | 42,996 | (880) | 841 | (38) | (2,170) | 40,787 | |
| Home equity | 18,849 | (668) | 2,854 | 2,186 | (7,024) | 14,011 | |
| Other consumer | 14,456 | (3,168) | 1,267 | (1,901) | (1,113) | 11,441 | |
| Auto | 174 | (22) | 31 | 9 | 1,816 | 1,999 | |
| Total consumer | 76,475 | (4,738) | 4,993 | 256 | (8,492) | 68,239 | |
| Total | \$ 383,702 | \$ (40,652) | \$ 16,965 | \$ (23,687) | \$ (80,000) | \$ 280,015 | |
| Allowance for unfunded commitments | | | | | | | |
| Asset-based lending | \$ 901 | \$ — | \$ — | \$ — | \$ (43) | \$ 857 | |
| Commercial and industrial | 21,411 | — | — | — | (3,809) | 17,601 | |
| Commercial real estate — owner occupied | 266 | — | — | — | (58) | 208 | |
| Commercial and business lending | 22,577 | — | — | — | (3,911) | 18,667 | |
| Commercial real estate — investor | 636 | — | — | — | 300 | 936 | |
| Real estate construction | 18,887 | — | — | — | (3,301) | 15,586 | |
| Commercial real estate lending | 19,523 | — | — | — | (3,001) | 16,522 | |
| Total commercial | 42,101 | — | — | — | (6,912) | 35,189 | |
| Home equity | 3,118 | — | — | — | (526) | 2,592 | |
| Other consumer | 2,557 | — | — | — | (563) | 1,995 | |
| Total consumer | 5,675 | — | — | — | (1,088) | 4,587 | |
| Total | \$ 47,776 | \$ — | \$ — | \$ — | \$ (8,000) | \$ 39,776 | |
| Allowance for credit losses on loans | | | | | | | |
| PPP | \$ 531 | \$ — | \$ — | \$ — | \$ (480) | \$ 51 | 0.08 % |
| Asset-based lending | 2,978 | — | 412 | 412 | 1,649 | 5,040 | 2.83 % |
| Commercial and industrial ^(a) | 162,126 | (21,564) | 8,152 | (13,412) | (45,490) | 103,225 | 1.26 % |
| Commercial real estate — owner occupied | 11,539 | — | 120 | 120 | 22 | 11,681 | 1.20 % |
| Commercial and business lending ^(b) | 177,175 | (21,564) | 8,684 | (12,880) | (44,299) | 119,997 | 1.27 % |
| Commercial real estate — investor | 94,071 | (14,346) | 3,162 | (11,184) | (9,148) | 73,739 | 1.68 % |
| Real estate construction | 78,080 | (5) | 126 | 121 | (24,972) | 53,229 | 2.94 % |
| Commercial real estate lending | 172,152 | (14,351) | 3,288 | (11,063) | (34,121) | 126,968 | 2.05 % |
| Total commercial | 349,327 | (35,915) | 11,972 | (23,943) | (78,419) | 246,965 | 1.58 % |
| Residential mortgage | 42,996 | (880) | 841 | (38) | (2,170) | 40,787 | 0.54 % |
| Home equity | 21,967 | (668) | 2,854 | 2,186 | (7,550) | 16,603 | 2.79 % |
| Other consumer | 17,013 | (3,168) | 1,267 | (1,901) | (1,676) | 13,436 | 4.45 % |
| Auto | 174 | (22) | 31 | 9 | 1,816 | 1,999 | 1.40 % |
| Total consumer | 82,150 | (4,738) | 4,993 | 256 | (9,581) | 72,825 | 0.85 % |
| Total | \$ 431,478 | \$ (40,652) | \$ 16,965 | \$ (23,687) | \$ (88,000) | \$ 319,791 | 1.32 % |

(a) The December 31, 2021 ACLL includes \$6 million of oil and gas related ACLL.

(b) The ACLL/Loans for commercial and business lending, excluding oil & gas and PPP loans, was 1.22% at December 31, 2021.

The following table presents a summary of the changes in the ACLL by portfolio segment for the year ended December 31, 2020:

| (\$ in Thousands) | Dec. 31, 2019 | Cumulative effect of ASU 2016-13 adoption (CECL) | Jan. 1, 2020 | Charge offs | Recoveries | Net Charge offs | Gross up of allowance for PCD loans at acquisition | Provision recorded at acquisition | Provision for credit losses | Dec. 31, 2020 | ACLL / Loans |
|---|---------------|--|--------------|--------------|------------|-----------------|--|-----------------------------------|-----------------------------|---------------|--------------|
| | | | | | | | | | | | |
| Allowance for loan losses | | | | | | | | | | | |
| PPP | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 531 | \$ 531 | |
| Asset-based lending | 3,407 | 64 | 3,470 | (6,650) | 561 | (6,090) | — | — | 4,697 | 2,077 | |
| Commercial and industrial | 87,727 | 52,856 | 140,582 | (73,670) | 6,444 | (67,226) | 293 | 408 | 66,658 | 140,716 | |
| Commercial real estate — owner occupied | 10,284 | (1,851) | 8,433 | (419) | 147 | (272) | 890 | 255 | 1,967 | 11,274 | |
| Commercial and business lending | 101,417 | 51,068 | 152,485 | (80,739) | 7,151 | (73,588) | 1,183 | 663 | 73,853 | 154,598 | |
| Commercial real estate — investor | 40,514 | 2,041 | 42,555 | (22,920) | 643 | (22,277) | 753 | 472 | 71,933 | 93,435 | |
| Real estate construction | 24,915 | 7,467 | 32,382 | (19) | 49 | 31 | 435 | 492 | 25,854 | 59,193 | |
| Commercial real estate lending | 65,428 | 9,508 | 74,937 | (22,938) | 692 | (22,246) | 1,188 | 964 | 97,787 | 152,629 | |
| Total commercial | 166,846 | 60,576 | 227,422 | (103,677) | 7,844 | (95,834) | 2,371 | 1,627 | 171,641 | 307,226 | |
| Residential mortgage | 16,960 | 33,215 | 50,175 | (1,867) | 500 | (1,367) | 651 | 403 | (6,864) | 42,996 | |
| Home equity | 10,926 | 11,649 | 22,575 | (1,719) | 1,978 | 259 | 422 | 374 | (4,781) | 18,849 | |
| Other consumer ^(a) | 6,639 | 7,016 | 13,655 | (4,790) | 1,101 | (3,689) | 61 | 140 | 4,462 | 14,630 | |
| Total consumer | 34,525 | 51,880 | 86,405 | (8,376) | 3,579 | (4,797) | 1,134 | 917 | (7,183) | 76,475 | |
| Total | \$ 201,371 | \$ 112,457 | \$ 313,828 | \$ (112,053) | \$ 11,422 | \$ (100,631) | \$ 3,504 | \$ 2,543 | \$ 164,457 | \$ 383,702 | |
| Allowance for unfunded commitments | | | | | | | | | | | |
| Asset-based lending | \$ 471 | \$ (144) | \$ 328 | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 573 | \$ 901 | |
| Commercial and industrial | 11,805 | (3,854) | 7,950 | — | — | — | — | 61 | 13,399 | 21,411 | |
| Commercial real estate — owner occupied | 127 | — | 127 | — | — | — | — | 4 | 135 | 266 | |
| Commercial and business lending | 12,403 | (3,998) | 8,405 | — | — | — | — | 65 | 14,108 | 22,577 | |
| Commercial real estate — investor | 530 | 246 | 776 | — | — | — | — | 2 | (141) | 636 | |
| Real estate construction | 7,532 | 18,347 | 25,879 | — | — | — | — | 45 | (7,038) | 18,887 | |
| Commercial real estate lending | 8,062 | 18,593 | 26,655 | — | — | — | — | 47 | (7,179) | 19,523 | |
| Total commercial | 20,465 | 14,595 | 35,060 | — | — | — | — | 112 | 6,929 | 42,101 | |
| Home equity | 1,038 | 2,591 | 3,629 | — | — | — | — | 66 | (577) | 3,118 | |
| Other consumer | 405 | 1,504 | 1,909 | — | — | — | — | — | 649 | 2,557 | |
| Total consumer | 1,443 | 4,095 | 5,538 | — | — | — | — | 66 | 72 | 5,675 | |
| Total | \$ 21,907 | \$ 18,690 | \$ 40,597 | \$ — | \$ — | \$ — | \$ — | \$ 179 | \$ 7,000 | \$ 47,776 | |
| Allowance for credit losses on loans | | | | | | | | | | | |
| PPP | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ 531 | \$ 531 | 0.07 % |
| Asset-based lending | 3,878 | (80) | 3,798 | (6,650) | 561 | (6,090) | — | — | 5,270 | 2,978 | 2.17 % |
| Commercial and industrial | 99,531 | 49,001 | 148,532 | (73,670) | 6,444 | (67,226) | 293 | 469 | 80,058 | 162,126 | 2.14 % |
| Commercial real estate — owner occupied | 10,411 | (1,851) | 8,560 | (419) | 147 | (272) | 890 | 259 | 2,102 | 11,539 | 1.28 % |
| Commercial and business lending | 113,820 | 47,070 | 160,890 | (80,739) | 7,151 | (73,588) | 1,183 | 728 | 87,961 | 177,175 | 1.89 % |
| Commercial real estate — investor | 41,044 | 2,287 | 43,331 | (22,920) | 643 | (22,277) | 753 | 474 | 71,792 | 94,071 | 2.17 % |
| Real estate construction | 32,447 | 25,814 | 58,261 | (19) | 49 | 31 | 435 | 537 | 18,816 | 78,080 | 4.24 % |
| Commercial real estate lending | 73,490 | 28,101 | 101,591 | (22,938) | 692 | (22,246) | 1,188 | 1,011 | 90,608 | 172,152 | 2.78 % |
| Total commercial | 187,311 | 75,171 | 262,482 | (103,677) | 7,844 | (95,834) | 2,371 | 1,739 | 178,569 | 349,327 | 2.25 % |
| Residential mortgage | 16,960 | 33,215 | 50,175 | (1,867) | 500 | (1,367) | 651 | 403 | (6,864) | 42,996 | 0.55 % |
| Home equity | 11,964 | 14,240 | 26,204 | (1,719) | 1,978 | 259 | 422 | 440 | (5,358) | 21,967 | 3.11 % |
| Other consumer ^(a) | 7,044 | 8,520 | 15,564 | (4,790) | 1,101 | (3,689) | 61 | 140 | 5,111 | 17,187 | 5.49 % |
| Total consumer | 35,968 | 55,975 | 91,943 | (8,376) | 3,579 | (4,797) | 1,134 | 983 | (7,112) | 82,150 | 0.92 % |
| Total | \$ 223,278 | \$ 131,147 | \$ 354,425 | \$ (112,053) | \$ 11,422 | \$ (100,631) | \$ 3,504 | \$ 2,722 | \$ 171,457 | \$ 431,478 | 1.76 % |

(a) Includes auto

Loans Acquired in Acquisitions

Loans acquired in a business combination after January 1, 2020 are recorded in accordance with ASC Topic 326. See Note 2 for more information on loans acquired in a business combination. After January 1, 2020, acquired loans were segregated into two types:

- Non-PCD loans are accounted for in accordance with ASC Topic 310-20 "Nonrefundable Fees and Other Costs" as these loans do not show evidence of credit deterioration since origination. The allowance for loan losses on these loans is recorded through provision for credit losses on the consolidated statements of income at acquisition.
- PCD loans are loans demonstrating more than insignificant credit deterioration and are accounted for with ASC Topic 326-30. Under this guidance, the credit mark on acquired assets grosses up the ACLL and the amortized cost of the loan.

Note 5 Goodwill and Other Intangible Assets

Goodwill

Goodwill is not amortized but is instead subject to impairment tests on at least an annual basis, and more frequently 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. See Note 1 for the Corporation's accounting policy for goodwill and other intangible assets.

The Corporation conducted its most recent annual impairment testing in May 2021, utilizing a qualitative assessment. Factors that management considered in this assessment include macroeconomic conditions, industry and market considerations, overall financial performance of the Corporation and each reporting unit (both current and projected), changes in management strategy, and changes in the composition or carrying amount of net assets. In addition, management considered the changes in both the Corporation's common stock price and in the overall bank common stock index (based on the S&P 400 Regional Bank Sub-Industry Index), as well as the Corporation's earnings per common share trend over the past year. Based on these assessments, management concluded that it is more likely than not that the estimated fair value exceeded the carrying value (including goodwill) for each reporting unit. Therefore, a step one quantitative analysis was not required. There have been no events since the May 2021 impairment test that have changed the Corporation's impairment assessment conclusion. There were no impairment charges recorded in 2021, 2020, or 2019.

The Corporation had goodwill of \$1.1 billion at both December 31, 2021 and 2020. During the second quarter of 2020, there was a reduction of \$82 million of goodwill related to the sale of ABRC. Throughout 2020, there was a net increase in goodwill related to the First Staunton acquisition of \$15 million. During the first quarter of 2021, there was a reduction of \$4 million of goodwill related to the sale of Whitnell. See Note 2 for additional information on the Corporation's acquisitions and dispositions.

Other Intangible Assets

The Corporation has other intangible assets that are amortized, consisting of CDIs and MSRs. For CDIs and other intangibles, changes in the gross carrying amount, accumulated amortization, and net book value were as follows:

| (\$ in Thousands) | 2021 | 2020 | 2019 |
|--|-----------|-----------|-----------|
| Core deposit intangibles | | | |
| Gross carrying amount at the beginning of the year | \$ 88,109 | \$ 80,730 | \$ 58,100 |
| Additions during the year | — | 7,379 | 22,630 |
| Accumulated amortization | (30,016) | (21,205) | (12,456) |
| Net book value | \$ 58,093 | \$ 66,904 | \$ 68,274 |
| Amortization during the year | \$ 8,811 | \$ 8,749 | \$ 7,130 |
| Other intangibles | | | |
| Gross carrying amount at the beginning of the year | \$ 2,000 | \$ 38,970 | \$ 44,887 |
| Additions during the year | — | 200 | — |
| Reductions due to sale | (1,317) | (17,435) | (217) |
| Accumulated amortization | (683) | (20,385) | (24,643) |
| Net book value | \$ — | \$ 1,350 | \$ 20,027 |
| Amortization during the year | \$ 33 | \$ 1,443 | \$ 2,818 |

Mortgage Servicing Rights

The Corporation sells residential mortgage loans in the secondary market and typically retains the right to service the loans sold. MSR are amortized in proportion to and over the period of estimated net servicing income and assessed for impairment at each reporting date. See Note 1 for the Corporation's accounting policy for MSRs. See Note 16 for a discussion of the recourse provisions on sold residential mortgage loans. See Note 18 which further discusses fair value measurement relative to the MSRs asset.

A summary of changes in the balance of the MSRs asset and the MSRs valuation allowance is as follows:

| (\$ in Thousands) | 2021 | 2020 | 2019 |
|---|-----------|-----------|-----------|
| Mortgage servicing rights | | | |
| Mortgage servicing rights at beginning of year | \$ 59,967 | \$ 67,607 | \$ 68,433 |
| Additions from acquisition | — | 1,357 | — |
| Additions | 16,151 | 13,667 | 11,606 |
| Amortization | (19,436) | (22,664) | (12,432) |
| Mortgage servicing rights at end of year | \$ 56,682 | \$ 59,967 | \$ 67,607 |
| Valuation allowance at beginning of year | (18,006) | (302) | (239) |
| (Additions) recoveries, net | 16,186 | (17,704) | (63) |
| Valuation allowance at end of year | (1,820) | (18,006) | (302) |
| Mortgage servicing rights, net | \$ 54,862 | \$ 41,961 | \$ 67,306 |
| Fair value of mortgage servicing rights | \$ 57,259 | \$ 41,990 | \$ 72,532 |
| Portfolio of residential mortgage loans serviced for others ("servicing portfolio") | 6,994,834 | 7,743,956 | 8,488,969 |
| Mortgage servicing rights, net to servicing portfolio | 0.78 % | 0.54 % | 0.79 % |
| Mortgage servicing rights expense ^(a) | \$ 3,250 | \$ 40,369 | \$ 12,494 |

(a) Includes the amortization of mortgage servicing rights and additions / recoveries to the valuation allowance of mortgage servicing rights, and is a component of mortgage banking, net on the consolidated statements of income.

The projections of amortization expense are based on existing asset balances, the current interest rate environment, and prepayment speeds as of December 31, 2021. The actual amortization expense the Corporation recognizes in any given period may be significantly different depending upon acquisition or sale activities, changes in interest rates, prepayment speeds, market conditions, regulatory requirements, and events or circumstances that indicate the carrying amount of an asset may not be recoverable. The following table shows the estimated future amortization expense for amortizing intangible assets:

| (\$ in Thousands) | Core Deposit Intangibles | | Mortgage Servicing Rights |
|--------------------------------------|--------------------------|-----------|---------------------------|
| Year ending December 31, | | | |
| 2022 | \$ 8,811 | \$ 8,901 | 8,901 |
| 2023 | 8,811 | 9,614 | 9,614 |
| 2024 | 8,811 | 7,811 | 7,811 |
| 2025 | 8,811 | 6,490 | 6,490 |
| 2026 | 8,811 | 5,423 | 5,423 |
| Beyond 2026 | 14,038 | 18,444 | 18,444 |
| Total Estimated Amortization Expense | \$ 58,093 | \$ 56,682 | 56,682 |

Note 6 Premises and Equipment

See Note 1 for the Corporation's accounting policy for premises and equipment. A summary of premises and equipment at December 31, 2021 and 2020 is as follows:

| (\$ in Thousands) | Estimated Useful Lives | Cost | 2021 | | 2020 | |
|---|------------------------|------------|--------------------------|----------------|--------------------------|----------------|
| | | | Accumulated Depreciation | Net Book Value | Accumulated Depreciation | Net Book Value |
| Land | — | \$ 66,830 | \$ — | \$ 66,830 | \$ 70,431 | |
| Land improvements | 3 – 15 years | 18,522 | 8,967 | 9,555 | 9,771 | |
| Buildings and improvements | 5 – 39 years | 386,859 | 173,729 | 213,130 | 222,162 | |
| Computers and related equipment | 4 – 8 years | 54,908 | 41,076 | 13,831 | 14,718 | |
| Furniture, fixtures and other equipment | 3 – 20 years | 136,426 | 94,639 | 41,787 | 58,058 | |
| Operating leases | — | 46,341 | 18,042 | 28,299 | 31,994 | |
| Leasehold improvements | 2 – 20 years | 35,489 | 23,748 | 11,741 | 11,781 | |
| Total premises and equipment | | \$ 745,375 | \$ 360,202 | \$ 385,173 | \$ 418,914 | |

Depreciation and amortization of premises and equipment totaled \$33 million for 2021, and \$34 million for 2020 and 2019.

Note 7 Leases

The Corporation has operating leases for retail and corporate offices, land, and equipment. The Corporation also has finance leases for land and retail and corporate offices.

These leases have original terms of 1 year or longer with remaining maturities up to 41 years, some of which include options to extend the lease term. An analysis of the lease options has been completed and any purchase options or optional periods that the Corporation is reasonably likely to extend have been included in the capitalization.

The discount rate used to capitalize the operating leases is the Corporation's FHLB borrowing rate on the date of lease commencement. When determining the rate to discount specific lease obligations, the repayment period and term are considered.

Operating and finance lease costs and cash flows resulting from these leases are presented below:

| (\$ in Thousands) | Twelve Months Ended December 31, | |
|----------------------------|----------------------------------|-----------|
| | 2021 | 2020 |
| Operating Lease Costs | \$ 8,712 | \$ 11,450 |
| Finance Lease Costs | 107 | 154 |
| Operating Lease Cash Flows | 11,183 | 11,276 |
| Finance Lease Cash Flows | 137 | 122 |

The lease classifications on the consolidated balance sheets were as follows:

| (\$ in Thousands) | Consolidated Balance Sheets Category | December 31, 2021 | | December 31, 2020 | |
|------------------------------------|--|-------------------|-----------|-------------------|--------|
| | | Amount | Amount | Amount | Amount |
| Operating lease right-of-use asset | Premises and equipment | \$ 28,299 | \$ 31,994 | | |
| Finance lease right-of-use asset | Other assets | 143 | 962 | | |
| Operating lease liability | Accrued expenses and other liabilities | 31,345 | 36,425 | | |
| Finance lease liability | Other long-term funding | 163 | 1,128 | | |

The lease payment obligations, weighted-average remaining lease term, and weighted-average original discount rate were as follows:

| (\$ in Thousands) | December 31, 2021 | | | December 31, 2020 | | |
|------------------------------|-------------------|--|--------------------------------|-------------------|--|--------------------------------|
| | Lease payments | Weighted-average lease term (in years) | Weighted-average discount rate | Lease payments | Weighted-average lease term (in years) | Weighted-average discount rate |
| Operating leases | | | | | | |
| Equipment | \$ 192 | 1.50 | 0.45 % | \$ 386 | 2.49 | 0.46 % |
| Retail and corporate offices | 29,008 | 5.56 | 3.26 % | 34,036 | 6.04 | 3.33 % |
| Land | 5,551 | 8.29 | 3.12 % | 6,385 | 8.99 | 3.09 % |
| Total operating leases | \$ 34,751 | 5.94 | 3.22 % | \$ 40,806 | 6.45 | 3.27 % |
| Finance leases | | | | | | |
| Retail and corporate offices | \$ 112 | 1.25 | 1.32 % | \$ — | 0.00 | — % |
| Land | 51 | 0.67 | 1.07 % | 1,145 | 1.65 | 1.05 % |
| Total finance leases | \$ 164 | 1.07 | 1.24 % | \$ 1,145 | 1.65 | 1.05 % |

Contractual lease payment obligations for each of the next five years and thereafter, in addition to a reconciliation to the Corporation's lease liability, were as follows:

| (\$ in Thousands) | Operating Leases | | Finance Leases | | Total Leases |
|--|------------------|--------|----------------|--|--------------|
| Twelve Months Ending December 31, 2022 | \$ 8,056 | \$ 141 | \$ 8,197 | | |
| 2023 | 6,170 | 22 | 6,193 | | |
| 2024 | 5,383 | — | 5,383 | | |
| 2025 | 4,084 | — | 4,084 | | |
| 2026 | 3,518 | — | 3,518 | | |
| Beyond 2026 | 7,541 | — | 7,541 | | |
| Total lease payments | \$ 34,751 | \$ 164 | \$ 34,915 | | |
| Less: interest | 3,406 | 1 | 3,407 | | |
| Present value of lease payments | \$ 31,345 | \$ 163 | \$ 31,508 | | |

As of December 31, 2021 and 2020, additional operating leases, primarily retail and corporate offices, that had not yet commenced totaled \$13 million and \$17 million, respectively. The leases that had not yet commenced as of December 31, 2021, will commence between January 2022 and October 2023 with lease terms of 3 years to 10 years.

The Corporation conducts a portion of its business through certain facilities and equipment under noncancelable operating leases. The Corporation also leases a subdivision of some of its facilities and receives rental income from such lease agreements. The approximate minimum annual rental payments and rental receipts under noncancelable agreements and leases with remaining terms in excess of one year are as follows:

| (\$ in Thousands) | Payments | | Receipts | |
|-------------------|------------------|------------------|----------|--|
| 2022 | \$ 8,467 | \$ 3,099 | | |
| 2023 | 5,842 | 2,980 | | |
| 2024 | 5,238 | 2,715 | | |
| 2025 | 4,067 | 2,427 | | |
| 2026 | 3,506 | 2,184 | | |
| Thereafter | 6,420 | 7,113 | | |
| Total | \$ 33,540 | \$ 20,519 | | |

Total rental expense under leases, net of lease income, totaled \$5 million in 2021, 2020, and 2019.

Note 8 Deposits

The distribution of deposits at December 31 is as follows:

| (\$ in Thousands) | 2021 | 2020 |
|----------------------------|----------------------|----------------------|
| Noninterest-bearing demand | \$ 8,504,077 | \$ 7,661,728 |
| Savings | 4,410,198 | 3,650,085 |
| Interest-bearing demand | 7,019,782 | 6,090,869 |
| Money market | 7,185,111 | 7,322,769 |
| Time deposits | 1,347,262 | 1,757,030 |
| Total deposits | <u>\$ 28,466,430</u> | <u>\$ 26,482,481</u> |

Uninsured deposits were \$14.6 billion and \$14.9 billion at December 31, 2021 and 2020, respectively. Time deposits of \$250,000 or more were \$215 million and \$341 million at December 31, 2021 and 2020, respectively.

Aggregate annual maturities of all time deposits at December 31, 2021, are as follows:

| Maturities During Year Ending December 31, | (\$ in Thousands) |
|--|---------------------|
| 2022 | \$ 1,055,614 |
| 2023 | 177,715 |
| 2024 | 66,105 |
| 2025 | 25,211 |
| 2026 | 22,612 |
| Thereafter | 5 |
| Total | <u>\$ 1,347,262</u> |

Note 9 Short and Long-Term Funding

The following table presents the components of short-term funding (funding with original contractual maturities of one year or less), and long-term funding (funding with original contractual maturities greater than one year):

| (\$ in Thousands) | December 31, 2021 | December 31, 2020 |
|--|---------------------|---------------------|
| Short-Term Funding | | |
| Federal funds purchased | \$ 120 | \$ 7,070 |
| Securities sold under agreements to repurchase | 319,412 | 185,901 |
| Federal funds purchased and securities sold under agreements to repurchase | 319,532 | 192,971 |
| Commercial paper | 34,730 | 59,346 |
| Total short-term funding | <u>\$ 354,262</u> | <u>\$ 252,317</u> |
| Long-Term Funding | | |
| Bank senior notes, at par, due 2021 | \$ — | \$ 300,000 |
| Corporation subordinated notes, at par, due 2025 | 250,000 | 250,000 |
| Capitalized costs | (839) | (1,663) |
| Finance leases | 163 | 1,128 |
| FHLB advances | 1,621,047 | 1,632,723 |
| Total long-term funding | <u>1,870,371</u> | <u>2,182,188</u> |
| Total short and long-term funding | <u>\$ 2,224,633</u> | <u>\$ 2,434,505</u> |

Securities Sold Under Agreement to Repurchase

The Corporation enters into agreements under which it sells securities subject to an obligation to repurchase the same or similar securities. Under these arrangements, the Corporation may transfer legal control over the assets but still retain effective control through an agreement that both entitles and obligates the Corporation to repurchase the assets. The obligation to repurchase the securities is reflected as a liability on the Corporation's consolidated balance sheets, while the securities underlying the repurchase agreements remain in the respective investment securities asset accounts (i.e., there is no offsetting or netting of the investment securities assets with the repurchase agreement liabilities).

The Corporation utilizes securities sold under agreements to repurchase to facilitate the needs of its customers. As of December 31, 2021, the Corporation pledged agency mortgage-related securities with a fair value of \$448 million as collateral for the repurchase agreements. Securities pledged as collateral under repurchase agreements are maintained with the Corporation's safekeeping agents and are monitored on a daily basis due to the market risk of fair value changes in the

underlying securities. The Corporation generally pledges excess securities to ensure there is sufficient collateral to satisfy short-term fluctuations in both the repurchase agreement balances and the fair value of the underlying securities.

The remaining contractual maturity of the securities sold under agreements to repurchase on the consolidated balance sheets as of December 31, 2021 and 2020 are presented in the following table:

| (\$ in Thousands) | Overnight and Continuous | |
|------------------------------------|--------------------------|-------------------|
| | December 31, 2021 | December 31, 2020 |
| Repurchase agreements | | |
| Agency mortgage-related securities | \$ 319,412 | \$ 185,901 |
| Total | \$ 319,412 | \$ 185,901 |

Long-Term Funding

Senior Notes

In August 2018, the Bank issued \$300 million of senior notes, due August 2021, and callable July 2021. The senior notes had a fixed coupon interest rate of 3.50% and were issued at a discount. The Bank redeemed all of the senior notes on July 13, 2021, the initial redemption date under the terms of the notes.

Subordinated Notes

In November 2014, the Corporation issued \$250 million of 10-year subordinated notes, due January 2025, and callable October 2024. The subordinated notes have a fixed coupon interest rate of 4.25% and were issued at a discount.

Finance Leases

Finance leases are used in conjunction with branch operations. See Note 7 for additional disclosure regarding the Corporation's leases.

FHLB Advances

Under agreements with the FHLB of Chicago, FHLB advances are secured by qualifying mortgages of the subsidiary bank (such as residential mortgage, residential mortgage loans held for sale, home equity, and CRE). At December 31, 2021, the Corporation had \$8.4 billion of total collateral capacity, primarily supported by residential mortgage, CRE and home equity loans. At December 31, 2021, the FHLB advances had maturity or call dates ranging from 2022 through 2028, and had a weighted average interest rate of 2.05%, compared to 2.34% at December 31, 2020.

The table below summarizes the maturities of the Corporation's long-term funding at December 31, 2021:

| (\$ in Thousands) | Long Term Funding |
|-------------------------|-------------------|
| Year | |
| 2022 | \$ 11,811 |
| 2023 | 2,363 |
| 2024 | 633 |
| 2025 | 649,377 |
| 2026 | 604,813 |
| Thereafter | 601,375 |
| Total long-term funding | \$ 1,870,371 |

Note 10 Stockholders' Equity

Preferred Equity: In June 2015, the Corporation issued 2.6 million depository shares, each representing a 1/40th interest in a share of the Corporation's 6.125% Non-Cumulative Perpetual Preferred Stock, Series C, liquidation preference \$1,000 per share. Dividends on the Series C Preferred Stock are payable quarterly in arrears only when, as and if declared by the Board of Directors at a rate per annum equal to 6.125%. Shares of the Series C Preferred Stock have priority over the Corporation's common stock with regard to the payment of dividends and distributions upon liquidation, dissolution or winding up. As such, the Corporation may not pay dividends on or repurchase, redeem, or otherwise acquire for consideration shares of its common stock unless dividends for the Series C Preferred Stock have been declared for that period, and sufficient funds have been set aside to make payment. The Series C Preferred Stock may be redeemed by the Corporation at its option (i) either in whole or in

part, from time to time, on any dividend payment date on or after the dividend payment date occurring on June 15, 2020, or (ii) in whole but not in part, at any time within 90 days following certain regulatory capital treatment events, in each case at a redemption price of \$1,000 per share (equivalent to \$25 per depositary share), plus any applicable dividends. Except in certain limited circumstances, the Series C Preferred Stock does not have any voting rights.

On June 15, 2021, the Corporation redeemed all remaining Series C depositary shares for \$65 million.

In September 2016, the Corporation issued 4.0 million depositary shares, each representing a 1/40th interest in a share of the Corporation's 5.375% Non-Cumulative Perpetual Preferred Stock, Series D, liquidation preference \$1,000 per share. Dividends on the Series D Preferred Stock are payable quarterly in arrears only when, as and if declared by the Board of Directors at a rate per annum equal to 5.375%. Shares of the Series D Preferred Stock have priority over the Corporation's common stock with regard to the payment of dividends and distributions upon liquidation, dissolution or winding up. As such, the Corporation may not pay dividends on or repurchase, redeem, or otherwise acquire for consideration shares of its common stock unless dividends for the Series D Preferred Stock have been declared for that period, and sufficient funds have been set aside to make payment. The Series D Preferred Stock may be redeemed by the Corporation at its option (i) either in whole or in part, from time to time, on any dividend payment date on or after the dividend payment date occurring on September 15, 2021, or (ii) in whole but not in part, at any time within 90 days following certain regulatory capital treatment events, in each case at a redemption price of \$1,000 per share (equivalent to \$25 per depositary share), plus any applicable dividends. Except in certain limited circumstances, the Series D Preferred Stock does not have any voting rights.

On July 25, 2017, the Board of Directors authorized the repurchase of up to \$15 million of depositary shares of the Corporation's Series D Preferred Stock. During 2018, the Corporation repurchased approximately 22,000 depositary shares for \$1 million. On September 15, 2021, the Corporation redeemed all remaining Series D depositary shares for \$99 million.

In September 2018, the Corporation issued 4.0 million depositary shares, each representing a 1/40th interest in a share of the Corporation's 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, liquidation preference \$1,000 per share. Dividends on the Series E Preferred Stock are payable quarterly in arrears only when, as and if declared by the Board of Directors at a rate per annum equal to 5.875%. Shares of the Series E Preferred Stock have priority over the Corporation's common stock with regard to the payment of dividends and distributions upon liquidation, dissolution or winding up. As such, the Corporation may not pay dividends on or repurchase, redeem, or otherwise acquire for consideration shares of its common stock unless dividends for the Series E Preferred Stock have been declared for that period, and sufficient funds have been set aside to make payment. The Series E Preferred Stock may be redeemed by the Corporation at its option (i) either in whole or in part, from time to time, on any dividend payment date on or after the dividend payment date occurring on December 15, 2023, or (ii) in whole but not in part, at any time within 90 days following certain regulatory capital treatment events, in each case at a redemption price of \$1,000 per share (equivalent to \$25 per depositary share), plus any applicable dividends. Except in certain limited circumstances, the Series E Preferred Stock does not have any voting rights.

In June 2020, the Corporation issued 4.0 million depositary shares, each representing a 1/40th interest in a share of the Corporation's 5.625% Non-Cumulative Perpetual Preferred Stock, Series F, liquidation preference \$1,000 per share. Dividends on the Series F Preferred Stock are payable quarterly in arrears only when, as and if declared by the Board of Directors at a rate per annum equal to 5.625%. Shares of the Series F Preferred Stock have priority over the Corporation's common stock with regard to the payment of dividends and distributions upon liquidation, dissolution or winding up. As such, the Corporation may not pay dividends on or repurchase, redeem, or otherwise acquire for consideration shares of its common stock unless dividends for the Series F Preferred Stock have been declared for that period, and sufficient funds have been set aside to make payment. The Series F Preferred Stock may be redeemed by the Corporation at its option (i) either in whole or in part, from time to time, on any dividend payment date on or after the dividend payment date occurring on September 15, 2025, or (ii) in whole but not in part, at any time within 90 days following certain regulatory capital treatment events, in each case at a redemption price of \$1,000 per share (equivalent to \$25 per depositary share), plus any applicable dividends. Except in certain limited circumstances, the Series F Preferred Stock does not have any voting rights.

Subsidiary Equity: At December 31, 2021, subsidiary equity equaled \$4.0 billion. See Note 19 for additional information on regulatory requirements for the Bank.

Common Stock Repurchases: In 2021, the Board of Directors approved additional authorizations for the repurchase of up to \$100 million of the Corporation's common stock. In 2020, the Board of Directors did not approve any additional authorizations for the repurchase of the Corporation's common stock. During 2021, the Corporation repurchased 6.3 million shares for \$133 million (or an average cost per common share of \$21.12), compared to 4.3 million shares for \$71 million (or an average cost per common share of \$16.71) during 2020.

As of December 31, 2021, \$80 million remained available to repurchase shares of common stock under previously approved Board of Director authorizations. The repurchase of shares will be based on market and investment opportunities, capital levels, growth prospects, and any necessary regulatory approvals and other regulatory constraints. Such repurchases may occur from time to time in open market purchases, block transactions, private transactions, accelerated share repurchase programs, or similar facilities.

The Corporation also repurchased shares in satisfaction of minimum tax withholding obligations in connection with settlements of equity compensation totaling \$5 million (242,966 shares at an average cost per common share of \$19.95) during 2021, compared to \$6 million (321,488 shares at an average cost per common share of \$19.01) during 2020.

Other Comprehensive Income (Loss): See the Consolidated Statements of Comprehensive Income for a summary of activity in other comprehensive income (loss) and see Note 22 for a summary of the components of accumulated other comprehensive income (loss).

Note 11 Stock-Based Compensation

Stock-Based Compensation Plan

In February 2020, the Board of Directors, with subsequent approval of the Corporation's shareholders, approved the adoption of the 2020 Incentive Compensation Plan. All remaining shares available for grant under the 2017 Incentive Compensation Plan were rolled into the 2020 Plan. As of December 31, 2021, approximately 11.0 million shares remained available for grant under the 2020 Plan.

Under the 2020 Plan, options are generally exercisable up to ten years from the date of grant, have an exercise price that is equal to the closing price of the Corporation's stock on the grant date, and vest ratably over four years.

The Corporation also issues restricted stock awards under the 2020 Plan. The shares of restricted stock are restricted as to transfer, but are not restricted as to dividend payment or voting rights. Restricted stock units receive dividend equivalents but do not have voting rights. The transfer restrictions lapse over three years or four years, depending upon whether the awards are performance-based or service-based. Performance-based awards are based on earnings per share performance goals, relative total shareholder return, and continued employment or meeting the requirements for retirement and service-based awards are contingent upon continued employment or meeting the requirements for retirement. Performance-based restricted stock awards granted during 2020 and 2021 will cliff-vest after the three year performance period has ended. Service-based restricted stock awards granted during 2020 and 2021 will vest ratably over four years.

The 2020 Plan provides that restricted stock awards and stock options will immediately become fully vested upon retirement from the Corporation of retirement eligible colleagues. See Note 1 for the Corporation's accounting policy for stock based compensation.

Accounting for Stock-Based Compensation

The fair values of stock options and restricted stock awards (including restricted stock units) are amortized as compensation expense on a straight-line basis over the vesting period of the grants. For retirement eligible colleagues, expenses related to stock options and restricted stock awards are fully recognized on the date the colleague meets the definition of normal or early retirement. Compensation expense recognized is included in personnel expense on the consolidated statements of income.

Performance awards are based on performance goals of earnings per share and total shareholder return with vesting ranging from a minimum of 0% to a maximum of 150% of the target award. Performance awards are valued utilizing a Monte Carlo simulation model to estimate fair value of the awards at the grant date.

Assumptions are used in estimating the fair value of stock options granted. The weighted average expected life of the stock option represents the period of time that stock options are expected to be outstanding and is estimated using historical data of stock option exercises and forfeitures. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The expected volatility is based on the implied volatility of the Corporation's stock. The Corporation did not grant stock options during 2021.

The following assumptions were used in estimating the fair value for options granted in 2020 and 2019:

| | 2020 | 2019 |
|--|------------|------------|
| Dividend yield | 3.50 % | 3.30 % |
| Risk-free interest rate | 1.60 % | 2.60 % |
| Weighted average expected volatility | 21.00 % | 24.00 % |
| Weighted average expected life | 5.75 years | 5.75 years |
| Weighted average per share fair value of options | \$2.39 | \$4.00 |

A summary of the Corporation's stock option activity for the year ended December 31, 2021 is presented below:

| Stock Options | Shares ^(a) | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term | Aggregate Intrinsic Value (\$ in thousands) |
|--|-----------------------|---------------------------------|---|---|
| Outstanding at December 31, 2020 | 6,473 | \$ 19.77 | 6.23 years | \$ 2,005 |
| Exercised | (1,533) | 16.58 | | |
| Forfeited or expired | (126) | 22.28 | | |
| Outstanding at December 31, 2021 | <u>4,814</u> | \$ 20.72 | 5.96 years | \$ 12,532 |
| Options exercisable at December 31, 2021 | <u>3,264</u> | \$ 21.00 | 5.13 years | \$ 8,294 |

(a) In thousands

Intrinsic value represents the amount by which the fair market value of the underlying stock exceeds the exercise price of the stock option. For the years ended December 31, 2021, 2020, and 2019, the intrinsic value of stock options exercised was \$9 million, approximately \$816,000, and \$4 million, respectively. The total fair value of stock options that vested was \$4 million for the year ended December 31, 2021, \$4 million for the year ended December 31, 2020, and \$3 million for the year ended December 31, 2019.

For the years ended December 31, 2021, 2020, and 2019, the Corporation recognized compensation expense of \$1 million, \$4 million, and \$4 million, respectively, for the vesting of stock options. Included in compensation expense for 2021 was approximately \$167,000 of expense for the accelerated vesting of stock options granted to retirement eligible colleagues. At December 31, 2021, the Corporation had \$1 million of unrecognized compensation expense related to stock options that is expected to be recognized over the remaining requisite service periods that extend predominantly through the first quarter 2024.

The following table summarizes information about the Corporation's restricted stock activity for the year ended December 31, 2021:

| Restricted Stock | Shares ^(a) | Weighted Average Grant Date Fair Value |
|----------------------------------|-----------------------|--|
| Outstanding at December 31, 2020 | 2,293 | \$ 20.46 |
| Granted | 1,229 | 20.03 |
| Vested | (812) | 21.23 |
| Forfeited | (75) | 21.72 |
| Outstanding at December 31, 2021 | <u>2,635</u> | \$ 19.87 |

(a) In thousands

The Corporation amortizes the expense related to restricted stock awards as compensation expense over the vesting period specified in the grant. Expense for restricted stock awards of \$15 million was recorded for the year ended December 31, 2021, \$17 million for the year ended December 31, 2020 and \$21 million for the year ended December 31, 2019. Included in compensation expense for 2021 was \$3 million of expense for the accelerated vesting of restricted stock awards granted to retirement eligible colleagues. The Corporation had \$21 million of unrecognized compensation costs related to restricted stock awards at December 31, 2021 that are expected to be recognized over the remaining requisite service periods that extend predominantly through first quarter 2025. The Corporation has the ability to issue shares from treasury or new shares upon the exercise of stock options or the granting of restricted stock awards.

As described in Note 10, the Board of Directors has authorized management to repurchase shares of the Corporation's common stock each quarter in the market, to be made available for issuance in connection with the Corporation's employee incentive plans and for other corporate purposes. The repurchase of shares will be based on market and investment opportunities, capital levels, growth prospects, and the receipt of any necessary regulatory approvals. Such repurchases may occur from time to time in open market purchases, block transactions, private transactions, accelerated share repurchase programs, or similar facilities.

Note 12 Retirement Plans

The Corporation has a noncontributory defined benefit RAP, covering substantially all employees who meet participation requirements. The benefits are based primarily on years of service and the employee's compensation paid. Employees of acquired entities generally participate in the RAP after consummation of the business combinations. Any retirement plans of acquired entities are typically merged into the RAP after completion of the mergers, and credit is usually given to employees for years of service at the acquired institution for vesting and eligibility purposes.

The Corporation also provides legacy healthcare access to a limited group of retired employees from a previous acquisition in the Postretirement Plan. There are no other active retiree healthcare plans.

The First Staunton acquisition closed on February 14, 2020, and the employees who met the required criteria became eligible to participate in the RAP on February 15, 2020, with their vesting service credit based on their prior hours of service with First Staunton. See Note 2 for additional information on the First Staunton acquisition.

The funded status and amounts recognized on the 2021 and 2020 consolidated balance sheets, as measured on December 31, 2021 and 2020, respectively, for the RAP and Postretirement Plan were as follows:

| (\$ in Thousands) | RAP 2021 | Postretirement Plan 2021 | RAP 2020 | Postretirement Plan 2020 |
|---|-------------|--------------------------------|-------------|--------------------------------|
| Change in Fair Value of Plan Assets | | | | |
| Fair value of plan assets at beginning of year | \$ 478,849 | \$ — | \$ 442,034 | \$ — |
| Actual return on plan assets | 41,576 | — | 58,802 | — |
| Employer contributions | — | 201 | — | 210 |
| Gross benefits paid | (22,629) | (201) | (21,987) | (210) |
| Fair value of plan assets at end of year ^(a) | \$ 497,796 | \$ — | \$ 478,849 | \$ — |
| Change in Benefit Obligation | | | | |
| Net benefit obligation at beginning of year | \$ 280,017 | \$ 2,243 | \$ 260,576 | \$ 2,545 |
| Service cost | 7,779 | — | 8,244 | — |
| Interest cost | 6,570 | 52 | 8,185 | 78 |
| Plan amendments | (1,494) | — | — | — |
| Actuarial (gain) loss | (8,921) | (119) | 24,998 | (169) |
| Gross benefits paid | (22,629) | (201) | (21,987) | (210) |
| Net benefit obligation at end of year ^(a) | \$ 261,321 | \$ 1,975 | \$ 280,017 | \$ 2,243 |
| Funded (unfunded) status | \$ 236,475 | \$ (1,975) | \$ 198,832 | \$ (2,243) |
| Noncurrent assets | \$ 236,475 | \$ — | \$ 198,832 | \$ — |
| Current liabilities | — | (177) | — | (189) |
| Noncurrent liabilities | — | (1,798) | — | (2,055) |
| Asset (liability) recognized on the consolidated balance sheets | \$ 236,475 | \$ (1,975) | \$ 198,832 | \$ (2,243) |

(a) The fair value of the plan assets represented 190% and 171% of the net benefit obligation of the pension plan at December 31, 2021 and 2020, respectively.

Amounts recognized in accumulated other comprehensive (income) loss, net of tax, as of December 31, 2021 and 2020 were as follows:

| (\$ in Thousands) | RAP 2021 | Postretirement Plan 2021 | RAP 2020 | Postretirement Plan 2020 |
|---|-------------|--------------------------------|-------------|--------------------------------|
| Prior service cost | \$ (1,253) | \$ (419) | \$ (194) | \$ (477) |
| Net actuarial loss | 5,605 | (89) | 28,029 | — |
| Amount not yet recognized in net periodic benefit cost, but recognized in accumulated other comprehensive (income) loss | \$ 4,352 | \$ (508) | \$ 27,835 | \$ (477) |

Other changes in plan assets and benefit obligations recognized in OCI, net of tax, in 2021 and 2020 were as follows:

| (\$ in Thousands) | RAP 2021 | Postretirement Plan 2021 | RAP 2020 | Postretirement Plan 2020 |
|------------------------------------|-------------|--------------------------------|-------------|--------------------------------|
| Net actuarial gain | \$ 25,257 | \$ 119 | \$ 8,209 | \$ 169 |
| Amortization of prior service cost | (73) | (75) | (73) | (75) |
| Amortization of actuarial loss | 4,594 | — | 3,897 | — |
| Prior service cost | 1,494 | — | — | — |
| Income tax (expense) | (7,791) | (11) | (3,040) | (23) |
| Total Recognized in OCI | \$ 23,480 | \$ 33 | \$ 8,993 | \$ 71 |

The components of net pension cost for the RAP for 2021, 2020, and 2019 were as follows:

| (\$ in Thousands) | 2021 | 2020 | 2019 |
|-------------------------------------|------------|------------|------------|
| Service cost | \$ 7,779 | \$ 8,244 | \$ 7,263 |
| Interest cost | 6,570 | 8,185 | 9,752 |
| Expected return on plan assets | (25,675) | (25,595) | (24,332) |
| Amortization of prior service cost | (73) | (73) | (73) |
| Amortization of actuarial loss | 4,594 | 3,897 | 480 |
| Recognized settlement loss | 434 | — | — |
| Total net periodic pension (income) | \$ (6,370) | \$ (5,342) | \$ (6,910) |

The components of net periodic benefit cost for the Postretirement Plan for 2021, 2020, and 2019 were as follows:

| (\$ in Thousands) | 2021 | 2020 | 2019 |
|--|---------|-------|--------|
| Interest cost | \$ 52 | \$ 78 | \$ 104 |
| Amortization of prior service cost | (75) | (75) | (75) |
| Amortization of actuarial (gain) | — | — | (4) |
| Total net periodic benefit cost (income) | \$ (24) | \$ 3 | \$ 25 |

The components of net periodic pension cost and net periodic benefit cost, other than the service cost component, are included in the line item other of noninterest expense on the consolidated statements of income. The service cost components are included in personnel on the consolidated statements of income.

| | RAP 2021 | Postretirement Plan 2021 | RAP 2020 | Postretirement Plan 2020 |
|--|-------------|--------------------------------|-------------|--------------------------------|
| Weighted average assumptions used to determine benefit obligations | | | | |
| Discount rate | 2.80 % | 2.80 % | 2.40 % | 2.40 % |
| Rate of increase in compensation levels | 2.50 % | N/A | 2.00 % | N/A |
| Interest crediting rate | 3.07 % | N/A | 3.24 % | N/A |
| Weighted average assumptions used to determine net periodic benefit costs | | | | |
| Discount rate | 2.40 % | 2.40 % | 3.20 % | 3.20 % |
| Rate of increase in compensation levels | 2.00 % | N/A | 2.00 % | N/A |
| Expected long-term rate of return on plan assets | 6.00 % | N/A | 6.20 % | N/A |

The expected long-term (more than 20 years) rate of return was estimated using market benchmarks for equities and bonds applied to the RAP's anticipated asset allocations. The expected return on equities was computed utilizing a valuation framework, which projected future returns based on current equity valuations rather than historical returns. The actual rates of return for the RAP assets were 10.10% and 15.18% for 2021 and 2020, respectively.

The RAP's investments are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risks associated with certain investments and the level of uncertainty related to changes in the value of the investments, it is at least reasonably possible that changes in risks in the near term could materially affect the amounts reported. The investment objective for the RAP is to maximize total return with a tolerance for average risk. The RAP has a diversified portfolio designed to provide liquidity, current income, and growth of income and principal, with anticipated asset allocation ranges of: equity securities 50 to 70%, fixed-income securities 30 to 50%, alternative securities 0 to 15%, and other cash equivalents 0 to 10%. Based on changes in economic and market conditions, the Corporation could be outside of the allocation ranges for brief

periods of time. The asset allocation for the RAP as of the December 31, 2021 and 2020 measurement dates, respectively, by asset category were as follows:

| Asset Category | 2021 | 2020 |
|-------------------------|-------|-------|
| Equity securities | 55 % | 53 % |
| Fixed-income securities | 34 % | 33 % |
| Group annuity contracts | 10 % | 11 % |
| Alternative securities | — % | 1 % |
| Other | 1 % | 2 % |
| Total | 100 % | 100 % |

The RAP assets include cash equivalents, such as money market accounts, mutual funds, common / collective trust funds (which include investments in equity and bond securities), and a group annuity contract. Money market accounts are stated at cost plus accrued interest, mutual funds are valued at quoted market prices, investments in common / collective trust funds are valued at the amount at which units in the funds can be withdrawn, and the group annuity contract is valued at fair value by discounting the related cash flows based on current yields of similar instruments with comparable durations and considering the credit worthiness of the issuer.

Based on these inputs, the following table summarizes the fair value of the RAP's investments as of December 31, 2021 and 2020:

| (\$ in Thousands) | December 31, 2021 | Fair Value Measurements Using | | |
|--------------------------------|-------------------|-------------------------------|---------|-----------|
| | | Level 1 | Level 2 | Level 3 |
| RAP Investments | | | | |
| Money market account | \$ 5,446 | \$ 5,446 | \$ — | \$ — |
| Common /collective trust funds | 185,791 | 185,791 | — | — |
| Mutual funds | 257,345 | 257,345 | — | — |
| Group annuity contracts | 49,213 | — | — | 49,213 |
| Total RAP investments | \$ 497,796 | \$ 448,582 | \$ — | \$ 49,213 |

| (\$ in Thousands) | December 31, 2020 | Fair Value Measurements Using | | |
|--------------------------------|-------------------|-------------------------------|---------|-----------|
| | | Level 1 | Level 2 | Level 3 |
| RAP Investments | | | | |
| Money market account | \$ 9,429 | \$ 9,429 | \$ — | \$ — |
| Common /collective trust funds | 172,950 | 172,950 | — | — |
| Mutual funds | 245,605 | 245,605 | — | — |
| Group annuity contracts | 50,866 | — | — | 50,866 |
| Total RAP investments | \$ 478,849 | \$ 427,983 | \$ — | \$ 50,866 |

The following presents a summary of the changes in the fair value of the RAP's Level 3 asset during the periods indicated.

| Fair Value Reconciliation of Level 3 RAP Investments | 2021 | 2020 |
|---|-----------|-----------|
| Fair value of group annuity contract at beginning of period | \$ 50,866 | \$ 50,055 |
| Return on plan assets | 921 | 3,499 |
| Transfers from money market funds and equity securities | 66 | — |
| Benefits paid | (2,640) | (2,688) |
| Fair value of group annuity contract at end of period | \$ 49,213 | \$ 50,866 |

The Corporation's funding policy is to pay at least the minimum amount required by federal law and regulations, with consideration given to the maximum funding amounts allowed. The Corporation regularly reviews the funding of its RAP. There were no contributions to the RAP during 2021 and 2020.

The projected benefit payments were calculated using the same assumptions as those used to calculate the benefit obligations listed above. The projected benefit payments for the RAP and Postretirement Plan at December 31, 2021, reflecting expected future services, were as follows:

| (\$ in Thousands) | RAP | Postretirement Plan |
|--|-----------|---------------------|
| Estimated future benefit payments | | |
| 2022 | \$ 16,398 | \$ 180 |
| 2023 | 15,956 | 175 |
| 2024 | 16,897 | 169 |
| 2025 | 18,555 | 163 |
| 2026 | 17,051 | 156 |
| 2027-2031 | 77,883 | 674 |

The health care trend rate is an assumption as to how much the Postretirement Plan's medical costs will change each year in the future. There are no remaining participants under age 65 in the Postretirement Plan. The actual change in 2021 health care premium rates for post-65 coverage was a decrease of 2.00%. The health care trend rate assumption for post-65 coverage is an increase of 5.25% in 2022 with the rate of increase slowing by 0.25% to an ultimate rate of 5.00% for 2023 and future years.

The Corporation also has a 401(k) and Employee Stock Ownership Plan (the "401(k) plan"). The Corporation's contribution is determined by the Compensation and Benefits Committee of the Board of Directors. Total expenses related to contributions to the 401(k) plan were \$13 million, \$15 million, and \$16 million for 2021, 2020, and 2019, respectively.

Note 13 Income Taxes

The current and deferred amounts of income tax expense (benefit) were as follows:

| (\$ in Thousands) | Years Ended December 31, | | |
|--------------------------|--------------------------|-----------|-----------|
| | 2021 | 2020 | 2019 |
| Current | | | |
| Federal | \$ 57,916 | \$ 33,020 | \$ 50,560 |
| State | 12,035 | 16,193 | 15,327 |
| Total current | 69,951 | 49,213 | 65,887 |
| Deferred | | | |
| Federal | 9,115 | (25,895) | 14,094 |
| State | 6,247 | (3,118) | (261) |
| Total deferred | 15,362 | (29,013) | 13,833 |
| Total income tax expense | \$ 85,313 | \$ 20,200 | \$ 79,720 |

Temporary differences between the amounts reported on the financial statements and the tax bases of assets and liabilities resulted in deferred taxes. DTAs and liabilities at December 31, 2021 and 2020, included in other assets and accrued expenses and other liabilities on the consolidated balance sheets, respectively, were as follows:

| (\$ in Thousands) | 2021 | 2020 |
|---|-------------------|-------------------|
| Deferred tax assets | | |
| Allowance for loan losses | \$ 72,199 | \$ 88,967 |
| Allowance for other losses | 12,704 | 16,347 |
| Accrued liabilities | 4,285 | 3,776 |
| Deferred compensation | 31,896 | 27,896 |
| Benefit of tax loss and credit carryforwards | 6,245 | 9,789 |
| Nonaccrual interest | 1,374 | 1,763 |
| Lease liability | 12,954 | 13,328 |
| Basis difference from equity securities and other investments | — | 6,329 |
| Net unrealized losses on AFS securities | 1,989 | — |
| Net unrealized losses on pension and postretirement benefits | 1,308 | 9,110 |
| Other | 3,806 | 997 |
| Total deferred tax assets | \$ 148,760 | \$ 178,302 |
| Valuation allowance for deferred tax assets | — | (251) |
| Total deferred tax assets after valuation allowance | \$ 148,760 | \$ 178,051 |
| Deferred tax liabilities | | |
| Prepaid expenses | \$ 61,826 | \$ 63,113 |
| Goodwill | 22,785 | 21,698 |
| Mortgage banking activities | 14,382 | 10,403 |
| Deferred loan fee income | 7,848 | 9,799 |
| State deferred taxes | 1,234 | 2,636 |
| Lease financing | — | 116 |
| Bank premises and equipment | 20,705 | 30,188 |
| Purchase accounting | 11,500 | 12,658 |
| Basis difference from equity securities and other investments | 2,597 | — |
| Net unrealized gains on AFS securities | — | 13,568 |
| Other | 667 | 1,049 |
| Total deferred tax liabilities | \$ 143,544 | \$ 165,228 |
| Net deferred tax assets (liabilities) | \$ 5,216 | \$ 12,823 |

At December 31, 2020, the valuation allowance for DTAs of approximately \$251,000 was related to the deferred tax benefit of specific federal tax loss carryforwards of \$3 million from a 2017 acquisition. The changes in the valuation allowance related to net operating losses for 2021 and 2020 were as follows:

| (\$ in Thousands) | 2021 | 2020 |
|---|-------------|-----------------|
| Valuation allowance for deferred tax assets, beginning of year | \$ (251) | \$ (251) |
| Decrease in current year | 251 | — |
| Valuation allowance for deferred tax assets, end of year | \$ — | \$ (251) |

At December 31, 2021, the Corporation had state net operating loss carryforwards of \$79 million (of which \$32 million was acquired from various acquisitions) that will begin expiring in 2031.

The effective income tax rate differs from the statutory federal tax rate. The major reasons for this difference were as follows:

| | 2021 | 2020 | 2019 |
|---|--------|---------|--------|
| Federal income tax rate at statutory rate | 21.0 % | 21.0 % | 21.0 % |
| Increases (decreases) resulting from: | | | |
| Tax-exempt interest and dividends | (3.0)% | (3.9)% | (3.3)% |
| State income taxes (net of federal benefit) | 3.8 % | 3.7 % | 3.5 % |
| Bank owned life insurance | (0.6)% | (0.9)% | (0.8)% |
| Tax effect of tax credits and benefits, net of related expenses | (1.8)% | (1.8)% | (0.9)% |
| Tax reserve adjustments / settlements | — % | 0.1 % | 0.2 % |
| Net tax (benefit) expense from stock-based compensation | — % | 0.3 % | (0.2)% |
| Restructuring in conjunction with ABRC sale | (0.1)% | (13.7)% | — % |
| FDIC premium | 0.5 % | 0.8 % | 0.5 % |
| Other | (0.2)% | 0.6 % | (0.4)% |
| Effective income tax rate | 19.6 % | 6.2 % | 19.6 % |

Savings banks acquired by the Corporation in 1997 and 2004 qualified under provisions of the Internal Revenue Code that permitted them to deduct from taxable income an allowance for bad debts that differed from the provision for such losses charged to income for financial reporting purposes. Accordingly, no provision for income taxes has been made for \$100 million of retained income at December 31, 2021. If income taxes had been provided, the deferred tax liability would have been approximately \$25 million. Management does not expect this amount to become taxable in the future; therefore, no provision for income taxes has been made.

The Corporation and its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state jurisdictions. The Corporation's federal income tax returns are open and subject to examination from the 2018 tax return year and forward. The years open to examination by state and local government authorities varies by jurisdiction.

A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

| (\$ in Millions) | 2021 | 2020 |
|---|------|------|
| Balance at beginning of year | \$ 3 | \$ 3 |
| Subtractions for tax positions related to prior years | (1) | — |
| Balance at end of year | \$ 2 | \$ 3 |

At December 31, 2021 and 2020, the total amounts of unrecognized tax benefits that, if recognized, would affect the effective tax rate were \$2 million and \$3 million, respectively.

The Corporation recognizes interest and penalties accrued related to unrecognized tax benefits in the income tax expense line on the consolidated statements of income. Interest and penalty benefits were negligible at both December 31, 2021 and 2020. Accrued interest and penalties were negligible at both December 31, 2021 and December 31, 2020. Management does not anticipate significant adjustments to the total amount of unrecognized tax benefits within the next twelve months.

Note 14 Derivative and Hedging Activities

The Corporation is exposed to certain risk arising from both its business operations and economic conditions. The Corporation principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Corporation manages economic risks, including interest rate, liquidity, and credit risk primarily by managing the amount, sources, and duration of its assets and liabilities and the use of derivative financial instruments. Specifically, the Corporation enters into derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates. The Corporation's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Corporation's known or expected cash receipts and its known or expected cash payments principally related to the Corporation's assets.

The contract or notional amount of a derivative is used to determine, along with the other terms of the derivative, the amounts to be exchanged between the counterparties. The Corporation is exposed to credit risk in the event of nonperformance by counterparties to financial instruments. To mitigate the counterparty risk, contracts generally contain language outlining collateral pledging requirements for each counterparty. For non-centrally cleared derivatives, collateral must be posted when the market value exceeds certain mutually agreed upon threshold limits. Securities and cash are often pledged as collateral. The Corporation pledged \$71 million of investment securities as collateral at December 31, 2021, and pledged \$72 million of investment securities as collateral at December 31, 2020. Cash is often pledged as collateral for derivatives that are not centrally

cleared. At December 31, 2021, the Corporation posted \$11 million cash collateral compared to \$31 million at December 31, 2020. See Note 18 for fair value information and disclosures and see Note 1 for the Corporation's accounting policy for derivative and hedging activities.

Derivatives to Accommodate Customer Needs

The Corporation also facilitates customer borrowing activity by entering into various derivative contracts which are designated as free standing derivative contracts. Free standing derivative products are entered into primarily for the benefit of commercial customers seeking to manage their exposures to interest rate risk, foreign currency, and commodity prices. These derivative contracts are not designated against specific assets and liabilities on the consolidated balance sheets or forecasted transactions and, therefore, do not qualify for hedge accounting treatment. Such derivative contracts are carried at fair value in other assets and accrued expenses and other liabilities on the consolidated balance sheets with changes in the fair value recorded as a component of capital markets, net, and typically include interest rate-related instruments (swaps and caps), foreign currency exchange forwards, and commodity contracts. See Note 15 for additional information and disclosures on balance sheet offsetting.

Interest rate-related instruments: The Corporation provides interest rate risk management services to commercial customers, primarily forward interest rate swaps and caps. The Corporation's market risk from unfavorable movements in interest rates related to these derivative contracts is generally economically hedged by concurrently entering into offsetting derivative contracts. The offsetting derivative contracts have identical notional values, terms, and indices.

Foreign currency exchange forwards: The Corporation provides foreign currency exchange services to customers, primarily forward contracts. The Corporation's customers enter into a foreign currency exchange forward with the Corporation as a means for them to mitigate exchange rate risk. The Corporation mitigates its risk by then entering into an offsetting foreign currency exchange derivative contract.

Commodity contracts: Commodity contracts are entered into primarily for the benefit of commercial customers seeking to manage their exposure to fluctuating commodity prices. The Corporation mitigates its risk by then entering into an offsetting commodity derivative contract.

Mortgage Derivatives

Interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans are considered derivative instruments, and the fair value of these commitments is recorded in other assets and accrued expenses and other liabilities on the consolidated balance sheets with the changes in fair value recorded as a component of mortgage banking, net on the consolidated statements of income.

The following table presents the total notional amounts and gross fair values of the Corporation's derivatives, as well as the balance sheet netting adjustments as of December 31, 2021 and December 31, 2020. The derivative assets and liabilities are presented on a gross basis prior to the application of bilateral collateral and master netting agreements, but after the variation margin payments with central clearing organizations have been applied as settlement, as applicable. Total derivative assets and liabilities are adjusted to take into consideration the effects of legally enforceable master netting agreements and cash collateral received or paid as of December 31, 2021 and December 31, 2020. The resulting net derivative asset and liability fair values are included in other assets and accrued expenses and other liabilities, respectively, on the consolidated balance sheets.

The table below identifies the balance sheet category and fair values of the Corporation's derivative instruments:

| (\$ in Thousands) | December 31, 2021 | | | | December 31, 2020 | | | | |
|---|-------------------|------------------|-----------------|------------------|-------------------|-------------------|-----------------|------------------|--|
| | Asset | | Liability | | Asset | | Liability | | |
| | Notional Amount | Fair Value | Notional Amount | Fair Value | Notional Amount | Fair Value | Notional Amount | Fair Value | |
| Not designated as hedging instruments | | | | | | | | | |
| Interest rate-related instruments | \$ 3,874,781 | \$ 83,626 | \$ 3,874,781 | \$ 26,231 | \$ 3,639,679 | \$ 192,518 | \$ 3,639,679 | \$ 25,680 | |
| Foreign currency exchange forwards | 490,057 | 5,490 | 478,745 | 5,441 | 411,292 | 4,909 | 398,890 | 4,836 | |
| Commodity contracts | 3,894 | 1,264 | 3,910 | 1,248 | 87,547 | 12,486 | 83,214 | 11,155 | |
| Mortgage banking ^{(a)(b)} | 133,990 | 2,647 | 245,016 | — | 226,818 | 9,624 | 335,500 | 2,046 | |
| Gross derivatives before netting | | <u>\$ 93,026</u> | | <u>\$ 32,921</u> | | <u>\$ 219,537</u> | | <u>\$ 43,716</u> | |
| Less: Legally enforceable master netting agreements | | 2,143 | | 2,143 | | 1,936 | | 1,936 | |
| Less: Cash collateral pledged/received | | 1,313 | | 11,357 | | 10,879 | | 25,625 | |
| Total derivative instruments, after netting | | <u>\$ 89,570</u> | | <u>\$ 19,421</u> | | <u>\$ 206,722</u> | | <u>\$ 16,155</u> | |

(a) Mortgage derivative assets include interest rate lock commitments and mortgage derivative liabilities include forward commitments.

(b) Includes approximately \$30,000 of forward commitment fair value.

The Corporation terminated its \$500 million fair value hedge during the fourth quarter of 2019. At December 31, 2021, the amortized cost basis of the closed portfolios which had previously been used in the terminated hedging relationship was \$414 million and is included in loans on the consolidated balance sheets. This amount includes \$2 million of hedging adjustments on the discontinued hedging relationships.

The table below identifies the effect of fair value hedge accounting on the Corporation's consolidated statements of income during the twelve months ended December 31, 2021, 2020, and 2019:

| (\$ in Thousands) | Location and Amount of Gain or (Loss) Recognized on Consolidated Statements of Income in Fair Value and Cash Flow Hedging Relationships | | | |
|--|---|-----------------|---------------|-----------------|
| | For the Years Ended December 31, | | | |
| | 2021 | 2020 | 2019 | |
| | Interest Income | Interest Income | Other Expense | Interest Income |
| Total amounts of income and expense line items presented on the consolidated statements of income in which the effects of fair value or cash flow hedges are recorded ^(a) | \$ (1,376) | \$ (1,779) | \$ (262) | \$ (448) |
| The effects of fair value and cash flow hedging: Gain or (loss) on fair value hedging relationships in Subtopic 815-20 | | | | |
| Interest contracts | | | | |
| Hedged items | (1,376) | (1,779) | (262) | 5,871 |
| Derivatives designated as hedging instruments ^(a) | — | — | — | (6,319) |

(a) Includes net settlements as hedging instruments

The table below identifies the effect of derivatives not designated as hedging instruments on the Corporation's consolidated statements of income during the twelve months ended December 31, 2021, 2020, and 2019:

| (\$ in Thousands) | Consolidated Statements of Income Category of Gain / (Loss) Recognized in Income | For the Years Ended December 31, | | |
|--|--|----------------------------------|------------|------------|
| | | 2021 | 2020 | 2019 |
| Derivative Instruments | | | | |
| Interest rate-related instruments — customer and mirror, net | Capital market fees, net | \$ 2,432 | \$ (1,758) | \$ (1,393) |
| Interest rate lock commitments (mortgage) | Mortgage banking, net | (7,007) | 7,097 | 319 |
| Forward commitments (mortgage) | Mortgage banking, net | (2,075) | 1,335 | 1,362 |
| Foreign currency exchange forwards | Capital market fees, net | (25) | (105) | 132 |
| Commodity contracts | Capital market fees, net | (1,316) | 427 | (1,763) |

Note 15 Balance Sheet Offsetting

Interest Rate-Related Instruments, Commodity Contracts, and Foreign Exchange Forwards (“Interest, Commodity, and Foreign Exchange Agreements”)

The Corporation enters into interest rate-related instruments to facilitate the interest rate risk management strategies of commercial customers, commodity contracts to manage commercial customers' exposure to fluctuating commodity prices, and foreign exchange forwards to manage customers' exposure to fluctuating foreign exchange rates. The Corporation mitigates these risks by entering into equal and offsetting agreements with highly rated third-party financial institutions. The Corporation is party to master netting arrangements with its financial institution counterparties that create single net settlements of all legal claims or obligations to pay or receive the net amount of settlement of the individual interest, commodity, and foreign exchange agreements. Collateral, usually in the form of investment securities and cash, is posted by the counterparty with net liability positions in accordance with contract thresholds. Derivatives subject to a legally enforceable master netting agreement are reported with assets and liabilities offset resulting in a net position which is further offset by any cash collateral, and is reported in other assets and accrued expenses and other liabilities, on the face of the consolidated balance sheets. See Note 14 for additional information on the Corporation's derivative and hedging activities.

The following table presents the interest rate, commodity, and foreign exchange assets and liabilities subject to an enforceable master netting arrangement. The interest, commodity and foreign exchange agreements the Corporation has with its commercial customers are not subject to an enforceable master netting arrangement, and therefore, are excluded from this table:

| (\$ in Thousands) | Gross Amounts Recognized | Gross Amounts Subject to Master Netting Arrangements Offset on the Consolidated Balance Sheets | | Net Amounts Presented on the Consolidated Balance Sheets |
|--------------------------|--------------------------|--|--------------------------|--|
| | | Derivative Liabilities Offset | Cash Collateral Received | |
| Derivative assets | | | | |
| December 31, 2021 | \$ 3,567 | \$ (2,143) | \$ (1,313) | 111 |
| December 31, 2020 | 13,441 | (1,936) | (10,879) | 626 |

| (\$ in Thousands) | Gross Amounts Recognized | Gross Amounts Subject to Master Netting Arrangements Offset on the Consolidated Balance Sheets | | Net Amounts Presented on the Consolidated Balance Sheets |
|-------------------------------|--------------------------|--|-------------------------|--|
| | | Derivative Assets Offset | Cash Collateral Pledged | |
| Derivative liabilities | | | | |
| December 31, 2021 | \$ 15,620 | \$ (2,143) | \$ (11,357) | 2,120 |
| December 31, 2020 | 27,951 | (1,936) | (25,625) | 390 |

Note 16 Commitments, Off-Balance Sheet Arrangements, and Legal Proceedings

The Corporation utilizes a variety of financial instruments in the normal course of business to meet the financial needs of its customers and to manage its own exposure to fluctuations in interest rates. These financial instruments include lending-related and other commitments (see below) as well as derivative instruments (see Note 14). The following is a summary of lending-related commitments:

| (\$ in Thousands) | December 31, 2021 | December 31, 2020 |
|---|-------------------|-------------------|
| Commitments to extend credit, excluding commitments to originate residential mortgage loans held for sale ^{(a)(b)} | \$ 10,848,136 | \$ 10,010,492 |
| Commercial letters of credit ^(a) | 5,992 | 3,642 |
| Standby letters of credit ^(c) | 248,292 | 278,798 |

(a) These off-balance sheet financial instruments are exercisable at the market rate prevailing at the date the underlying transaction will be completed and, thus, are deemed to have no current fair value, or the fair value is based on fees currently charged to enter into similar agreements and was not material at December 31, 2021 or 2020.

(b) Interest rate lock commitments to originate residential mortgage loans held for sale are considered derivative instruments and are disclosed in Note 14.

(c) The Corporation has established a liability of \$2 million and \$3 million at December 31, 2021 and 2020, respectively, as an estimate of the fair value of these financial instruments.

Lending-related Commitments

As a financial services provider, the Corporation routinely enters into commitments to extend credit. Such commitments are subject to the same credit policies and approval process accorded to loans made by the Corporation, with each customer's creditworthiness evaluated on a case-by-case basis. The commitments generally have fixed expiration dates or other termination clauses and may require the payment of a fee. The Corporation's exposure to credit loss in the event of nonperformance by the other party to these financial instruments is represented by the contractual amount of those instruments. The amount of collateral obtained, if deemed necessary by the Corporation upon extension of credit, is based on management's credit evaluation of the customer. Since a significant portion of commitments to extend credit are subject to specific restrictive loan covenants or may expire without being drawn upon, the total commitment amounts do not necessarily represent future cash flow requirements. An allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb expected lifetime losses related to unfunded commitments (including unfunded loan commitments and letters of credit).

The following table presents a summary of the changes in the allowance for unfunded commitments:

| (\$ in Thousands) | Year Ended December 31, 2021 | Year Ended December 31, 2020 |
|--|------------------------------|------------------------------|
| Allowance for Unfunded Commitments | | |
| Balance at beginning of period | \$ 47,776 | \$ 21,907 |
| Cumulative effect of ASU 2016-13 adoption (CECL) | N/A | 18,690 |
| Balance at beginning of period, adjusted | 47,776 | 40,597 |
| Provision for unfunded commitments | (8,000) | 7,000 |
| Amount recorded at acquisition | — | 179 |
| Balance at end of period | \$ 39,776 | \$ 47,776 |

Lending-related commitments include commitments to extend credit, commitments to originate residential mortgage loans held for sale, commercial letters of credit, and standby letters of credit. Commitments to extend credit are legally binding agreements to lend to customers at predetermined interest rates, as long as there is no violation of any condition established in the contracts. Interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans are considered derivative instruments, and the fair value of these commitments is recorded in other assets and accrued expenses and other liabilities on the consolidated balance sheets. The Corporation's derivative and hedging activity is further described in Note 14. Commercial and standby letters of credit are conditional commitments issued to guarantee the performance of a customer to a third party. Commercial letters of credit are issued specifically to facilitate commerce and typically result in the commitment being drawn on when the underlying transaction is consummated between the customer and the third party, while standby letters of credit generally are contingent upon the failure of the customer to perform according to the terms of the underlying contract with the third party.

Other Commitments

The Corporation invests in qualified affordable housing projects, federal and state historic projects, new market projects, and opportunity zone funds for the purpose of community reinvestment and obtaining tax credits and other tax benefits. Return on the Corporation's investment in these projects and funds comes in the form of the tax credits and tax losses that pass through to the Corporation, and deferral or elimination of capital gain recognition for tax purposes. The aggregate carrying value of these investments at December 31, 2021, was \$268 million, compared to \$272 million at December 31, 2020, included in tax credit and other investments on the consolidated balance sheets. The Corporation utilizes the proportional amortization method to account for investments in qualified affordable housing projects.

Under the proportional amortization method, the Corporation amortizes the initial cost of the investment in proportion to the tax credits and other tax benefits. The Corporation recognized additional income tax expense attributable to the amortization of investments in qualified affordable housing projects of \$33 million, \$23 million, and \$19 million during the years ended December 31, 2021, 2020, and 2019, respectively. The Corporation's remaining investment in qualified affordable housing projects accounted for under the proportional amortization method totaled \$262 million at December 31, 2021 and \$268 million at December 31, 2020.

The Corporation's unfunded equity contributions relating to investments in federal and state qualified affordable housing and federal and state historic projects are recorded in accrued expenses and other liabilities on the consolidated balance sheets. The Corporation's remaining unfunded equity contributions totaled \$80 million and \$118 million at December 31, 2021 and 2020, respectively.

During the years ended December 31, 2021, 2020 and 2019, the Corporation did not record any impairment related to qualified affordable housing investments.

The Corporation has principal investment commitments to provide capital-based financing to private companies through either direct investment in specific companies or through investment funds and partnerships. The timing of future cash requirements to fund such principal investment commitments is generally dependent on the investment cycle, whereby privately held companies are funded by private equity investors and ultimately sold, merged, or taken public through an initial offering, which can vary based on overall market conditions, as well as the nature and type of industry in which the companies operate. The Corporation also invests in loan pools that support CRA loans. The timing of future cash requirements to fund these pools is dependent upon loan demand, which can vary over time. The aggregate carrying value of these investments was \$25 million at both December 31, 2021 and 2020, included in tax credit and other investments on the consolidated balance sheets.

Legal Proceedings

The Corporation is party to various pending and threatened claims and legal proceedings arising in the normal course of business activities, some of which involve claims for substantial amounts. Although there can be no assurance as to the ultimate outcomes, the Corporation believes it has meritorious defenses to the claims asserted against it in its currently outstanding matters and intends to continue to defend itself vigorously with respect to such legal proceedings. The Corporation will consider settlement of cases when, in management's judgment, it is in the best interests of the Corporation and its shareholders.

On at least a quarterly basis, the Corporation assesses its liabilities and contingencies in connection with all pending or threatened claims and litigation, utilizing the most recent information available. On a matter by matter basis, an accrual for loss is established for those matters which the Corporation believes it is probable that a loss may be incurred and that the amount of such loss can be reasonably estimated. Once established, each accrual is adjusted as appropriate to reflect any subsequent developments. Accordingly, management's estimate will change from time to time, and actual losses may be more or less than the current estimate. For matters where a loss is not probable, or the amount of the loss cannot be estimated, no accrual is established.

Resolution of legal claims is inherently unpredictable, and in many legal proceedings various factors exacerbate this inherent unpredictability, including where the damages sought are unsubstantiated or indeterminate, it is unclear whether a case brought as a class action will be allowed to proceed on that basis, discovery is not complete, the proceeding is not yet in its final stages, the matters present legal uncertainties, there are significant facts in dispute, there are a large number of parties (including where it is uncertain how liability, if any, will be shared among multiple defendants), or there is a wide range of potential results.

A lawsuit, *Evans et al v. Associated Banc-Corp et al*, was filed in the United States District Court for the Eastern District of Wisconsin - Green Bay Division on January 13, 2021 by one current and one former participant in the Associated Banc-Corp 401(k) and Employee Stock Ownership Plan (the “Plan”) as representatives of a putative class. The plaintiffs alleged that Associated Banc-Corp, the Associated Banc-Corp Plan Administrative Committee, and current and past members of such committee during the relevant time period (the “Defendants”) breached their fiduciary duties with respect to the Plan in violation of Employee Retirement Income Security Act of 1974, as amended, by applying an imprudent and inappropriate preference for products associated with Associated Banc-Corp within the Plan, and that the Defendants failed to monitor or control the recordkeeping expenses paid to Associated Trust Company, N.A. On March 18, 2021, the Defendants filed a motion to dismiss. On April 8, 2021, the plaintiffs filed an amended complaint which dropped the record keeping claim, added Associated Trust Company N.A. and Kellogg Asset Management, LLC as defendants, and alleged various breaches of fiduciary duty related to the selection and monitoring of, and the fees charged by, proprietary collective investment trusts. The plaintiffs, in part, seek an accounting and disgorgement of certain profits, as well as certain equitable restitution and equitable monetary relief. The Corporation intends to vigorously defend against this lawsuit. It is not possible for management to assess the probability of a material adverse outcome or reasonably estimate the amount of any potential loss at this time with respect to this lawsuit.

Regulatory Matters

A variety of consumer products, including mortgage and deposit products, and certain fees and charges related to such products, have come under increased regulatory scrutiny. It is possible that regulatory authorities could bring enforcement actions, including civil money penalties, or take other actions against the Corporation and the Bank in regard to these consumer products. The Bank could also determine of its own accord, or be required by regulators, to refund or otherwise make remediation payments to customers in connection with these products. It is not possible at this time for management to assess the probability of a material adverse outcome or reasonably estimate the amount of any potential loss related to such matters.

Operational Matters

In November 2021, we became aware that during several routine purges of old documents, certain documents that were more than seven years old relating to active accounts were inadvertently purged from our electronic database. The active account documents that were inadvertently purged related to 1) certain customer documents obtained as part of bank acquisitions, and 2) certain customer documents that were transferred to a new cold storage system without correct retention coding. Both the acquisitions and the transfer occurred years ago. The majority of the documents inadvertently purged were signature cards. We have undertaken measures to replace (if possible) or otherwise lessen the impact on customers of any inadvertently purged documents. While the impact on the Company of this incident has been immaterial to date, and we are not aware of any material adverse customer impact, it is not possible at this time for management to reasonably estimate the amount of any potential loss related to this incident.

Mortgage Repurchase Reserve

The Corporation sells residential mortgage loans to investors in the normal course of business. Residential mortgage loans sold to others are predominantly conventional residential first lien mortgages originated under the Corporation's usual underwriting procedures, and are most often sold on a nonrecourse basis, primarily to the GSEs. The Corporation's agreements to sell residential mortgage loans in the normal course of business usually require certain representations and warranties on the underlying loans sold, related to credit information, loan documentation, collateral, and insurability. Subsequent to being sold, if a material underwriting deficiency or documentation defect is discovered, the Corporation may be obligated to repurchase the loan or reimburse the GSEs for losses incurred (collectively, “make whole requests”). The make whole requests and any related risk of loss under the representations and warranties are largely driven by borrower performance. Additionally, beginning in the third quarter of 2021, qualifying residential mortgage loans guaranteed by U.S. government agencies have been sold into GNMA pools.

As a result of make whole requests, the Corporation has repurchased loans with aggregate principal balances of \$8 million and \$10 million for the years ended December 31, 2021 and 2020, respectively. There were approximately \$114,000 of loss reimbursement and settlement claims paid for the year ended December 31, 2021, and there were no such claims for the year ended December 31, 2020. Make whole requests during 2020 and 2021 generally arose from loans sold during the period of

January 1, 2012 to December 31, 2020. Since January 1, 2012, loans sold totaled \$16.1 billion at the time of sale, and consisted primarily of loans sold to GSEs. As of December 31, 2021, \$6.5 billion of these sold loans remain outstanding.

The balance in the mortgage repurchase reserve at the balance sheet date reflects the estimated amount of potential loss the Corporation could incur from repurchasing a loan, as well as loss reimbursements, indemnifications, and other settlement resolutions. The mortgage repurchase reserve, included in accrued expenses and other liabilities on the consolidated balance sheets, was \$1 million and \$2 million at December 31, 2021 and 2020, respectively.

The Corporation may also sell residential mortgage loans with limited recourse (limited in that the recourse period ends prior to the loan's maturity, usually after certain time and / or loan paydown criteria have been met), whereby repurchase could be required if the loan had defined delinquency issues during the limited recourse periods. At December 31, 2021 and December 31, 2020, there were \$10 million and \$36 million, respectively, of residential mortgage loans sold with such recourse risk. There have been limited instances and immaterial historical losses on repurchases for recourse under the limited recourse criteria.

The Corporation has a subordinate position to the FHLB in the credit risk on residential mortgage loans it sold to the FHLB in exchange for a monthly credit enhancement fee. The Corporation has not sold loans to the FHLB with such credit risk retention since February 2005. At December 31, 2021 and December 31, 2020, there were \$24 million and \$33 million, respectively, of such residential mortgage loans with credit risk recourse, upon which there have been negligible historical losses to the Corporation.

Note 17 Parent Company Only Financial Information

Presented below are condensed financial statements for the Parent Company:

Balance Sheets

| (\$ in Thousands) | December 31, | |
|---|--------------|--------------|
| | 2021 | 2020 |
| Assets | | |
| Cash and due from banks | \$ 17,241 | \$ 40,204 |
| Interest-bearing deposits in other financial institutions | 20,743 | 15,228 |
| Notes and interest receivable from subsidiaries | 285,516 | 305,779 |
| Investments in and receivable due from subsidiaries | 3,953,461 | 4,005,198 |
| Other assets | 46,644 | 46,850 |
| Total assets | \$ 4,323,605 | \$ 4,413,259 |
| Liabilities and Stockholders' Equity | | |
| Commercial paper | \$ 34,730 | \$ 59,346 |
| Subordinated notes, at par | 250,000 | 250,000 |
| Long-term funding capitalized costs | (839) | (1,133) |
| Total long-term funding | 249,161 | 248,867 |
| Accrued expenses and other liabilities | 14,860 | 14,113 |
| Total liabilities | 298,752 | 322,326 |
| Preferred equity | 193,195 | 353,512 |
| Common equity | 3,831,658 | 3,737,421 |
| Total stockholders' equity | 4,024,853 | 4,090,933 |
| Total liabilities and stockholders' equity | \$ 4,323,605 | \$ 4,413,259 |

Statements of Income

| (\$ in Thousands) | For the Years Ended December 31, | | |
|---|----------------------------------|------------|------------|
| | 2021 | 2020 | 2019 |
| Income | | | |
| Income from subsidiaries | \$ 361,198 | \$ 317,895 | \$ 341,789 |
| Interest income on notes receivable from subsidiaries | 3,247 | 3,257 | 13,983 |
| Other income | 682 | 933 | 761 |
| Total income | 365,127 | 322,084 | 356,532 |
| Expense | | | |
| Interest expense on short and long-term funding | 10,942 | 10,960 | 16,802 |
| Other expense | 7,330 | 6,422 | 6,583 |
| Total expense | 18,272 | 17,383 | 23,384 |
| Income before income tax expense | 346,856 | 304,702 | 333,148 |
| Income tax expense (benefit) | (4,138) | (2,070) | 6,359 |
| Net income | 350,994 | 306,771 | 326,790 |
| Preferred stock dividends | 17,111 | 18,358 | 15,202 |
| Net income available to common equity | \$ 333,883 | \$ 288,413 | \$ 311,587 |

Statements of Cash Flows

| (\$ in Thousands) | For the Years Ended December 31, | | |
|---|----------------------------------|------------|------------|
| | 2021 | 2020 | 2019 |
| Cash Flows from Operating Activities | | | |
| Net income | \$ 350,994 | \$ 306,771 | \$ 326,790 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| (Increase) decrease in equity in undistributed net income (loss) of subsidiaries | 28,802 | (61,406) | (21,789) |
| Net change in other assets and accrued expenses and other liabilities | 17,102 | (49,890) | 265 |
| Net cash provided by operating activities | 396,898 | 195,475 | 305,266 |
| Cash Flows from Investing Activities | | | |
| Net (increase) decrease in notes receivable from subsidiaries | 20,000 | (105,000) | 250,000 |
| Net cash provided by (used in) investing activities | 20,000 | (105,000) | 250,000 |
| Cash Flows from Financing Activities | | | |
| Net increase (decrease) in commercial paper | (24,616) | 27,330 | (13,406) |
| Redemption of Corporation's senior notes | — | — | (250,000) |
| Proceeds from issuance of common stock for stock-based compensation plans | 25,702 | 3,966 | 11,216 |
| Proceeds from issuance of preferred stock | — | 96,796 | — |
| Redemption of preferred stock | (164,458) | — | — |
| Purchase of treasury stock, open market purchases | (132,955) | (71,255) | (177,484) |
| Purchase of treasury stock, stock-based compensation plans | (4,847) | (6,113) | (8,592) |
| Cash dividends on common stock | (116,061) | (112,023) | (111,804) |
| Cash dividends on preferred stock | (17,111) | (18,358) | (15,202) |
| Net cash used in financing activities | (434,346) | (79,656) | (565,272) |
| Net increase (decrease) in cash and cash equivalents | (17,448) | 10,819 | (10,006) |
| Cash and cash equivalents at beginning of year | 55,432 | 44,613 | 54,619 |
| Cash and cash equivalents at end of year | \$ 37,984 | \$ 55,432 | \$ 44,613 |

Note 18 Fair Value Measurements

Fair value represents the estimated price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants at the measurement date under current market conditions (i.e., an exit price concept). See Note 1 for the Corporation's accounting policy for fair value measurements.

Following is a description of the valuation methodologies used for the Corporation's more significant instruments measured on a recurring basis at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Investment Securities AFS: Where quoted prices are available in an active market, investment securities are classified in Level 1 of the fair value hierarchy. If quoted market prices are not available for the specific security, then fair values are estimated by using pricing models, quoted prices of securities with similar characteristics, or discounted cash flows, with consideration given to the nature of the quote and the relationship of recently evidenced market activity to the fair value estimate, and are classified in Level 2 of the fair value hierarchy. Lastly, in certain cases where there is limited activity or less transparency around inputs to the estimated fair value, securities are classified within Level 3 of the fair value hierarchy. To validate the fair value estimates, assumptions, and controls, the Corporation looks to transactions for similar instruments and utilizes independent pricing provided by third party vendors or brokers and relevant market indices. While none of these sources are solely indicative of fair value, they serve as directional indicators for the appropriateness of the Corporation's fair value estimates. The Corporation has determined that the fair value measures of its investment securities are classified predominantly within Level 2 of the fair value hierarchy. See Note 3 for additional disclosure regarding the Corporation's investment securities.

Equity Securities with Readily Determinable Fair Values: The Corporation's portfolio of equity securities with readily determinable fair values is primarily comprised of CRA Qualified Investment mutual funds and other mutual funds. Since quoted prices for the Corporation's equity securities are readily available in an active market, they are classified within Level 1 of the fair value hierarchy. See Note 3 for additional disclosure regarding the Corporation's equity securities.

Residential Loans Held For Sale: Residential loans held for sale, which consist generally of current production of certain fixed-rate, first-lien residential mortgage loans, are carried at estimated fair value. Management has elected the fair value option to account for all newly originated mortgage loans held for sale, which results in the financial impact of changing market conditions being reflected currently in earnings as opposed to being dependent upon the timing of sales. Therefore, the continually adjusted values better reflect the price the Corporation expects to receive from the sale of such loans. The estimated fair value is based on what secondary markets are currently offering for portfolios with similar characteristics, which the Corporation classifies as a Level 2 fair value measurement.

Derivative Financial Instruments (Interest Rate-Related Instruments): The Corporation offers interest rate-related instruments (swaps and caps) to service its customers' needs, for which the Corporation simultaneously enters into offsetting derivative financial instruments (i.e., mirror interest rate-related instruments) with third parties to manage its interest rate risk associated with these financial instruments. The valuation of the Corporation's derivative financial instruments is determined using discounted cash flow analysis on the expected cash flows of each derivative and also includes a nonperformance / credit risk component (credit valuation adjustment). See Note 14 for additional disclosure regarding the Corporation's interest rate-related instruments.

The discounted cash flow analysis component in the fair value measurement reflects the contractual terms of the derivative financial instruments, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. More specifically, the fair values of interest rate swaps are determined using the market standard methodology of netting the discounted future fixed cash receipts (or payments) with the variable cash payments (or receipts) based on an expectation of future interest rates (forward curves) derived from observable market interest rate curves. Likewise, the fair values of interest rate options (i.e., interest rate caps) are determined using the market standard methodology of discounting the future expected cash receipts that would occur if variable interest rates fall below (or rise above) the strike rate of the floors (or caps), with the variable interest rates used in the calculation of projected receipts on the floor (or cap) based on an expectation of future interest rates derived from observable market interest rate curves and volatilities.

The Corporation also incorporates credit valuation adjustments to appropriately reflect both its own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative financial instruments for the effect of nonperformance risk, the Corporation has considered the impact of netting and any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

While the Corporation has determined that the majority of the inputs used to value its interest rate-related derivative financial instruments fall within Level 2 of the fair value hierarchy, the credit valuation adjustments utilize Level 3 inputs, such as estimates of current credit spreads to evaluate the likelihood of default by itself and its counterparties. The Corporation has assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions as of December 31, 2021 and 2020, and has determined that the credit valuation adjustments are not significant to the overall valuation of its derivative financial instruments for interest rate-related instruments. Therefore, the Corporation has determined that the fair value measures of its derivative financial instruments for interest rate-related instruments in their entirety are classified within Level 2 of the fair value hierarchy.

Derivative Financial Instruments (Foreign Currency Exchange Forwards): The Corporation provides foreign currency exchange services to customers. In addition, the Corporation may enter into a foreign currency exchange forward to mitigate the exchange rate risk attached to the cash flows of a loan or as an offsetting contract to a forward entered into as a service to its customer. The valuation of the Corporation's foreign currency exchange forwards is determined using quoted prices of foreign currency exchange forwards with similar characteristics, with consideration given to the nature of the quote and the relationship of recently evidenced market activity to the fair value estimate, and is classified within Level 2 of the fair value hierarchy. See Note 14 for additional disclosures regarding the Corporation's foreign currency exchange forwards.

Derivative Financial Instruments (Commodity Contracts): The Corporation enters into commodity contracts to manage commercial customers' exposure to fluctuating commodity prices, for which the Corporation simultaneously enters into offsetting derivative financial instruments (i.e., mirror commodity contracts) with third parties to manage its risk associated with these financial instruments. The valuation of the Corporation's commodity contracts is determined using quoted prices of the underlying instruments, and also includes a nonperformance / credit risk component (credit valuation adjustment). See Note 14 for additional disclosures regarding the Corporation's commodity contracts.

The Corporation also incorporates credit valuation adjustments to appropriately reflect both its own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative financial instruments for the effect of nonperformance risk, the Corporation has considered the impact of netting and any applicable credit enhancements, such as collateral postings.

While the Corporation has determined that the majority of the inputs used to value its derivative financial instruments fall within Level 2 of the fair value hierarchy, the credit valuation adjustments utilize Level 3 inputs, such as probability of default and loss given default of the underlying loans to evaluate the likelihood of default by itself and its counterparties. The Corporation has assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions as of December 31, 2021 and 2020, and has determined that the credit valuation adjustments are not significant to the overall valuation of its derivative financial instruments for commodity contracts. Therefore, the Corporation has determined that the fair value measures of its derivative financial instruments for commodity contracts in their entirety are classified within Level 2 of the fair value hierarchy.

The table below presents the Corporation's financial instruments measured at fair value on a recurring basis as of December 31, 2021 and 2020, aggregated by the level in the fair value hierarchy within which those measurements fall:

| (\$ in Thousands) | Fair Value Hierarchy | December 31, 2021 | December 31, 2020 |
|--|----------------------|-------------------|-------------------|
| Assets | | | |
| Investment securities AFS | | | |
| U.S. Treasury securities | Level 1 \$ | 122,957 \$ | 26,531 |
| Agency securities | Level 2 | 14,897 | 25,038 |
| Obligations of state and political subdivisions (municipal securities) | Level 2 | 400,457 | 450,662 |
| Residential mortgage-related securities | | | |
| FNMA / FHLMC | Level 2 | 2,691,879 | 1,461,241 |
| GNMA | Level 2 | 67,780 | 235,537 |
| Private-label | Level 2 | 329,724 | — |
| Commercial mortgage-related securities | | | |
| FNMA / FHLMC | Level 2 | 350,623 | 22,904 |
| GNMA | Level 2 | 166,799 | 524,756 |
| Asset backed securities | | | |
| FFELP | Level 2 | 177,325 | 327,189 |
| SBA | Level 2 | 6,580 | 8,584 |
| Other debt securities | | | |
| Total investment securities AFS | Level 1 \$ | 122,957 \$ | 26,531 |
| Total investment securities AFS | Level 2 | 4,209,058 | 3,058,910 |
| Equity securities with readily determinable fair values | Level 1 | 4,810 | 1,661 |
| Residential loans held for sale | Level 2 | 136,638 | 129,158 |
| Interest rate-related instruments ^(a) | Level 2 | 83,626 | 192,518 |
| Foreign currency exchange forwards ^(a) | Level 2 | 5,490 | 4,909 |
| Commodity contracts ^(a) | Level 2 | 1,264 | 12,486 |
| Interest rate lock commitments to originate residential mortgage loans held for sale | Level 3 | 2,617 | 9,624 |
| Forward commitments to sell residential mortgage loans | Level 3 | 30 | — |
| Liabilities | | | |
| Interest rate-related instruments ^(a) | Level 2 \$ | 26,231 \$ | 25,680 |
| Foreign currency exchange forwards ^(a) | Level 2 | 5,441 | 4,836 |
| Commodity contracts ^(a) | Level 2 | 1,248 | 11,155 |
| Forward commitments to sell residential mortgage loans | Level 3 | — | 2,046 |

(a) Figures presented gross before netting. See Note 14 and Note 15 for information relating to the impact of offsetting derivative assets and liabilities and cash collateral with the same counterparty where there is a legally enforceable master netting agreement in place.

The table below presents a rollforward of the consolidated balance sheets amounts for the years ended December 31, 2021 and 2020, for the Corporation's mortgage derivatives measured on a recurring basis and classified within Level 3 of the fair value hierarchy:

| (\$ in Thousands) | Interest rate lock commitments to originate residential mortgage loans held for sale | Forward commitments to sell residential mortgage loans | Total |
|----------------------------------|--|--|-----------|
| Balance December 31, 2019 | \$ 2,527 | \$ 710 | \$ 1,817 |
| New production | 72,659 | (3,505) | 76,164 |
| Closed loans / settlements | (76,001) | (12,587) | (63,414) |
| Other | 10,439 | 17,427 | (6,988) |
| Mortgage derivative gain | 7,097 | 1,335 | 5,762 |
| Balance December 31, 2020 | \$ 9,624 | \$ 2,046 | \$ 7,579 |
| New production | \$ 53,686 | \$ (3,281) | \$ 56,966 |
| Closed loans / settlements | (53,477) | 3,740 | (57,217) |
| Other | (7,216) | (2,535) | (4,680) |
| Mortgage derivative (loss) | (7,007) | (2,076) | (4,932) |
| Balance December 31, 2021 | \$ 2,617 | \$ (30) | \$ 2,647 |

For Level 3 assets and liabilities measured at fair value on a recurring basis as of December 31, 2021, the Corporation utilized the following valuation techniques and significant unobservable inputs:

Derivative Financial Instruments (Mortgage Derivative — Interest Rate Lock Commitments to Originate Residential Mortgage Loans Held For Sale): The fair value is determined by the change in value from each loan's rate lock date to the expected rate lock expiration date based on the underlying loan attributes, estimated closing ratios, and investor price matrix determined to be reasonably applicable to each loan commitment. The closing ratio calculation takes into consideration

historical experience and loan-level attributes, particularly the change in the current interest rates from the time of initial rate lock. The closing ratio is periodically reviewed for reasonableness and reported to the Associated Mortgage Risk Management Committee. At December 31, 2021, the closing ratio was 86%.

Derivative Financial Instruments (Mortgage Derivative—Forward Commitments to Sell Mortgage Loans): Mortgage derivatives include forward commitments to deliver closed-end residential mortgage loans into conforming Agency MBS or conforming Cash Forward sales. The fair value of such instruments is determined by the difference of current market prices for such traded instruments or available from forward cash delivery commitments and the original traded price for such commitments.

The Corporation also relies on an internal valuation model to estimate the fair value of its forward commitments to sell residential mortgage loans (i.e., an estimate of what the Corporation would receive or pay to terminate the forward delivery contract based on market prices for similar financial instruments), which includes matching specific terms and maturities of the forward commitments against applicable investor pricing available. While there are Level 2 and 3 inputs used in the valuation models, the Corporation has determined that the majority of the inputs significant in the valuation of both of the mortgage derivatives fall within Level 3 of the fair value hierarchy. See Note 14 for additional disclosure regarding the Corporation's mortgage derivatives.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Following is a description of the valuation methodologies used for the Corporation's more significant instruments measured on a nonrecurring basis at LOCOM, including the general classification of such instruments pursuant to the valuation hierarchy.

Commercial Loans Held For Sale: The estimated fair value is based on a discounted cash flow analysis, which the Corporation classifies as a Level 2 nonrecurring fair value measurement.

OREO: Certain OREO, upon initial recognition, was re-measured and reported at fair value through a charge off to the allowance for loan losses based upon the estimated fair value of the OREO, less estimated selling costs. The fair value of OREO, upon initial recognition or subsequent impairment, was estimated using appraised values, which the Corporation classifies as a Level 2 nonrecurring fair value measurement.

For Level 3 assets and liabilities measured at fair value on a nonrecurring basis as of December 31, 2021, the Corporation utilized the following valuation techniques and significant unobservable inputs.

Individually Evaluated Loans: The Corporation individually evaluates loans when a commercial loan relationship is in nonaccrual status or when a commercial or consumer loan relationship has its terms restructured in a TDR or when a loan meets the Corporation's definition of a probable TDR. See Note 4 for additional information regarding the Corporation's individually evaluated loans.

Mortgage Servicing Rights: MSR do not trade in an active, open market with readily observable prices. While sales of MSRs do occur, the precise terms and conditions typically are not readily available to allow for a "quoted price for similar assets" comparison. Accordingly, the Corporation utilizes an independent valuation from a third party which uses a discounted cash flow model to estimate the fair value of its MSRs. The valuation model incorporates prepayment assumptions to project MSRs cash flows based on the current interest rate scenario, which is then discounted to estimate an expected fair value of the MSRs. The valuation model considers portfolio characteristics of the underlying mortgages, contractually specified servicing fees, prepayment assumptions, discount rate assumptions, delinquency rates, late charges, other ancillary revenue, costs to service, and other economic factors. The Corporation periodically reviews and assesses the underlying inputs and assumptions used in the model. In addition, the Corporation compares its fair value estimates and assumptions to observable market data for MSRs, where available, and to recent market activity and actual portfolio experience. Due to the nature of the valuation inputs, MSRs are classified within Level 3 of the fair value hierarchy. The Corporation uses the amortization method (i.e., LOCOM measured on a nonrecurring basis), not fair value measurement accounting, for its MSRs assets.

The discounted cash flow analyses that generate expected market prices utilize the observable characteristics of the MSRs portfolio, as well as certain unobservable valuation parameters. The significant unobservable inputs used in the fair value measurement of the Corporation's MSRs are the weighted average constant prepayment rate and weighted average discount rate. Significant increases (decreases) in any of those inputs in isolation could result in a significantly lower (higher) fair value measurement.

These parameter assumptions fall within a range that the Corporation, in consultation with an independent third party, believes purchasers of servicing would apply to such portfolios sold into the current secondary servicing market. Discussions are held with members from Treasury and the Community, Consumer, and Business segment to reconcile the fair value estimates and

the key assumptions used by the respective parties in arriving at those estimates. The Associated Consumer Lending Risk Committee is responsible for providing control over the valuation methodology and key assumptions. To assess the reasonableness of the fair value measurement, the Corporation also compares the fair value and constant prepayment rate to a value calculated by an independent third party on an annual basis. See Note 5 for additional disclosure regarding the Corporation's MSR's.

On January 1, 2022, the Corporation elected to account for its MSR's under the fair value methodology. See Note 24 for details on the accounting policy change from LOCOM to fair value accounting.

Equity Securities Without Readily Determinable Fair Values: The Corporation 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, with such changes recognized in earnings. Included in equity securities without readily determinable fair values are 77,000 Visa Class B restricted shares carried at fair value. These shares are currently subject to certain transfer restrictions and will be convertible into Visa Class A shares upon final resolution of certain litigation matters involving Visa. During the first quarter of 2020, the Corporation also acquired 996 Visa Class B restricted shares from the acquisition of First Staunton, and those shares are currently carried at a zero cost basis due to the lack of an observable market price since the time of acquisition. Based on the current conversion factor, the Corporation expects 77,996 shares of Visa Class B to convert to 126,205 shares of Visa Class A upon the litigation resolution.

In its determination of the new carrying values upon observable price changes, the Corporation will adjust the prices if deemed necessary to arrive at the Corporation's estimated fair values. Such adjustments may include adjustments to reflect the different rights and obligations of similar securities and other adjustments. See Note 3 for additional disclosure regarding the Corporation's equity securities without readily determinable fair values.

The following table presents the carrying value of equity securities without readily determinable fair values still held as of December 31, 2021 that are measured under the measurement alternative and the related adjustments recorded during the periods presented for those securities with observable price changes. These securities are included in the nonrecurring fair value tables when applicable price changes are observable. Also shown are the cumulative upward and downward adjustments for the Corporation's equity securities without readily determinable fair values as of December 31, 2021:

| (\$ in Thousands) | | |
|--|-----------|---------------|
| Equity securities without readily determinable fair values | | |
| Carrying value as of December 31, 2020 | \$ | 13,444 |
| Additions | | 264 |
| Sales | | (33) |
| Donations | | (134) |
| Carrying value as of December 31, 2021 | \$ | 13,542 |
| Cumulative upward carrying value changes between January 1, 2018 and December 31, 2021 | \$ | 13,444 |
| Cumulative downward carrying value changes between January 1, 2018 and December 31, 2021 | \$ | — |

The table below presents the Corporation's assets measured at fair value on a nonrecurring basis, aggregated by the level in the fair value hierarchy within which those measurements fall:

| (\$ in Thousands) | Fair Value Hierarchy | Fair Value | Consolidated Statements of Income Category of Adjustment Recognized in Income | Adjustment Recognized on the Consolidated Statements of Income ^(c) |
|---|----------------------|------------|---|---|
| December 31, 2021 | | | | |
| Assets | | | | |
| Individually evaluated loans ^(a) | Level 3 | \$ 69,917 | Provision for credit losses | \$ (3,045) |
| OREO ^(b) | Level 2 | 21,299 | Other noninterest expense / provision for credit losses ^(d) | 7,345 |
| Mortgage servicing rights | Level 3 | 57,259 | Mortgage banking, net | 16,186 |
| December 31, 2020 | | | | |
| Assets | | | | |
| Individually evaluated loans ^(a) | Level 3 | \$ 138,752 | Provision for credit losses | \$ 97,519 |
| OREO ^(b) | Level 2 | 6,125 | Other noninterest expense | 3,747 |
| Mortgage servicing rights | Level 3 | 41,990 | Mortgage banking, net | (17,704) |

(a) Includes probable TDRs which are individually analyzed, net of the related ACLL.

(b) If the fair value of the collateral exceeds the carrying amount of the asset, no charge off or adjustment is necessary, the asset is not considered to be carried at fair value, and is therefore not included in the table.

(c) Includes the full year impact on the consolidated statements of income.

(d) When a property's value is written down at the time it is transferred to OREO, the charge off is booked to the provision for credit losses. When a property is already in OREO and subsequently written down, the charge off is booked to other noninterest expense.

Certain nonfinancial assets and nonfinancial liabilities measured at fair value on a nonrecurring basis include the fair value analysis in the goodwill impairment test as well as intangible assets and other nonfinancial long-lived assets measured at fair value for the purpose of impairment assessment.

The Corporation's significant Level 3 measurements which employ unobservable inputs that are readily quantifiable pertain to MSRs and individually evaluated loans.

The table below presents information about these inputs and further discussion is found above:

| December 31, 2021 | Valuation Technique | Significant Unobservable Input | Range of Inputs | Weighted Average Input Applied |
|------------------------------|-----------------------------------|--------------------------------|-----------------|--------------------------------|
| Mortgage servicing rights | Discounted cash flow | Discount rate | 9% - 13% | 9% |
| Mortgage servicing rights | Discounted cash flow | Constant prepayment rate | 8% - 39% | 12% |
| Individually evaluated loans | Appraisals / Discounted cash flow | Collateral / Discount factor | 33% - 61% | 38% |

Fair Value of Financial Instruments

The Corporation is required to disclose estimated fair values for its financial instruments.

Fair value estimates are set forth below for the Corporation's financial instruments:

| (\$ in Thousands) | Fair Value Hierarchy Level | December 31, 2021 | | December 31, 2020 | |
|---|----------------------------|-------------------|---------------|-------------------|---------------|
| | | Carrying Amount | Fair Value | Carrying Amount | Fair Value |
| Financial assets | | | | | |
| Cash and due from banks | Level 1 | \$ 343,831 | \$ 343,831 | \$ 416,154 | \$ 416,154 |
| Interest-bearing deposits in other financial institutions | Level 1 | 681,684 | 681,684 | 298,759 | 298,759 |
| Federal funds sold and securities purchased under agreements to resell | Level 1 | — | — | 1,135 | 1,135 |
| Investment securities AFS | Level 1 | 122,957 | 122,957 | 26,531 | 26,531 |
| Investment securities AFS | Level 2 | 4,209,058 | 4,209,058 | 3,058,910 | 3,058,910 |
| Investment securities HTM, net | Level 1 | 1,000 | 1,001 | 999 | 1,024 |
| Investment securities HTM, net | Level 2 | 2,237,947 | 2,347,608 | 1,877,939 | 2,027,852 |
| Equity securities with readily determinable fair values | Level 1 | 4,810 | 4,810 | 1,661 | 1,661 |
| Equity securities without readily determinable fair values | Level 3 | 13,542 | 13,542 | 13,444 | 13,444 |
| FHLB and Federal Reserve Bank stocks | Level 2 | 168,281 | 168,281 | 168,280 | 168,280 |
| Residential loans held for sale | Level 2 | 136,638 | 136,638 | 129,158 | 129,158 |
| Loans, net | Level 3 | 23,944,934 | 23,980,330 | 24,068,022 | 24,012,738 |
| Bank and corporate owned life insurance | Level 2 | 680,021 | 680,021 | 679,647 | 679,647 |
| Derivatives (other assets) ^(a) | Level 2 | 90,379 | 90,379 | 209,913 | 209,913 |
| Interest rate lock commitments to originate residential mortgage loans held for sale (other assets) | Level 3 | 2,617 | 2,617 | 9,624 | 9,624 |
| Forward commitments to sell residential mortgage loans (other assets) | Level 3 | 30 | 30 | — | — |
| Financial liabilities | | | | | |
| Noninterest-bearing demand, savings, interest-bearing demand, and money market accounts | Level 3 | \$ 27,119,167 | \$ 27,119,167 | \$ 24,725,451 | \$ 24,725,451 |
| Brokered CDs and other time deposits ^(b) | Level 2 | 1,347,262 | 1,347,262 | 1,757,030 | 1,766,200 |
| Short-term funding | Level 2 | 354,262 | 354,248 | 252,317 | 252,303 |
| FHLB advances | Level 2 | 1,621,047 | 1,680,814 | 1,632,723 | 1,760,727 |
| Other long-term funding | Level 2 | 249,324 | 265,545 | 549,465 | 578,233 |
| Standby letters of credit ^(c) | Level 2 | 2,367 | 2,367 | 2,731 | 2,731 |
| Derivatives (accrued expenses and other liabilities) ^(a) | Level 2 | 32,921 | 32,921 | 41,671 | 41,671 |
| Forward commitments to sell residential mortgage loans (accrued expenses and other liabilities) | Level 3 | — | — | 2,046 | 2,046 |

(a) Figures presented gross before netting. See Note 14 and Note 15 for information relating to the impact of offsetting derivative assets and liabilities and cash collateral with the same counterparty where there is a legally enforceable master netting agreement in place.

(b) When the estimated fair value is less than the carrying value, the carrying value is reported as the fair value.

(c) The commitment on standby letters of credit was \$248 million and \$279 million at December 31, 2021 and 2020, respectively. See Note 16 for additional information on the standby letters of credit and for information on the fair value of lending-related commitments.

Note 19 Regulatory Matters

Regulatory Capital Requirements

The Corporation and its subsidiary bank are subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory and possible additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the Corporation's financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Corporation must meet specific capital guidelines that involve quantitative measures of the Corporation's assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The Corporation's capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings, and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the Corporation to maintain minimum amounts and ratios (set forth in the table below) of total and CET1 capital to risk-weighted assets, and of tier 1 capital to

average assets. Management believes, as of December 31, 2021 and 2020, that the Corporation meets all capital adequacy requirements to which it is subject.

For additional information on the capital requirements applicable for the Corporation and the Bank, please see Part I, Item 1.

As of December 31, 2021 and 2020, the most recent notifications from the OCC and the FDIC categorized the subsidiary bank as well capitalized under the regulatory framework for prompt corrective action. To be categorized as well capitalized, the subsidiary bank must maintain minimum ratios as set forth in the table. There are no conditions or events since that notification that management believes have changed the institution's category. The actual capital amounts and ratios of the Corporation and its significant subsidiary are presented below. No deductions from capital were made for interest rate risk in 2021 or 2020.

| (\$ in Thousands) | Actual | | For Capital Adequacy Purposes | | To Be Well Capitalized Under Prompt Corrective Action Provisions ^(a) | |
|---------------------------------|--------------|---------|-------------------------------|-------|---|------------------------|
| | Amount | Ratio | Amount | Ratio | Amount | Ratio |
| As of December 31 , 2021 | | | | | | |
| Associated Banc-Corp | | | | | | |
| Total capital | \$ 3,570,026 | 13.10 % | \$ 2,179,419 | ≥ | 8.00 % | |
| Tier 1 capital | 3,001,074 | 11.02 % | 1,634,564 | ≥ | 6.00 % | |
| CET1 | 2,808,289 | 10.31 % | 1,225,923 | ≥ | 4.50 % | |
| Leverage | 3,001,074 | 8.83 % | 1,359,299 | ≥ | 4.00 % | |
| Associated Bank, N.A. | | | | | | |
| Total capital | \$ 3,243,672 | 11.93 % | \$ 2,175,689 | ≥ | 8.00 % | \$ 2,719,611 ≥ 10.00 % |
| Tier 1 capital | 2,923,881 | 10.75 % | 1,631,766 | ≥ | 6.00 % | 2,175,689 ≥ 8.00 % |
| CET1 | 2,923,881 | 10.75 % | 1,223,825 | ≥ | 4.50 % | 1,767,747 ≥ 6.50 % |
| Leverage | 2,923,881 | 8.61 % | 1,358,041 | ≥ | 4.00 % | 1,697,551 ≥ 5.00 % |
| As of December 31 , 2020 | | | | | | |
| Associated Banc-Corp | | | | | | |
| Total capital | \$ 3,632,807 | 14.02 % | \$ 2,072,273 | ≥ | 8.00 % | |
| Tier 1 capital | 3,058,809 | 11.81 % | 1,554,205 | ≥ | 6.00 % | |
| CET1 | 2,706,010 | 10.45 % | 1,165,654 | ≥ | 4.50 % | |
| Leverage | 3,058,809 | 9.37 % | 1,305,604 | ≥ | 4.00 % | |
| Associated Bank, N.A. | | | | | | |
| Total capital | \$ 3,295,823 | 12.74 % | \$ 2,068,801 | ≥ | 8.00 % | \$ 2,586,002 ≥ 10.00 % |
| Tier 1 capital | 2,971,234 | 11.49 % | 1,551,601 | ≥ | 6.00 % | 2,068,801 ≥ 8.00 % |
| CET1 | 2,971,234 | 11.49 % | 1,163,701 | ≥ | 4.50 % | 1,680,901 ≥ 6.50 % |
| Leverage | 2,971,234 | 9.11 % | 1,304,448 | ≥ | 4.00 % | 1,630,560 ≥ 5.00 % |

(a) Prompt corrective action provisions are not applicable at the bank holding company level.

Note 20 Earnings Per Common Share

See Note 1 for the Corporation's accounting policy on earnings per common share. Presented below are the calculations for basic and diluted earnings per common share:

| (\$ in Thousands, except per share data) | For the Years Ended December 31, | | |
|---|----------------------------------|--------------|--------------|
| | 2021 | 2020 | 2019 |
| Net income | \$ 350,994 | \$ 306,771 | \$ 326,790 |
| Preferred stock dividends | (17,111) | (18,358) | (15,202) |
| Net income available to common equity | \$ 333,883 | \$ 288,413 | \$ 311,587 |
| Common shareholder dividends | \$ (115,212) | \$ (111,291) | \$ (111,091) |
| Unvested share-based payment awards | (849) | (732) | (713) |
| Undistributed earnings | \$ 217,822 | \$ 176,390 | \$ 199,784 |
| Undistributed earnings allocated to common shareholders | \$ 216,299 | \$ 175,134 | \$ 198,424 |
| Undistributed earnings allocated to unvested share-based payment awards | 1,523 | 1,256 | 1,360 |
| Undistributed earnings | \$ 217,822 | \$ 176,390 | \$ 199,784 |
| Basic | | | |
| Distributed earnings to common shareholders | \$ 115,212 | \$ 111,291 | \$ 111,091 |
| Undistributed earnings allocated to common shareholders | 216,299 | 175,134 | 198,424 |
| Total common shareholders earnings, basic | \$ 331,510 | \$ 286,425 | \$ 309,514 |
| Diluted | | | |
| Distributed earnings to common shareholders | \$ 115,212 | \$ 111,291 | \$ 111,091 |
| Undistributed earnings allocated to common shareholders | 216,299 | 175,134 | 198,424 |
| Total common shareholders earnings, diluted | \$ 331,510 | \$ 286,425 | \$ 309,514 |
| Weighted average common shares outstanding | 150,773 | 153,005 | 160,534 |
| Effect of dilutive common stock awards | 1,214 | 637 | 1,398 |
| Diluted weighted average common shares outstanding | 151,987 | 153,642 | 161,932 |
| Basic earnings per common share | \$ 2.20 | \$ 1.87 | \$ 1.93 |
| Diluted earnings per common share | \$ 2.18 | \$ 1.86 | \$ 1.91 |

Anti-dilutive common stock options of 3 million at December 31, 2021, 7 million at December 31, 2020, and 3 million December 31, 2019, were excluded from the earnings per common share calculation.

Note 21 Segment Reporting

The Corporation utilizes a risk-based internal profitability measurement system to provide strategic business unit reporting. The profitability measurement system is based on internal management methodologies designed to produce consistent results and reflect the underlying economics of the units. Certain strategic business units have been combined for segment information reporting purposes where the nature of the products and services, the type of customer, and the distribution of those products and services are similar. The three reportable segments are Corporate and Commercial Specialty; Community, Consumer, and Business; and Risk Management and Shared Services. The financial information of the Corporation's segments has been compiled utilizing the accounting policies described in Note 1, with certain exceptions. The more significant of these exceptions are described herein.

The reportable segment results are presented based on the Corporation's internal management accounting process. The management accounting policies and processes utilized in compiling segment financial information are highly subjective and, unlike financial accounting, are not based on authoritative guidance similar to U.S. GAAP. As a result, reported segments and the financial information of the reported segments are not necessarily comparable with similar information reported by other financial institutions. Furthermore, changes in management structure or allocation methodologies and procedures may result in changes in previously reported segment financial data. Additionally, the information presented is not indicative of how the segments would perform if they operated as independent entities.

To determine financial performance of each segment, the Corporation allocates FTP assignments, the provision for credit losses, certain noninterest expenses, income tax, and equity to each segment. Allocation methodologies are subject to periodic adjustment as the internal management accounting system is revised, the interest rate environment evolves, and business or product lines within the segments change. Also, because the development and application of these methodologies is a dynamic process, the financial results presented may be periodically reviewed.

The Corporation allocates net interest income using an internal FTP methodology that charges users of funds (assets) and credits providers of funds (liabilities, primarily deposits) based on the maturity, prepayment, and / or re-pricing characteristics of the assets and liabilities. The net effect of this allocation is offset in the Risk Management and Shared Services segment to ensure consolidated totals reflect the Corporation's net interest income. The net FTP allocation is reflected as net intersegment interest income (expense) in the accompanying tables.

The provision for credit losses is allocated to segments based on the expected long-term annual net charge off rates attributable to the credit risk of loans managed by the segment during the period. In contrast, the level of the consolidated provision for credit losses is determined based on an ACLL model using methodologies described in Note 1. The net effect of the provision for credit losses is recorded in Risk Management and Shared Services. Indirect expenses incurred by certain centralized support areas are allocated to segments based on actual usage (for example, volume measurements) and other criteria. Certain types of administrative expense and bank-wide expense accruals (including amortization of CDIs and other intangible assets associated with acquisitions, acquisition-related costs, asset gains on disposed business units, loss on the prepayment of FHLB advances, and income tax benefits as a result of corporate restructuring) are generally not allocated to segments. Income taxes are allocated to segments based on the Corporation's estimated effective tax rate, with certain segments adjusted for any tax-exempt income or non-deductible expenses with the net tax residual recorded in Risk Management and Shared Services. Equity is allocated to the segments based on regulatory capital requirements and in proportion to an assessment of the inherent risks associated with the business of the segment (including interest, credit and operating risk).

A description of each business segment is presented below.

Corporate and Commercial Specialty: The Corporate and Commercial Specialty segment serves a wide range of customers including private clients, larger businesses, developers, not-for-profits, municipalities, and financial institutions by providing lending and deposit solutions as well as the support to deliver, fund, and manage such banking solutions. In addition, this segment provides a variety of investment, fiduciary, and retirement planning products and services to individuals, private clients, and small to mid-sized businesses. In serving this segment, we compete based on an in-depth understanding of our customers' financial needs, the ability to match market competitive solutions to those needs, and the highest standards of relationship and service excellence in the delivery of these services. Delivery of services is provided through our corporate and commercial units, our CRE unit, as well as our specialized industries and commercial financial services units. Within this segment we provide the following products and services: (1) lending solutions, such as commercial loans and lines of credit, CRE financing, construction loans, letters of credit, leasing, asset-based lending, and, for our larger clients, loan syndications; (2) deposit and cash management solutions such as commercial checking and interest-bearing deposit products, cash vault and night depository services, liquidity solutions, payables and receivables solutions, and information services; (3) specialized financial services such as interest rate risk management, foreign exchange solutions, and commodity hedging; (4) fiduciary services such as administration of pension, profit-sharing and other employee benefit plans, fiduciary and corporate agency services, and institutional asset management; and (5) investable funds solutions such as savings, money market deposit accounts, IRA accounts, CDs, fixed and variable annuities, full-service, discount and online investment brokerage; investment advisory services; and trust and investment management accounts. During the first quarter of 2021, the Corporation sold its wealth management subsidiary, Whitnell.

Community, Consumer, and Business: The Community, Consumer, and Business segment serves individuals, as well as small and mid-sized businesses, by providing lending and deposit solutions. In addition, the Corporation offered insurance and risk consulting services, until the sale of the business in June of 2020. In serving this segment, we compete based on providing a broad range of solutions to meet the needs of our customers in their entire financial lifecycle, convenient access to our services through multiple channels such as branches, phone based services, online and mobile banking, and a relationship based business model which assists our customers in navigating any changes and challenges in their financial circumstances. Delivery of services is provided through our various consumer banking and community banking units. Within this segment we provide the following products and services: (1) lending solutions such as residential mortgages, home equity loans and lines of credit, personal and installment loans, auto loans, business loans, and business lines of credit, and (2) deposit and transactional solutions such as checking, credit, debit and pre-paid cards, online banking and bill pay, and money transfer services.

Risk Management and Shared Services: The Risk Management and Shared Services segment includes key shared operational functions and also includes residual revenue and expenses, representing the difference between actual amounts incurred and the amounts allocated to operating segments, including interest rate risk residuals (FTP mismatches) and credit risk and provision residuals (long-term credit charge mismatches). All acquisition related costs, the asset gain on sale of ABRC, loss on the prepayment of FHLB advances, and the tax benefit from corporate restructuring are included within the Risk Management and Shared Services segment.

Effective during 2021, select back office support functions that specifically support Community, Consumer and Business were reorganized under that segment from the Risk Management and Shared Services segment.

Information about the Corporation's segments is presented below:

| (\$ in Thousands) | Corporate and Commercial Specialty | | |
|--|------------------------------------|------------|------------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Net interest income | \$ 373,856 | \$ 395,135 | \$ 447,979 |
| Net intersegment interest income (expense) | 26,710 | 10,400 | (52,200) |
| Segment net interest income | 400,565 | 405,535 | 395,779 |
| Noninterest income | 170,338 | 149,456 | 136,097 |
| Total revenue | 570,903 | 554,991 | 531,876 |
| Provision for credit losses | 62,795 | 59,780 | 49,341 |
| Noninterest expense | 229,444 | 209,507 | 233,655 |
| Income before income taxes | 278,664 | 285,705 | 248,879 |
| Income tax expense | 49,772 | 53,193 | 47,480 |
| Net income | \$ 228,891 | \$ 232,512 | \$ 201,399 |
| Allocated goodwill | \$ 525,836 | \$ 530,144 | \$ 530,144 |

| (\$ in Thousands) | Community, Consumer, and Business | | |
|----------------------------------|-----------------------------------|------------|------------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Net interest income | \$ 276,854 | \$ 295,297 | \$ 301,563 |
| Net intersegment interest income | 53,668 | 54,203 | 93,331 |
| Segment net interest income | 330,522 | 349,500 | 394,894 |
| Noninterest income | 146,457 | 185,737 | 223,712 |
| Total revenue | 476,978 | 535,237 | 618,606 |
| Provision for credit losses | 18,138 | 21,862 | 18,594 |
| Noninterest expense | 387,033 | 429,565 | 467,086 |
| Income before income taxes | 71,808 | 83,810 | 132,925 |
| Income tax expense | 15,080 | 17,600 | 27,914 |
| Net income | \$ 56,728 | \$ 66,210 | \$ 105,011 |
| Allocated goodwill | \$ 579,156 | \$ 579,156 | \$ 646,086 |

| (\$ in Thousands) | Risk Management and Shared Services | | |
|---|-------------------------------------|-----------|-----------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Net interest income | \$ 75,146 | \$ 72,525 | \$ 86,132 |
| Net intersegment interest (expense) | (80,378) | (64,603) | (41,130) |
| Segment net interest income | (5,232) | 7,922 | 45,001 |
| Noninterest income ^(a) | 15,570 | 178,862 | 21,015 |
| Total revenue | 10,338 | 186,784 | 66,017 |
| Provision for credit losses | (168,944) | 92,365 | (51,935) |
| Noninterest expense | 93,446 | 136,962 | 93,247 |
| Income (loss) before income taxes | 85,836 | (42,543) | 24,705 |
| Income tax expense (benefit) ^(b) | 20,461 | (50,593) | 4,325 |
| Net income | \$ 65,374 | \$ 8,050 | \$ 20,379 |
| Allocated goodwill | \$ — | \$ — | \$ — |

| (\$ in Thousands) | Consolidated Total | | |
|-----------------------------------|----------------------------------|--------------|--------------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Net interest income | \$ 725,855 | \$ 762,957 | \$ 835,674 |
| Net intersegment interest income | — | — | — |
| Segment net interest income | 725,855 | 762,957 | 835,674 |
| Noninterest income ^(a) | 332,364 | 514,056 | 380,824 |
| Total revenue | 1,058,219 | 1,277,012 | 1,216,498 |
| Provision for credit losses | (88,011) | 174,006 | 16,000 |
| Noninterest expense | 709,924 | 776,034 | 793,988 |
| Income before income taxes | 436,307 | 326,972 | 406,509 |
| Income tax expense ^(b) | 85,313 | 20,200 | 79,720 |
| Net income | \$ 350,994 | \$ 306,771 | \$ 326,790 |
| Allocated goodwill | \$ 1,104,992 | \$ 1,109,300 | \$ 1,176,230 |

(a) For the year ended December 31, 2020, the Corporation recognized a \$163 million asset gain related to the sale of ABRC.

(b) The Corporation has recognized \$63 million in tax benefits for the year ended December 31, 2020.

Note 22 Accumulated Other Comprehensive Income (Loss)

The following table summarizes the components of accumulated other comprehensive income (loss) at December 31, 2021, 2020, and 2019 respectively, including changes during the years then ended as well as any reclassifications out of accumulated other comprehensive income (loss):

| (\$ in Thousands) | Investment Securities AFS | Defined Benefit Pension and Postretirement Obligations | Accumulated Other Comprehensive Income (Loss) |
|---|---------------------------|--|---|
| Balance, December 31, 2018 | \$ (75,643) | \$ (49,330) | \$ (124,972) |
| Other comprehensive income before reclassifications | 111,592 | 16,296 | 127,887 |
| Amounts reclassified from accumulated other comprehensive income (loss) | | | |
| Investment securities (gains), net | (5,957) | — | (5,957) |
| Personnel expense | — | (148) | (148) |
| Other expense | — | 476 | 476 |
| Interest income | 895 | — | 895 |
| Income tax (expense) | (26,898) | (4,465) | (31,363) |
| Net other comprehensive income during period | 79,631 | 12,158 | 91,789 |
| Balance, December 31, 2019 | \$ 3,989 | \$ (37,172) | \$ (33,183) |
| Other comprehensive income before reclassifications | \$ 55,628 | \$ 7,780 | \$ 63,408 |
| Amounts reclassified from accumulated other comprehensive income (loss) | | | |
| Investment securities (gains), net | (9,222) | — | (9,222) |
| Personnel expense | — | (148) | (148) |
| Other expense | — | 3,897 | 3,897 |
| Interest income | 3,359 | — | 3,359 |
| Income tax (expense) | (12,429) | (3,064) | (15,493) |
| Net other comprehensive income during period | 37,336 | 8,465 | 45,801 |
| Balance, December 31, 2020 | \$ 41,325 | \$ (28,707) | \$ 12,618 |
| Other comprehensive income (loss) before reclassifications | \$ (63,714) | \$ 25,519 | \$ (38,195) |
| Amounts reclassified from accumulated other comprehensive income (loss) | | | |
| Investment securities losses, net | 16 | — | 16 |
| Personnel expense | — | 1,346 | 1,346 |
| Other expense | — | 4,594 | 4,594 |
| Interest income | 1,551 | — | 1,551 |
| Income tax (expense) benefit | 15,557 | (7,803) | 7,754 |
| Net other comprehensive income (loss) during period | (46,591) | 23,656 | (22,935) |
| Balance, December 31, 2021 | \$ (5,266) | \$ (5,051) | \$ (10,317) |

Note 23 Revenue from Contracts with Customers

Revenue from contracts with customers is recognized when obligations under the terms of a contract with the Corporation's customer are satisfied. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. We do not have any material significant payment terms as payment is received at or shortly after the satisfaction of the performance obligation.

The Corporation's disaggregated revenue by major source is presented below:

| (\$ in Thousands) | Corporate and Commercial Specialty | | |
|--|------------------------------------|------------|------------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Wealth management fees | \$ 89,854 | \$ 83,570 | \$ 80,719 |
| Service charges and deposit account fees | 18,635 | 16,903 | 13,342 |
| Card-based fees ^(a) | 1,790 | 1,534 | 1,827 |
| Insurance commissions and fees | 138 | 208 | 364 |
| Other revenue | 3,450 | 3,462 | 1,647 |
| Noninterest Income (in-scope of Topic 606) | \$ 113,866 | \$ 105,678 | \$ 97,899 |
| Noninterest Income (out-of-scope of Topic 606) | 56,471 | 43,778 | 38,198 |
| Total Noninterest Income | \$ 170,338 | \$ 149,456 | \$ 136,097 |

| (\$ in Thousands) | Community, Consumer, and Business | | |
|--|-----------------------------------|------------|------------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Wealth management fees | \$ — | \$ 1,387 | \$ 2,838 |
| Service charges and deposit account fees | 45,739 | 39,371 | 49,744 |
| Card-based fees ^(a) | 41,313 | 36,937 | 37,895 |
| Insurance commissions and fees | 190 | 45,027 | 88,727 |
| Other revenue | 9,349 | 19,053 | 9,462 |
| Noninterest Income (in-scope of Topic 606) | \$ 96,592 | \$ 141,775 | \$ 188,666 |
| Noninterest Income (out-of-scope of Topic 606) | 49,865 | 43,962 | 35,046 |
| Total Noninterest Income | \$ 146,457 | \$ 185,737 | \$ 223,712 |

| (\$ in Thousands) | Risk Management and Shared Services | | |
|---|-------------------------------------|------------|-----------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Wealth management fees | \$ — | \$ — | \$ (90) |
| Service charges and deposit account fees | 32 | 33 | 49 |
| Card-based fees ^(a) | 21 | 134 | 190 |
| Insurance commissions and fees | 8 | 10 | 13 |
| Other revenue | 1,760 | (1,552) | 1,370 |
| Noninterest Income (in-scope of Topic 606) | \$ 1,820 | \$ (1,375) | \$ 1,532 |
| Noninterest Income (out-of-scope of Topic 606) ^(b) | 13,750 | 180,237 | 19,483 |
| Total Noninterest Income | \$ 15,570 | \$ 178,862 | \$ 21,015 |

| (\$ in Thousands) | Consolidated Total | | |
|---|----------------------------------|------------|------------|
| | For the Years Ended December 31, | | |
| | 2021 | 2020 | 2019 |
| Wealth management fees | \$ 89,854 | \$ 84,957 | \$ 83,467 |
| Service charges and deposit account fees | 64,406 | 56,307 | 63,135 |
| Card-based fees ^(a) | 43,124 | 38,605 | 39,912 |
| Insurance commissions and fees | 336 | 45,245 | 89,104 |
| Other revenue | 14,558 | 20,963 | 12,629 |
| Noninterest Income (in-scope of Topic 606) | \$ 212,278 | \$ 246,077 | \$ 288,247 |
| Noninterest Income (out-of-scope of Topic 606) ^(b) | 120,086 | 267,979 | 92,577 |
| Total Noninterest Income | \$ 332,364 | \$ 514,056 | \$ 380,824 |

(a) Certain card-based fees are out-of-scope of Topic 606.

(b) The year ended December 31, 2020 includes a pre-tax gain of \$163 million from the sale of ABRC.

Below is a listing of performance obligations for the Corporation's main revenue streams:

| Revenue Stream | Noninterest income in-scope of Topic 606 |
|--|--|
| Service charges and deposit account fees | Service charges on deposit accounts consist of monthly service fees (i.e. business analyzed fees and consumer service charges) and other deposit account related fees. The Corporation's performance obligation for monthly service fees is generally satisfied, and the related revenue recognized, over the period in which the service is provided. Other deposit account related fees are largely transactional based, and therefore, the Corporation's performance obligation is satisfied, and related revenue recognized, at a point in time. Payment for service charges and deposit account fees is primarily received immediately or in the following month through a direct charge to the customers' accounts. |
| Card-based fees ^(a) | Card-based fees are primarily comprised of debit and credit card income, ATM fees, and merchant services income. Debit and credit card income is primarily comprised of interchange fees earned whenever the Corporation's debit and credit cards are processed through card payment networks. ATM and merchant fees are largely transactional based, and therefore, the Corporation's performance obligation is satisfied, and related revenue recognized, at a point in time. Payment is typically received immediately or in the following month. |
| Trust and asset management fees ^(b) | Trust and asset management income is primarily comprised of fees earned from the management and administration of trusts and other customer assets. The Corporation's performance obligation is generally satisfied over time and the resulting fees are recognized monthly, based upon the month-end market value of the assets under management and the applicable fee rate. Payment is generally received a few days after month end through a direct charge to the customers' accounts. The Corporation's performance obligation for these transactional-based services is generally satisfied, and related revenue recognized, at a point in time (i.e., as incurred). Payment is received shortly after services are rendered. |
| Brokerage and advisory fees ^(b) | Brokerage and advisory fees primarily consists of investment advisory, brokerage, retirement services, and annuities. The Corporation's performance obligation for investment advisory services and retirement services is generally satisfied, and the related revenue recognized, over the period in which the services are provided. The performance obligation for annuities is satisfied upon sale of the annuity, and therefore, the related revenue is primarily recognized at the time of sale. Payment for these services are typically received immediately or in advance of the service. |

(a) Certain card-based fees are out-of-scope of Topic 606.

(b) Trust and asset management fees and brokerage and advisory fees are included in wealth management fees.

Note 24 Recent Developments

As permitted under ASC 860-50-35-3, on January 1, 2022, the Corporation elected to begin accounting for its MSRs under the fair value methodology. This irrevocable election will result in a cumulative effect adjustment of \$2 million, increasing retained earnings on the consolidated balance sheets. The valuation will be completed through an in-house valuation model with periodic external validation of the model's valuation.

On January 20, 2022, the Corporation announced that Executive Vice President, Chief Financial Officer Christopher J. Del Moral-Niles will retire from the Corporation later this year. The Corporation has retained Diversified Search Group to assist in the search for a successor. To ensure a seamless transition, Mr. Niles will continue in his role until a successor is in place.

On February 1, 2022, the Corporation's Board of Directors declared a regular quarterly cash dividend of \$0.20 per common share, payable on March 15, 2022 to shareholders of record at the close of business on March 1, 2022. The Board of Directors also declared a regular quarterly cash dividend of \$0.3671875 per depository share on Associated's 5.875% Series E Perpetual Preferred Stock, payable on March 15, 2022 to shareholders of record at the close of business on March 1, 2022. The Board of Directors also declared a regular quarterly cash dividend of \$0.3515625 per depository share on Associated's 5.625% Series F Perpetual Preferred Stock, payable on March 15, 2022 to shareholders of record at the close of business on March 1, 2022.



KPMG LLP
Ann Center
Suite 5500
200 E. Randolph Street
Chicago, IL 60601-4730

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Associated Banc-Corp:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Associated Banc-Corp 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). In our opinion, the consolidated financial statements 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.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), 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, and our report dated February 8, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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 Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits 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. We believe that our audits provide a reasonable basis for our opinion.

KPMG LLP is a Swiss member firm and a member firm of the KPMG network of independent member firms affiliated with KPMG network, a Swiss entity, which is a Swiss company limited by guarantee.



Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates 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 a critical audit matter 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of the allowance for credit losses related to loans, excluding individually analyzed loans

As discussed in Notes 1 and 4 to the consolidated financial statements, the Company's allowance for credit losses related to loans, excluding loans individually analyzed, is comprised of the allowance for loan losses and the allowance for unfunded commitments (collective ACLL) and was \$304.6 million of a total allowance for credit losses of \$319.8 million as of December 31, 2021 (the December 31, 2021 collective ACLL). The level of the December 31, 2021 collective ACLL represent management's estimate of an amount appropriate to provide for expected lifetime credit losses. The expected lifetime credit losses are the product of multiplying the Company's estimates of probability of default (PD), loss given default (LGD), and the individual loan level exposure at default (EAD) on an undiscounted basis. The Company estimates the lifetime expected loss using prepayment assumptions over the projected lifetime cash flow of the loans. The Company uses PD and LGD models, which are based on loan grades for commercial loans and credit reports for consumer loans and are applied based on portfolio segmentation leveraging industry breakouts in Commercial and Industrial and property types in Commercial Real Estate for commercial loans and loan types for consumer loans, and incorporate a single economic forecast scenario over a reasonable and supportable forecast period. After the reasonable and supportable forecast period, the Company reverts on a straight-line basis over one year to its historical loss rates for the remaining life of the loans. A portion of the December 31, 2021 collective ACLL is comprised of adjustments for qualitative factors not reflected in the quantitative model.

We identified the assessment of the December 31, 2021 collective ACLL as a critical audit matter. A high degree of audit effort, including specialized skills and knowledge, and subjective and complex auditor judgment was involved in the assessment of the December 31, 2021 collective ACLL. Specifically, the assessment encompassed the evaluation of the December 31, 2021 collective ACLL methodology, including the methods and models used to estimate (1) PD and LGD and their significant assumptions, including the loan grades for commercial loans, credit reports for consumer loans, historical loan losses and delinquency experience, the economic forecast scenario, and how loans with similar risk characteristics are segmented, (2) the method used to calculate the prepayment assumptions, (3) the determination of the reasonable and supportable forecast period and reversion to historical losses and (4) the qualitative factors. The assessment also included an evaluation of the conceptual soundness and performance of the PD and LGD models and of the mathematical accuracy of certain December 31, 2021 collective ACLL calculations.

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 critical audit matter. This included controls related to the:

- development and approval of the collective ACLL methodology
- continued use and appropriateness of changes made to PD and LGD models
- identification and determination of the significant assumptions used in the PD and LGD models, including the loan grades for commercial loans, credit reports for consumer loans, historical loan losses and delinquency experience, and how loans with similar risk characteristics are segmented
- identification and determination of the prepayment assumptions used in the collective ACLL methodology



- development of the qualitative factors
- performance monitoring of the PD and LGD models for the December 31, 2021 collective ACL
- analysis of the collective ACLL results, trends and ratios and
- calculation of the collective ACLL.

We evaluated the Company's process to develop the December 31, 2021 collective ACLL estimates by testing certain sources of data, factors, and assumptions that the Company used, and considered the relevance and reliability of such data, factors, and assumptions, and tested the mathematical accuracy of certain calculations of the December 31, 2021 collective ACLL. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in:

- evaluating the Company's collective ACLL methodology for compliance with U.S. generally accepted accounting principles
- evaluating judgments made by the Company relative to the assessment and performance testing of the PD and LGD models by comparing them to relevant Company-specific metrics and trends and the applicable industry and regulatory practices
- evaluating the conceptual soundness of the methodology used to develop the key assumptions for the PD and LGD models including loan grades for commercial loans, credit reports for consumer loans, and the historical loan losses and delinquency experience by inspecting the model documentation to determine whether the models are suitable for their intended use
- evaluating the appropriateness of the model methodology utilized to incorporate a reasonable and supportable forecast and reversion methodology by inspecting the model documentation and by comparing it to relevant industry practices
- evaluating the selection of the economic forecast scenario through comparison to publicly available forecasts
- determining whether the loan portfolio is segmented by similar risk characteristics by comparing to the Company's business environment and relevant industry practices
- evaluating the methodology used to develop the qualitative factors and the effect of those factors on the collective ACLL compared with relevant credit risk factors and consistency with credit trends and identified limitations of the underlying quantitative models and
- evaluating individual loan grades for a selection of commercial loan relationships by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral values.

KPMG LLP

We have served as the Company's auditor since 1983.

Chicago, Illinois
February 8, 2022

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. Controls and Procedures

The Corporation maintains disclosure controls and procedures as required under Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended, that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Corporation's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

As of December 31, 2021, the Corporation's management carried out an evaluation, under the supervision and with the participation of the Corporation's Chief Executive Officer and Chief Financial Officer, of the effectiveness of its disclosure controls and procedures. Based on the foregoing, its Chief Executive Officer and Chief Financial Officer concluded that the Corporation's disclosure controls and procedures were effective as of December 31, 2021. No changes were made to the Corporation's internal control over financial reporting (as defined Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Exchange Act) during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

Management of Associated Banc-Corp is responsible for establishing and maintaining adequate internal control over financial reporting. The Corporation's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Corporation's financial statements for external purposes in accordance with GAAP. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act.

As of December 31, 2021, management assessed the effectiveness of the Corporation's internal control over financial reporting based on criteria for effective internal control over financial reporting established in Internal Control — Integrated Framework (2013), issued by the Committee of Sponsoring Organization of the Treadway Commission (COSO). Based on this assessment, management has determined that the Corporation's internal control over financial reporting as of December 31, 2021, was effective.

KPMG LLP, the independent registered public accounting firm that audited the consolidated financial statements of the Corporation included in this Annual Report on Form 10-K, has issued an attestation report on the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2021. The report, which expresses an unqualified opinion on the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2021, is included below under the heading Report of Independent Registered Public Accounting Firm.



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200 E. Randolph Street
Chicago, IL 60601-6438

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Associated Banc-Corp:

Opinion on Internal Control Over Financial Reporting

We have audited Associated Banc-Corp and subsidiaries' (the Company) 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 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.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of 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), and our report dated February 8, 2022 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible 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 internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

KPMG LLP, a limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with the KPMG network, a Swiss entity ("KPMG Network"), which is a Swiss entity.



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.

KPMG LLP

Chicago, Illinois
February 8, 2022

ITEM 9B.**Other Information**

None.

ITEM 9C.**Disclosure Regarding Foreign Jurisdictions that Prevent Inspections**

Not applicable.

PART III**ITEM 10.****Directors, Executive Officers and Corporate Governance**

The information in the Corporation's definitive Proxy Statement, prepared for the 2022 Annual Meeting of Shareholders, which contains information concerning this item under the captions Election of Directors and Information About the Board of Directors; and information concerning Section 16(a) compliance under the caption Delinquent Section 16(a) Reports is incorporated herein by reference. Information relating to the Corporation's executive officers is set forth in Part I of this report.

Our Code of Business Conduct and Ethics, Corporate Governance Guidelines, committee charters for standing committees of the Board and other governance documents are all available on our website, www.associatedbank.com, "Investor Relations," "Governance Documents." We will disclose on our website amendments to or waivers from our Code of Ethics in accordance with all applicable laws and regulations. Information contained on any of our websites is not deemed to be a part of this Annual Report.

ITEM 11.**Executive Compensation**

The information in the Corporation's definitive Proxy Statement, prepared for the 2022 Annual Meeting of Shareholders, which contains information concerning this item, under the captions Executive Compensation — Compensation Discussion and Analysis, Director Compensation, Compensation and Benefits Committee Interlocks and Insider Participation, and Compensation and Benefits Committee Report is incorporated herein by reference.

ITEM 12.**Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

The information in the Corporation's definitive Proxy Statement, prepared for the 2022 Annual Meeting of Shareholders, which contains information concerning this item, under the caption Stock Ownership, is incorporated herein by reference. The following table sets forth information as of December 31, 2021 about shares of Common Stock outstanding and available for issuance under Associated's existing equity compensation plans.

Equity Compensation Plan Information

| December 31, 2021 | (a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants, and Rights | (b) Weighted-Average Exercise Price of Outstanding Options, Warrants, and Rights | (c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) |
|---|--|--|--|
| Plan Category | | | |
| Equity compensation plan approved by security holders | 4,814,058 | \$ 20.72 | 11,022,343 |

ITEM 13.**Certain Relationships and Related Transactions, and Director Independence**

The information in the Corporation's definitive Proxy Statement, prepared for the 2022 Annual Meeting of Shareholders, which contains information concerning this item under the captions Related Party Transactions, and Information about the Board of Directors, is incorporated herein by reference.

ITEM 14.**Principal Accounting Fees and Services**

The information in the Corporation's definitive Proxy Statement, prepared for the 2022 Annual Meeting of Shareholders, which contains information concerning this item under the caption Fees Paid to Independent Registered Public Accounting Firm, is incorporated herein by reference.

PART IV

ITEM 15.

Exhibits and Financial Statement Schedules

(a) 1 and 2 Financial Statements and Financial Statement Schedules

The following financial statements and financial statement schedules are included under a separate caption Financial Statements and Supplementary Data in Part II, Item 8 hereof and are incorporated herein by reference.

Consolidated Balance Sheets — December 31, 2021 and 2020

Consolidated Statements of Income — For the Years Ended December 31, 2021, 2020, and 2019

Consolidated Statements of Comprehensive Income — For the Years Ended December 31, 2021, 2020, and 2019

Consolidated Statements of Changes in Stockholders' Equity — For the Years Ended December 31, 2021, 2020, and 2019

Consolidated Statements of Cash Flows — For the Years Ended December 31, 2021, 2020, and 2019

Notes to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

(a) 3 Exhibits Required by Item 601 of Regulation S-K

| Exhibit Number | Description | |
|----------------|---|--|
| (2) | Membership Interest Purchase Agreement, dated May 4, 2020, by and between Associated Bank, N.A. and USI Insurance Services LLC | Exhibit (2) to Report on Form 10-Q filed on May 11, 2020 |
| (3)(a) | Amended and Restated Articles of Incorporation | Exhibit (3) to Report on Form 10-Q filed on May 8, 2006 |
| (3)(b) | Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 6.125% Non-Cumulative Perpetual Preferred Stock, Series C, dated June 4, 2015 | Exhibit (3.1) to Report on Form 8-K filed on June 8, 2015 |
| (3)(c) | Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp regarding the rights and preferences of preferred stock, effective April 25, 2012 | Exhibit (3.1 and 4.1) to Report on Form 8-K filed on April 25, 2012 |
| (3)(d) | Articles of Correction filed with the Wisconsin Department of Financial Institutions on June 14, 2016 | Exhibit (3) to Report on Form 10-Q filed on July 28, 2016 |
| (3)(e) | Certificate Related to Series A Preferred Stock dated August 15, 2016 | Exhibit (3.1) to Report on Form 8-K filed on August 16, 2016 |
| (3)(f) | Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 5.375% Non-Cumulative Perpetual Preferred Stock, Series D, dated September 12, 2016 | Exhibit (3.1, 4.1) to Report on Form 8-K filed on September 15, 2016 |
| (3)(g) | Amended and Restated Bylaws of Associated Banc-Corp | Exhibit (3.1) to Report on Form 8-K filed on May 1, 2019 |
| (3)(h) | Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, dated September 21, 2018 | Exhibit (3.1.4.1) to Report on Form 8-K filed on September 26, 2018 |
| (3)(i) | Certificate relating to the Series B Preferred Stock dated October 23, 2018 | Exhibit 3.1 to Report on Form 8-K filed on October 26, 2018 |
| (3)(j) | Text of Amendments to the Amended and Restated Bylaws of Associated Banc-Corp | Exhibit (3) to Report on Form 8-K filed on February 5, 2021 |
| (3)(l) | Amended and Restated Bylaws of Associated Banc-Corp, as amended through February 2, 2021 (complete version) | Exhibit (3.1(l)) to Report on Form 10-K filed on February 9, 2021 |
| (3)(m) | Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 5.625% Non-Cumulative Perpetual Preferred Stock, Series F, dated June 10, 2020 | Exhibit (3.1.4.1) to Report on Form 8-K filed on June 15, 2020 |
| (3)(n) | Certificate relating to the Series C Preferred Stock effective July 8, 2021 | Exhibit (3.1) to Report on Form 8-K filed on July 8, 2021 |
| (3)(o) | Certificate relating to the Series D Preferred Stock effective September 30, 2021 | Exhibit (3.1) to Report on Form 8-K filed on September 30, 2021 |

| Exhibit Number | Description |
|----------------|---|
| (4)(a) | Instruments Defining the Rights of Security Holders, Including Indentures The Parent Company, by signing this report, agrees to furnish the SEC, upon its request, a copy of any instrument that defines the rights of holders of long-term debt of the Corporation and its consolidated and unconsolidated subsidiaries for which consolidated or unconsolidated financial statements are required to be filed and that authorizes a total amount of securities not in excess of 10% of the total assets of the Corporation on a consolidated basis |
| (4)(b) | Indenture, dated as of March 14, 2011, between Associated Banc-Corp and The Bank of New York Mellon Trust Company, N.A. Exhibit (4.1) to Report on Form 8-K filed on March 28, 2011 |
| (4)(c) | Global Note dated as of March 28, 2011 representing \$300,000,000 5.125% Senior Notes due 2016 Exhibit (4.2) to Report on Form 8-K filed on March 28, 2011 |
| (4)(d) | Global Note dated as of September 13, 2011 representing \$130,000,000 5.125% Senior Notes due 2016 Exhibit (4.4) to Report on Form 8-K filed on September 15, 2011 |
| (4)(e) | Subordinated Indenture, dated as of November 13, 2014, between Associated Banc-Corp and The Bank of New York Mellon Trust Company, N.A., as trustee Exhibit (4.1) to Report on Form 8-K filed on November 18, 2014 |
| (4)(f) | Global Note dated as of November 13, 2014 representing \$250,000,000 4.250% Subordinated Note due 2025 Exhibit (4.3) to Report on Form 8-K filed on November 18, 2014 |
| (4)(g) | Deposit Agreement, dated June 8, 2015, among Associated Banc-Corp, Wells Fargo Bank, N.A. and the holders from time to time of the Depository Receipts described therein, and form of Depository Receipt Exhibit (4.2) to Report on Form 8-K filed on June 8, 2015 |
| (4)(h) | Deposit Agreement, dated September 15, 2016, among Associated Banc-Corp, Wells Fargo Bank, N.A., and the holders from time to time of the Depository Receipts described therein, and form of Depository Receipt Exhibit (4.2) to Report on Form 8-K filed on September 15, 2016 |
| (4)(i) | Deposit Agreement, dated September 26, 2018, among Associated Banc-Corp, Equiniti Trust Company and the holders from time to time of the Depository Receipts described therein, and form of Depository Receipt Exhibit (4.2) to Report on Form 8-K filed on September 26, 2018 |
| (4)(j) | Description of Associated Banc-Corp's Securities Filed herewith |
| (4)(k) | Deposit Agreement, dated June 15, 2020, among Associated Banc-Corp, Equiniti Trust Company and the holders from time to time of the Depository Receipts, and form of Depository Receipts Exhibit 4.2 to Report on Form 8-K filed on June 15, 2020 |
| *(10)(a) | Associated Banc-Corp 1987 Long-Term Incentive Stock Plan, Amended and Restated Effective January 1, 2008 Exhibit (10)(a) to Report on Form 10-K filed on February 26, 2009 |
| *(10)(b) | Associated Banc-Corp 1999 Long-Term Incentive Stock Plan, Amended and Restated Effective January 1, 2008 Exhibit (10)(b) to Report on Form 10-K filed on February 26, 2009 |
| *(10)(c) | Associated Banc-Corp 2003 Long-Term Incentive Stock Plan, Amended and Restated Effective January 1, 2008 Exhibit (10)(c) to Report on Form 10-K filed on February 26, 2009 |
| *(10)(d) | Separation and General Release Letter between Associated Banc-Corp and Christopher Piotrowski, dated January 22, 2020 Exhibit (10) to Report on Form 10-Q filed on May 11, 2020 Appendix A to the Proxy Statement on Schedule 14A filed on March 13, 2020, as supplemented, in connection with the 2020 Annual Meeting of Shareholders of Associated Banc-Corp |
| *(10)(e) | Associated Banc-Corp 2020 Incentive Compensation Plan |
| *(10)(f) | Retirement Agreement, dated as of January 19, 2021, by and between Associated Banc-Corp and Philip B. Flynn Exhibit 10.1 to Report on Form 8-K filed January 21, 2021 |
| *(10)(g) | Associated Banc-Corp Deferred Compensation Plan Exhibit (10)(h) to Report on Form 10-K filed on February 26, 2009 |
| *(10)(h) | Associated Banc-Corp Directors' Deferred Compensation Plan, Restated Effective December 4, 2018 Exhibit (10)(e) to Report on Form 10-K filed on February 19, 2019 |
| *(10)(i) | Associated Banc-Corp Deferred Compensation Plan, Restated Effective November 1, 2015 Exhibit (10)(f) to Report on Form 10-K filed on February 5, 2016 |
| *(10)(j) | Amendment to Associated Banc-Corp 2003 Long-Term Incentive Stock Plan effective November 15, 2009 Exhibit (99.2) to Report on Form 8-K filed on November 16, 2009 |
| *(10)(k) | Associated Banc-Corp 2010 Incentive Compensation Plan Exhibit (99.1) to Report on Form 8-K filed on April 29, 2010 |
| *(10)(l) | Associated Banc-Corp 2013 Incentive Compensation Plan Appendix A to Definitive Proxy Statement filed on March 14, 2013 |

| Exhibit Number | Description | |
|----------------|---|--|
| * (10)(m) | Associated Banc-Corp 2017 Incentive Compensation Plan | Appendix A to Definitive Proxy Statement filed on March 14, 2017 |
| * (10)(n) | Form of Non-Qualified Stock Option Agreement | Exhibit (99.3) to Report on Form 8-K filed on January 27, 2012 |
| * (10)(o) | Associated Banc-Corp Change of Control Plan, Restated Effective September 28, 2011 | Exhibit (10.1) to Report on Form 8-K filed on September 30, 2011 |
| * (10)(p) | Associated Banc-Corp Supplemental Executive Retirement Plan for Philip B. Flynn | Exhibit (99.2) to Report on Form 8-K filed on December 23, 2011 |
| * (10)(q) | Form of Performance-Based Restricted Stock Unit Agreement | Exhibit (10.2) to Report on Form 10-Q filed on August 4, 2014 |
| * (10)(r) | Supplemental Executive Retirement Plan, Restated Effective January 22, 2013 | Exhibit (99.1) to Report on Form 8-K filed on January 22, 2013 |
| * (10)(s) | Supplemental Executive Retirement Plan, Restated Effective November 16, 2015 | Exhibit (10)(p) to Report on Form 10-K filed on February 5, 2016 |
| * (10)(t) | Form of 2013 Incentive Compensation Plan Restricted Unit Agreement | Exhibit (10.1) to Report on Form 10-Q filed on July 28, 2017 |
| * (10)(u) | Form of Amendment to 2013 Incentive Compensation Plan Restricted Unit Agreement | Exhibit (10.2) to Report on Form 10-Q filed on July 28, 2017 |
| * (10)(v) | Form of Change of Control Agreement, by and among Associated Banc-Corp and the executive officers of Associated Banc-Corp. | Exhibit (10.1) to Report on Form 8-K filed on December 6, 2017 |
| * (10)(w) | Form of Associated Banc-Corp 2017 Incentive Compensation Plan Restricted Stock Agreement | Exhibit 10.1 to Report on Form 10-Q filed July 26, 2018 |
| (10)(x) | Offer Letter, dated March 4, 2021, by and between Associated Banc-Corp, and Andrew J. Harmening | Exhibit (10.1) to Report on Form 8-K filed March 10, 2021 |
| (10)(y) | Retirement Agreement, dated as of January 19, 2022, by and between Associated Banc-Corp and Christopher J. Del Moral-Niles | Exhibit (10.1) to Report on Form 8-k filed January 21, 2022 |
| (21) | Subsidiaries of Associated Banc-Corp | Filed herewith |
| (23) | Consent of Independent Registered Public Accounting Firm | Filed herewith |
| (24) | Powers of Attorney | Filed herewith |
| (31.1) | Certification Under Section 302 of Sarbanes-Oxley by Andrew J. Harmening, Chief Executive Officer | Filed herewith |
| (31.2) | Certification Under Section 302 of Sarbanes-Oxley by Christopher J. Del Moral-Niles, Chief Financial Officer | Filed herewith |
| (32) | Certification by the Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of Sarbanes-Oxley. | Filed herewith |
| (101) | Interactive data files pursuant to Rule 405 of Regulation S-T: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Income, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Changes in Stockholders' Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements. | Filed herewith |
| (104) * | Cover page interactive data file (formatted as inline XBRL and contained in Exhibit 101) Management contracts and arrangements. | Filed herewith |

Schedules and exhibits other than those listed are omitted for the reasons that they are not required, are not applicable or that equivalent information has been included on the financial statements and notes thereto or elsewhere within.

Not applicable.

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.

ASSOCIATED BANC-CORP

Date: February 8, 2022

By: /s/ Andrew J. Harmening

Andrew J. Harmening

President and Chief Executive 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 and on the dates indicated.

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---|--|------------------|
| <u>/s/ Andrew J. Harmening</u> Andrew J. Harmening | President and Chief Executive Officer (Principal Executive Officer) | February 8, 2022 |
| <u>/s/ Christopher J. Del Moral-Niles</u> Christopher J. Del Moral-Niles | Chief Financial Officer (Principal Financial Officer) | February 8, 2022 |
| <u>/s/ Tammy C. Stadler</u> Tammy C. Stadler | Chief Accounting Officer (Principal Accounting Officer) | February 8, 2022 |

Directors: John F. Bergstrom, R. Jay Gerken, Judith P. Greffin, Michael J. Haddad, Andrew J. Harmening, Robert A. Jeffe, Eileen A. Kamerick, Gale E. Klappa, Cory L. Nettles, Karen T. van Lith and John (Jay) B. Williams

By: /s/ Randall J. Erickson

Randall J. Erickson

As Attorney-In-Fact*

* Pursuant to authority granted by powers of attorney, copies of which are filed herewith.

ASSOCIATED BANC-CORP

DESCRIPTION OF SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Description of Common Stock

Associated Banc-Corp (“we,” “our,” “us”) has one class of common stock, the Associated Banc-Corp common stock. Of the 250,000,000 shares of our common stock with a par value of \$0.01 per share authorized, 149,342,641 shares were outstanding as of December 31, 2021, exclusive of shares held in treasury.

The following summary of the material terms and rights of our common stock is not complete. You should refer to the applicable provision of our Amended and Restated Articles of Incorporation, as amended, for a complete statement of the terms and rights of our common stock.

Dividend Rights

Holders of our common stock are entitled to receive dividends when, as, and if declared by our board of directors out of our assets legally available for payment, subject to the rights of holders of our Series E and Series F Preferred Stock and any other Series of preferred stock that may be designated, issued and outstanding from time to time, if and to the extent so provided under the terms of such series. No share of our common stock is entitled to any preferential treatment with respect to dividends.

Voting Rights

Each holder of our common stock will be entitled at each shareholders’ meeting, with regard to each matter to be voted on, to cast one vote, in person or by proxy, for each share of our common stock registered in his or her name on our stock transfer books. Subject to the rights, if any, of the holders of any Series of preferred stock under their respective certificates of designations and applicable law, all voting rights are vested in the holders of shares of our common stock. Voting rights are not cumulative, which means that holders of more than 50% of the shares voting for the election of directors can elect 100% of the directors, and the holders of the remaining shares will not be able to elect any directors.

Rights Upon Liquidation

Subject to and to the extent of the rights of holders of any of our preferred stock which may be designated, issued and outstanding from time to time, in the event of our liquidation, dissolution or winding up, whether voluntary or involuntary, the holders of our common stock will be entitled to receive all of our assets remaining for distribution to our shareholders, on a pro rata basis.

Miscellaneous

Shares of our common stock are not convertible into shares of any other class of capital stock. Shares of our common stock are not and will not be entitled to any preemptive or subscription rights. The issued and outstanding shares of our common stock are fully paid and nonassessable. The transfer agent, registrar, and dividend disbursement agent for our common stock shall be named in the applicable prospectus supplement.

Description of Preferred Stock

Under our Amended and Restated Articles of Incorporation, as amended, our board of directors is authorized, without further shareholder action, to issue up to 750,000 shares of preferred stock, \$1.00 par value per share, in one or more series, and to determine the preferences, limitations and relative rights of each series. As of December 31, 2021, there were authorized (i) 100,000 shares of our 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, with a liquidation preference of \$1,000 per share, all of which were outstanding and (ii) 100,000 shares of our 5.625% Non-Cumulative Perpetual Preferred

Stock, Series F, with a liquidation preference of \$1,000 per share, all of which were outstanding. We may amend our Amended and Restated Articles of Incorporation, as amended, to increase the number of authorized shares of preferred stock in a manner permitted by our Amended and Restated Articles of Incorporation and the Wisconsin Business Corporation Law.

All of our outstanding shares of preferred stock are represented by depositary shares registered pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Each Series of depositary shares is described under “Description of Depositary Shares,” below.

Under regulations adopted by the Federal Reserve Board, if the holders of any Series of our preferred stock become entitled to vote for the election of directors because dividends on that Series are in arrears, that Series may then be deemed a “class of voting securities.” In such a case, a holder of 25% or more of the series, or a holder of 5% or more if that holder would also be considered to exercise a “controlling influence” over Associated Banc-Corp, may then be subject to regulation as a bank holding company in accordance with the Bank Holding Company Act of 1956. In addition, (1) any other bank holding company may be required to obtain the prior approval of the Federal Reserve Board to acquire or retain 5% or more of that series, and (2) any person other than a bank holding company may be required to obtain the approval of the Federal Reserve Board to acquire or retain 10% or more of that series.

The following summary is not complete. You should also refer to our Amended and Restated Articles of Incorporation, as amended, and to our Articles of Amendment relating to the Series of the preferred stock being offered for the complete terms of that Series of preferred stock.

5.875% Non-Cumulative Perpetual Preferred Stock, Series E

As of December 31, 2021, there were 100,000 shares of our 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, par value of \$1.00 per share, with a liquidation preference of \$1,000 per share (the “Series E Preferred Stock” or the “Series E Shares”) issued and outstanding. The depositary is the sole holder of the Series E Preferred Stock, as described under “Depositary Shares Representing the Series E and Series F Shares” below, and all references to the holders of the Series E Shares shall mean the depositary. However, the holders of the depositary shares representing the Series E Shares are entitled, through the depositary, to exercise the rights and preferences of the holders of the Series E Shares, as described under “Depositary Shares Representing the Series E and Series F Shares.” This summary of the Series E Preferred Stock does not purport to be complete in all respects. This summary is subject to and qualified in its entirety by reference to our Amended and Restated Articles of Incorporation, as amended, including the Articles of Amendment with respect to the designation of the Series E Preferred Stock.

Each holder of Series E Shares is entitled to receive cash dividends when, as and if declared out of assets legally available for payment in respect of the Series E Shares by our Board of Directors or a duly authorized committee of the Board in their sole discretion. Dividends will be non-cumulative. If we do not declare dividends or do not pay dividends in full on the Series E Shares on any date on which dividends are due, then these undeclared and unpaid dividends will not cumulate, accrue or be payable.

The Series E Shares have a fixed liquidation preference of \$1,000 per share (equivalent to \$25 per depositary share). If we liquidate, dissolve or wind up our business and affairs, holders of Series E Shares will be entitled to receive, out of our assets that are available for distribution to shareholders, an amount per Series E Share equal to the liquidation preference per Share plus an amount with respect to dividends as and to the extent described below under “—Liquidation Rights.”

The Series E Shares are not convertible into, or exchangeable for, shares of our common stock or any other class or Series of our stock or other securities. The Series E Shares are not subject to any sinking fund or any other obligation of us to redeem or repurchase the Series E Shares.

Ranking

The Series E Shares rank, as to the payment of dividends and the amounts to be paid upon liquidation, dissolution or winding up, senior to our common stock and any other class or Series of shares ranking junior to the Series E Shares. The Series E Shares rank equally with our 5.625% Non-Cumulative

Perpetual Preferred Stock, Series F, and at least equally with any other Series of preferred stock ranking equal to the Series E Shares as to payment of dividends or the amounts to be paid upon liquidation, dissolution or winding up, as applicable.

During any Dividend Period (as defined below), so long as any Series E Shares remain outstanding, unless (a) the full dividends for the then-current Dividend Period on all outstanding Series E Shares have been paid, or declared and funds set aside therefor and (b) we are not in default on our obligation to redeem any Series E Shares that have been called for redemption as described below under “—Redemption”:

- no dividend whatsoever may be paid or declared on our common stock or other junior stock, other than a dividend payable solely in junior stock; and
- no common stock or other junior stock may be purchased, redeemed or otherwise acquired for consideration by us.

On any Dividend Payment Date (as defined below) for which full dividends are not paid, or declared and funds set aside therefor, upon the Series E Shares and other equity securities designated as ranking on parity with the Series E Shares as to payment of dividends (“dividend parity stock”), all dividends paid or declared for payment on that Dividend Payment Date with respect to the Series E Shares and the dividend parity stock shall be shared:

- first, ratably by the holders of any such shares, if any, who have the right to receive dividends with respect to Dividend Periods prior to the then-current Dividend Period, in proportion to the respective amounts of the declared and unpaid dividends and the undeclared and unpaid dividends relating to prior Dividend Periods; and
- thereafter by the holders of the Series E Shares and dividend parity stock on a pro rata basis.

We have agreed, in the articles of amendment to our amended and restated articles of incorporation establishing the terms of the Series E Shares, not to issue preferred stock having dividend payment dates that are not also Dividend Payment Dates for the Series E Shares.

Subject to the foregoing, such dividends (payable in cash, stock or otherwise) as may be determined by our board of directors (or a duly authorized committee of the board) may be declared and paid on our common stock and any other stock ranking equally with or junior to the Series E Shares from time to time out of any funds legally available for such payment, and the Series E Shares shall not be entitled to participate in any such dividend.

Dividends

General

Dividends on the Series E Shares are not mandatory. Holders of Series E Shares, in preference to the holders of our common stock and of any other shares of our stock ranking junior to the Series E Shares as to payment of dividends, will be entitled to receive, only when, as and if declared by our board of directors or a duly authorized committee of the board, and only out of assets legally available for the payment of dividends under Wisconsin law, non-cumulative cash dividends at a rate per annum equal to 5.875%, applied to the stated liquidation preference of \$1,000 per share (equivalent to \$25 per depositary share). Dividends on the Series E Shares are payable quarterly in arrears on the 15th day of March, June, September and December of each year, (each, a “Dividend Payment Date”), with respect to the Dividend Period, or portion thereof, ending on the day preceding the respective Dividend Payment Date. A “Dividend Period” means each period commencing on (and including) a Dividend Payment Date and continuing to (but not including) the next succeeding Dividend Payment Date, except that the first Dividend Period for the initial issuance of Series E Shares commenced upon (and included) the date of original issuance of the Series E Shares. If additional Series E Shares are issued at a future date, the first Dividend Period for such Series E Shares will commence upon (and include) (i) the date of issue, if issued on a Dividend Payment Date, or (ii) otherwise, the most recent Dividend Payment Date preceding the date of issue of such share.

Dividends will be paid to holders of record on the 15th calendar date (whether or not a Business Day) before such Dividend Payment Date or such other record date not more than 60 days nor less than 10 days preceding such Dividend Payment Date and fixed for that purpose by our board of directors or a committee thereof in advance of payment of each particular dividend. The corresponding record dates for the depositary shares are the same as the record dates for the Series E Shares. As used in this section, “Business Day” means each weekday on which banking institutions in the City of New York are not authorized or obligated by law, regulation or executive order to close.

The dividend payable per Series E Share for any Dividend Period is computed on the basis of a 360-day year consisting of twelve 30-day months. If a Dividend Payment Date is not a Business Day, the applicable dividend will be paid on the first Business Day following that day without adjustment.

Dividends on shares of the Series E Preferred Stock are not cumulative and are not mandatory. If our board of directors (or a duly authorized committee of the board) does not declare a dividend on the Series E Preferred Stock in respect of a Dividend Period, then no dividend will be deemed to have accrued for such Dividend Period, be payable on the related Dividend Payment Date, or accumulate, and we will have no obligation to pay any dividend accrued for such Dividend Period, whether or not our board of directors (or a duly authorized committee of the board) declares a dividend on the Series E Preferred Stock or any other Series of our preferred stock or on our common stock for any future Dividend Period. References to the “accrual” (or similar terms) of dividends herein refer only to the determination of the amount of such dividend and do not imply that any right to a dividend arises prior to the date on which a dividend is declared.

We are subject to various general regulatory policies and requirements relating to the payment of dividends, including requirements to maintain adequate capital above regulatory minimums, and dividends on the Series E Shares will not be declared, paid or set aside for payment to the extent such act would cause us to fail to comply with laws or regulations applicable thereto, including applicable capital adequacy rules and regulations. The Federal Reserve (including any successor bank regulatory authority that may become our Appropriate Federal Banking Agency), as defined below, is authorized to determine, under certain circumstances relating to the financial condition of a bank holding company, such as us, that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. In addition, we are subject to Wisconsin state laws relating to the payment of dividends.

Redemption

Optional Redemption

The Series E Shares are not subject to any mandatory redemption, sinking fund or other similar provisions. However, the Series E Shares may be redeemed on or after December 15, 2023 (“Optional Redemption”). On that date or on any Dividend Payment Date thereafter, the Series E Shares may be redeemed from time to time, in whole or in part, at our option, subject to the approval of the Appropriate Federal Banking Agency, at the cash redemption price provided below. Dividends will not accrue on those Series E Shares on and after the redemption date. Neither the holders of Series E Shares nor the holders of the related depositary shares have the right to require the redemption or repurchase of the Series E Shares.

Redemption Following a Regulatory Capital Event

We may redeem the Series E Shares at any time within 90 days following a regulatory capital treatment event, in whole but not in part, at our option, subject to the approval of the Federal Reserve or other Appropriate Federal Banking Agency, at the cash redemption price provided below (“Regulatory Event Redemption”). A “regulatory capital treatment event” means our good faith determination that, as a result of (i) any amendment to, or change in, the laws or regulations of the United States (including, for the avoidance of doubt, any agency or instrumentality of the United States, including the Federal Reserve and other federal bank regulatory agencies) or any political subdivision of or in the United States that is enacted or becomes effective after the initial issuance of the Series E Shares (the “Issue Date”); (ii) any proposed change in those laws or regulations that is announced after the Issue Date; or (iii) any official administrative decision or judicial decision or administrative action or other official pronouncement

interpreting or applying those laws or regulations that is announced after the Issue Date, there is more than an insubstantial risk that we will not be entitled to treat the stated liquidation preference value of the Series E Shares then outstanding as “Tier 1 Capital” (or its equivalent) for purposes of the capital adequacy rules or regulations of the Federal Reserve (or, as and if applicable, the capital adequacy rules or regulations of any successor Appropriate Federal Banking Agency), as then in effect and applicable, for as long as any Series E Shares is outstanding. Dividends will not accrue on those Series E Shares on and after the redemption date. “Appropriate Federal Banking Agency” means the “appropriate federal banking agency” with respect to us as defined in Section (3)(q) of the Federal Deposit Insurance Act.

Redemption Price

The redemption price for any redemption of Series E Shares, whether an Optional Redemption or Regulatory Event Redemption, will be equal to \$1,000 per Series E Share (equivalent to \$25 per depository share) plus (a) in the case of an Optional Redemption, the sum of any declared and unpaid dividends for any prior Dividend Periods to the redemption date, without accumulation of any undeclared dividends, or (b) in the case of a Regulatory Event Redemption, the sum of any declared and unpaid dividends for any prior Dividend Periods and accrued but unpaid and undeclared dividends for the then-current Dividend Period to but excluding the date of redemption. Any declared but unpaid dividends payable on a redemption date that occurs subsequent to the dividend record date for a Dividend Period will not be paid to the holder entitled to receive the redemption price on the redemption date, but rather will be paid to the holder of record of the redeemed shares on such dividend record date relating to the Dividend Payment Date.

Redemption Procedures

If Series E Shares are to be redeemed, we will provide notice by first class mail, postage prepaid, addressed to the holders of record of the Series E Shares to be redeemed, mailed not less than 30 days and not more than 60 days before the date fixed for redemption thereof (provided, however, that if the Series E Shares or the depository shares representing the Series E Shares are held in book-entry form through The Depository Trust Company, or “DTC,” we may give this notice in any manner permitted by DTC). Any notice mailed or otherwise given as provided in this paragraph will be conclusively presumed to have been duly given, whether or not the holder receives this notice, and failure duly to give this notice by mail or otherwise, or any defect in this notice or in the mailing or provision of this notice, to any holder of Series E Shares designated for redemption will not affect the redemption of any other Series E Shares. Each notice of redemption will include a statement setting forth:

- the redemption date;
- the number of Series E Shares to be redeemed and, if less than all the Series E Shares held by the holder are to be redeemed, the number of Series E Shares to be redeemed from the holder;
- the redemption price; and
- the place or places where the Series E Shares are to be surrendered for payment of the redemption price.

If notice of redemption of any Series E Shares has been duly given and if the funds necessary for the redemption have been set aside by us for the benefit of the holders of any Series E Shares so called for redemption, then, on and after the redemption date, those Series E Shares will no longer be deemed outstanding and all rights of the holders of those Series E Shares (including the right to receive any dividends) will terminate, except the right to receive the redemption price.

In the case of any redemption of only part of the Series E Shares at the time outstanding, the Series E Shares to be redeemed will be selected either *pro rata* or by lot. Subject to the provisions described in this section, the board of directors will have the full power and authority to prescribe the terms and conditions upon which Series E Shares shall be redeemed from time to time.

Under the Federal Reserve’s current risk-based capital rules applicable to bank holding companies, any redemption of the Series E Shares is subject to prior approval by the Federal Reserve.

Any redemption of the Series E Shares is subject to our receipt of any required prior approval by the Federal Reserve and to the satisfaction of any conditions set forth in the capital rules or regulations of the Federal Reserve applicable to the redemption of the Series E Shares.

Neither the holders of the Series E Shares nor the holders of the related depositary shares have the right to require the redemption or repurchase of the Series E Shares.

Liquidation Rights

In the event that we liquidate, dissolve or wind up our business and affairs, either voluntarily or involuntarily, holders of Series E Shares will be entitled to receive an amount per Share (the “Series E Total Liquidation Amount”) equal to a stated amount of \$1,000 per Series E Share (equivalent to \$25 per depositary share) plus (i) the sum of any declared and unpaid dividends for Dividend Periods prior to the dividend period in which the liquidation distribution is made and declared and, (ii) if applicable, a portion of any declared and unpaid dividends for the then-current Dividend Period in which the liquidation distribution is made, pro-rated for the number of days in such Dividend Period prior to the date of such liquidation distribution. Holders of the Series E Shares will be entitled to receive the Series E Total Liquidation Amount out of our assets that are available for distribution to shareholders, after payment or provision for payment of our debts and other liabilities but before any distribution of assets is made to holders of our common stock or any other class or Series of shares ranking junior to the Series E Shares with respect to that distribution.

If our assets are not sufficient to pay the Series E Total Liquidation Amount in full to all holders of Series E Shares and all holders of any shares of our stock having the same rank as the Series E Shares with respect to any such distribution, the amounts paid to the holders of Series E Shares and such other shares will be paid *pro rata* in accordance with the respective Series E Total Liquidation Amount to which those holders are entitled. If the Series E Total Liquidation Amount per Series E Share has been paid in full to all holders of Series E Shares and the liquidation preference of any other shares having the same rank as the Series E Shares has been paid in full, the holders of our common stock or any other shares ranking, as to such distribution, junior to the Series E Shares will be entitled to receive all of our remaining assets according to their respective rights and preferences.

For purposes of the liquidation rights, neither the sale, conveyance, lease, exchange or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of our property and assets, nor the consolidation or merger by us with or into any other entity or by another entity with or into us will constitute a liquidation, dissolution or winding up of our business or affairs.

Because we are a holding company, our rights and the rights of our creditors and our shareholders, including the holders of the Series E Shares, to participate in the assets of any of our subsidiaries upon that subsidiary’s liquidation or recapitalization may be subject to the prior claims of that subsidiary’s creditors, except to the extent that we are a creditor with recognized claims against the subsidiary.

Voting Rights

The holders of Series E Shares will not have any voting rights and will not be entitled to elect any directors, except as indicated below or otherwise specifically required by law. Each holder of Series E Shares will have one vote per Series E Share (or one vote per 40 depositary shares) on any matter on which holders of Series E Shares are entitled to vote, including any action by written consent.

Under regulations adopted by the Federal Reserve, if the holders of shares of any Series of our preferred stock, including the Series E Shares, become entitled to vote for the election of directors, such Series may then be deemed a “class of voting securities” and a holder of 25% or more of such Series (or a holder of 5% or more if the holder otherwise exercises a “controlling influence”) may then be subject to regulation as a bank holding company in accordance with the Bank Holding Company Act. In addition, at such time as such Series is deemed a class of voting securities, (i) any other bank holding company may be required to obtain the approval of the Federal Reserve to acquire or retain 5% or more of such series,

and (ii) any person other than a bank holding company may be required to file with the Federal Reserve under the Change in Bank Control Act, a federal law, to acquire or retain 10% or more of such series.

Right to Elect Two Directors Upon Non-Payment of Dividends

If and whenever the dividends on the Series E Shares and any other class or Series of our stock that ranks on parity with Series E Shares as to payment of dividends and that has voting rights equivalent to those described in this paragraph (“voting parity stock”) have not been declared and paid (i) in the case of the Series E Shares and any voting parity stock bearing non-cumulative dividends, in full for at least six quarterly dividend periods or their equivalent (whether or not consecutive) or (ii) in the case of voting parity stock bearing cumulative dividends, in an aggregate amount equal to full dividends for at least six quarterly dividend periods or their equivalent (whether or not consecutive), the authorized number of our directors then constituting our board of directors will automatically be increased by two. Holders of Series E Shares, together with the holders of all other affected classes and Series of voting parity stock, voting as a single class, will be entitled to elect the two additional members of our board of directors (the “Preferred Stock Directors”) at any annual meeting of shareholders or any special meeting of the holders of Series E Shares and any voting parity stock for which dividends have not been paid, called as provided below, but only if the election of any Preferred Stock Directors would not cause us to violate the corporate governance requirement of the New York Stock Exchange (or any other exchange on which our securities may be listed) that listed companies must have a majority of independent directors. In addition, our board of directors shall at no time have more than two Preferred Stock Directors.

At any time after this voting power has vested as described above, our Secretary may, and upon the written request of holders of record of at least 20% of the outstanding Series E Shares and voting parity stock (addressed to the Secretary at our principal office) must, call a special meeting of the holders of Series E Shares and voting parity stock for the election of the Preferred Stock Directors. Notice for a special meeting will be given in a similar manner to that provided in our by-laws for a special meeting of the shareholders, which we will provide upon request, or as required by law. If our Secretary is required to call a meeting but does not do so within 20 days after receipt of any such request, then any holder of Series E Shares may (at our expense) call such meeting, upon notice as provided in this section, and for that purpose will have access to our stock books.

The Preferred Stock Directors elected at any such special meeting will hold office until the next annual meeting of our shareholders unless they have been previously terminated as described below. In case any vacancy occurs among the Preferred Stock Directors, a successor will be elected by our board of directors to serve until the next annual meeting of the shareholders upon the nomination of the then remaining Preferred Stock Director or, if no Preferred Stock Director remains in office, by the vote of the holders of record of a majority of the outstanding Series E Shares and voting parity stock, voting as a single class. The Preferred Stock Directors shall each be entitled to one vote per director on any matter.

Whenever full dividends have been paid on the Series E Shares and any non-cumulative voting parity stock for at least one year and all dividends on any cumulative voting parity stock have been paid in full, then the right of the holders of Series E Shares to elect the Preferred Stock Directors will cease (but subject always to the same provisions for the vesting of these voting rights in the case of any similar non-payment of dividends in respect of future Dividend Periods), the terms of office of all Preferred Stock Directors will immediately terminate and the number of directors constituting our board of directors will be reduced accordingly.

Other Voting Rights

So long as any Series E Shares remain outstanding, the affirmative vote of the holders of at least two-thirds of the Series E Shares outstanding at the time, given in person or by proxy, either in writing or at a meeting (voting separately as a class), will be required to:

- authorize or create, or increase the authorized or issued amount of, any class or Series of capital stock ranking senior to the Series E Shares with respect to payment of dividends or the distribution of assets upon liquidation, dissolution or winding up, or reclassify any authorized shares of capital stock into Series E Shares; or

- amend, alter or repeal the provisions of our amended and restated articles of incorporation, whether by merger, consolidation or otherwise, so as to materially and adversely affect any right, preference, privilege or voting power of the Series E Shares or the holders thereof;

provided, however, that with respect to the occurrence of any event set forth in the second bullet point above, so long as any Series E Shares remain outstanding with the terms thereof materially unchanged or new shares of the surviving corporation or entity are issued with the same terms as the Series E Shares, in each case taking into account that upon the occurrence of this event we may not be the surviving entity, the occurrence of any such event shall not be deemed to materially and adversely affect any right, preference, privilege or voting power of the Series E Shares or the holders thereof, and provided, further, that any increase in the amount of our authorized common stock or preferred stock or the creation or issuance of any other Series of common stock or other equity securities ranking on a parity with or junior to the Series E Shares with respect to payment of dividends (whether such dividends are cumulative or non-cumulative) or the distribution of assets upon liquidation, dissolution or winding up and any change to the number of directors or number of classes of directors shall not be deemed to materially and adversely affect such rights, preferences, privileges or voting powers.

Under the Wisconsin Business Corporation Law, the vote of the holders of a majority of the outstanding Series E Shares, voting as a separate voting group, is required for:

- certain amendments to the articles of incorporation impacting the Series E Shares;
- the approval of any dividend payable in Series E Shares to holders of shares of another class or Series of our stock;
- the approval of any proposed share exchange that includes Series E Shares; or
- the approval of any plan of merger if the plan of merger contains a provision that, if contained in a proposed amendment to the articles of incorporation, would require shareholder action on the proposed amendment.

Further, in the case of any merger where we are the surviving corporation, the right of holders of the Series E Shares to vote separately as a group on a plan of merger does not apply if:

- the articles of incorporation of the surviving corporation will not differ, with certain exceptions, from our articles of incorporation as in effect prior to the merger;
- each shareholder of the surviving corporation whose shares were outstanding immediately before the effective date of the merger will hold the same number of shares, with identical designations, preferences, limitation, and relative rights, immediately after the merger; and
- the number of voting shares outstanding immediately after the merger, plus the number of voting shares issuable as a result of the merger, either by the conversion of securities issued pursuant to the merger or the exercise of rights or warrants issued pursuant to the merger, will not exceed by more than 20% the total number of voting shares of the surviving corporation outstanding immediately after the merger.

The foregoing voting provisions will not apply if, at or prior to the time when the act with respect to which the vote would otherwise be required, all outstanding Series E Shares shall have been redeemed or called for redemption upon proper notice and sufficient funds shall have been set aside by us for the benefit of the holders of Series E Shares to effect the redemption.

Depository, Transfer Agent, Registrar and Paying Agent

Equiniti Trust Company is the depository, transfer agent, registrar and paying agent for the Series E Shares.

5.625% Non-Cumulative Perpetual Preferred Stock, Series F

As of December 31, 2021, there were 100,000 shares of our 5.625% Non-Cumulative Perpetual Preferred Stock, Series F, par value of \$1.00 per share, with a liquidation preference of \$1,000 per share

(the “Series F Preferred Stock” or the “Series F Shares”) issued and outstanding. The depositary is the sole holder of the Series E Preferred Stock, as described under “Depositary Shares Representing the Series E and Series F Shares” below, and all references to the holders of the Series F Shares shall mean the depositary. However, the holders of the depositary shares representing the Series F Shares are entitled, through the depositary, to exercise the rights and preferences of the holders of the Series F Shares, as described under “Depositary Shares Representing the Series E and Series F Shares.” This summary of the Series F Preferred Stock does not purport to be complete in all respects. This summary is subject to and qualified in its entirety by reference to our Amended and Restated Articles of Incorporation, as amended, including the Articles of Amendment with respect to the designation of the Series F Preferred Stock.

Each holder of Series F Shares is entitled to receive cash dividends when, as and if declared out of assets legally available for payment in respect of the Series F Shares by our Board of Directors or a duly authorized committee of the Board in their sole discretion. Dividends will be non-cumulative. If we do not declare dividends or do not pay dividends in full on the Series F Shares on any date on which dividends are due, then these undeclared and unpaid dividends will not cumulate, accrue or be payable.

The Series F Shares have a fixed liquidation preference of \$1,000 per share (equivalent to \$25 per depositary share). If we liquidate, dissolve or wind up our business and affairs, holders of Series F Shares will be entitled to receive, out of our assets that are available for distribution to shareholders, an amount per Series F Share equal to the liquidation preference per Share plus an amount with respect to dividends as and to the extent described below under “—Liquidation Rights.”

The Series F Shares are not convertible into, or exchangeable for, shares of our common stock or any other class or Series of our stock or other securities. The Series F Shares are not subject to any sinking fund or any other obligation of us to redeem or repurchase the Series F Shares.

Ranking

The Series F Shares rank, as to the payment of dividends and the amounts to be paid upon liquidation, dissolution or winding up, senior to our common stock and any other class or Series of shares ranking junior to the Series F Shares. The Series F Shares rank equally with our 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, and at least equally with any other Series of preferred stock ranking equal to the Series E Shares as to payment of dividends or the amounts to be paid upon liquidation, dissolution or winding up, as applicable.

During any Dividend Period (as defined below), so long as any Series F Shares remain outstanding, unless (a) the full dividends for the then-current Dividend Period on all outstanding Shares have been paid, or declared and funds set aside therefor and (b) we are not in default on our obligation to redeem any Series F Shares that have been called for redemption as described below under “—Redemption”:

- no dividend whatsoever may be paid or declared on our common stock or other junior stock, other than a dividend payable solely in junior stock; and
- no common stock or other junior stock may be purchased, redeemed or otherwise acquired for consideration by us.

On any Dividend Payment Date (as defined below) for which full dividends are not paid, or declared and funds set aside therefor, upon the Series F Shares and other equity securities designated as ranking on parity with the Series F Shares as to payment of dividends (“dividend parity stock”), all dividends paid or declared for payment on that Dividend Payment Date with respect to the Series F Shares and the dividend parity stock shall be shared:

- first, ratably by the holders of any such shares, if any, who have the right to receive dividends with respect to Dividend Periods prior to the then-current Dividend Period, in proportion to the respective amounts of the declared and unpaid dividends and the undeclared and unpaid dividends relating to prior Dividend Periods; and

- thereafter by the holders of the Series F Shares and dividend parity stock on a pro rata basis.

We have agreed, in the articles of amendment to our amended and restated articles of incorporation establishing the terms of the Series F Shares, not to issue preferred stock having dividend payment dates that are not also Dividend Payment Dates for the Series F Shares.

Subject to the foregoing, such dividends (payable in cash, stock or otherwise) as may be determined by our board of directors (or a duly authorized committee of the board) may be declared and paid on our common stock and any other stock ranking equally with or junior to the Series F Shares from time to time out of any funds legally available for such payment, and the Series F Shares shall not be entitled to participate in any such dividend.

Dividends

General

Dividends on the Series F Shares are not mandatory. Holders of Series F Shares, in preference to the holders of our common stock and of any other shares of our stock ranking junior to the Series F Shares as to payment of dividends, will be entitled to receive, only when, as and if declared by our board of directors or a duly authorized committee of the board, and only out of assets legally available for the payment of dividends under Wisconsin law, non-cumulative cash dividends at a rate per annum equal to 5.625%, applied to the stated liquidation preference of \$1,000 per share (equivalent to \$25 per depositary share). Dividends on the Series F Shares are payable quarterly in arrears on the 15th day of March, June, September and December of each year (each, a “Dividend Payment Date”), with respect to the Dividend Period, or portion thereof, ending on the day preceding the respective Dividend Payment Date. A “Dividend Period” means each period commencing on (and including) a Dividend Payment Date and continuing to (but not including) the next succeeding Dividend Payment Date, except that the first Dividend Period for the initial issuance of Series F Shares commenced upon (and included) the date of original issuance of the Series F Shares. If additional Series F Shares are issued at a future date, the first Dividend Period for such Series F Shares will commence upon (and include) (i) the date of issue, if issued on a Dividend Payment Date, or (ii) otherwise, the most recent Dividend Payment Date preceding the date of issue of such share. We will not issue such additional depositary shares unless such shares are fungible for U.S. federal income tax purposes with the Series F Shares.

Dividends will be paid to holders of record on the 15th calendar date (whether or not a Business Day) before such Dividend Payment Date or such other record date not more than 60 days nor less than 10 days preceding such Dividend Payment Date and fixed for that purpose by our board of directors or a committee thereof in advance of payment of each particular dividend. The corresponding record dates for the depositary shares are the same as the record dates for the Series F Shares.

The dividend payable per Series F Share for any Dividend Period are computed on the basis of a 360-day year consisting of twelve 30-day months. If a Dividend Payment Date is not a Business Day, the applicable dividend will be paid on the first Business Day following that day without adjustment. As used in this section, “Business Day” means each weekday on which banking institutions in the City of New York are not authorized or obligated by law, regulation or executive order to close.

Dividends on shares of the Series F Preferred Stock are not cumulative and are not mandatory. If our board of directors (or a duly authorized committee of the board) does not declare a dividend on the Series F Preferred Stock in respect of a Dividend Period, then no dividend will be deemed to have accrued for such Dividend Period, be payable on the related Dividend Payment Date, or accumulate, and we will have no obligation to pay any dividend accrued for such Dividend Period, whether or not our board of directors (or a duly authorized committee of the board) declares a dividend on the Series F Preferred Stock or any other Series of our preferred stock or on our common stock for any future Dividend Period. References to the “accrual” (or similar terms) of dividends herein refer only to the determination of the amount of such dividend and do not imply that any right to a dividend arises prior to the date on which a dividend is declared.

We are subject to various general regulatory policies and requirements relating to the payment of dividends, including requirements to maintain adequate capital above regulatory minimums, and dividends on the Series F Shares will not be declared, paid or set aside for payment to the extent such act would cause us to fail to comply with laws or regulations applicable thereto, including applicable capital adequacy rules and regulations. The Federal Reserve (including any successor bank regulatory authority that may become our Appropriate Federal Banking Agency), as defined below, is authorized to determine, under certain circumstances relating to the financial condition of a bank holding company, such as us, that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. In addition, we are subject to Wisconsin state laws relating to the payment of dividends.

Redemption

Optional Redemption

The Series F Shares are not subject to any mandatory redemption, sinking fund or other similar provisions. However, the Series F Shares may be redeemed on or after September 15, 2025 (“Optional Redemption”). On that date or on any Dividend Payment Date thereafter, the Series F Shares may be redeemed from time to time, in whole or in part, at our option, subject to the approval of the Appropriate Federal Banking Agency, at the cash redemption price provided below. Dividends will not accrue on those Series F Shares on and after the redemption date. Neither the holders of Series F Shares nor the holders of the related depositary shares have the right to require the redemption or repurchase of the Series F Shares.

Redemption Following a Regulatory Capital Event

We may redeem the Series F Shares at any time within 90 days following a regulatory capital treatment event, in whole but not in part, at our option, subject to the approval of the Federal Reserve or other Appropriate Federal Banking Agency, at the cash redemption price provided below (“Regulatory Event Redemption”). A “regulatory capital treatment event” means our good faith determination that, as a result of (i) any amendment to, or change in, the laws or regulations of the United States (including, for the avoidance of doubt, any agency or instrumentality of the United States, including the Federal Reserve and other federal bank regulatory agencies) or any political subdivision of or in the United States that is enacted or becomes effective after the initial issuance of the Series F Shares (the “Issue Date”); (ii) any proposed change in those laws or regulations that is announced after the Issue Date; or (iii) any official administrative decision or judicial decision or administrative action or other official pronouncement interpreting or applying those laws or regulations that is announced after the Issue Date, there is more than an insubstantial risk that we will not be entitled to treat the stated liquidation preference value of the Series F Shares then outstanding as “Tier 1 Capital” (or its equivalent) for purposes of the capital adequacy rules or regulations of the Federal Reserve (or, as and if applicable, the capital adequacy rules or regulations of any successor Appropriate Federal Banking Agency), as then in effect and applicable, for as long as any Series F Share is outstanding. Dividends will not accrue on those Series F Shares on and after the redemption date. “Appropriate Federal Banking Agency” means the “appropriate federal banking agency” with respect to us as defined in Section (3)(q) of the Federal Deposit Insurance Act.

Redemption Price

The redemption price for any redemption of Series F Shares, whether an Optional Redemption or Regulatory Event Redemption, will be equal to \$1,000 per Series F Share (equivalent to \$25 per depositary share) plus (a) in the case of an Optional Redemption, the sum of any declared and unpaid dividends for any prior Dividend Periods to the redemption date, without accumulation of any undeclared dividends, or (b) in the case of a Regulatory Event Redemption, the sum of any declared and unpaid dividends for any prior Dividend Periods and accrued but unpaid and undeclared dividends for the then-current Dividend Period to but excluding the date of redemption. Any declared but unpaid dividends payable on a redemption date that occurs subsequent to the dividend record date for a Dividend Period will not be paid to the holder entitled to receive the redemption price on the redemption date, but rather will be paid to the holder of record of the redeemed shares on such dividend record date relating to the Dividend Payment Date.

Redemption Procedures

If Series F Shares are to be redeemed, we will provide notice by first class mail, postage prepaid, addressed to the holders of record of the Series F Shares to be redeemed, mailed not less than 30 days and not more than 60 days before the date fixed for redemption thereof (provided, however, that if the Series F Shares or the depository shares representing the Series F Shares are held in book-entry form through The Depository Trust Company, or “DTC,” we may give this notice in any manner permitted by DTC). Any notice mailed or otherwise given as provided in this paragraph will be conclusively presumed to have been duly given, whether or not the holder receives this notice, and failure duly to give this notice by mail or otherwise, or any defect in this notice or in the mailing or provision of this notice, to any holder of Series F Shares designated for redemption will not affect the redemption of any other Series F Shares. Each notice of redemption will include a statement setting forth:

- the redemption date;
- the number of Series F Shares to be redeemed and, if less than all the Series F Shares held by the holder are to be redeemed, the number of Series F Shares to be redeemed from the holder;
- the redemption price; and
- the place or places where the Series F Shares are to be surrendered for payment of the redemption price.

If notice of redemption of any Series F Shares has been duly given and if the funds necessary for the redemption have been set aside by us for the benefit of the holders of any Series F Shares so called for redemption, then, on and after the redemption date, those Series F Shares will no longer be deemed outstanding and all rights of the holders of those Series F Shares (including the right to receive any dividends) will terminate, except the right to receive the redemption price.

In the case of any redemption of only part of the Series F Shares at the time outstanding, the Series F Shares to be redeemed will be selected either *pro rata* or by lot. Subject to the provisions described in this section, the board of directors will have the full power and authority to prescribe the terms and conditions upon which Series F Shares shall be redeemed from time to time.

Under the Federal Reserve’s current risk-based capital rules applicable to bank holding companies, any redemption of the Series F Shares is subject to prior approval by the Federal Reserve. Any redemption of the Series F Shares is subject to our receipt of any required prior approval by the Federal Reserve and to the satisfaction of any conditions set forth in the capital rules or regulations of the Federal Reserve applicable to the redemption of the Series F Shares.

Neither the holders of the Series F Shares nor the holders of the related depository shares have the right to require the redemption or repurchase of the Series F Shares.

Liquidation Rights

In the event that we liquidate, dissolve or wind up our business and affairs, either voluntarily or involuntarily, holders of Series F Shares will be entitled to receive an amount per Share (the “Series F Total Liquidation Amount”) equal to a stated amount of \$1,000 per Series F Share (equivalent to \$25 per depository share) plus (i) the sum of any declared and unpaid dividends for Dividend Periods prior to the dividend period in which the liquidation distribution is made and declared and, (ii) if applicable, a portion of any declared and unpaid dividends for the then-current Dividend Period in which the liquidation distribution is made, pro-rated for the number of days in such Dividend Period prior to the date of such liquidation distribution. Holders of the Series F Shares will be entitled to receive the Series F Total Liquidation Amount out of our assets that are available for distribution to shareholders, after payment or provision for payment of our debts and other liabilities but before any distribution of assets is made to holders of our common stock or any other class or Series of shares ranking junior to the Series F Shares with respect to that distribution.

If our assets are not sufficient to pay the Series F Total Liquidation Amount in full to all holders of Series F Shares and all holders of any shares of our stock having the same rank as the Series F Shares with respect to any such distribution, the amounts paid to the holders of Series F Shares and such other shares will be paid *pro rata* in accordance with the respective Series Total Liquidation Amount to which those holders are entitled. If the Series F Total Liquidation Amount per Series F Share has been paid in full to all holders of Series F Shares and the liquidation preference of any other shares having the same rank as the Series F Shares has been paid in full, the holders of our common stock or any other shares ranking, as to such distribution, junior to the Series F Shares will be entitled to receive all of our remaining assets according to their respective rights and preferences.

For purposes of the liquidation rights, neither the sale, conveyance, lease, exchange or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of our property and assets, nor the consolidation or merger by us with or into any other entity or by another entity with or into us will constitute a liquidation, dissolution or winding up of our business or affairs.

Because we are a holding company, our rights and the rights of our creditors and our shareholders, including the holders of the Series F Shares, to participate in the assets of any of our subsidiaries upon that subsidiary's liquidation or recapitalization may be subject to the prior claims of that subsidiary's creditors, except to the extent that we are a creditor with recognized claims against the subsidiary.

Voting Rights

The holders of Series F Shares will not have any voting rights and will not be entitled to elect any directors, except as indicated below or otherwise specifically required by law. Each holder of Series F Shares will have one vote per Series F Share (or one vote per 40 depository shares) on any matter on which holders of Series F Shares are entitled to vote, including any action by written consent.

Under regulations adopted by the Federal Reserve, if the holders of shares of any Series of our preferred stock, including the Series F Shares, become entitled to vote for the election of directors, such Series may then be deemed a "class of voting securities" and a holder of 25% or more of such Series (or a holder of 5% or more if the holder otherwise exercises a "controlling influence") may then be subject to regulation as a bank holding company in accordance with the Bank Holding Company Act. In addition, at such time as such Series is deemed a class of voting securities, (i) any other bank holding company may be required to obtain the approval of the Federal Reserve to acquire or retain 5% or more of such series, and (ii) any person other than a bank holding company may be required to file with the Federal Reserve under the Change in Bank Control Act, a federal law, to acquire or retain 10% or more of such series.

Right to Elect Two Directors Upon Non-Payment of Dividends

If and whenever the dividends on the Series F Shares and any other class or Series of our stock that ranks on parity with Series F Shares as to payment of dividends and that has voting rights equivalent to those described in this paragraph ("voting parity stock") have not been declared and paid (i) in the case of the Series F Shares and any voting parity stock bearing non-cumulative dividends, in full for at least six quarterly dividend periods or their equivalent (whether or not consecutive) or (ii) in the case of voting parity stock bearing cumulative dividends, in an aggregate amount equal to full dividends for at least six quarterly dividend periods or their equivalent (whether or not consecutive), the authorized number of our directors then constituting our board of directors will automatically be increased by two. Holders of Series F Shares, together with the holders of all other affected classes and Series of voting parity stock, voting as a single class, will be entitled to elect the two additional members of our board of directors (the "Preferred Stock Directors") at any annual meeting of shareholders or any special meeting of the holders of Series F Shares and any voting parity stock for which dividends have not been paid, called as provided below, but only if the election of any Preferred Stock Directors would not cause us to violate the corporate governance requirement of the New York Stock Exchange (or any other exchange on which our securities may be listed) that listed companies must have a majority of independent directors. In addition, our board of directors shall at no time have more than two Preferred Stock Directors.

At any time after this voting power has vested as described above, our Secretary may, and upon the written request of holders of record of at least 20% of the outstanding Series F Shares and voting parity stock (addressed to the Secretary at our principal office) must, call a special meeting of the holders of Series F Shares and voting parity stock for the election of the Preferred Stock Directors. Notice for a special meeting will be given in a similar manner to that provided in our by-laws for a special meeting of the shareholders, which we will provide upon request, or as required by law. If our Secretary is required to call a meeting but does not do so within 20 days after receipt of any such request, then any holder of Series F Shares may (at our expense) call such meeting, upon notice as provided in this section, and for that purpose will have access to our stock books.

The Preferred Stock Directors elected at any such special meeting will hold office until the next annual meeting of our shareholders unless they have been previously terminated as described below. In case any vacancy occurs among the Preferred Stock Directors, a successor will be elected by our board of directors to serve until the next annual meeting of the shareholders upon the nomination of the then remaining Preferred Stock Director or, if no Preferred Stock Director remains in office, by the vote of the holders of record of a majority of the outstanding Series F Shares and voting parity stock, voting as a single class. The Preferred Stock Directors shall each be entitled to one vote per director on any matter.

Whenever full dividends have been paid on the Series F Shares and any non-cumulative voting parity stock for at least one year and all dividends on any cumulative voting parity stock have been paid in full, then the right of the holders of Series F Shares to elect the Preferred Stock Directors will cease (but subject always to the same provisions for the vesting of these voting rights in the case of any similar non-payment of dividends in respect of future Dividend Periods), the terms of office of all Preferred Stock Directors will immediately terminate and the number of directors constituting our board of directors will be reduced accordingly.

Other Voting Rights

So long as any Series F Shares remain outstanding, the affirmative vote of the holders of at least two-thirds of the Series F Shares outstanding at the time, given in person or by proxy, either in writing or at a meeting (voting separately as a class), will be required to:

- authorize or create, or increase the authorized or issued amount of, any class or Series of capital stock ranking senior to the Series F Shares with respect to payment of dividends or the distribution of assets upon liquidation, dissolution or winding up, or reclassify any authorized shares of capital stock into Series F Shares; or
- amend, alter or repeal the provisions of our amended and restated articles of incorporation, whether by merger, consolidation or otherwise, so as to materially and adversely affect any right, preference, privilege or voting power of the Series F Shares or the holders thereof;

provided, however, that with respect to the occurrence of any event set forth in the second bullet point above, so long as any Series F Shares remain outstanding with the terms thereof materially unchanged or new shares of the surviving corporation or entity are issued with the same terms as the Series F Shares, in each case taking into account that upon the occurrence of this event we may not be the surviving entity, the occurrence of any such event shall not be deemed to materially and adversely affect any right, preference, privilege or voting power of the Series F Shares or the holders thereof, and provided, further, that any increase in the amount of our authorized common stock or preferred stock or the creation or issuance of any other Series of common stock or other equity securities ranking on a parity with or junior to the Series F Shares with respect to payment of dividends (whether such dividends are cumulative or non-cumulative) or the distribution of assets upon liquidation, dissolution or winding up and any change to the number of directors or number of classes of directors shall not be deemed to materially and adversely affect such rights, preferences, privileges or voting powers.

Under the Wisconsin Business Corporation Law, the vote of the holders of a majority of the outstanding Series F Shares, voting as a separate voting group, is required for:

- certain amendments to the articles of incorporation impacting the Series F Shares;
- the approval of any dividend payable in Series F Shares to holders of shares of another class or Series of our stock;
- the approval of any proposed share exchange that includes Series F Shares; or
- the approval of any plan of merger if the plan of merger contains a provision that, if contained in a proposed amendment to the articles of incorporation, would require shareholder action on the proposed amendment.

Further, in the case of any merger where we are the surviving corporation, the right of holders of the Series F Shares to vote separately as a group on a plan of merger does not apply if:

- the articles of incorporation of the surviving corporation will not differ, with certain exceptions, from our articles of incorporation as in effect prior to the merger;
- each shareholder of the surviving corporation whose shares were outstanding immediately before the effective date of the merger will hold the same number of shares, with identical designations, preferences, limitation, and relative rights, immediately after the merger; and
- the number of voting shares outstanding immediately after the merger, plus the number of voting shares issuable as a result of the merger, either by the conversion of securities issued pursuant to the merger or the exercise of rights or warrants issued pursuant to the merger, will not exceed by more than 20% the total number of voting shares of the surviving corporation outstanding immediately after the merger.

The foregoing voting provisions will not apply if, at or prior to the time when the act with respect to which the vote would otherwise be required, all outstanding Series F Shares shall have been redeemed or called for redemption upon proper notice and sufficient funds shall have been set aside by us for the benefit of the holders of Series F Shares to effect the redemption.

Depository, Transfer Agent, Registrar and Paying Agent

Equiniti Trust Company is the depository, transfer agent, registrar and paying agent for the Series F Shares.

Description of Depository Shares

This section describes the general terms and provisions of the depository shares, which are registered pursuant to Section 12(b) of the Exchange Act. The following summary is not complete. You should read the forms of deposit agreement and depository receipt relating to a Series of preferred stock for additional information.

Depository Shares Representing the Series E and Series F Shares

As of December 31, 2021, there were 4,000,000 depository shares, each representing a 1/40th ownership interest in a Series E Share, issued and outstanding, and 4,000,000 depository share, each representing a 1/40th ownership interest in a Series F Share, issued and outstanding. We deposited the underlying Series E Shares and Series F Shares with a depository, in each case pursuant to a deposit agreement among us, Equiniti Trust Company, acting as depository, and the holders from time to time of the depository receipts evidencing the respective depository shares.

Subject to the terms of the respective deposit agreements, each holder of a depository share is entitled, through the depository, in proportion to the applicable fraction of a Series E Share, or Series F Share as the case may be, represented by that depository share, to all the rights and preferences of the

Series E Shares, or Series F Shares, represented thereby (including dividend, voting, redemption and liquidation rights). This description is subject to and qualified in its entirety by reference to our Amended and Restated Articles of Incorporation, including our Articles of Amendment with respect to the Series E Shares, and Series F Shares, which have been filed as exhibits to our SEC filings.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions received with respect to the preferred stock to the record holders of depositary shares representing the shares of preferred stock. These distributions will be in proportion to the number of depositary shares owned by the holders on the relevant record date. The depositary will not distribute amounts less than one cent. The depositary will distribute any balance with the next sum received for distribution to record holders of depositary shares.

If there is a distribution other than in cash, the depositary will distribute property to the holders of depositary shares, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary may, with our approval, sell the property and distribute the net proceeds from the sale to the holders of depositary shares.

Redemption of Depositary Shares

If the Series of the preferred stock underlying the depositary shares is subject to redemption, all or a part of the depositary shares will be redeemed from the redemption proceeds of that Series of the preferred stock held by the depositary. The depositary will mail notice of redemption between 30 to 60 days prior to the date fixed for redemption to the record holders of the depositary shares to be redeemed at their addresses appearing in the depositary's records. The redemption price per depositary share will bear the same relationship to the redemption price per share of preferred stock that the depositary share bears to the underlying preferred stock. Whenever we redeem preferred stock held by the depositary, the depositary will redeem, as of the same redemption date, the number of depositary shares representing the preferred stock redeemed. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata as determined by the depositary.

After the date fixed for redemption, the depositary shares called for redemption will no longer be outstanding. When the depositary shares are no longer outstanding, all rights of the holders will cease, except the right to receive money or other property that the holders of the depositary shares were entitled to receive upon the redemption. Payments will be made when holders surrender their depositary receipts to the depositary.

Voting Preferred Stock

When the depositary receives notice of any meeting at which the holders of the preferred stock may vote, the depositary will mail information about the meeting contained in the notice, and any accompanying proxy materials, to the record holders of the depositary shares relating to the preferred stock. Each record holder of such depositary shares on the record date, which will be the same date as the record date for the preferred stock, will be entitled to instruct the depositary with regard to how the preferred stock underlying the holder's depositary shares should be voted.

The depositary will try, if practical, to vote the number of shares of preferred stock underlying the depositary shares according to the instructions received. We will agree to take all action requested by and deemed necessary by the depositary to enable the depositary to vote the preferred stock in that manner. The depositary will not vote any preferred stock for which it does not receive specific instructions from the holders of the depositary shares relating to such preferred stock, unless otherwise indicated in the applicable prospectus supplement.

Amendment and Termination of the Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary at any time. Any amendment that materially and adversely alters the rights of the existing holders of depositary shares, however, will

be effective only if approved by the record holders of at least a majority of the depositary shares then outstanding. A deposit agreement may be terminated by us or the depositary only if:

- all outstanding depositary shares relating to the deposit agreement have been redeemed or reacquired by us;
- all preferred stock of the relevant Series has been withdrawn; or
- there has been a final distribution on the preferred stock of the relevant Series in connection with our liquidation, dissolution, or winding-up of our business and the distribution has been distributed to the holders of the related depositary shares.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay associated charges of the depositary for the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary shares will pay transfer and other taxes and governmental charges and any other charges that are stated to be their responsibility under the deposit agreement.

Miscellaneous

We will forward to the depositary, for distribution to the holders of depositary shares, all reports and communications that we must furnish to the holders of the preferred stock.

If the depositary is prevented or delayed by law or any circumstance beyond its control in performing its obligations under the deposit agreement, neither the depositary nor we will be liable. Our obligations and the depositary's obligations under the deposit agreement will be limited to performance in good faith of duties set forth in the deposit agreement. Neither the depositary nor we will be obligated to prosecute or defend any legal proceeding connected with any depositary shares or preferred stock unless satisfactory indemnity is furnished to us and/or the depositary. We and the depositary may rely upon documents believed to be genuine, written advice of counsel or accountants, or information provided by persons presenting preferred stock for deposit, holders of depositary shares or other persons believed to be competent.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering notice to us. We may also remove the depositary at any time. Resignations or removals will take effect when a successor depositary is appointed and it accepts the appointment. The successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the U.S., and it must have a combined capital and surplus of at least \$50 million.

Exhibit 21

**Subsidiaries of the Parent Company
As of December 31, 2021**

The following bank subsidiaries are national banks and are organized under the laws of the United States:

Associated Bank, National Association

Associated Trust Company, National Association

The following nonbank subsidiaries are organized under the laws of the State of Wisconsin:

ABNA Investment Partners LLC

ABNA Portfolio Investments

ABNA Securities, LLC

ACD Germania, LLC

Associated Benefits Connection, LLC

Associated Community Development, LLC

Associated Investments Inc.

Associated Investment Services, Inc.

Associated Wisconsin Real Estate Corp.

Kellogg Asset Management, LLC

Milwaukee Center Management, LLC

The following nonbank subsidiaries are organized under the laws of the State of Michigan:

GL-Mercantile Milwaukee, LLC

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statement (Nos. 2-77435, 2-99096, 33-16952, 33-24822, 33-55560, 33-54658, 33-63545, 33-67436, 33-86790, 333-46467, 333-74307, 333-121012, 333-121011, 333-121010, 333-120711, 333-120713, 333-120714, 333-120710, 333-166392, 333-188233, 333-208104, 333-217689, and 333-223099) on Form S-8, (Nos. 2-98922, 33-28081, 33-63557, 33-67434, 333-202836, 333-208103, 333-224096, and 333-256902) on Form S-3 and (Nos. 333-195049, and 333-220067) on Form S-4 of our reports dated February 8, 2022, with respect to the consolidated financial statements of Associated Banc-Corp and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Chicago, Illinois
February 8, 2022

Exhibit 24

POWER OF ATTORNEY FOR ANNUAL REPORT ON FORM 10-K

Each of the undersigned directors of Associated Banc-Corp (the "Corporation") hereby designates and appoints Randall J. Erickson and Nadia Musallam, and each of them, the undersigned's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for the undersigned and in the undersigned's name, place and stead to sign for the undersigned and in the undersigned's name in the capacity as a director of the Corporation the Corporation's Annual Report on Form 10-K for the year ended December 31, 2021, and to file the same, with all exhibits thereto, other documents in connection therewith, and any amendments to any of the foregoing, with the Securities and Exchange Commission and any other regulatory authority, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully and to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or the undersigned's substitute, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned have each executed this Power of Attorney for Annual Report on Form 10-K, on one or more counterparts, as of the 31st day of January, 2022.

/s/ John F. Bergstrom
John F. Bergstrom

/s/ Eileen A. Kamerick
Eileen A. Kamerick

/s/ R. Jay Gerken
R. Jay Gerken

/s/ Gale E. Klappa
Gale E. Klappa

/s/ Judith P. Greffin
Judith P. Greffin

/s/ Cory L. Nettles
Cory L. Nettles

/s/ Michael J. Haddad
Michael J. Haddad

/s/ Karen T. van Lith
Karen T. van Lith

/s/ Andrew J. Harmening
Andrew J. Harmening

/s/ John (Jay) B. Williams
John (Jay) B. Williams

/s/ Robert A. Jeffe
Robert A. Jeffe

Exhibit 31.1

**CERTIFICATION UNDER SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

CERTIFICATIONS

I, Andrew J. Harmening, certify that:

1. I have reviewed this annual report on Form 10-K of Associated Banc-Corp;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 8, 2022

/s/ Andrew J. Harmening

Andrew J. Harmening

President and Chief Executive Officer

Exhibit 31.2

**CERTIFICATION UNDER SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

CERTIFICATIONS

I, Christopher J. Del Moral-Niles, certify that:

1. I have reviewed this annual report on Form 10-K of Associated Banc-Corp;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 8, 2022

/s/ Christopher J. Del Moral-Niles

Christopher J. Del Moral-Niles

Chief Financial Officer

Exhibit 32

Certification by the Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of Associated Banc-Corp, a Wisconsin corporation (the "Company"), does hereby certify that:

1. The accompanying Annual Report of the Company on Form 10-K for the year ended December 31, 2021 (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Andrew J. Harmening

Andrew J. Harmening
Chief Executive Officer
February 8, 2022

/s/ Christopher J. Del Moral-Niles

Christopher J. Del Moral-Niles
Chief Financial Officer
February 8, 2022