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, 2023

OR

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

For the transition period from ___ to ___

Commission file number: 001-38481

UMB FINANCIAL CORPORATION
(Exact name of registrant as specified in its charter)

Missouri	**43-0903811**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
1010 Grand Boulevard, Kansas City, Missouri	**64106**
(Address of principal executive offices)	**(Zip Code)**

(Registrant's telephone number, including area code): (816) 860-7000

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $1.00 Par Value	**UMBF**	**The NASDAQ Global Select Market**

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 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 control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issues its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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, 2023, the aggregate market value of common stock outstanding held by nonaffiliates of the registrant was approximately $2,675,077,467 based on the closing price of the registrant's common stock on the NASDAQ Global Select Market on that date.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

Class	Outstanding at February 16, 2024
Common Stock, $1.00 Par Value	**48,741,902**

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Definitive Proxy Statement on Schedule 14A (the "Proxy Statement") to be delivered to shareholders in connection with the Annual Meeting of Shareholders to be held on April 30, 2024, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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PART I

ITEM 1. *BUSINESS*

General

UMB Financial Corporation (together with its consolidated subsidiaries, unless the context requires otherwise, the Company) is a financial holding company that is headquartered in Kansas City, Missouri. The Company provides banking services and asset servicing to its customers in the United States and around the globe.

The Company was organized as a corporation under Missouri law in 1967 and is registered as a bank holding company under the Bank Holding Company Act of 1956, as amended (the BHCA) and a financial holding company under the Gramm-Leach-Bliley Act of 1999, as amended (the GLBA). The Company currently owns all of the outstanding stock of one national bank and several nonbank subsidiaries.

The Company's national bank, UMB Bank, National Association (the Bank), has its principal office in Missouri and also has branches in Arizona, Colorado, Illinois, Kansas, Nebraska, Oklahoma, and Texas. The Bank offers a full complement of banking products and other services to commercial, retail, government, and correspondent-bank customers, including a wide range of asset-management, trust, bankcard, and cash-management services.

The Company also owns UMB Fund Services, Inc. (UMBFS), which is a significant nonbank subsidiary that has offices in Milwaukee, Wisconsin, Chadds Ford, Pennsylvania, and Ogden, Utah. UMBFS provides fund accounting, transfer agency, and other services to mutual fund and alternative-investment groups.

Prior to March 31, 2021, the Company also owned Prairie Capital Management, LLC (PCM), which provided investment management services and alternative investments in hedge funds and private equity funds. The Company sold its membership interests in PCM during the first quarter of 2021.

Business Segments

The Company's products and services are grouped into three segments: Commercial Banking, Institutional Banking, and Personal Banking.

These segments and their financial results are described in detail in (i) the section of Management's Discussion and Analysis of Financial Condition and Results of Operations entitled *Business Segments*, which can be found in Part II, Item 7 of this report and (ii) Note 12, "Business Segment Reporting," in the Notes to the Consolidated Financial Statements, which can be found in Part II, Item 8 of this report.

Competition

The Company faces intense competition in each of its business segments and in all of the markets and geographic regions that the Company serves. Competition comes from both traditional and non-traditional financial-services providers, including banks, savings associations, finance companies, investment advisors, asset managers, mutual funds, private-equity firms, hedge funds, brokerage firms, mortgage-banking companies, credit-card companies, insurance companies, trust companies, securities processing companies, and credit unions. Increasingly, financial-technology (fintech) companies are partnering with financial-services providers to compete with the Company for lending, payments, and other business. Many of the Company's competitors are not subject to the same kind or degree of supervision and regulation as the Company.

Competition is based on a number of factors. Banking customers are generally influenced by convenience, interest rates and pricing, personal experience, quality and availability of products and other services, lending limits, transaction execution, and reputation. Investment advisory services compete primarily on returns, expenses, third-party ratings, and the reputation and performance of managers. Asset servicing competes primarily on price, quality of services, and reputation. The Company and its competitors are all impacted to varying degrees by the overall economy and health of the financial markets.

The Company's ability to successfully compete in its chosen markets and regions also depends on its ability to attract, retain, and motivate talented employees, to invest in technology and infrastructure, and to innovate, all while effectively managing its expenses. The Company expects that competition will likely intensify in the future.

Human Capital

The Company is dedicated to creating *the* Unparalleled Customer Experience, and its associates are critical to achieving this mission. As part of the Company's efforts to recruit and retain top talent, it strives to offer competitive compensation and benefits programs, while fostering a culture rooted in inclusion of a diverse mix of associates who are empowered to be part of something more. The Company believes its associates, customers, and communities mutually benefit by its focus on providing opportunities for its associates to make an impact at work and in their respective communities. On a full-time equivalent basis at December 31, 2023, the Company and its subsidiaries employed 3,599 associates across the country.

Compensation and Benefits Program. The Company's compensation program is designed to allow it to attract, reward, and retain talented individuals who contribute significant value to the organization. The Company's compensation programs reward performance, reserving the highest rewards for the highest performers. The Company's incentive plans are intended to promote the interests of the Company and its shareholders by providing associates with incentives and rewards to encourage them to continue in service of the Company. The Company provides employees with compensation packages that include base salary, annual short-term incentive bonuses, and long-term equity awards tied to management, growth, and protection of the business of the Company. In addition to cash and equity compensation, the Company offers a robust benefits program that includes medical, dental, and vision insurance, health savings accounts and a variety of insurance options, including pet, life, and long-term care. Additionally, the Company also offers associates benefits including paid time off, paid volunteer time off, paid parental leave, adoption assistance, a 401(k) plan, as well as profit sharing and an employee stock ownership plan. The Company strives to engage and encourage associates to act and take personal responsibility for improving their health and well-being, as well as the health and well-being of their families. To assist associates with their goals, the Company offers wellness resources and incentives to support wellness strategies.

Diversity and Inclusion. The Company believes that an equitable and inclusive environment with diverse teams produces more creative solutions, results in better products and services, and is crucial to its efforts to attract and retain key talent. The Company's talent acquisition team focuses on building recruitment marketing strategies that are designed to identify and attract diverse candidates. The Company's business resource groups (BRGs) also play a vital role in deepening the recruitment pipeline of diverse talent and refer candidates to the Company on a regular basis. BRGs are structured to engage associates who share common interests, including associates from traditionally underrepresented groups. Nearly 20% of the Company's associates participate in one or more BRGs.

Community Involvement. For more than a century, the Company has maintained a commitment to the prosperity of each community it serves. In addition to providing financial products built for the needs of its customers, the Company builds strong community partnerships through associate volunteerism, associate financial giving, and corporate philanthropy. The Company encourages associates to give back to their local communities through various programs and initiatives, including paid volunteer time off and matching charitable gift programs.

For more information on the Company's diversity and inclusion and community involvement initiatives, please see its Corporate Citizenship Report available at www.umb.com/corporatecitizenship. Information on the Company's website is not incorporated by reference into this report and should not be considered part of this document.

Government Monetary and Fiscal Policies

In addition to the impact of general economic conditions, the Company's business, results of operations, financial condition, capital, liquidity, and prospects are significantly affected by government monetary and fiscal policies that are announced or implemented in the United States and abroad.

A sizeable influence is exerted, in particular, by the policies of the Board of Governors of the Federal Reserve System (the FRB), which influences monetary and credit conditions in the economy in pursuit of maximum employment, stable prices, and moderate long-term interest rates. Among the FRB's policy tools are (1) open market operations (that is, purchases or sales of securities in the open market to adjust the supply of reserve balances in order to achieve targeted federal funds rates or to put pressure on longer-term interest rates in order to achieve more desirable levels of economic activity and job creation), (2) the discount rate charged on loans by the Federal Reserve Banks, (3) the level of reserves required to be held by depository institutions against specified deposit liabilities, (4) the interest paid or charged on balances maintained with the Federal Reserve Banks by depository institutions, including balances used to satisfy their reserve requirements, and (5) other deposit and loan facilities.

The FRB and its policies have a substantial impact on the availability and demand for loans and deposits, the rates, and other aspects of pricing for loans and deposits, and the conditions in equity, fixed income, currency, and other markets in which the Company operates. Policies announced or implemented by other central banks around the world have a meaningful effect as well and sometimes may be coordinated with those of the FRB.

Tax and other fiscal policies, moreover, impact not only general economic conditions but also give rise to incentives or disincentives that affect how the Company and its customers prioritize objectives, operate businesses, and deploy resources.

Regulation and Supervision

The Company is subject to regulatory frameworks in the United States at federal, State, and local levels. In addition, the Company is subject to the direct supervision of various government authorities charged with overseeing the kinds of financial activities conducted by its business segments.

This section summarizes certain provisions of the principal laws and regulations that apply to the Company. The descriptions, however, are not complete and are qualified in their entirety by the full text and judicial or administrative interpretations of those laws and regulations and other laws and regulations that affect the Company.

Overview

The Company is a bank holding company under the BHCA and a financial holding company under the GLBA. As a result, the Company—including all of its businesses and operations—is subject to the regulation, supervision, and examination of the FRB and to restrictions on permissible activities. This framework of regulation, supervision, and examination is intended primarily for the protection and benefit of depositors and other customers of the Bank, the Deposit Insurance Fund (the DIF) of the Federal Deposit Insurance Corporation (the FDIC), the banking and financial systems as a whole, and the broader economy, not for the protection or benefit of the Company's shareholders or its non-deposit creditors.

Many of the Company's subsidiaries are also subject to separate or related forms of regulation, supervision, and examination, including: (1) the Bank, by the Office of the Comptroller of the Currency (the OCC) under the National Banking Acts, the FDIC under the Federal Deposit Insurance Act (the FDIA), and the Consumer Financial Protection Bureau (the CFPB) under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act); (2) UMBFS, UMB Distribution Services, LLC, and UMB Financial Services, Inc., by the Securities and Exchange Commission (the SEC) and State regulatory authorities under federal and State securities laws, and UMB Distribution Services, LLC and UMB Financial Services, Inc., by the Financial Industry Regulatory Authority (FINRA); and (3) UMB Insurance, Inc., by State regulatory authorities under applicable State insurance laws. These regulatory schemes, like those overseen by the FRB, are designed to protect public or private interests that often are not aligned with those of the Company's shareholders or non-deposit creditors.

The FRB possesses extensive authorities and powers to regulate the conduct of the Company's businesses and operations. If the FRB were to take the position that the Company or any of its subsidiaries have violated any law or commitment or engaged in any unsafe or unsound practice, formal or informal corrective or enforcement actions could be taken by the FRB against the Company, its subsidiaries, and institution-affiliated parties (such as directors, officers, and agents). These enforcement actions could include an imposition of civil monetary penalties and could directly affect not only the Company, its subsidiaries, and institution-affiliated parties but also the Company's counterparties, shareholders, and creditors and its commitments, arrangements, or other dealings with them. The OCC has similarly expansive authorities and powers over the Bank and its subsidiaries, as does the CFPB over matters involving consumer financial laws. The SEC, FINRA, and other domestic or foreign government authorities also have an array of means at their disposal to regulate and enforce matters within their jurisdiction that could impact the Company's businesses and operations.

Restrictions on Permissible Activities and Corporate Matters

Under the BHCA, bank holding companies and their subsidiaries are generally limited to the business of banking and to closely related activities that are incidental to banking.

As a bank holding company that has elected to become a financial holding company under the GLBA, the Company is also able—directly or indirectly through its subsidiaries—to engage in activities that are financial in nature, that are incidental to a financial activity, or that are complementary to a financial activity and do not pose a

substantial risk to the safety or soundness of depository institutions or the financial system generally. Activities that are financial in nature include: (1) underwriting, dealing in, or making a market in securities, (2) providing financial, investment, or economic advisory services, (3) underwriting insurance, and (4) merchant banking.

The Company's ability to directly or indirectly engage in these banking and financial activities, however, is subject to conditions and other limits imposed by law or the FRB and, in some cases, requires the approval of the FRB or other government authorities. These conditions or other limits may arise due to the particular type of activity or, in other cases, may apply to the Company's business more generally. Examples of the former are the substantial restrictions on the timing, amount, form, substance, interconnectedness, and management of the Company's merchant banking investments. An example of the latter is a condition that, in order for the Company to engage in broader financial activities, its depository institutions must remain "well capitalized" and "well managed" under applicable banking laws and must receive at least a "satisfactory" rating under the Community Reinvestment Act (CRA).

Under amendments to the BHCA promulgated by the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 and the Dodd-Frank Act, the Company may acquire banks outside of its home State of Missouri, subject to specified limits and may establish new branches in other States to the same extent as banks chartered in those States. Under the BHCA, however, the Company must procure the prior approval of the FRB and possibly other government authorities to directly or indirectly acquire ownership or control of five percent or more of any class of voting securities of, or substantially all of the assets of, an unaffiliated bank, savings association, or bank holding company. In deciding whether to approve any acquisition or branch, the FRB, the OCC, and other government authorities will consider public or private interests that may not be aligned with those of the Company's shareholders or non-deposit creditors. The FRB also has the power to require the Company to divest any depository institution that cannot maintain its "well capitalized" or "well managed" status.

The FRB maintains a targeted policy that requires a bank holding company to inform and consult with the staff of the FRB sufficiently in advance of (1) declaring and paying a dividend that could raise safety and soundness concerns (for example, a dividend that exceeds earnings in the period for which the dividend is being paid), (2) redeeming or repurchasing regulatory capital instruments when the holding company is experiencing financial weaknesses, or (3) redeeming or repurchasing common stock or perpetual preferred stock that would result in a net reduction as of the end of the quarter in the amount of those equity instruments outstanding compared with the beginning of the quarter in which the redemption or repurchase occurred.

Requirements Affecting the Relationships among the Company, Its Subsidiaries, and Other Affiliates

The Company is a legal entity separate and distinct from the Bank, UMBFS, and its other subsidiaries but receives the vast majority of its revenue in the form of dividends from those subsidiaries. Without the approval of the OCC, however, dividends payable by the Bank in any calendar year may not exceed the lesser of (1) the current year's net income combined with the retained net income of the two preceding years and (2) undivided profits. In addition, under the Basel III capital-adequacy standards described below under the heading "Capital-Adequacy Standards," the Bank is currently required to maintain a capital conservation buffer in excess of its minimum risk-based capital ratios and will be restricted in declaring and paying dividends whenever the buffer is breached. The authorities and powers of the FRB, the OCC, and other government authorities to prevent any unsafe or unsound practice also could be employed to further limit the dividends that the Bank or the Company's other subsidiaries may declare and pay to the Company.

The Dodd-Frank Act requires a bank holding company like the Company to serve as a source of financial strength for its depository-institution subsidiaries and to commit resources to support those subsidiaries in circumstances when the Company might not otherwise elect to do so. The functional regulator of any nonbank subsidiary of the Company, however, may prevent that subsidiary from directly or indirectly contributing its financial support, and if that were to preclude the Company from serving as an adequate source of financial strength, the FRB may instead require the divestiture of depository-institution subsidiaries and impose operating restrictions pending such a divestiture.

A number of laws, principally Sections 23A and 23B of the Federal Reserve Act (the FRA), and the FRB's Regulation W, also exist to prevent the Company and its nonbank subsidiaries from taking improper advantage of the benefits afforded to the Bank as a depository institution, including its access to federal deposit insurance and the discount window. These laws generally require the Bank and its subsidiaries to deal with the Company and its nonbank subsidiaries only on market terms and, in addition, impose restrictions on the Bank and its subsidiaries in

directly or indirectly extending credit to or engaging in other covered transactions with the Company or its nonbank subsidiaries. The Dodd-Frank Act extended the restrictions to derivatives and securities lending transactions and expanded the restrictions for transactions involving hedge funds or private-equity funds that are owned or sponsored by the Company or its nonbank subsidiaries.

In addition, under the Volcker Rule, the Company is subject to extensive limits on proprietary trading and on owning or sponsoring hedge funds and private-equity funds. The limits on proprietary trading are largely directed toward purchases or sales of financial instruments by a banking entity as principal primarily for the purpose of short-term resale, a benefit from actual or expected short-term price movements, or the realization of short-term arbitrage profits. The limits on owning or sponsoring hedge funds and private-equity funds are designed to ensure that banking entities generally maintain only small positions in managed or advised funds and are not exposed to significant losses arising directly or indirectly from them. The Volcker Rule also provides for increased capital charges, quantitative limits, rigorous compliance programs, and other restrictions on permitted proprietary trading and fund activities, including a prohibition on transactions with a covered fund that would constitute a covered transaction under Sections 23A and 23B of the FRA.

Stress Testing and Enhanced Prudential Standards

The Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) was enacted in May 2018, amending requirements previously established in the Dodd-Frank Act, including stress testing and enhanced prudential standards. Bank holding companies with assets of less than $100 billion, including the Company, are no longer subject to the requirement to conduct forward-looking, company-run stress testing, including publishing a summary of results. The Company continues to run internal stress tests as a component of its comprehensive risk management and capital planning process. In addition, the EGRRCPA increased the statutory asset threshold above which the Federal Reserve is required to apply enhanced prudential standards from $50 billion to $250 billion (subject to certain discretion by the Federal Reserve to apply any enhanced prudential standard requirement to any bank holding company with between $100 billion and $250 billion in total consolidated assets that would otherwise be exempt under EGRRCPA). The Company remains exempt from applying the enhanced prudential standards.

Capital-Adequacy Standards

The FRB and the OCC have adopted risk-based capital and leverage guidelines that require the capital-to-assets ratios of bank holding companies and national banks, respectively, to meet specified minimum standards.

The risk-based capital ratios are based on a banking organization's risk-weighted asset amounts (RWAs), which are generally determined under the standardized approach applicable to the Company and the Bank by (1) assigning on-balance-sheet exposures to broad risk-weight categories according to the counterparty or, if relevant, the guarantor or collateral (with higher risk weights assigned to categories of exposures perceived as representing greater risk) and (2) multiplying off-balance-sheet exposures by specified credit conversion factors to calculate credit equivalent amounts and assigning those credit equivalent amounts to the relevant risk-weight categories. The leverage ratio, in contrast, is based on an institution's average on-balance-sheet exposures alone.

The capital ratios for the Company and the Bank as of December 31, 2023, are set forth below:

	Tier 1 Leverage Ratio	**Tier 1 Risk-Based Capital Ratio**	**Common Equity Tier 1 Capital Ratio**	**Total Risk-Based Capital Ratio**
UMB Financial Corporation	8.49	10.94	10.94	12.85
UMB Bank, n.a.	8.52	11.21	11.21	11.90

These capital-to-assets ratios also play a central role in prompt corrective action (PCA), which is an enforcement framework used by the federal banking agencies to constrain the activities of banking organizations based on their levels of regulatory capital. Five categories have been established using thresholds for the total risk-based capital ratio, the tier 1 risk-based capital ratio, the common-equity tier 1 risk-based capital ratio, and the leverage ratio: (1) well capitalized, (2) adequately capitalized, (3) undercapitalized, (4) significantly undercapitalized, and (5) critically undercapitalized. While bank holding companies are not subject to the PCA framework, the FRB is empowered to compel a holding company to take measures—such as the execution of financial or performance guarantees—when prompt corrective action is required in connection with one of its depository-institution subsidiaries. At December 31, 2023, the Bank was categorized as well capitalized under the PCA framework.

Basel III, including revisions to the global Basel III capital framework (commonly known as Basel IV), includes a number of more rigorous provisions applicable only to banking organizations that are larger or more internationally active than the Company and the Bank. These include, for example, a supplementary leverage ratio incorporating off-balance-sheet exposures, a liquidity coverage ratio, and a net stable funding ratio. These standards may be informally applied or considered by the FRB and the OCC in their regulation, supervision, and examination of the Company and the Bank.

Deposit Insurance and Related Matters

The deposits of the Bank are insured by the FDIC in the standard insurance amount of $250 thousand per depositor for each account ownership category. This insurance is funded through assessments on the Bank and other insured depository institutions. Under the Dodd-Frank Act, each institution's assessment base is determined based on its average consolidated total assets less average tangible equity, and there is a scorecard method for calculating assessments that combines CAMELS (an acronym that refers to the five components of a bank's condition that are addressed: capital adequacy, asset quality, management, earnings, and liquidity) ratings and specified forward-looking financial measures to determine each institution's risk to the DIF. The Dodd-Frank Act also requires the FDIC, in setting assessments, to offset the effect of increasing its reserve for the DIF on institutions with consolidated assets of less than $10 billion. The result of this revised approach to deposit-insurance assessments is generally an increase in costs, on an absolute or relative basis, for institutions with consolidated assets of $10 billion or more.

If an insured depository institution such as the Bank were to become insolvent or if other specified events were to occur relating to its financial condition or the propriety of its actions, the FDIC may be appointed as conservator or receiver for the institution. In that capacity, the FDIC would have the power to (1) transfer assets and liabilities of the institution to another person or entity without the approval of the institution's creditors, (2) require that its claims process be followed and to enforce statutory or other limits on damages claimed by the institution's creditors, (3) enforce the institution's contracts or leases according to their terms, (4) repudiate or disaffirm the institution's contracts or leases, (5) seek to reclaim, recover, or recharacterize transfers of the institution's assets or to exercise control over assets in which the institution may claim an interest, (6) enforce statutory or other injunctions, and (7) exercise a wide range of other rights, powers, and authorities, including those that could impair the rights and interests of all or some of the institution's creditors. In addition, the administrative expenses of the conservator or receiver could be afforded priority over all or some of the claims of the institution's creditors, and under the FDIA, the claims of depositors (including the FDIC as subrogee of depositors) would enjoy priority over the claims of the institution's unsecured creditors.

The FDIA also provides that an insured depository institution can be held liable for any loss incurred or expected to be incurred by the FDIC in connection with another commonly controlled insured depository institution that is in default or in danger of default. This cross-guarantee liability is generally superior in right of payment to claims of the institution's holding company and its affiliates.

Other Regulatory and Supervisory Matters

As a public company, the Company is subject to the Securities Act of 1933, as amended (the Securities Act), the Securities Exchange Act of 1934, as amended (the Exchange Act), the Sarbanes-Oxley Act of 2002, and other federal and State securities laws. In addition, because the Company's common stock is listed with The NASDAQ Stock Market LLC (NASDAQ), the Company is subject to the listing rules of that exchange.

The Currency and Foreign Transactions Reporting Act of 1970 (commonly known as the Bank Secrecy Act), the USA PATRIOT Act of 2001, and related laws require all financial institutions, including banks and broker-dealers, to establish a risk-based system of internal controls reasonably designed to prevent money laundering and the financing of terrorism. These laws include a variety of recordkeeping and reporting requirements (such as currency and suspicious activity reporting) as well as know-your-customer and due-diligence rules.

Under the CRA, the Bank has a continuing and affirmative obligation to help meet the credit needs of its local communities—including low- and moderate-income neighborhoods—consistent with safe and sound banking practices. The CRA does not create specific lending programs but does establish the framework and criteria by which the OCC regularly assesses the Bank's record in meeting these credit needs. The Bank's ratings under the CRA are taken into account by the FRB and the OCC when considering merger or other specified applications that the Company or the Bank may submit from time to time.

The Bank is subject as well to a vast array of consumer-protection laws, such as qualified-mortgage and other mortgage-related rules under the jurisdiction of the CFPB. Lending limits, restrictions on tying arrangements, limits on permissible interest-rate charges, and other laws governing the conduct of banking or fiduciary activities are also applicable to the Bank. In addition, the GLBA imposes on the Company and its subsidiaries a number of obligations relating to financial privacy.

Executive Officers of the Registrant. The following are the executive officers of the Company, each of whom is appointed annually, and there are no arrangements or understandings between any of the executive officers and any other person pursuant to which such person was elected as an executive officer.

Name	**Age**	**Position with Registrant**
R. Brian Beaird	50	Mr. Beaird has served as Executive Vice President, Chief Human Resources Officer since October 2019. Prior to this time, he served as Senior Vice President/Director of Associate Experience and Rewards, Director Compensation and Systems, Manager Bank Strategy and Administration, and Manager Commercial Strategy and Administration. Mr. Beaird held these positions from July 2018 until October 2019, August 2017 until July 2018, September 2015 until August 2017, and December 2011 until September 2015, respectively.
Amy Harris	38	Ms. Harris has served as Executive Vice President and Chief Legal Officer since January 2021. Ms. Harris served the Company as Senior Vice President, Deputy General Counsel and Manager of Legal Operations from January 2020 to January 2021. She also served as Corporate Legal Counsel for the Company from October 2014 to January 2020. Prior to joining the Company, Ms. Harris worked in private practice focusing on commercial, corporate and employment cases.
Shannon A. Johnson	44	Ms. Johnson has served as Executive Vice President and Chief Administrative Officer since October 2019. Ms. Johnson’s previous positions with the Company include Executive Vice President, Chief Human Resources Officer; Senior Vice President, Executive Director of Talent Management and Development; and Senior Vice President, Director of Talent Management. Ms. Johnson held these positions from April 2015 to October 2019, May 2011 to April 2015, and December 2009 to May 2011, respectively.
J. Mariner Kemper	51	Mr. Kemper has served as the Chairman and Chief Executive Officer of the Company since May 2004. From November 2015 until January 2024, he served as President of the Company. He served as the Chairman and Chief Executive Officer of the Bank between December 2012 and January 2014, and as the Chairman of UMB Bank Colorado, n.a. (a prior subsidiary of the Company) between 2000 and 2012. He was President of UMB Bank Colorado from 1997 to 2000. Mr. Kemper is the brother of Mr. Alexander C. Kemper, who served on the Company's Board of Directors during 2023 until his resignation in August, 2023.
Stacy King	48	Ms. King has served as Executive Vice President, Chief Risk Officer of the Company since March 2020. From May 2019 until March 2020, she served as Senior Director, Operations Management – Benefit Accounts for Willis Towers Watson. Prior to that time, she served as Senior Vice President, Director Healthcare Operations & Compliance; Senior Vice President/Vice President, Director Healthcare Services Risk & Compliance for the Bank; Vice President, Compliance Manager – Bank Operations & Healthcare Services; and Compliance Analyst-Corporate Risk for the Company. Ms. King held these positions from September 2018 until May 2019, October 2015 until September 2018, August 2014 until October 2015, and September 2013 until August 2014, respectively.
Phil Mason	41	Mr. Mason has served as President of Institutional Banking for the Bank since April 2023. He served as Director of Healthcare Services and Chief Operating Officer Institutional Banking for the Bank from November 2019 until March 2023 and as Chief Operating Officer Institutional Banking for the Bank from June 2015 to October 2019. Prior to this time, Mr. Mason served as Director of Relationship Management and Support Institutional Asset Management for the Bank beginning in April 2013. Mr. Mason first joined the Company in June of 2005, working in the corporate finance department in a variety of roles.

Nikki Newton	52	Mr. Newton has served as the President of Private Wealth Management of the Bank since May 2019. From January 1998 until May 2018, Mr. Newton served in various capacities with Waddell & Reed Financial, Inc. or its subsidiary, Ivy Distributors, Inc, including most recently, serving as President of Ivy Distributors, Inc. and Ivy Global from August 2017 to May 2018, and Head of Global Distribution and President of Ivy Global from January 2014 to August 2017.
David C. Odgers	54	Mr. Odgers has served as Senior Vice President, Chief Accounting Officer of the Company since January 2020, and as the Company's Controller since January 2014. Mr. Odgers was previously the Company's Assistant Controller from January 2005 to January 2014.
John C. Pauls	59	Mr. Pauls has served as Executive Vice President, General Counsel and Corporate Secretary of the Company and the Bank since June 2016. Mr. Pauls served as interim General Counsel from April 2016 until his full appointment in June of 2016. He has been with UMB for over 25 years, having served as a top legal advisor for the Company and the Bank for over 20 years.
James D. Rine	53	Mr. Rine has served as President of the Company since January 2024, and Vice Chairman of the Company since November 2020. He has additionally served as President and Chief Executive Officer of the Bank since October 2018. He served as President of Commercial Banking from December 2017 until October 2018 and as President of Commercial Banking/Western Region from October 2016 to December 2017. Prior to this time, Mr. Rine served as the President of the Kansas City Region since October 2011. Overall, Mr. Rine has over 20 years of commercial banking experience with the Bank.
Ram Shankar	51	Mr. Shankar was named as Executive Vice President and Chief Financial Officer of the Company effective August 2016. From September 2011 until his employment with the Company commenced, he worked at First Niagara Financial Group, most recently serving as managing director where he headed financial planning and analysis and investor relations. Prior to that, Mr. Shankar spent time at FBR Capital Markets as a senior research analyst and at M&T Bank Corporation in the financial planning measurement and corporate finance/mergers & acquisitions group.
Thomas S. Terry	60	Mr. Terry has served as Executive Vice President and Chief Credit Officer since October 2019. From January 2011 until October 2019, Mr. Terry served as Executive Vice President and Chief Lending Officer of the Company, and prior to this time, Mr. Terry served as Executive Vice President. Mr. Terry first joined UMB in 1986, and subsequently joined the Commercial Lending department in 1987 where he worked as a loan officer until 2011.
Abigail Wendel	50	Ms. Wendel was named President of Consumer Banking of the Bank in September 2018. She has also served as Chief Strategy Officer for the Company from June 2015 until September 2018, and as the Director of Investor and Government Relations for the Company from February 2013 through June 2015.
Uma Wilson	45	Ms. Wilson was named Executive Vice President, Chief Information and Product Officer in September 2021. Previously she served as Executive Vice President, Director of Bank Product, Treasury Management/Card Sales and Implementation and Executive Vice President, Director of Bank Product Group. Ms. Wilson held these positions from January 2020 to September 2021 and May 2015 to January 2020, respectively.

The Company makes available free of charge on its website at www.umb.com/investor, its annual report on Form 10-K, quarterly reports on Form 10-Q, proxy statements, current reports on Form 8-K and amendments to such reports, as soon as reasonably practicable after it electronically files or furnishes such material with or to the SEC. Information on the Company's website is not incorporated by reference into this report and should not be considered part of this document. These reports can also be found on the SEC website at www.sec.gov.

ITEM 1A. *RISK FACTORS*

Financial-services companies routinely encounter and address risks and uncertainties. In the following paragraphs, the Company describes some of the principal risks and uncertainties that could adversely affect its business, results of operations, financial condition (including capital and liquidity), or prospects or the value of or return on an investment in the Company. These risks and uncertainties, however, are not the only ones faced by the

Company. Other risks and uncertainties that are not presently known to the Company that it has failed to identify, or that it currently considers immaterial may adversely affect the Company as well. Except where otherwise noted, the risk factors address risks and uncertainties that may affect the Company as well as its subsidiaries. These risk factors should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations (which can be found in Part II, Item 7 of this report) and the Notes to the Consolidated Financial Statements (which can be found in Part II, Item 8 of this report).

The levels of, or changes in, interest rates could affect the Company's business or performance. The Company's business, results of operations, and financial condition are highly dependent on net interest income, which is the difference between interest income on earning assets (such as loans and investments) and interest expense on deposits and borrowings. Net interest income is significantly affected by market interest rates, which in turn are influenced by monetary and fiscal policies, general economic conditions, the regulatory environment, competitive pressures, and expectations about future changes in interest rates. The policies and regulations of the federal government, in general, and the FRB, in particular, have a substantial impact on market interest rates. See "Government Monetary and Fiscal Policies" in Part I, Item 1 of this report, which is incorporated by reference herein. Additionally, the Company has a significant number of loans, derivative contracts, borrowings and other financial instruments with attributes that are either directly or indirectly dependent on the London Interbank Offered Rate (LIBOR). In 2017, the U.K. Financial Conduct Authority announced that LIBOR is to be transitioned to alternative rates. The Alternative Reference Rates Committee (ARRC) has proposed that the Secured Overnight Financing Rate (SOFR) published by the Federal Reserve Bank of New York represents the best alternative to LIBOR for use in derivatives and other financial contracts that are currently indexed to LIBOR. The Company discontinued entering into new LIBOR-indexed financial instruments effective December 31, 2021. The majority of existing LIBOR-indexed contracts will revert to SOFR. The remainder will be individually negotiated to a mutual preferred replacement index. Since proposed alternative rates are calculated differently, payments under contracts referencing new rates will differ from those referencing LIBOR. Although the Company is currently unable to assess what the ultimate impact of the transition from LIBOR will be, failure to adequately manage the transition could have a material adverse effect on its business, financial condition and results of operations.

The impact of interest rate changes on the Company's funding costs may differ from some peers given the Company's concentration of funding from commercial and institutional sources. These deposits, which often include the benefit of other ancillary revenues, are generally more price-sensitive than consumer funding sources. In a rising rate environment, the Company may experience a sharper decline in low-cost funding sources or an increase in cost of deposits due to its customer profile. However, the expectation of higher earning asset growth and the benefit of higher interest rates on our earning assets may help mitigate any impact.

The Company may be adversely affected by policies, regulations, or events that have the effect of altering the difference between long-term and short-term interest rates (commonly known as the yield curve), depressing the interest rates associated with its earning assets to levels near the rates associated with its interest expense, or changing the spreads among different interest-rate indices. In addition, a rapid change in interest rates could result in interest expense increasing faster than interest income because of differences in the maturities of the Company's assets and liabilities. Further, if laws impacting taxation and interest rates materially change, or if new laws are enacted, certain of the Company's services and products, including municipal bonds, may be subject to less favorable tax treatment or otherwise adversely impacted. The level of and changes in market interest rates—and, as a result, these risks and uncertainties—are beyond the Company's control. The dynamics among these risks and uncertainties are also challenging to assess and manage. For example, while the highly accommodative monetary policy currently adopted by the FRB may benefit the Company to some degree by spurring economic activity among its customers, such a policy may ultimately cause the Company more harm by inhibiting its ability to grow or sustain net interest income.

The Company's customers and counterparties also may be negatively impacted by the levels of, or changes in, interest rates, which could increase the risk of delinquency or default on obligations to the Company. The levels of, or changes in, interest rates, moreover, may have an adverse effect on the value of the Company's investment portfolio, which includes long-term municipal bonds with fixed interest rates, and other financial instruments, the return on or demand for loans, the prepayment speed of loans (including, without limitation, the pace of pay-downs expected or forecasted for commercial real estate and construction loans), the cost or availability of deposits or other funding sources, or the purchase or sale of investment securities.

See "Quantitative and Qualitative Disclosures About Market Risk—Interest Rate Risk" in Part II, Item 7A of this report for a discussion of how the Company monitors and manages interest-rate risk.

Weak or deteriorating economic conditions, geopolitical events, more liberal origination or underwriting standards, or financial or systemic shocks could increase the Company's credit risk and adversely affect its lending or other banking businesses and the value of its loans or investment securities. The Company's business and results of operations depend significantly on general economic conditions. When those conditions are weak or deteriorating in any of the markets or regions where the Company operates, or there are impacts stemming from geopolitical events, its business or performance could be adversely affected. The Company's lending and other banking businesses, in particular, are susceptible to weak or deteriorating economic conditions, which could result in reduced loan demand or utilization rates and at the same time increased delinquencies or defaults. These kinds of conditions also could dampen the demand for products and other services in the Company's investment-management, asset-servicing, insurance, brokerage, or related businesses. Financial markets and global supply chains may be adversely affected by the impact of military conflict, including the current conflicts in Ukraine and Israel, terrorism or other geopolitical events. Increased delinquencies or defaults could result as well from the Company adopting—for strategic, competitive, or other reasons—more liberal origination or underwriting standards for extensions of credit or other dealings with its customers or counterparties. If delinquencies or defaults on the Company's loans or investment securities increase, their value and the income derived from them could be adversely affected, and the Company could incur administrative and other costs in seeking a recovery on its claims and any collateral. Weak or deteriorating economic conditions also may negatively impact the market value and liquidity of the Company's investment securities, and the Company may be required to record additional impairment charges if investment securities suffer a decline in value that is determined to have resulted from a credit loss. In addition, to the extent that loan charge-offs exceed estimates, an increase to the amount of provision expense related to the allowance for credit losses would reduce the Company's income. See "Quantitative and Qualitative Disclosures About Market Risk—Credit Risk Management" in Part II, Item 7A of this report for a discussion of how the Company monitors and manages credit risk. A financial or systemic shock and a failure of a significant counterparty or a significant group of counterparties could negatively impact the Company, possibly to a severe degree, due to its role as a financial intermediary and the interconnectedness of the financial system.

A meaningful part of the Company's loan portfolio is secured by real estate and, as a result, could be negatively impacted by deteriorating or volatile real estate markets, the economic environment or associated environmental liabilities. At December 31, 2023, 51.2% of the Company's aggregate loan portfolio—comprised of commercial real estate loans (representing 38.4% of the aggregate loan portfolio) and consumer real estate loans (representing 12.8% of the aggregate loan portfolio)—was primarily secured by interests in real estate located in the States where the Company operates. Other credit extended by the Company may be secured in part by real estate as well. Real estate values in the markets where this collateral is located may be different from, and in some instances worse than, real estate values in other markets or in the United States as a whole and may be affected by general economic conditions and a variety of other factors outside of the control of the Company or its customers. Any deterioration or volatility in these real estate markets could result in increased delinquencies or defaults, could adversely affect the value of the loans and the income to be derived from them, could give rise to unreimbursed recovery costs, and could reduce the demand for new or additional credit and related banking products and other services, all to the detriment of the Company's business and performance. In recent years, commercial real estate markets have been particularly impacted by the economic and other disruptions resulting from the COVID-19 pandemic. Repayment of commercial real estate, which typically involves higher loan principal amounts as compared to consumer real estate lending, is often dependent on the successful operation of the business conducted on the property securing the loans. Negative shifts in economic conditions can impact the borrower's ability to pay. Failures in the Company's risk management policies, procedures and controls could adversely affect its ability to manage this portfolio going forward and could result in an increased rate of delinquencies in, and increased losses from, this portfolio, which could negatively impact the Company's operating and financial performance. In addition, if hazardous or toxic substances were found on any real estate that the Company acquires in foreclosure or otherwise, the Company may incur substantial liability for compliance and remediation costs, personal injury, or property damage.

Challenging business, economic, or market conditions could adversely affect the Company's fee-based banking, investment-management, asset-servicing, or other businesses. The Company's fee-based banking, investment-management, asset-servicing, and other businesses are driven by wealth creation in the economy, robust market activity, monetary and fiscal stability, and positive investor, business, and consumer sentiment. Economic downturns, market disruptions, high unemployment or underemployment, unsustainable debt levels, depressed real estate markets, industry consolidations, or other challenging business, economic, or market conditions could adversely affect these businesses and their results. If the funds or other groups that are clients of UMBFS were to encounter similar difficulties, UMBFS's revenue could suffer. The Company's bank-card revenue is driven

primarily by transaction volumes in business, healthcare, and consumer spending that generate interchange fees, and any of these conditions could dampen those volumes. Other fee-based banking businesses that could be adversely affected include trading, asset management, custody, trust, and cash and treasury management.

Liquidity is essential to the Company and its business or performance could be adversely affected by constraints in, or increased costs for, funding. The Company defines liquidity as the ability to fund increases in assets and meet obligations as they come due, all without incurring unacceptable losses. Banks are especially vulnerable to liquidity risk because of their role in the maturity transformation of demand or short-term deposits into longer-term loans or other extensions of credit. The Company, like other financial-services companies, relies to a significant extent on external sources of funding (such as deposits and borrowings) for the liquidity needed to conduct its business. A number of factors beyond the Company's control, however, could have a detrimental impact on the availability or cost of that funding and thus on its liquidity. These factors include market disruptions, changes in its credit ratings or the sentiment of its investors, the state of the regulatory environment and monetary and fiscal policies, declines in the value of its investment securities, the loss of substantial deposits or customer relationships, financial or systemic shocks, significant counterparty failures, and reputational damage. Unexpected declines or limits on the dividends declared and paid by the Company's subsidiaries also could adversely affect its liquidity position. While the Company's policies and controls are designed to ensure that it maintains adequate liquidity to conduct its business in the ordinary course even in a stressed environment, there can be no assurance that its liquidity position will never become compromised. In such an event, the Company may be required to sell assets at a loss in order to continue its operations. This could damage the performance and value of its business, prompt regulatory intervention, and harm its reputation, and if the condition were to persist for any appreciable period of time, its viability as a going concern could be threatened. See "Quantitative and Qualitative Disclosures About Market Risk —Liquidity Risk" in Part II, Item 7A of this report for a discussion of how the Company monitors and manages liquidity risk.

The Company's investment-management and asset-servicing businesses could be negatively impacted by declines in assets under management or administration or by shifts in the mix of assets under management or administration. The revenues of the Company's investment-management businesses are highly dependent on advisory fee income. These businesses generally earn higher fees on equity-based or alternative investments and strategies and lower fees on fixed income investments and strategies. Advisory-fee income may be negatively impacted by an absolute decline in assets under management or by a shift in the mix of assets under management from equities or alternatives to fixed income. Such a decline or shift could be caused or influenced by any number of factors, such as underperformance in absolute or relative terms, loss of key advisers or other talent, changes in investing preferences or trends, market downturns or volatility, drops in investor confidence, reputational damage, increased competition, or general economic conditions. Any of these factors also could affect clients of UMBFS, and if this were to cause a decline in assets under administration at UMBFS or an adverse shift in the mix of those assets, the performance of UMBFS could suffer.

To the extent that the Company continues to maintain a sizeable portfolio of investment securities, its income may be adversely affected and its reported equity more volatile. As of December 31, 2023, the Company's securities portfolio totaled approximately $13.3 billion, which represented approximately 30.1% of its total assets. Regulatory restrictions and the Company's investment policies generally result in the acquisition of securities with lower yields than loans. For the year-ended December 31, 2023, the weighted average yield of the Company's securities portfolio was 2.66% as compared to 6.27% for its loan portfolio. Accordingly, to the extent that the Company is unable to effectively deploy its funds to originate or acquire loans or other assets with higher yields than those of its investment securities, the Company's income may be negatively impacted. Additionally, approximately $7.1 billion, or 53.3%, of the Company's investment securities are classified as available for sale and reported at fair value. Unrealized gains or losses on these securities are excluded from earnings and reported in other comprehensive income, which in turn affects the Company's reported equity. As a result, to the extent that the Company continues to maintain a significant portfolio of available-for-sale securities, its reported equity may experience greater volatility.

Cyber incidents and other security breaches at the Company, at the Company's service providers or counterparties, or in the business community or markets may negatively impact the Company's business or performance. In the ordinary course of its business, the Company collects, stores, and transmits sensitive, confidential, or proprietary data and other information, including intellectual property, business information, funds-transfer instructions, and the personally identifiable information of its customers and employees. The secure processing, storage, maintenance, and transmission of this information is critical to the Company's operations and reputation, and if any of this information were mishandled, misused, improperly accessed, lost, held hostage or

stolen or if the Company's operations were disrupted, the Company could suffer significant financial, business, reputational, regulatory, or other damage. For example, despite security measures, the Company's information technology and infrastructure may be breached or rendered inaccessible through cyber-attacks, ransomware and other computer viruses or malware, pretext calls, electronic phishing, or other means. These risks and uncertainties are rapidly evolving and increasing in complexity, and the Company's failure to effectively mitigate them could negatively impact its business and operations.

Risks and exposures related to cybersecurity attacks are expected to remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats and the expanding use of technology-based products and services by the Company and its customers. The Company can provide no assurances that the safeguards it has in place or may implement in the future will prevent all unauthorized infiltrations or breaches and that the Company will not suffer losses related to a security breach in the future, which losses may be material.

Service providers and counterparties also present a source of risk to the Company if their own security measures or other systems or infrastructure were to be breached, rendered inaccessible, or otherwise fail. Likewise, a cyber-attack or other security breach affecting the business community, the markets, or parts of them may cycle or cascade through the financial system and adversely affect the Company or its service providers or counterparties. Many of these risks and uncertainties are beyond the Company's control.

Even when an attempted cyber incident or other security breach is successfully avoided or thwarted, the Company may need to expend substantial resources in doing so, may be required to take actions that could adversely affect customer satisfaction or behavior, and may be exposed to reputational damage. If a breach were to occur, moreover, the Company could be exposed to contractual claims, regulatory actions, and litigation by private plaintiffs, and would additionally suffer reputational harm. Despite the Company's efforts to safeguard the integrity of systems and controls and to manage third-party risk, the Company may not be able to anticipate or implement effective measures to prevent all security breaches or all risks to the sensitive, confidential, or proprietary information that it or its service providers or counterparties collect, store, or transmit.

The trading volume in the Company's common stock at times may be low, which could adversely affect liquidity and stock price. Although the Company's common stock is listed for trading on the NASDAQ Global Select Market, the trading volume in the stock may at times be low and, in relative terms, less than that of other financial-services companies. A public trading market that is deep, liquid, and orderly depends on the presence in the marketplace of a large number of willing buyers and sellers and narrow bid-ask spreads. These market features, in turn, depend on a number of factors, such as the individual decisions of investors and general economic and market conditions, over which the Company has no control. During any period of lower trading volume in the Company's common stock, the stock price could be more volatile, and the liquidity of the stock could suffer.

The Company operates in a highly regulated industry, and its business or performance could be adversely affected by the legal, regulatory and supervisory frameworks applicable to it, changes in those frameworks, and other legal and regulatory risks and uncertainties. The Company is subject to expansive legal and regulatory frameworks in the United States—at the federal, State, and local levels—and in the foreign jurisdictions where its business segments operate. In addition, the Company is subject to the direct supervision of government authorities charged with overseeing the taxation of domestic companies and the kinds of financial activities conducted by the Company in its business segments. These legal, regulatory, and supervisory frameworks are often designed to protect public or private interests that differ from the interests of the Company's shareholders or non-deposit creditors. See "Government Monetary and Fiscal Policies" and "Regulation and Supervision" in Part I, Item 1 of this report, which is incorporated by reference herein. The Company believes that government scrutiny of all financial-services companies has increased, fundamental changes have been made to the banking, securities, and other laws that govern financial services (with the Dodd-Frank Act and Basel III being two of the more prominent examples), and a host of related business practices have been reexamined and reshaped. As a result, the Company expects to continue devoting increased time and resources to risk management, compliance, and regulatory change management. Risks also exist that government authorities could judge the Company's business or other practices as unsafe, unsound, or otherwise unadvisable and bring formal or informal corrective or enforcement actions against it, including fines or other penalties and directives to change its products or other services. For practical or other reasons, the Company may not be able to effectively defend itself against these actions, and they in turn could give rise to litigation by private plaintiffs. Further, if the laws, rules, and regulations materially adversely affect the Company, including any changes that would negatively impact the tax treatment of the Company, the Company's products and services or the Company's shareholders, the Company may be adversely impacted. All of

these and other regulatory risks and uncertainties could adversely affect the Company's reputation, business, results of operations, financial condition, or prospects.

Regulatory or supervisory requirements, future growth, operating results, or strategic plans may prompt the Company to raise additional capital, but that capital may not be available at all or on favorable terms and, if raised, may be dilutive. The Company is subject to safety-and-soundness and capital-adequacy standards under applicable law and to the direct supervision of government authorities. See "Regulation and Supervision" in Part I, Item 1 of this report. If the Company is not or is at risk of not satisfying these standards or applicable supervisory requirements—whether due to inadequate operating results that erode capital, future growth that outpaces the accumulation of capital through earnings, or otherwise—the Company may be required to raise capital, restrict dividends, or limit originations of certain types of commercial and mortgage loans. If the Company is required to limit originations of certain types of commercial and mortgage loans, it would thereby reduce the amount of credit available to borrowers and limit opportunities to earn interest income from the loan portfolio. The Company also may be compelled to raise capital if regulatory or supervisory requirements change. In addition, the Company may elect to raise capital for strategic reasons even when it is not required to do so. The Company's ability to raise capital on favorable terms or at all will depend on general economic and market conditions, which are outside of its control, and on the Company's operating and financial performance. Accordingly, the Company cannot be assured of its ability to raise capital when needed or on favorable terms. An inability to raise capital when needed or on favorable terms could damage the performance and value of its business, prompt regulatory intervention, and harm its reputation, and if the condition were to persist for any appreciable period of time, its viability as a going concern could be threatened. If the Company is able to raise capital and does so by issuing common stock or convertible securities, the ownership interest of its existing stockholders could be diluted, and the market price of its common stock could decline.

The market price of the Company's common stock could be adversely impacted by banking, antitrust, or corporate laws that have or are perceived as having an anti-takeover effect. Banking and antitrust laws, including associated regulatory-approval requirements, impose significant restrictions on the acquisition of direct or indirect control over any bank holding company, including the Company. Acquisition of ten percent or more of any class of voting stock of a bank holding company or depository institution, including shares of its common stock, generally creates a rebuttable presumption that the acquirer "controls" the bank holding company or depository institution. Also, a bank holding company must obtain the prior approval of the Federal Reserve before, among other things, acquiring direct or indirect ownership or control of more than 5 percent of the voting shares of any bank, including the Bank.

In addition, a non-negotiated acquisition of control over the Company may be inhibited by provisions of the Company's restated articles of incorporation and bylaws that have been adopted in conformance with applicable corporate law, such as the ability to issue shares of preferred stock and to determine the rights, terms, conditions and privileges of such preferred stock without stockholder approval. If any of these restrictions were to operate or be perceived as operating to hinder or deter a potential acquirer for the Company, the market price of the Company's common stock could suffer.

The Company's business relies on systems, employees, service providers, and counterparties, and failures or errors by any of them, intellectual property disputes, or other operational risks could adversely affect the Company. The Company engages in a variety of businesses in diverse markets and relies on hosted and on-premises systems, employees, service providers, and counterparties to properly oversee, administer, and process a high volume of transactions and otherwise support our day-to-day operations. This gives rise to meaningful operational risk—including the risk of fraud by employees or outside parties, unauthorized access to its premises or systems, errors in processing, failures of technology, breaches of internal controls or compliance safeguards, inadequate integration of acquisitions, human error, unavailability of systems and services, and other breakdowns in business continuity plans. In addition, service providers utilizing technology or other intellectual property in connection with our services may make allegations of patent infringement or other intellectual property rights violations. Depending on the scope of the claim, the Company may have to engage in protracted litigation, which is often time-consuming, expensive and can be disruptive to the Company's operations. If the Company were found to have infringed an intellectual property right, it may be required to pay substantial damages or royalties to a third-party, not all of which may be covered by insurance policies or subject to indemnification by the Company's service provider. These amounts could have a material adverse effect on the Company's business, financial condition and results of operations.

Significant financial, business, reputational, regulatory, or other harm could come to the Company as a result of these or related risks and uncertainties. For example, the Company could be negatively impacted if financial, accounting, data-processing, or other systems were to fail or not fully perform their functions. The Company also could be adversely affected if key personnel or a significant number of employees were to become unavailable due to a pandemic, such as the COVID-19 pandemic, natural disaster, geopolitical events, war, act of terrorism, accident, or other reason. These same risks arise as well in connection with the systems and employees of the service providers and counterparties on whom the Company depends as well as their own third-party service providers and counterparties. See “Quantitative and Qualitative Disclosures About Market Risk—Operational Risk” in Part II, Item 7A of this report for a discussion of how the Company monitors and manages operational risk.

The soundness of other financial institutions could adversely affect us. The soundness of other financial institutions could adversely affect the Company. Financial services institutions are interrelated because of trading, clearing, counterparty and other relationships. The Company routinely executes transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, payment processors, and other institutional clients, which may result in payment obligations to the Company or to its clients due to products it has arranged. Many of these transactions expose the Company to credit and market risk that may cause its counterparty or client to default. In addition, the Company is exposed to market risk when the collateral it holds cannot be realized or is liquidated at prices not sufficient to recover the full amount of the secured obligation. Any losses arising from such occurrences could materially and adversely affect the Company’s business, results of operations or financial condition.

The Company is heavily reliant on technology, and a failure or delay in effectively implementing technology initiatives or anticipating future technology needs or demands could adversely affect the Company’s business or performance. Like most financial-services companies, the Company significantly depends on technology to deliver its products and other services and to otherwise conduct business. To remain technologically competitive and operationally efficient, the Company invests in system upgrades, new solutions, and other technology initiatives, including for both internally and externally hosted solutions. Many of these initiatives are of significant duration, are tied to critical systems, and require substantial internal and external resources. Furthermore, to the extent these initiatives may implicate new technologies or solutions such as those related to artificial intelligence or automation, additional risk may be present. Although the Company takes steps to mitigate the risks and uncertainties associated with these initiatives, there is no guarantee that they will be implemented on time, within budget, or without negative operational or customer impact. The Company also may not succeed in anticipating its future technology needs, the technology demands of its customers, or the competitive landscape for technology. In addition, the Company relies upon the expertise and support of service providers to help implement, maintain and/or service certain of its core technology solutions. If the Company cannot effectively manage these service providers, the service parties fail to materially perform, or the Company was to falter in any of the other noted areas, its business or performance could be negatively impacted.

Negative publicity outside of the Company’s control, or its failure to successfully manage issues arising from its conduct or in connection with the financial-services industry generally, could damage the Company’s reputation and adversely affect its business or performance. The performance and value of the Company’s business could be negatively impacted by any reputational harm that it may suffer. This harm could arise from negative publicity outside of its control or its failure to adequately address issues arising from its own conduct or in connection with the financial-services industry generally. Risks to the Company’s reputation could arise in any number of contexts—for example, cyber incidents and other security breaches, mergers and acquisitions, lending or investment-management practices, actual or potential conflicts of interest, failures to prevent money laundering, corporate governance, and unethical behavior and practices committed by Company employees or competitors in the financial services industry.

The Company faces intense competition from other financial-services and financial-services technology companies, and competitive pressures could adversely affect the Company’s business or performance. The Company faces intense competition in each of its business segments and in all of its markets and geographic regions, and the Company expects competitive pressures to intensify in the future—especially in light of recent legislative and regulatory initiatives, technological innovations that alter the barriers to entry, current economic and market conditions, and government monetary and fiscal policies. Competition with financial-services technology companies, or technology companies partnering with financial-services companies, may be particularly intense, due to, among other things, differing regulatory environments. See “Competition” in Part I, Item 1 of this report. Competitive pressures may drive the Company to take actions that the Company might otherwise eschew, such as

lowering the interest rates or fees on loans or raising the interest rates on deposits in order to keep or attract high-quality customers. These pressures also may accelerate actions that the Company might otherwise elect to defer, such as substantial investments in technology or infrastructure. The Company has certain businesses that utilize wholesale models which can lead to customer concentrations for those businesses that, if negatively impacted by new entrants, competitive pressures, or consolidations, could affect the Company's fee income. Whatever the reason, actions that the Company takes in response to competition may adversely affect its results of operations and financial condition. These consequences could be exacerbated if the Company is not successful in introducing new products and other services, achieving market acceptance of its products and other services, developing and maintaining a strong customer base, or prudently managing expenses.

The Company's internal controls, risk-management and compliance programs or functions may not be effective in identifying and mitigating risk and loss. The Company maintains standards on internal controls (including over financial reporting), and related disclosures which are regularly reviewed by management, as well as an enterprise risk-management program that is designed to identify, quantify, monitor, report, and control the risks that it faces. These include interest-rate risk, credit risk, liquidity risk, market risk, operational risk, reputational risk, and compliance risk. The Company also maintains a compliance program to identify, measure, assess, and report on its adherence to applicable law, policies, and procedures. While the Company assesses and strives to improve these controls and programs on an ongoing basis, there can be no assurance that its frameworks or models for risk management, compliance, and related controls will effectively mitigate risk and limit losses in its business. If conditions or circumstances arise that expose flaws or gaps in the Company's risk-management or compliance programs or if its controls break down, the performance and value of the Company's business could be adversely affected. The Company could be negatively impacted as well if, despite programs being in place, its risk-management or compliance personnel are ineffective in executing them and mitigating risk and loss.

If the Company's subsidiaries are unable to make dividend payments or distributions to the Company, it may be unable to satisfy its obligations to counterparties or creditors or make dividend payments to its stockholders. The Company is a legal entity separate and distinct from its bank and nonbank subsidiaries and depends on dividend payments and distributions from those subsidiaries to fund its obligations to counterparties and creditors and its dividend payments to stockholders. See "Regulation and Supervision—Requirements Affecting the Relationships among the Company, Its Subsidiaries, and Other Affiliates" in Part I, Item 1 of this report. Any of the Company's subsidiaries, however, may be unable to make dividend payments or distributions to the Company, including as a result of a deterioration in the subsidiary's performance, investments in the subsidiary's own future growth, or regulatory or supervisory requirements. If any subsidiary were unable to remain viable as a going concern, moreover, the Company's right to participate in a distribution of assets would be subject to the prior claims of the subsidiary's creditors (including, in the case of the Bank, its depositors and the FDIC).

An inability to attract, retain, or motivate qualified employees could adversely affect the Company's business or performance. Skilled employees are the Company's most important resource, and competition for talented people is intense. Even though compensation is among the Company's highest expenses, it may not be able to locate and hire the best people, keep them with the Company, or properly motivate them to perform at a high level. Recent scrutiny of compensation practices, especially in the financial-services industry, has made this only more difficult. In addition, some parts of the Company's business are particularly dependent on key personnel, including investment management, asset servicing, and commercial lending. If the Company were to lose and find itself unable to replace these personnel or other skilled employees or if the competition for talent drove its compensation costs to unsustainable levels, the Company's business, results of operations, and financial condition could be negatively impacted.

The Company is subject to a variety of litigation and other proceedings, which could adversely affect its business or performance. The Company is involved from time to time in a variety of judicial, alternative-dispute, and other proceedings arising out of its business or operations. The Company establishes reserves for claims when appropriate under generally accepted accounting principles, but costs often can be incurred in connection with a matter before any reserve has been created. The Company also maintains insurance policies to mitigate the cost of litigation and other proceedings, but these policies have deductibles, limits, and exclusions that may diminish their value or efficacy. Despite the Company's efforts to appropriately reserve for claims and insure its business and operations, the actual costs associated with resolving a claim may be substantially higher than amounts reserved or covered. Substantial legal claims, even if not meritorious, could have a detrimental impact on the Company's business, results of operations, and financial condition and could cause reputational harm.

Changes in accounting standards could impact the Company's financial statements and reported earnings. Accounting standard-setting bodies, such as the Financial Accounting Standards Board, periodically change the financial accounting and reporting standards that affect the preparation of the Company's Consolidated Financial Statements. These changes are beyond the Company's control and could have a meaningful impact on its Consolidated Financial Statements.

The Company's selection of accounting methods, assumptions, and estimates could impact its financial statements and reported earnings. To comply with generally accepted accounting principles, management must sometimes exercise judgment in selecting, determining, and applying accounting methods, assumptions, and estimates. This can arise, for example, in the determination of the allowance for credit losses. Furthermore, accounting methods, assumptions and estimates are part of acquisition purchase accounting and the calculation of the fair value of assets and liabilities that have been purchased, including credit-impaired loans. The judgments required of management can involve difficult, subjective, or complex matters with a high degree of uncertainty, and several different judgments could be reasonable under the circumstances and yet result in significantly different results being reported. See "Critical Accounting Policies and Estimates" in Part II, Item 7 of this report. If management's judgments are later determined to have been inaccurate, the Company may experience unexpected losses that could be substantial.

The Company's ability to engage in opportunistic mergers and acquisitions is subject to significant risks, including the risk that government authorities will not provide the requisite approvals, the risk that integrating acquisitions may be more difficult, costly, or time consuming than expected, and the risk that the value of acquisitions may be less than anticipated. The Company may make opportunistic acquisitions of other financial-services companies or businesses from time to time. These acquisitions may be subject to regulatory approval, and there can be no assurance that the Company will be able to obtain that approval in a timely manner or at all. Even when the Company is able to obtain regulatory approval, the failure of other closing conditions to be satisfied or waived could delay the completion of an acquisition for a significant period of time or prevent it from occurring altogether. Any failure or delay in closing an acquisition could adversely affect the Company's reputation, business, results of operations, financial condition, or prospects.

Additionally, acquisitions involve numerous risks and uncertainties, including lower-than-expected performance or higher-than-expected costs, difficulties related to integration, diversion of management's attention from other business activities, changes in relationships with customers or counterparties, and the potential loss of key employees. An acquisition also could be dilutive to the Company's current stockholders if preferred stock, common stock, or securities convertible into preferred stock or common stock were issued to fully or partially pay or fund the purchase price. The Company, moreover, may not be successful in identifying acquisition candidates, integrating acquired companies or businesses, or realizing the expected value from acquisitions. There is significant competition for valuable acquisition targets, and the Company may not be able to acquire other companies or businesses on attractive terms or at all. There can be no assurance that the Company will pursue future acquisitions, and the Company's ability to grow and successfully compete in its markets and regions may be impaired if it chooses not to pursue, or is unable to successfully complete, acquisitions.

The Company faces risks in connection with its strategic undertakings and new business initiatives. The Company is engaged, and may in the future engage, in strategic activities including acquisitions, joint ventures, partnerships, investments or other business growth initiatives or undertakings. There can be no assurance that the Company will successfully identify appropriate opportunities, that it will be able to negotiate or finance such activities or that such activities, if undertaken, will be successful. The Company is focused on its long-term growth and has undertaken various strategic activities and business initiatives, some of which may involve activities that are new to it. For example, in the future the Company may engage in or focus on new lines of business, financial technologies, and other activities that are outside of its current product offerings. These new initiatives may subject the Company to, among other risks, increased business, reputational and operational risk, as well as more complex legal, regulatory and compliance costs and risks. Its ability to execute strategic activities and new business initiatives successfully will depend on a variety of factors. These factors likely will vary based on the nature of the activity but may include the Company's success in integrating an acquired company or a new internally-developed growth initiative into its business, operations, services, products, personnel and systems, operating effectively with any partner with whom it elects to do business, meeting applicable regulatory requirements and obtaining applicable regulatory licenses or other approvals, hiring or retaining key employees, achieving anticipated synergies, meeting management's expectations, actually realizing the anticipated benefits of the activities, and overall general market conditions. The Company's ability to address these matters successfully cannot be assured. In addition, its strategic efforts may divert resources or management's attention from ongoing business operations and may subject the

Company to additional regulatory scrutiny and potential liability. If the Company does not successfully execute a strategic undertaking, it could adversely affect its business, financial condition, results of operations, reputation, or growth prospects.

Expectations around Environmental, Social and Governance practices, as well as climate change, and related legislative and regulatory initiatives may result in additional risk and operational changes and expenditures that could significantly impact the Company's business. Companies are facing increased scrutiny from customers, regulators and other stakeholders with respect to their environmental, social and governance (ESG) practices and disclosures. Institutional investors, and investor advocacy groups, in particular, are increasingly focused on these matters, and expectations in many of these areas can vary widely. In addition, increased ESG related compliance costs could result in increases to the Company's overall operational costs. Failure to adapt to or comply with regulatory requirements or investor or stakeholder expectations and standards, and fluctuations in these standards, could negatively impact the Company's reputation, ability to do business with certain partners, and its stock price. New government regulations could also result in new or more stringent forms of ESG oversight and expanding mandatory and voluntary reporting, diligence, and disclosure.

In addition to regulatory and investor expectations on environmental matters in general, 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 United States 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. These agreements and measures may 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 Company 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 the Company's financial condition and operations; however, as a banking organization, the physical effects of climate change may present certain unique risks to the Company. For example, weather disasters, shifts in local climates and other disruptions related to climate change may adversely affect the value of real properties securing the Company's loans, which could diminish the value of the Company's loan portfolio. Such events may also cause reductions in regional and local economic activity that may have an adverse effect on the Company's customers, which could limit the Company's ability to raise and invest capital in these areas and communities, each of which could have a material adverse effect on the Company's financial condition and results of operations.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

There are no unresolved comments from the staff of the SEC required to be disclosed herein as of the date of this report.

ITEM 1C. *CYBERSECURITY*

Information security and privacy are an important part of the Company's culture and foundational to its goal of delivering safe, secure and quality products and services. This philosophy is emphasized throughout the organization by its board of directors, senior leaders, officers, managers and associates to help promote a Company-wide culture of cybersecurity risk management.

Further, the Company operates within the highly regulated financial services industry, which is focused on the security, confidentiality, integrity, availability and privacy of information and information systems. The standards of the SEC, the GLBA, the General Data Protection Regulation (GDPR), and the Federal Financial Institution Examination Council (FFIEC) outline specific requirements regarding cybersecurity and data privacy for publicly traded and financial services companies. The Company has established information security and privacy policies focused on protecting the security, confidentiality, integrity, availability and privacy of information, which policies are designed to be compliant with SEC, GLBA, GDPR, state privacy regulations and FFIEC guidance, as applicable, and incorporate principles from the National Institute of Standards and Technology (NIST) and other industry best-practices where appropriate. The Company's security and privacy practices are also subject to ongoing independent oversight by multiple regulatory bodies including the OCC and the Federal Reserve, independent audits such as SOC I and SOC II, independent penetration testing of internal and external systems, independent security attestations of compliance with the requirements of the Society of Worldwide Interbank Financial

Telecommunications (SWIFT) and the Federal Reserve (FedLine), and independent assessments in connection with the Company's Payment Card Industry Data Security Standard (PCI DSS) obligations, as applicable.

As a financial institution, the Company collects, stores, and transmits sensitive, confidential, and proprietary data and other information, including intellectual property, business information, funds-transfer instructions, payment card data, and the personally identifiable information of its customers and employees (Sensitive Information). Sensitive Information can be of significant value to criminal actors, and, as described in the Company's Risk Factors, cyber incidents and other security breaches involving this information at the Company, at the Company's service providers or counterparties, or in the business community or markets, may negatively impact the Company's business or performance.

The board of directors of the Company has oversight responsibility for the risk management policies of the Company's global operations and the operation of the Company's global risk management framework. The Board Risk Committee, comprised entirely of independent directors, assists the board of directors with this responsibility by, among other things, approving and periodically reviewing the risk management policies of the Company's global operations, including statements of risk appetite, and adapting the Enterprise Risk Management Policy, when and as appropriate, to changes in the Company's structure, risk profile, complexity, activities, or size. The combined Chief Information Security Officer and Chief Privacy Officer (CISO/CPO) supplies the Board, directly or through the Board Risk Committee, with regular reports on the operation of the information security and privacy components of this program, the related evolving risks to the Company's businesses, and the controls and other mitigants utilized to manage those risks. Membership in the Board Risk Committee includes directors experienced at managing risk in various environments, including cybersecurity. Their expertise helps inform the Company's cybersecurity and privacy program.

Management is responsible for the daily assessment and management of cybersecurity risks. This is accomplished through a variety of tools and mechanisms. The Company has strategically integrated cybersecurity and privacy risk management into its broader risk management framework. This integration ensures that cybersecurity and privacy considerations are an integral part of the Company's decision-making processes at multiple levels. The Company has appointed a qualified CISO/CPO, who reports to the Chief Risk Officer (CRO) as part of independent risk management, who is responsible for establishing strategy and overseeing implementation of an effective, integrated, and proactive information security and privacy program. The CISO/CPO is also responsible for advising and partnering with the board of directors, management team, and lines of business to guide the management of cybersecurity, business continuity and resilience, physical information security, data privacy, third party and information governance risks. The CISO/CPO has more than two decades of global experience within the information security and privacy fields, a relevant bachelor's degree from an accredited institution, and holds the National Association of Corporate Directors Directorship Certification (NACD.DC), Certified Information Systems Security Professional (CISSP) and Certified Information Privacy Professional (CIPP/US) designations. The CISO/CPO manages a team of qualified professionals with relevant cybersecurity and privacy experience and expertise. The Company has also established a Security, Technology, and Privacy Committee (STP) to oversee security, technology, and privacy capabilities and risks of the Company and its business. The STP includes the CRO, CISO/CPO, leadership across the lines of business, and a cross-functional team of risk, technology, privacy and legal experts to ensure an appropriate focus on information security, technology and privacy matters. The STP serves as a sub-committee of the Company's Enterprise Risk Committee (ERC), which is a sub-committee of the Board Risk Committee. The ERC is chaired by the CRO, and includes members of executive management and a cross-functional team of leaders experienced in managing risk. The STP and ERC receive quarterly briefings from the CISO/CPO on a variety of topics, including material changes in information security or privacy laws, the Company's ongoing information security posture and compliance, and emerging risks. Company management and its committees may also engage with the CISO/CPO to discuss and receive additional reports regarding cybersecurity and privacy risks on a more frequent basis as appropriate.

Key Program Components

The Company has a vulnerability management program designed to assess and manage risk associated with vulnerabilities in its information systems from multiple perspectives, including: (i) an adversarial cyber risk assessment that aims to identify threats, vulnerabilities and controls and (ii) the scanning of external and internal information systems to identify software vulnerabilities. The vulnerability management program also assesses emerging and potential threats through dedicated threat intelligence capabilities that monitor attacks and breaches associated with financial institutions and key third-party service providers. The CISO/CPO utilizes the data to understand potential exposure to the Company and to take preventative action where appropriate.

The Company has an Incident Response Program (IRP) to support management of cybersecurity or privacy incidents, impact assessment (i.e., type and quantity of data impacted, materiality, etc.), and response coordination including with law enforcement and government agencies, and impacted parties. Notification procedures are aligned with applicable laws, regulatory and contractual requirements, including rules promulgated by the SEC, the GLBA, the GDPR and state privacy regulations. The Company's IRP, led by the CISO/CPO, includes a cross-functional group of risk, technology, privacy and legal experts supplemented by third-party service providers, where necessary, to support the Company's response to potential cybersecurity or privacy incidents. The IRP sets forth the framework to elevate cybersecurity or privacy issues to the CISO/CPO and when and how incidents are escalated and reported beyond the CISO/CPO, including to executive management and the Board Risk Committee. Depending on the incident, escalation to the full board of directors may also occur.

The Company has also implemented a third-party risk program to oversee and manage information security and privacy risks associated with third-party relationships. The program includes the assessment of third parties that provide key services or will access, store, process, or transmit Sensitive Information during initial onboarding and throughout the lifecycle of the relationship, and management of applicable contractual provisions relating to confidentiality, integrity, availability and privacy obligations, including notification of incidents. The Company also leverages third-party services for advice, assessments, auditing, testing and support related to cybersecurity and information technology processes and services, where appropriate, that are also subject to the third-party risk program.

Notwithstanding the breadth of the Company's information security and privacy program, it may not be successful in preventing or mitigating a cybersecurity incident that could have a material adverse impact. For a discussion of whether and how any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, have materially affected or are reasonably likely to materially affect the Company, including its business strategy, results of operations or financial condition, see Item 1A "Risk Factors", which is incorporated by reference into this Item 1C.

ITEM 2. *PROPERTIES*

The Company's headquarters building is located at 1010 Grand Boulevard in downtown Kansas City, Missouri. The building opened in July 1986 and all 250,000 square feet are occupied by departments and customer service functions of the Bank, as well as administrative offices for the Company.

Other main facilities of the Bank in downtown Kansas City, Missouri are located at 928 Grand Boulevard (215,000 square feet) and 1008 Oak Street (200,000 square feet). The 928 Grand building houses administrative support functions for the Bank. The 1008 Oak building, which opened during 1999, houses the Company's operations and data processing functions.

The Bank leases 48,771 square feet in the Hertz Building located at 2 South Broadway in the heart of the commercial sector of downtown St. Louis, Missouri. This location has a full-service banking center and is home to administrative support functions for the Bank.

The Bank also leases 34,681 square feet on the first, second, and fifth floors of the 1670 Broadway building located in the financial district of downtown Denver, Colorado. The location has a full-service banking center and is home to operational and administrative support functions for the Bank.

As of December 31, 2023, the Bank operated a total of 88 banking centers.

UMBFS leases 85,164 square feet at 235 West Galena Street in Milwaukee, Wisconsin, for its fund services operations. Additionally, UMBFS leases 18,655 square feet at 2225 Washington Boulevard in Ogden, Utah, and 8,339 square feet at 223 Wilmington West Chester Pike in Chadds Ford, Pennsylvania.

Additional information with respect to properties, premises and equipment is presented in Note 1, "Summary of Significant Accounting Policies," and Note 8, "Premises, Equipment, and Leases," in the Notes to the Consolidated Financial Statements in Item 8 of this report, and is hereby incorporated by reference herein.

ITEM 3. ***LEGAL PROCEEDINGS***

In the normal course of business, the Company and its subsidiaries are named defendants in various legal proceedings. In the opinion of management, after consultation with legal counsel, none of these proceedings are expected to have a material effect on the financial position, results of operations, or cash flows of the Company.

ITEM 4. ***MINE SAFETY DISCLOSURES***

Not applicable.

PART II

ITEM 5. *MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES*

The Company's common stock is traded on the NASDAQ Global Select Stock Market under the symbol "UMBF." As of February 16, 2024, the Company had 1,268 shareholders of record.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table provides information about common stock repurchase activity by the Company during the quarter ended December 31, 2023:

ISSUER PURCHASES OF EQUITY SECURITIES

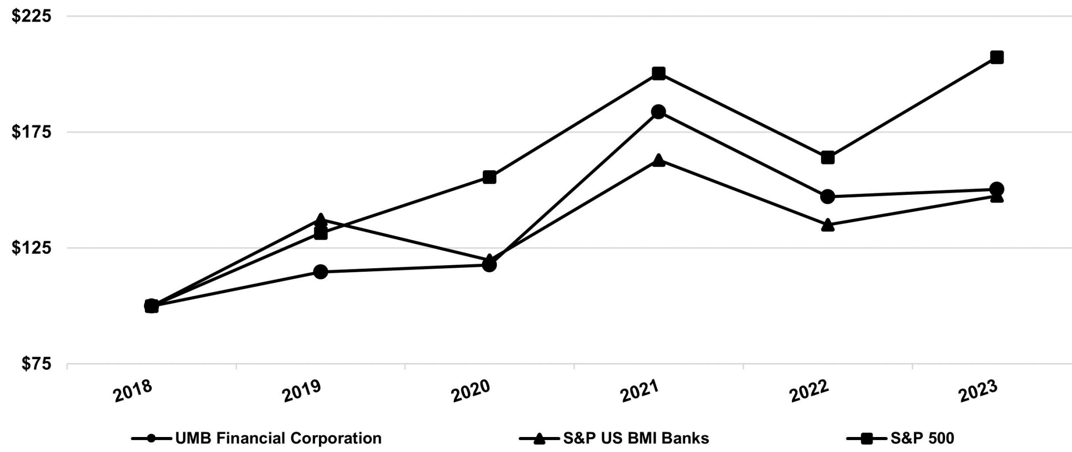
Period	Total Number of Shares (or Units) Purchased (1)	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
October 1 - October 31, 2023	—	$ —	—	1,000,000
November 1 - November 30, 2023	—	—	—	1,000,000
December 1 - December 31, 2023	2,940	91.93	—	1,000,000
Total	2,940	$ 91.93	—	

(1) Includes shares acquired pursuant to the Company's share-based incentive programs. Under the terms of the Company's share-based incentive programs, the Company accepts previously owned shares of common stock surrendered to satisfy tax withholding obligations associated with equity compensation. These purchases do not count against the maximum value of shares remaining available for purchase under Repurchase Authorizations.
(2) Includes shares acquired under the Board of Directors approved Repurchase Authorization(s).

On July 25, 2023, the Company's Board of Directors (the Board) authorized the repurchase of up to one million shares of the Company's common stock, which will terminate on April 30, 2024 (a Repurchase Authorization). The Company has not made any repurchases other than through this Repurchase Authorization. The Company is not currently engaging in repurchases. In the future, it may determine to resume repurchases. All share purchases pursuant to a Repurchase Authorization are intended to be within the scope of Rule 10b-18 promulgated under the Exchange Act. Rule 10b-18 provides a safe harbor for purchases in a given day if the Company satisfies the manner, timing and volume conditions of the rule when purchasing its own shares of common stock. For discussion of management's intentions regarding dividends, see "Results of Operations" in Part II, Item 7 of this report.

Performance Graph

The performance graph below compares the cumulative total shareholder return on UMB Financial Corporation Common Stock with the cumulative total return on the equity securities of companies included in the Standard & Poor's 500 Stock Index and the S&P US BMI Banks Index, measured at the last trading day of each year shown. The graph assumes an investment of $100 on December 31, 2018 and reinvestment of dividends. The performance graph represents past performance and should not be considered to be an indication of future performance.



Index	2018	2019	2020	2021	2022	2023
UMB Financial Corporation	$ 100.00	$ 114.71	$ 117.74	$ 183.72	$ 147.04	$ 150.29
S&P US BMI Banks Index	100.00	137.36	119.83	162.92	135.13	147.41
S&P 500 Index	100.00	131.49	155.68	200.37	164.08	207.21

ITEM 6. [RESERVED]

ITEM 7. *MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS*

MANAGEMENT’S DISCUSSION AND ANALYSIS

This Management’s Discussion and Analysis highlights the material changes in the results of operations and changes in financial condition for each of the three years in the period ended December 31, 2023. It should be read in conjunction with the accompanying Consolidated Financial Statements, Notes to Consolidated Financial Statements, and other financial statistics appearing elsewhere in this Annual Report on Form 10-K. Results of operations for the periods included in this review are not necessarily indicative of results to be attained during any future period.

CAUTIONARY NOTICE ABOUT FORWARD-LOOKING STATEMENTS

From time to time the Company has made, and in the future will make, forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as “believe,” “expect,” “anticipate,” “intend,” “estimate,” “project,” “outlook,” “forecast,” “target,” “trend,” “plan,” “goal,” or other words of comparable meaning or future-tense or conditional verbs such as “may,” “will,” “should,” “would,” or “could.” Forward-looking statements convey the Company’s expectations, intentions, or forecasts about future events, circumstances, results, or aspirations.

This report, including any information incorporated by reference in this report, contains forward-looking statements. The Company also may make forward-looking statements in other documents that are filed or furnished with the SEC. In addition, the Company may make forward-looking statements orally or in writing to investors, analysts, members of the media, or others.

All forward-looking statements, by their nature, are subject to assumptions, risks, and uncertainties, which may change over time and many of which are beyond the Company’s control. You should not rely on any forward-looking statement as a prediction or guarantee about the future. Actual future objectives, strategies, plans, prospects, performance, conditions, or results may differ materially from those set forth in any forward-looking statement. While no list of assumptions, risks, or uncertainties could be complete, some of the factors that may cause actual results or other future events, circumstances, or aspirations to differ from those in forward-looking statements include:

- local, regional, national, or international business, economic, or political conditions or events;
- changes in laws or the regulatory environment, including as a result of financial-services legislation or regulation;
- changes in monetary, fiscal, or trade laws or policies, including as a result of actions by central banks or supranational authorities;
- the pace and magnitude of interest rate movements;
- changes in accounting standards or policies;
- shifts in investor sentiment or behavior in the securities, capital, or other financial markets, including changes in market liquidity or volatility or changes in interest or currency rates;
- changes in spending, borrowing, or saving by businesses or households;
- the Company’s ability to effectively manage capital or liquidity or to effectively attract or deploy deposits;
- changes in any credit rating assigned to the Company or its affiliates;
- adverse publicity or other reputational harm to the Company;
- changes in the Company’s corporate strategies, the composition of its assets, or the way in which it funds those assets;
- the Company’s ability to develop, maintain, or market products or services or to absorb unanticipated costs or liabilities associated with those products or services;

- the Company’s ability to innovate to anticipate the needs of current or future customers, to successfully compete in its chosen business lines, to increase or hold market share in changing competitive environments, or to deal with pricing or other competitive pressures;
- changes in the credit, liquidity, or other condition of the Company’s customers, counterparties, or competitors;
- the Company’s ability to effectively deal with economic, business, or market slowdowns or disruptions;
- judicial, regulatory, or administrative investigations, proceedings, disputes, or rulings that create uncertainty for, or are adverse to, the Company or the financial-services industry;
- the Company’s ability to address changing or stricter regulatory or other governmental supervision or requirements;
- the Company’s ability to maintain secure and functional financial, accounting, technology, data processing, or other operating systems or facilities, including its capacity to withstand cyber-attacks;
- the adequacy of the Company’s corporate governance, risk-management framework, compliance programs, or internal controls, including its ability to control lapses or deficiencies in financial reporting or to effectively mitigate or manage operational risk;
- the efficacy of the Company’s methods or models in assessing business strategies or opportunities or in valuing, measuring, monitoring, or managing positions or risk;
- the Company’s ability to keep pace with changes in technology that affect the Company or its customers, counterparties, or competitors;
- mergers, acquisitions, or dispositions, including the Company’s ability to integrate acquisitions and divest assets;
- the adequacy of the Company’s succession planning for key executives or other personnel;
- the Company’s ability to grow revenue, control expenses, or attract and retain qualified employees;
- natural disasters, war, terrorist activities, including instability in the Middle East and Russia's military action in Ukraine, pandemics, and their effects on economic and business environment in which the Company operates;
- macroeconomic and adverse developments and uncertainties related to the collateral effects of the collapse of, and challenges for, domestic and international banks, including the impacts to the U.S. and global economies and reputational harm to the U.S. banking system; or
- other assumptions, risks, or uncertainties described in the Risk Factors (Item 1A), Management’s Discussion and Analysis of Financial Condition and Results of Operations (Item 7), or the Notes to the Consolidated Financial Statements (Item 8) in this Annual Report on Form 10-K or described in any of the Company’s annual, quarterly or current reports.

Any forward-looking statement made by the Company or on its behalf speaks only as of the date that it was made. The Company does not undertake to update any forward-looking statement to reflect the impact of events, circumstances, or results that arise after the date that the statement was made, except as required by applicable securities laws. You, however, should consult further disclosures (including disclosures of a forward-looking nature) that the Company may make in any subsequent Annual Report on Form 10-K, Quarterly Report on Form 10-Q, or Current Report on Form 8-K.

Results of Operations

Overview

The rapid rise in interest rates during 2022 and 2023, the resulting industry-wide reduction in the fair value of securities portfolios, and the recent bank runs that led to the failures of some financial institutions in March of 2023, among other events, have resulted in significant volatility in the U.S. banking sector and heightened focus on liquidity, uninsured deposits, deposit composition, unrecognized investment losses, and capital.

During November 2023, the FDIC approved a final rule to implement a special assessment to recover the losses to the DIF associated with protecting uninsured depositors following the closures of certain financial institutions in early 2023. The assessment base for the special assessment is equal to an insured depository institution's uninsured deposits as of December 31, 2022, adjusted to exclude the first $5 billion, and will be collected at an annual rate of 13.4 basis points for eight quarterly assessment periods. The Company's portion of this special assessment was $52.8 million and was recognized in noninterest expense during the fourth quarter of 2023 and its impacts are discussed below.

The Company focuses on the following four core financial objectives. Management believes these objectives will guide its efforts to achieve its vision, to deliver *the* Unparalleled Customer Experience, all while seeking to improve net income and strengthen the balance sheet while undertaking prudent risk management.

The first financial objective is to continuously improve operating efficiencies. The Company has focused on identifying efficiencies that simplify its organizational and reporting structures, streamline back-office functions and take advantage of synergies and newer technologies among various platforms and distribution networks. The Company has identified and expects to continue identifying ongoing efficiencies through the normal course of business that, when combined with increased revenue, will contribute to improved operating leverage. For 2023, total revenue decreased 0.4%, and noninterest expense increased 11.2%, as compared to the previous year. Revenue for 2022 included a $66.2 million gain realized on the sale of the Company's Visa Inc. Class B common shares. Noninterest expense for 2023 included the special FDIC assessment of $52.8 million as discussed above. The Company continues to invest in technological advances that it believes will help management drive operating leverage in the future through improved data analysis and automation. The Company also continues to evaluate core systems and will invest in enhancements that it believes will yield operating efficiencies.

The second financial objective is to increase net interest income through profitable loan and deposit growth and the optimization of the balance sheet. For 2023, net interest income increased $6.3 million, or 0.7%, as compared to the previous year. The Company has shown increased net interest income through the effects of increased volume and mix of average earning assets, coupled with higher interest rates. This increase was partially offset by higher interest-bearing deposit rates and increased borrowed funds. Average earning assets increased $1.9 billion, or 5.3%, compared to 2022. Average loan balances increased $3.5 billion, partially offset by a decrease in average federal funds and resell agreements of $649.8 million, a decrease in average securities of $613.8 million, and a decrease in average interest-bearing due from banks of $362.1 million from the prior year. The funding for these assets was driven primarily by a 16.9% increase in average interest-bearing deposits, and a 647.5% increase in average borrowed funds, partially offset by a decrease of 19.8% in noninterest-bearing deposits. Net interest margin, on a fully tax-equivalent (FTE) basis, decreased 11 basis points compared to the same period in 2022 in large part due to repricing and mix changes of interest-bearing liabilities with the increase in short-term interest rates, partially offset by an increase in the benefit of free funds and the repricing of earning assets. Net interest spread contracted by 83 basis points during the same period.

The third financial objective is to grow the Company's revenue from noninterest sources. The Company seeks to grow noninterest revenues throughout all economic and interest rate cycles, while positioning itself to benefit in periods of economic growth. Noninterest income decreased $12.4 million, or 2.2%, to $541.9 million for the year ended December 31, 2023, compared to the same period in 2022. The decrease in 2023 was driven by a $66.2 million gain realized on the sale of the Company's Visa Inc. Class B common shares in 2022. These changes are discussed in greater detail below under Noninterest income. For the year ended December 31, 2023, noninterest income represented 37.1% of total revenues, as compared to 37.8% for 2022.

The fourth financial objective is effective capital management. The Company places a significant emphasis on maintaining a strong capital position, which management believes promotes investor confidence, provides access to funding sources under favorable terms, and enhances the Company's ability to capitalize on business growth and acquisition opportunities. The Company continues to maximize shareholder value through a mix of reinvesting in organic growth, evaluating acquisition opportunities that complement the Company's strategies, increasing dividends over time, and appropriately utilizing a share repurchase program. At December 31, 2023, the Company had a total risk-based capital ratio of 12.85% and $3.1 billion in total shareholders' equity, an increase of $433.3 million, or 16.2%, compared to total shareholders' equity at December 31, 2022. The Company did not repurchase shares of common stock during 2023 except for shares acquired pursuant to the Company's share-based incentive programs. In 2023, the Company declared $75.3 million in dividends, which represents a 3.7% increase compared to dividends declared during 2022.

Earnings Summary

The Company recorded consolidated net income of $350.0 million for the year ended December 31, 2023. This represents an 18.9% decrease over 2022. Net income for 2022 was $431.7 million, or an increase of 22.3% compared to 2021. Basic earnings per share for the year ended December 31, 2023, were $7.22 per share compared to $8.93 per share in 2022, a decrease of 19.1%. Basic earnings per share were $7.31 per share in 2021, or an increase of 22.2% from 2021 to 2022. Fully diluted earnings per share decreased 19.0% from 2022 to 2023 and increased 22.4% from 2021 to 2022. Return on average assets and return on average common shareholder's equity for the year ended December 31, 2023 were 0.88% and 12.23%, respectively, compared to 1.15% and 15.83%, respectively, for the year ended December 31, 2022. Return on average assets and return on average common shareholder's equity for the year ended December 31, 2021 were 1.00% and 11.43%, respectively.

The Company's net interest income increased to $920.1 million in 2023 compared to $913.8 million in 2022 and $815.5 million in 2021. In total, net interest income increased $6.3 million, as compared to 2022, primarily driven by a favorable volume variance of $7.8 million, offset by a $1.5 million rate variance. See Table 2. The favorable volume variance on earning assets was predominantly driven by an increase of $1.9 billion, or 5.3%, in average earning assets. In 2023, average loan balances increased $3.5 billion, partially offset by a decrease in average federal funds and resell agreements of $649.8 million, a decrease in average securities balances of $613.8 million, and a decrease in interest-bearing due from banks of $362.1 million as compared to 2022. Net interest margin, on an FTE basis, decreased to 2.52% for 2023, compared to 2.63% for the same period in 2022, driven by repricing and mix changes of interest-bearing liabilities with the increase in short-term interest rates, partially offset by an increase in the benefit of free funds and the repricing of earning assets. Net interest spread contracted by 83 basis points during the same period. The Company has seen an increase in the benefit from interest-free funds as compared to 2022 driven by the increase in short-term interest rates. The impact of this benefit increased 72 basis points compared to 2022 and is illustrated on Table 3. The magnitude and duration of this impact will be largely dependent upon the FRB's policy decisions and market movements. See Table 18 in Item 7A for an illustration of the impact of an interest rate increase or decrease on net interest income as of December 31, 2023.

The provision for credit losses totaled $41.2 million for the year ended December 31, 2023, which is an increase of $3.3 million, or 8.8%, compared to the same period in 2022. This change is the result of applying the CECL methodology for computing the allowance for credit losses, coupled with the impacts of loan growth, portfolio metric changes, and changes in macro-economic metrics in the current period as compared to the prior period. See further discussion in "Provision and Allowance for Credit Losses" in this report.

The Company had a decrease of $12.4 million, or 2.2%, in noninterest income in 2023, as compared to 2022, and an increase of $87.1 million, or 18.6%, in 2022, compared to 2021. The decrease in 2023 is primarily driven by decreased investment securities gains, net of $61.6 million, partially offset by an increase in trust and securities processing of $20.0 million and other income of $21.0 million. The increase in 2022 is primarily driven by increased investment securities gains, net of $53.4 million and brokerage fees of $30.8 million. The change in noninterest income in 2023 from 2022, and 2022 from 2021 is illustrated in Table 6.

Noninterest expense increased in 2023 by $101.0 million, or 11.2%, compared to 2022 and increased by $64.5 million, or 7.7%, in 2022 compared to 2021. The increase in 2023 is primarily driven by the FDIC special assessment of $52.8 million, and increases in salaries and employee benefits expense and processing fees. The increase in 2022 is primarily driven by increases in salaries and employee benefit expense, processing fees, other miscellaneous expense, bankcard expense, marketing and business development expense, and legal and consulting expense. The increase in noninterest expense in 2023 from 2022, and 2022 from 2021 is illustrated in Table 7 and below under Noninterest Expense.

Net Interest Income

Net interest income is a significant source of the Company's earnings and represents the amount by which interest income on earning assets exceeds the interest expense paid on liabilities. The volume of interest earning-assets and the related funding sources, the overall mix of these assets and liabilities, and the interest rates paid on each affect net interest income. Table 2 summarizes the change in net interest income resulting from changes in volume and rates for 2023, 2022 and 2021.

Net interest margin, presented in Table 1, is calculated as net interest income on a fully tax-equivalent basis as a percentage of average earning assets. Net interest income is presented on a tax-equivalent basis to adjust for the

tax-exempt status of earnings from certain loans and investments, which are primarily obligations of state and local governments. A critical component of net interest income and related net interest margin is the percentage of earning assets funded by interest-free sources. Table 3 analyzes net interest margin for the three years ended December 31, 2023, 2022 and 2021. Net interest income, average balance sheet amounts and the corresponding yields earned and rates paid for the years 2021 through 2023 are presented in Table 1 below.

The following table presents, for the periods indicated, the average earning assets and resulting yields, as well as the average interest-bearing liabilities and resulting yields, expressed in both dollars and rates.

Table 1

THREE YEAR AVERAGE BALANCE SHEETS/YIELDS AND RATES *(tax-equivalent basis)*
(in millions)

	2023			2022		
	Average Balance	Interest Income/ Expense (1)	Rate Earned/ Paid (1)	Average Balance	Interest Income/ Expense (1)	Rate Earned/ Paid (1)
ASSETS						
Loans and loans held for sale (FTE) (2) (3)	$ 22,337.1	$ 1,400.2	6.27%	$ 18,823.8	$ 810.1	4.30%
Securities:						
Taxable	9,097.1	215.0	2.36	9,616.7	192.1	2.00
Tax-exempt (FTE)	3,790.9	128.2	3.38	3,885.1	122.8	3.16
Total securities	12,888.0	343.2	2.66	13,501.8	314.9	2.33
Federal funds sold and resell agreements	316.1	17.7	5.58	965.9	19.1	1.98
Interest-bearing due from banks	2,046.4	103.2	5.04	2,408.5	18.6	0.77
Other earning assets (FTE)	14.0	0.8	5.65	12.1	0.6	4.96
Total earning assets (FTE)	37,601.6	1,865.1	4.96	35,712.1	1,163.3	3.26
Allowance for credit losses	(216.2)			(184.1)		
Cash and due from banks	456.6			420.0		
Other assets	1,888.3			1,631.0		
Total assets	$ 39,730.3			$ 37,579.0		
LIABILITIES AND SHAREHOLDERS' EQUITY						
Interest-bearing demand and savings deposits	$ 18,374.9	$ 588.3	3.20%	$ 17,333.0	$ 162.2	0.94%
Time deposits under $250,000	1,967.0	92.4	4.70	95.0	0.7	0.74
Time deposits of $250,000 or more	780.4	23.5	3.01	635.5	4.6	0.72
Total interest-bearing deposits	21,122.3	704.2	3.33	18,063.5	167.5	0.93
Short-term debt	1,929.0	96.4	5.00	8.6	0.3	3.49
Long-term debt	382.3	25.0	6.54	300.6	15.2	5.06
Federal funds purchased	170.0	8.4	4.97	249.7	5.2	2.10
Securities sold under agreements to repurchase	2,005.4	84.6	4.22	2,527.4	35.5	1.40
Total interest-bearing liabilities	25,609.0	918.6	3.59	21,149.8	223.7	1.06
Noninterest-bearing demand deposits	10,640.4			13,264.1		
Other	618.2			438.8		
Total	36,867.6			34,852.7		
Total shareholders' equity	2,862.7			2,726.3		
Total liabilities and shareholders' equity	$ 39,730.3			$ 37,579.0		
Net interest income (FTE)		$ 946.5			$ 939.6	
Net interest spread (FTE)			1.37%			2.20%
Net interest margin (FTE)			2.52%			2.63%

(1) Interest income and yields are stated on an FTE basis, using a marginal tax rate of 21% for 2023, 2022, and 2021. The tax-equivalent interest income and yields give effect to tax-exempt interest income net of the disallowance of interest expense, for federal income tax purposes related to certain tax-free assets. Rates

earned/paid may not compute to the rates shown due to presentation in millions. The tax-equivalent interest income totaled $26.4 million, $25.8 million, and $26.3 million in 2023, 2022, and 2021, respectively.

(2) Loan fees are included in interest income. Such fees totaled $17.7 million, $18.2 million, and $17.1 million in 2023, 2022, and 2021, respectively.

(3) Loans on nonaccrual are included in the computation of average balances. Interest income on these loans is also included in loan income.

THREE YEAR AVERAGE BALANCE SHEETS/YIELDS AND RATES *(tax-equivalent basis)*
(in millions)

	2021		
	Average Balance	Interest Income/ Expense [1]	Rate Earned/ Paid [1]
ASSETS			
Loans and loans held for sale (FTE) [2] [3]	$ 16,629.9	$ 619.3	3.72 %
Securities:			
Taxable	7,422.4	127.6	1.72
Tax-exempt (FTE)	4,247.0	124.5	2.93
Total securities	11,669.4	252.1	2.16
Federal funds sold and resell agreements	1,234.5	10.1	0.81
Interest-bearing due from banks	4,063.1	5.4	0.13
Other earning assets (FTE)	23.5	1.0	4.33
Total earning assets (FTE)	33,620.4	887.9	2.64
Allowance for credit losses	(204.7)		
Cash and due from banks	460.1		
Other assets	1,452.8		
Total assets	$ 35,328.6		
LIABILITIES AND SHAREHOLDERS' EQUITY			
Interest-bearing demand and savings deposits	$ 16,982.9	$ 24.1	0.14 %
Time deposits under $250,000	242.0	0.8	0.33
Time deposits of $250,000 or more	453.2	1.5	0.33
Total interest-bearing deposits	17,678.1	26.4	0.15
Short-term debt	—	—	—
Long-term debt	270.5	12.7	4.68
Federal funds purchased	163.8	—	0.04
Securities sold under agreements to repurchase	2,454.3	6.9	0.28
Total interest-bearing liabilities	20,566.7	46.0	0.22
Noninterest-bearing demand deposits	11,254.8		
Other	418.0		
Total	32,239.5		
Total shareholders' equity	3,089.1		
Total liabilities and shareholders' equity	$ 35,328.6		
Net interest income (FTE)		$ 841.9	
Net interest spread (FTE)			2.42 %
Net interest margin (FTE)			2.50 %

Table 2

RATE-VOLUME ANALYSIS *(in thousands)*

This analysis attributes changes in net interest income either to changes in average balances or to changes in average interest rates for earning assets and interest-bearing liabilities. The change in net interest income that is due to both volume and interest rate has been allocated to volume and interest rate in proportion to the relationship of the absolute dollar amount of the change in each. All interest rates are presented on a tax-equivalent basis and give effect to tax-exempt interest income net of the disallowance of interest expense for federal income tax purposes, related to certain tax-free assets. The loan average balances and rates include nonaccrual loans.

Average Volume		Average Rate			Increase (Decrease)		
2023	**2022**	**2023**	**2022**	**2023 vs. 2022**	**Volume**	**Rate**	**Total**
				Change in interest earned on:			
$ 22,337,119	$ 18,823,810	6.27 %	4.30 %	Loans	$ 171,189	$ 418,765	$ 589,954
				Securities:			
9,097,110	9,616,691	2.36	2.00	Taxable	(10,813)	33,673	22,860
3,790,921	3,885,153	3.38	3.16	Tax-exempt	(3,142)	8,149	5,007
316,072	965,911	5.58	1.98	Federal funds and resell agreements	(19,173)	17,711	(1,462)
2,046,349	2,408,468	5.04	0.77	Interest-bearing due from banks	(3,203)	87,811	84,608
14,030	12,076	5.65	4.96	Trading securities	117	101	218
37,601,601	35,712,109	4.96	3.26	Total	134,975	566,210	701,185
				Change in interest incurred on:			
21,122,305	18,063,498	3.33	0.93	Interest-bearing deposits	32,883	503,774	536,657
169,997	249,663	4.97	2.10	Federal funds purchased	(2,103)	5,307	3,204
2,005,418	2,527,426	4.22	1.40	Securities sold under agreements to repurchase	(8,697)	57,816	49,119
2,311,238	309,204	5.25	5.00	Borrowed Funds	105,080	806	105,886
$ 25,608,958	$ 21,149,791	3.59 %	1.06 %	Total	127,163	567,703	694,866
				Net interest income	$ 7,812	$ (1,493)	$ 6,319

Average Volume		Average Rate			Increase (Decrease)		
2022	**2021**	**2022**	**2021**	**2022 vs. 2021**	**Volume**	**Rate**	**Total**
				Change in interest earned on:			
$ 18,823,810	$ 16,629,867	4.30 %	3.72 %	Loans	$ 87,505	$ 103,229	$ 190,734
				Securities:			
9,616,691	7,422,432	2.00	1.72	Taxable	41,676	22,820	64,496
3,885,153	4,246,943	3.16	2.93	Tax-exempt	(10,751)	9,636	(1,115)
965,911	1,234,533	1.98	0.81	Federal funds and resell agreements	(2,599)	11,660	9,061
2,408,468	4,063,089	0.77	0.13	Interest-bearing due from banks	(3,034)	16,199	13,165
12,076	23,480	4.96	4.33	Trading securities	(492)	149	(343)
35,712,109	33,620,344	3.26	2.64	Total	112,305	163,693	275,998
				Change in interest incurred on:			
18,063,498	17,678,122	0.93	0.15	Interest-bearing deposits	589	140,552	141,141
249,663	163,744	2.10	0.04	Federal funds purchased	56	5,109	5,165
2,527,426	2,454,290	1.40	0.28	Securities sold under agreements to repurchase	211	28,393	28,604
309,204	270,498	5.00	4.68	Borrowed Funds	1,895	917	2,812
$ 21,149,791	$ 20,566,654	1.06 %	0.22 %	Total	2,751	174,971	177,722
				Net interest income	$ 109,554	$ (11,278)	$ 98,276

Table 3

ANALYSIS OF NET INTEREST MARGIN ***(in thousands)***

	2023	2022	2021
Average earning assets	$ 37,601,601	$ 35,712,109	$ 33,620,344
Interest-bearing liabilities	25,608,958	21,149,791	20,566,654
Interest-free funds	$ 11,992,643	$ 14,562,318	$ 13,053,690
Free funds ratio (interest free funds to average earning assets)	31.89 %	40.78 %	38.83 %
Tax-equivalent yield on earning assets	4.96 %	3.26 %	2.64 %
Cost of interest-bearing liabilities	3.59	1.06	0.22
Net interest spread	1.37 %	2.20 %	2.42 %
Benefit of interest-free funds	1.15	0.43	0.08
Net interest margin	2.52 %	2.63 %	2.50 %

The Company experienced an increase in net interest income of $6.3 million, or 0.7%, for the year ended December 31, 2023, compared to 2022. This follows an increase of $98.3 million, or 12.1%, for the year ended December 31, 2022, compared to 2021. Average earning assets for the year ended December 31, 2023 increased by $1.9 billion, or 5.3%, compared to the same period in 2022. Net interest margin, on a tax-equivalent basis, decreased to 2.52% for 2023 compared to 2.63% in 2022.

The Company funds a significant portion of its balance sheet with noninterest-bearing demand deposits. Noninterest-bearing demand deposits represented 33.9%, 40.6% and 45.9% of total outstanding deposits as of December 31, 2023, 2022 and 2021, respectively. The decrease in 2023 is driven by the increase in short-term interest rates. As illustrated in Table 3, the impact from these interest-free funds was 115 basis points in 2023, as compared to 43 basis points in 2022 and eight basis points in 2021.

The Company experienced an increase in net interest income during 2023 due to a volume variance of $7.8 million, offset by a negative rate variance of $1.5 million. The average rate on earning assets during 2023 has increased by 170 basis points, while the average rate on interest-bearing liabilities increased by 253 basis points, resulting in a 83 basis-point decrease in spread. The volume of loans has increased from an average of $18.8 billion in 2022 to an average of $22.3 billion in 2023, driven by organic loan growth. The volume of interest-bearing liabilities increased from $21.1 billion in 2022 to $25.6 billion in 2023. The Company expects to see continued volatility in the economic markets and governmental responses to inflation, geopolitical tensions, and supply chain constraints. These changing economic conditions and governmental responses could have impacts on the balance sheet and income statement of the Company in 2024. Loan-related earning assets tend to generate a higher spread than those earned in the Company's investment portfolio. By design, the Company's investment portfolio is moderate in duration and liquid in its composition of assets.

During 2024, approximately $2.1 billion of available-for-sale securities are expected to have principal repayments. This includes approximately $1.1 billion that will have principal repayments during the first quarter of 2024. The available-for-sale investment portfolio had an average life of 52.6 months, 62.3 months, and 67.6 months as of December 31, 2023, 2022, and 2021, respectively.

Provision and Allowance for Credit Losses

The ACL represents management's judgment of total expected losses included in the Company's loan portfolio as of the balance sheet date. The Company's process for recording the ACL is based on the evaluation of the Company's lifetime historical loss experience, management's understanding of the credit quality inherent in the loan portfolio, and the impact of the current economic environment, coupled with reasonable and supportable economic forecasts.

A mathematical calculation of an estimate is made to assist in determining the adequacy and reasonableness of management's recorded ACL. To develop the estimate, the Company follows the guidelines in Accounting Standards Codification (ASC) Topic 326, *Financial Instruments – Credit Losses* (ASC 326). The estimate reserves for assets held at amortized cost and any related credit deterioration in the Company's available-for-sale debt security portfolio. Assets held at amortized cost include the Company's loan book and held-to-maturity security portfolio.

The process involves the consideration of quantitative and qualitative factors relevant to the specific segmentation of loans. These factors have been established over decades of financial institution experience and include economic observation and loan loss characteristics. This process is designed to produce a lifetime estimate of the losses, at a reporting date, that includes evaluation of historical loss experience, current economic conditions, reasonable and supportable forecasts, and the qualitative framework outlined by the Office of the Comptroller of the Currency in the published 2020 Interagency Policy Statement. This process allows management to take a holistic view of the recorded ACL reserve and ensure that all significant and pertinent information is considered.

The Company considers a variety of factors to ensure the safety and soundness of its estimate including a strong internal control framework, extensive methodology documentation, credit underwriting standards which encompass the Company's desired risk profile, model validation, and ratio analysis. If the Company's total ACL estimate, as determined in accordance with the approved ACL methodology, is either outside a reasonable range based on review of economic indicators or by comparison of historical ratio analysis, the ACL estimate is an outlier and management will investigate the underlying reason(s). Based on that investigation, issues or factors that previously had not been considered may be identified in the estimation process, which may warrant adjustments to estimated credit losses.

The ending result of this process is a recorded consolidated ACL that represents management's best estimate of the total expected losses included in the loan portfolio, held-to-maturity securities, and credit deterioration in available-for-sale securities.

Table 4 presents the components of the allowance by loan portfolio segment. The Company manages the ACL against the risk in the entire loan portfolio and therefore, the allocation of the ACL to a particular loan segment may change in the future. Management of the Company believes the present ACL is adequate considering the Company's loss experience, delinquency trends and current economic conditions. Future economic conditions and borrowers' ability to meet their obligations, however, are uncertainties which could affect the Company's ACL and/or need to change its current level of provision. For more information on loan portfolio segments and ACL methodology refer to Note 3, "Loans and Allowance for Credit Losses," in the Notes to the Consolidated Financial Statements.

Table 4

ALLOCATION OF ALLOWANCE FOR CREDIT LOSSES ON LOANS *(in thousands)*

This table presents an allocation of the allowance for credit losses on loans and percent of loans to total loans by loan portfolio segment, which represents the total expected losses derived by both quantitative and qualitative methods. The amounts presented are not necessarily indicative of actual future charge-offs in any particular category and are subject to change.

	2023		2022	
At December 31:	**Allowance for credit losses**	**Percent of loans to total loans**	**Allowance for credit losses**	**Percent of loans to total loans**
Commercial and industrial	$ 155,658	42.8 %	$ 136,737	43.7 %
Specialty lending	—	2.2	—	2.9
Commercial real estate	45,507	38.4	39,370	36.2
Consumer real estate	6,941	12.8	6,148	12.9
Consumer	1,089	0.7	494	0.7
Credit cards	7,935	1.8	6,866	2.1
Leases and other	2,608	1.3	2,221	1.5
Total allowance for credit losses on loans	$ 219,738	100.0 %	$ 191,836	100.0 %

Table 5 presents a summary of the Company's ACL for the years ended December 31, 2023 and 2022. Also, please see "Quantitative and Qualitative Disclosures About Market Risk – Credit Risk Management" in this report for information relating to nonaccrual, past due, restructured loans, and other credit risk matters. For more information on loan portfolio segments and ACL methodology refer to Note 3, "Loans and Allowance for Credit Losses," in the Notes to the Consolidated Financial Statements.

As illustrated in Table 5 below, the ACL increased as a percentage of total loans to 0.95% as of December 31, 2023, compared to 0.91% as of December 31, 2022. The provision for credit losses, including provision for off-balance sheet credit exposures, totaled $41.2 million for the year ended December 31, 2023, which is an increase of $3.3 million, or 8.8%, compared to the same period in 2022. The provision for credit losses, including provision for off-balance sheet credit exposures, totaled $37.9 million for the year ended December 31, 2022. This increase is the result of the impacts of loan growth, portfolio metric changes, and changes in macro-economic metrics in the current period as compared to the prior period.

Table 5

ANALYSIS OF ALLOWANCE FOR CREDIT LOSSES *(in thousands)*

	2023	2022
Allowance – January 1	$ 194,243	$ 196,711
Provision for credit losses	39,227	37,400
Charge-offs:		
Commercial	(5,047)	(37,269)
Specialty lending	(762)	—
Commercial real estate	(266)	(29)
Consumer real estate	(1,185)	(57)
Consumer	(1,232)	(800)
Credit cards	(9,181)	(6,150)
Leases and other	—	—
Total charge-offs	(17,673)	(44,305)
Recoveries:		
Commercial and industrial	5,295	1,550
Specialty lending	1	433
Commercial real estate	111	385
Consumer real estate	45	131
Consumer	211	126
Credit cards	1,536	1,812
Leases and other	—	—
Total recoveries	7,199	4,437
Net charge-offs	(10,474)	(39,868)
Allowance for credit losses – end of period	$ 222,996	$ 194,243
Allowance for credit losses on loans	$ 219,738	$ 191,836
Allowance for credit losses on held-to-maturity securities	3,258	2,407
Loans at end of year, net of unearned interest	23,172,484	21,031,189
Held-to-maturity securities at end of period	5,691,868	5,861,599
Total assets at amortized cost	28,864,352	26,892,788
Average loans, net of unearned interest	22,334,942	18,822,416
Allowance for credit losses on loans to loans at end of period	0.95%	0.91%
Allowance for credit losses – end of period to total assets at amortized cost	0.77%	0.72%
Allowance as a multiple of net charge-offs	21.29x	4.87x
Net charge-offs to average loans	0.05%	0.21%

Noninterest Income

A key objective of the Company is the growth of noninterest income to provide a diverse source of revenue not directly tied to interest rates. Fee-based services are typically non-credit related and are not generally affected by fluctuations in interest rates. Noninterest income decreased in 2023 by $12.4 million, or 2.2%, compared to 2022 and increased in 2022 by $87.1 million, or 18.6%, compared to 2021. The decrease in 2023 is primarily driven by decreased investment securities gains, net, partially offset by an increase in other miscellaneous income and trust and securities processing income. The increase in 2022 is primarily attributable to an increase in investment securities gains, net, coupled with an increase in brokerage fee income and trust and securities processing income. These were partially offset by a decrease in other miscellaneous income. Changes in Noninterest income are presented in Table 6 below.

The Company's fee-based services offer multiple products and services, which management believes will more closely align with customer product demands. The Company is currently emphasizing fee-based services

including trust and securities processing, bankcard, securities trading and brokerage and cash and treasury management. Management believes that it can offer these products and services both efficiently and profitably, as most have common platforms and support structures.

Table 6

SUMMARY OF NONINTEREST INCOME ***(in thousands)***

	Year Ended December 31,			Dollar Change		Percent Change	
	2023	2022	2021	23-22	22-21	23-22	22-21
Trust and securities processing	$ 257,200	$ 237,207	$ 224,126	$ 19,993	$ 13,081	8.4 %	5.8 %
Trading and investment banking	19,630	23,201	30,939	(3,571)	(7,738)	(15.4)	(25.0)
Service charges on deposit accounts	84,950	85,167	86,056	(217)	(889)	(0.3)	(1.0)
Insurance fees and commissions	1,009	1,338	1,309	(329)	29	(24.6)	2.2
Brokerage fees	54,119	43,019	12,171	11,100	30,848	25.8	253.5
Bankcard fees	74,719	73,451	64,576	1,268	8,875	1.7	13.7
Investment securities (losses) gains, net	(3,139)	58,444	5,057	(61,583)	53,387	(105.4)	1,055.7
Other	53,365	32,406	42,941	20,959	(10,535)	64.7	(24.5)
Total noninterest income	$ 541,853	$ 554,233	$ 467,175	$ (12,380)	$ 87,058	(2.2)%	18.6 %

Noninterest income and the year-over-year changes in noninterest income are summarized in Table 6 above. The dollar change and percent change columns highlight the respective net increase or decrease in the categories of noninterest income in 2023 compared to 2022, and in 2022 compared to 2021.

Trust and securities processing income consists of fees earned on personal and corporate trust accounts, custody of securities services, trust investments and wealth management services, and mutual fund assets servicing. This income category increased by $20.0 million, or 8.4% in 2023, compared to 2022, and increased by $13.1 million, or 5.8%, in 2022, compared to 2021. During 2023, fund services income increased $12.2 million and corporate trust income increased $7.7 million. During 2022, fund services income increased $12.9 million and corporate trust income increased $6.5 million, partially offset by a decrease in wealth management income of $6.3 million. The recent volatile markets have impacted the income in this category. Since trust and securities processing fees are primarily asset-based, which are highly correlated to the change in market value of the assets, the related income will be affected by changes in the securities markets. Management continues to emphasize sales of services to both new and existing clients as well as increasing and improving the distribution channels.

Trading and investment banking income decreased $3.6 million, or 15.4%, in 2023 compared to 2022 and decreased $7.7 million, or 25.0%, in 2022 compared to 2021. These decreases were driven by lower trading volume and lower market values.

Service charges on deposits income decreased $0.2 million, or 0.3%, in 2023 compared to 2022 and decreased $0.9 million, or 1.0%, in 2022 compared to 2021. The decrease in 2023 compared to 2022 was driven by decreased healthcare services income, offset by increased commercial service charge income. The decrease in 2022 compared to 2021 was driven by decreased healthcare services income, partially offset by increased consumer service charge income.

Brokerage fees increased $11.1 million, or 25.8%, in 2023 compared to 2022 and increased $30.8 million, or 253.5%, in 2022 compared to 2021. The increase in both years was driven by increased 12b-1 and money market fees driven by the increase in short-term interest rates.

Bankcard fees increased $1.3 million, or 1.7%, in 2023 compared to 2022, and increased $8.9 million, or 13.7%, in 2022 compared to 2021. These increases were primarily driven by increased interchange income, partially offset by increased rewards and rebate expense.

Investment securities gains, net decreased $61.6 million in 2023 compared to 2022 and increased $53.4 million in 2022 compared to 2021. The decrease in 2023 and increase in 2022 was primarily driven by a $66.2 million gain realized on the sale of the Company's Visa Inc. Class B common shares in 2022.

Other noninterest income increased $21.0 million, or 64.7%, in 2023 compared to 2022 and decreased $10.5 million, or 24.5%, in 2022 compared to 2021. The increase in 2023 and decrease in 2022 was primarily driven by market value changes in company-owned life insurance income.

Noninterest Expense

Noninterest expense increased in 2023 by $101.0 million, or 11.2%, compared to 2022 and increased in 2022 by $64.5 million, or 7.7%, compared to 2021. From 2022 to 2023 the increase was driven by a $52.8 million FDIC special assessment, increases in salaries and employee benefits expense and processing fees, and partially offset by a decrease in other miscellaneous expense. From 2021 to 2022 the increase was driven by increases in salaries and employee benefits expense, processing fees, other miscellaneous expense, bankcard expense, and marketing and business development expense. Table 7 below summarizes the components of noninterest expense and the respective year-over-year changes for each category.

Table 7

SUMMARY OF NONINTEREST EXPENSE *(in thousands)*

	Year Ended December 31,			Dollar Change		Percent Change	
	2023	2022	2021	23-22	22-21	23-22	22-21
Salaries and employee benefits	$ 553,421	$ 524,431	$ 504,442	$ 28,990	$ 19,989	5.5 %	4.0 %
Occupancy, net	48,502	48,848	47,345	(346)	1,503	(0.7)	3.2
Equipment	68,718	74,259	78,398	(5,541)	(4,139)	(7.5)	(5.3)
Supplies and services	16,829	13,590	14,986	3,239	(1,396)	23.8	(9.3)
Marketing and business development	25,749	25,699	18,533	50	7,166	0.2	38.7
Processing fees	103,099	82,227	67,563	20,872	14,664	25.4	21.7
Legal and consulting	29,998	39,095	32,406	(9,097)	6,689	(23.3)	20.6
Bankcard	32,969	26,367	19,145	6,602	7,222	25.0	37.7
Amortization of other intangible assets	8,587	5,037	4,757	3,550	280	70.5	5.9
Regulatory fees	77,010	15,378	11,894	61,632	3,484	400.8	29.3
Other	34,258	43,188	34,167	(8,930)	9,021	(20.7)	26.4
Total noninterest expense	$ 999,140	$ 898,119	$ 833,636	$ 101,021	$ 64,483	11.2 %	7.7 %

Salaries and employee benefits expense increased $29.0 million, or 5.5%, in 2023 compared to 2022 and $20.0 million, or 4.0%, in 2022 compared to 2021. In 2023, salaries and wage expense increased $23.8 million, or 7.5% and employee benefits expense of $20.5 million, or 26.0%. These increases were offset by a decrease in bonus and commission expense of $15.3 million, or 11.8%. In 2022, salaries and wage expense increased $17.5 million, or 5.9% and bonus and commission expense increased $4.4 million, or 3.5%, driven by business volumes and revenue growth, and higher company performance. These increases were offset by a decrease in employee benefits expense of $1.9 million, or 2.3%.

Equipment expense decreased $5.5 million, or 7.5%, in 2023 compared to 2022, and decreased $4.1 million, or 5.3%, from 2021 to 2022. The decreases in both years were driven by lower software expense related to a transition to cloud-based computing solutions.

Marketing and business development expense was flat in 2023 compared to 2022, and increased $7.2 million, or 38.7%, in 2022 compared to 2021. The increase in 2022 was driven by the timing of advertising and business development projects and higher travel expenses as compared to the prior year.

Processing fees expense increased $20.9 million, or 25.4%, in 2023 compared to 2022, and increased $14.7 million, or 21.7%, in 2022 compared to 2021. The increases in 2023 and 2022 were primarily driven by the transition to cloud computing solutions and ongoing investments in digital channel and integrated platform solutions to support business growth and the continued modernization of core systems.

Legal and consulting expense decreased $9.1 million, or 23.3%, in 2023 compared to 2022 and increased $6.7 million, or 20.6%, in 2022 compared to 2021. The decrease in 2023 and the increase in 2022 were primarily driven by fluctuations in legal and consulting expense due to the timing of multiple projects between years.

Bankcard expense increased $6.6 million, or 25.0%, in 2023 compared to 2022 and increased $7.2 million, or 37.7%, in 2022 compared to 2021. These increases were driven by higher card administration costs coupled with higher fraud losses.

Regulatory fees increased $61.6 million, or 400.8%, in 2023 compared to 2022 and increased $3.5 million, or 29.3%, in 2022 compared to 2021. The increase in 2023 compared to 2022 was driven by the FDIC special assessment of $52.8 million. The increase in 2022 was driven by a higher assessment base.

Other noninterest expense decreased $8.9 million, or 20.7%, in 2023 compared to 2022 and increased $9.0 million, or 26.4%, in 2022 compared to 2021. The decrease in 2023 was driven by lower charitable contribution expenses and operational losses. The increase in 2022 was driven by higher operational losses and increased charitable contributions expense.

Income Taxes

Income tax expense totaled $71.6 million, $100.3 million, and $76.0 million in 2023, 2022, and 2021 respectively. These amounts equate to effective tax rates of 17.0%, 18.9%, and 17.7% for 2023, 2022 and 2021, respectively. The decrease in the effective tax rate from 2022 to 2023 is primarily attributable to a larger portion of pre-tax income being earned from tax-exempt municipal securities and excludable life insurance policy gains. The increase in the effective tax rate from 2021 to 2022 is primarily attributable to a smaller portion of pre-tax income being earned from tax-exempt municipal securities.

For further information on income taxes refer to Note 16, “Income Taxes,” in the Notes to the Consolidated Financial Statements.

Business Segments

The Company has strategically aligned its operations into the following three reportable segments: Commercial Banking, Institutional Banking, and Personal Banking (collectively, the Business Segments). Senior executive officers regularly evaluate Business Segment financial results produced by the Company’s internal reporting system in deciding how to allocate resources and assess performance for individual Business Segments. The management accounting system assigns balance sheet and income statement items to each Business Segment using methodologies that are refined on an ongoing basis. For comparability purposes, amounts in all periods are based on methodologies in effect at December 31, 2023. Previously reported results have been reclassified in this Form 10-K to conform to the Company’s current organizational structure.

Table 8

COMMERCIAL BANKING OPERATING RESULTS ***(in thousands)***

	Year Ended December 31,		Dollar Change	Percent Change
	2023	2022	23-22	23-22
Net interest income	$ 598,371	$ 596,031	$ 2,340	0.4 %
Provision for credit losses	33,184	32,851	333	1.0
Noninterest income	97,614	122,614	(25,000)	(20.4)
Noninterest expense	365,856	332,912	32,944	9.9
Income before taxes	296,945	352,882	(55,937)	(15.9)
Income tax expense	48,403	67,134	(18,731)	(27.9)
Net income	$ 248,542	$ 285,748	$ (37,206)	(13.0)%

For the year ended December 31, 2023, Commercial Banking net income decreased $37.2 million, or 13.0%, to $248.5 million compared to the same period in 2022. Net interest income increased $2.3 million, or 0.4%, for the year ended December 31, 2023, compared to the same period last year, driven by strong loan growth and increased earning asset yields, partially offset by increased interest expense due to higher interest rates and unfavorable changes in the mix of interest-bearing liabilities. Provision for credit losses increased $0.3 million, or 1.0%, as compared to 2022, driven by loan growth, portfolio metric changes, and changes in macro-economic metrics in 2023 as compared to 2022. Noninterest income decreased $25.0 million, or 20.4%, over the same period in 2022. This decrease was primarily due to an allocated portion of the gain on the sale of Visa Inc. Class B common shares

recorded during 2022, coupled with a decrease of $5.3 million in other income due to reduced derivative income and the gain on the sale of the Company's factoring loan portfolio recorded in the first quarter of 2022. Noninterest expense increased $32.9 million, or 9.9%, as compared to the same period in 2022. This increase was driven by the allocation of $28.5 million of the $52.8 million FDIC special assessment recorded in 2023, coupled with increases of $2.8 million in salaries and employee benefits expense, $2.5 million in operational losses, $2.3 million in processing fees, and $1.2 million in bankcard expense. These increases were partially offset by a decrease of $4.3 million in legal and professional fees as compared to 2022.

Table 9

INSTITUTIONAL BANKING OPERATING RESULTS *(in thousands)*

	Year Ended December 31,		Dollar Change	Percent Change
	2023	**2022**	**23-22**	**23-22**
Net interest income	$ 192,765	$ 159,679	$ 33,086	20.7 %
Provision for credit losses	1,406	495	911	184.0
Noninterest income	347,933	323,794	24,139	7.5
Noninterest expense	382,770	320,976	61,794	19.3
Income before taxes	156,522	162,002	(5,480)	(3.4)
Income tax expense	26,838	31,889	(5,051)	(15.8)
Net income	$ 129,684	$ 130,113	$ (429)	(0.3)%

For the year ended December 31, 2023, Institutional Banking net income decreased $0.4 million, or 0.3%, compared to the same period last year. Net interest income increased $33.1 million, or 20.7%, compared to the same period last year, due to an increase in funds transfer pricing due to the increase in interest rates. Provision for credit losses increased $0.9 million as compared to 2022, driven by loan growth, portfolio metric changes, and changes in the macro-economic metrics in 2023 as compared to 2022. Noninterest income increased $24.1 million, or 7.5%, primarily due to increases of $20.2 million in trust and securities processing, $11.3 million in brokerage fees, and $4.8 million in bankcard income, partially offset by a decrease in income related to the allocated portion of the gain on the sale of Visa Inc. Class B common shares during 2022 and a decrease of $3.9 million in trading and investment banking income. Noninterest expense increased $61.8 million, or 19.3% as compared to 2022, primarily driven by an allocation of $24.3 million of the $52.8 million FDIC special assessment recorded in 2023. This increase was coupled with increases of $19.4 million in salaries and employee benefits expense, $3.9 million in bankcard expense, $3.9 million in operational losses, $3.6 million in software expense, $3.6 million in intangible amortization, and $2.6 million in processing fees.

Table 10

PERSONAL BANKING OPERATING RESULTS *(in thousands)*

	Year Ended December 31,		Dollar Change	Percent Change
	2023	**2022**	**23-22**	**23-22**
Net interest income	$ 128,980	$ 158,087	$ (29,107)	(18.4)%
Provision for credit losses	6,637	4,554	2,083	45.7
Noninterest income	96,306	107,825	(11,519)	(10.7)
Noninterest expense	250,514	244,231	6,283	2.6
(Loss) income before taxes	(31,865)	17,127	(48,992)	(286.1)
Income tax (benefit) expense	(3,663)	1,306	(4,969)	(380.5)
Net (loss) income	$ (28,202)	$ 15,821	$ (44,023)	(278.3)%

For the year ended December 31, 2023, Personal Banking net income decreased $44.0 million, or 278.3%, as compared to the same period last year. Net interest income decreased $29.1 million, or 18.4%, compared to the same period last year due to higher deposit interest expense driven by the increase in short-term interest rates. Provision for credit losses increased $2.1 million, or 45.7%, for the period, driven by loan growth, portfolio metric changes, and changes in macro-economic metrics in 2023 as compared to 2022. Noninterest income decreased $11.5 million, or 10.7%, primarily due to an allocated portion of the gain on the sale of Visa Inc. Class B common shares recorded in 2022, coupled with decreases of $2.4 million in bankcard income and $1.6 million in service

charges on deposits. These decreases were partially offset by an increase of $2.7 million in other income driven by the gain on the sale of other assets during the second quarter of 2023, and an increase of $2.0 million in the valuation of the Company's non-marketable securities. Noninterest expense increased $6.3 million, or 2.6%, primarily due to increases of $2.3 million in operational losses, $2.1 million in regulatory fees, $1.9 million in salaries and employee benefits, and $1.2 million in bankcard expense. These increases were partially offset by a decrease of $1.0 million in technology, service, and overhead expenses.

Balance Sheet Analysis

Loans and Loans Held For Sale

Loans represent the Company's largest source of interest income. Loan balances held for investment increased by $2.1 billion, or 10.2%, in 2023. This increase was primarily driven by an increase of $1.3 billion, or 16.8%, in commercial real estate loans, $723.9 million, or 7.9%, in commercial and industrial loans, and $237.4 million, or 8.7% in consumer real estate loans.

Commercial and industrial loans and commercial real estate loans continue to represent the largest segments of the Company's loan portfolio, comprising approximately 42.8% and 38.4%, respectively, of total loans and loans held for sale at the end of 2023 and 43.8% and 36.2%, respectively, of total loans and loans held for sale at the end of 2022.

Commercial and industrial loans represent the largest percent of total loans. Commercial and industrial loans at December 31, 2023 increased $723.9 million, or 7.9%, as compared to December 31, 2022, to 42.8% of total loans. Commercial and industrial loans represented 43.8% of total loans at December 31, 2022.

As a percentage of total loans, commercial real estate comprises 38.4% of total loans compared to 36.2% in 2022. Commercial real estate loans increased $1.3 billion, or 16.8%, compared to 2022. Generally, these loans are made for investment and real estate development or working capital and business expansion purposes and are primarily secured by real estate with a maximum loan-to-value of 80%. Most of these properties are non-owner occupied and have guarantees as additional security. The properties securing the commercial real estate portfolio are diverse in terms of type and geographic location. This diversity helps reduce exposure to adverse economic events that affect any single market or industry. Notwithstanding, commercial real estate loans, in general, may be more adversely impacted by conditions in the real estate market or the economy.

Consumer real estate loans increased $237.4 million, or 8.7%, compared to 2022. These loans represented 12.8% of total loans as of December 31, 2023, compared to 12.9% as of December 31, 2022.

For further information on loan portfolio segments refer to Note 3, "Loans and Allowance for Credit Losses," in the Notes to the Consolidated Financial Statements.

Nonaccrual, past due and restructured loans are discussed under "Quantitative and Qualitative Disclosure about Market Risk – Credit Risk Management" in Item 7A of this report.

Investment Securities

The Company's investment portfolio contains trading, available-for-sale (AFS), and held-to-maturity (HTM) securities as well as FRB stock, Federal Home Loan Bank (FHLB) stock, and other miscellaneous investments. Investment securities totaled $13.3 billion as of December 31, 2023 and $13.2 billion as of December 31, 2022 and comprised 31.9% and 36.5% of the Company's earning assets, respectively, as of those dates.

During 2022, securities with an amortized cost of $4.1 billion and a fair value of $3.8 billion were transferred from the AFS classification to the HTM classification as the Company has the positive intent and ability to hold these securities to maturity. The transfers of securities were made at fair value at the time of transfer. See further information in Note 4, "Securities" in the Notes to the Consolidated Financial Statements.

The Company's AFS securities portfolio comprised 53.3% of the Company's investment securities portfolio at December 31, 2023, compared to 52.9% at December 31, 2022. The Company's AFS securities portfolio provides liquidity as a result of the composition and average life of the underlying securities. This liquidity can be used to fund loan growth or to offset the outflow of traditional funding sources. The average life of the AFS securities

portfolio decreased from 62.3 months at December 31, 2022 to 52.6 months at December 31, 2023. In addition to providing a potential source of liquidity, the AFS securities portfolio can be used as a tool to manage interest rate sensitivity. The Company's goal in the management of its AFS securities portfolio is to maximize return within the Company's parameters of liquidity goals, interest rate risk and credit risk.

Management expects collateral pledging requirements for public funds, loan demand, and deposit funding to be the primary factors impacting changes in the level of AFS securities. There were $10.1 billion of securities pledged to secure U.S. Government deposits, other public deposits, certain trust deposits, derivative transactions, and repurchase agreements at December 31, 2023.

The Company's HTM securities portfolio consists of U.S. agency-backed securities, mortgage-backed securities, general obligation bonds, and private placement bonds. The Company's HTM portfolio, net of the ACL totaled $5.7 billion as of December 31, 2023, a decrease of $170.6 million from December 31, 2022. The average life of the HTM portfolio was 8.4 years at December 31, 2023, compared to 9.3 years at December 31, 2022.

The securities portfolio generates the Company's second largest component of interest income. The AFS, HTM, and Other securities portfolios achieved an average yield on a tax-equivalent basis of 2.66% for 2023, compared to 2.33% in 2022. Securities available for sale had a net unrealized loss of $624.2 million at year-end, compared to a net unrealized loss of $771.6 million the preceding year. This market value change primarily reflects the impact of a shorter average life and increasing market interest rates as of December 31, 2023, compared to December 31, 2022. These amounts are reflected, on an after-tax basis, in the Company's Accumulated other comprehensive income (loss) in shareholders' equity, as an unrealized loss of $471.9 million at year-end 2023, compared to an unrealized loss of $514.6 million for 2022. The AFS securities portfolio contains securities that have unrealized losses (see the table of these securities in Note 4, "Securities," in the Notes to the Consolidated Financial Statements). The unrealized losses in the Company's investments were caused by changes in interest rates, and not from a decline in credit of the underlying issuers. The U.S. Treasury, U.S. Agency, and Government Sponsored Entity (GSE) mortgage-backed securities are all considered to be agency-backed securities with no risk of loss as they are either explicitly or implicitly guaranteed by the U.S. government. The changes in fair value in the agency-backed portfolios are solely driven by change in interest rates caused by changing economic conditions. The Company has no knowledge of any underlying credit issues and the cash flows underlying the debt securities have not changed and are not expected to be impacted by changes in interest rates. As of December 31, 2023, the Company does not believe the decline in value in these portfolios is related to credit impairments and instead is due to increasing market interest rates. For the State and political subdivision portfolio, the majority of the Company's holdings are in general obligation bonds, which have a very low historical default rate due to issuers generally having unlimited taxing authority to service the debt. For the State and political, Corporates, and Collateralized loan obligations portfolios, the Company has a robust process for monitoring credit risk, including both pre-purchase and ongoing post-purchase credit reviews and analysis. The Company monitors credit ratings of all bond issuers in these segments and reviews available financial data, including market and sector trends. The Company does not have the intent to sell these securities and does not believe it is more likely than not that the Company will be required to sell these securities before a recovery of amortized cost. As of December 31, 2023, there is no ACL related to the Company's available-for-sale securities as the decline in fair value did not result from credit issues.

Included in Tables 11 and 12 are analyses of the fair value and average yield (tax-equivalent basis) of securities available for sale and securities held to maturity.

Table 11

SECURITIES AVAILABLE FOR SALE *(in thousands)*

	U.S. Treasury Securities		U.S. Agency Securities	
December 31, 2023	**Fair Value**	**Weighted Average Yield**	**Fair Value**	**Weighted Average Yield**
Due in one year or less	$ 1,109,140	3.51 %	$ 60,985	1.89 %
Due after 1 year through 5 years	189,602	2.86	98,736	3.39
Due after 5 years through 10 years	—	—	—	—
Due after 10 years	—	—	—	—
Total	$ 1,298,742	3.40 %	$ 159,721	2.81 %

December 31, 2023	Mortgage-backed Securities		State and Political Subdivisions	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
Due in one year or less	$ 9,590	2.77 %	$ 76,610	2.90 %
Due after 1 year through 5 years	1,211,344	2.55	365,953	2.63
Due after 5 years through 10 years	2,368,394	1.73	422,410	2.92
Due after 10 years	31,457	3.80	422,002	3.29
Total	$ 3,620,785	2.01 %	$ 1,286,975	2.96 %

December 31, 2023	Corporates		Collateralized Loan Obligations	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
Due in one year or less	$ 46,746	2.97 %	$ —	— %
Due after 1 year through 5 years	214,084	1.97	159,371	6.96
Due after 5 years through 10 years	90,445	3.34	151,896	6.81
Due after 10 years	—	—	39,848	7.44
Total	$ 351,275	2.48 %	$ 351,115	6.95 %

December 31, 2022	U.S. Treasury Securities		U.S. Agency Securities	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
Due in one year or less	$ 39,041	3.07 %	$ 57,796	2.71 %
Due after 1 year through 5 years	738,029	2.15	113,500	2.21
Due after 5 years through 10 years	—	—	—	—
Due after 10 years	—	—	—	—
Total	$ 777,070	2.20 %	$ 171,296	2.38 %

December 31, 2022	Mortgage-backed Securities		State and Political Subdivisions	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
Due in one year or less	$ 11,862	2.70 %	$ 63,216	3.06 %
Due after 1 year through 5 years	1,101,193	2.26	358,741	2.64
Due after 5 years through 10 years	2,827,094	1.82	504,186	2.88
Due after 10 years	41,973	2.42	436,264	3.30
Total	$ 3,982,122	1.94 %	$ 1,362,407	2.97 %

December 31, 2022	Corporates		Collateralized Loan Obligations	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
Due in one year or less	$ 10,563	4.82 %	$ —	— %
Due after 1 year through 5 years	253,556	2.06	148,903	5.54
Due after 5 years through 10 years	103,381	3.33	152,372	5.39
Due after 10 years	—	—	44,677	5.62
Total	$ 367,500	2.51 %	$ 345,952	5.48 %

Table 12

SECURITIES HELD TO MATURITY *(in thousands)*

December 31, 2023	**U.S. Agency Securities**		**Mortgage-backed Securities**	
	Fair Value	**Weighted Average Yield/Average Maturity**	**Fair Value**	**Weighted Average Yield/Average Maturity**
Due in one year or less	$ 6,933	2.91 %	$ —	— %
Due after 1 year through 5 years	113,591	3.08	325,315	2.31
Due after 5 years through 10 years	—	—	1,610,142	1.63
Due over 10 years	—	—	446,157	1.78
Total	$ 120,524	3.07 %	$ 2,381,614	1.74 %

December 31, 2023	**State and Political Subdivisions**	
	Fair Value	**Weighted Average Yield/Average Maturity**
Due in one year or less	$ 96,966	4.81 %
Due after 1 year through 5 years	220,787	3.02
Due after 5 years through 10 years	815,220	2.90
Due over 10 years	1,548,256	3.31
Total	$ 2,681,229	3.22 %

December 31, 2022	**U.S. Agency Securities**		**Mortgage-backed Securities**	
	Fair Value	**Weighted Average Yield/Average Maturity**	**Fair Value**	**Weighted Average Yield/Average Maturity**
Due in one year or less	$ —	— %	$ 756	1.65 %
Due after 1 year through 5 years	118,524	3.07	319,503	2.26
Due after 5 years through 10 years	—	—	1,926,672	1.67
Due over 10 years	—	—	326,136	1.69
Total	$ 118,524	3.07 %	$ 2,573,067	1.73 %

December 31, 2022	**State and Political Subdivisions**	
	Fair Value	**Weighted Average Yield/Average Maturity**
Due in one year or less	$ 81,893	3.77 %
Due after 1 year through 5 years	222,006	2.63
Due after 5 years through 10 years	706,366	2.50
Due over 10 years	1,578,803	3.33
Total	$ 2,589,068	3.05 %

The table below provides detailed information for Other securities at December 31, 2023 and 2022:

Table 13

OTHER SECURITIES *(in thousands)*

	December 31,	
	2023	2022
FRB and FHLB stock	$ 87,672	$ 41,472
Equity securities with readily determinable fair values	11,228	10,782
Equity securities without readily determinable fair values	394,035	297,504
Total	$ 492,935	$ 349,758

Equity securities with readily determinable fair values are generally traded on an exchange and market prices are readily available. Equity securities without readily determinable fair values are generally carried at cost less impairment. Unrealized gains or losses on equity securities with and without readily determinable fair values are recognized in the Investment Securities gains, net line of the Company's Consolidated Statements of Income.

For further information on the Company's investment securities, refer to Note 4, "Securities," in the Notes to the Consolidated Financial Statements.

Other Earning Assets

Federal funds transactions essentially are overnight loans between financial institutions, which allow for either the daily investment of excess funds or the daily borrowing of another institution's funds in order to meet short-term liquidity needs. The net borrowed position was $8.8 million at December 31, 2023 compared to $55.5 million at December 31, 2022.

The Bank buys and sells federal funds as agent for non-affiliated banks. Because the transactions are pursuant to agency arrangements, these transactions do not appear on the balance sheet and averaged $192.6 million in 2023 and $262.9 million in 2022.

At December 31, 2023, the Company held securities purchased under agreements to resell of $240.3 million compared to $951.6 million at December 31, 2022. The Company uses these instruments as short-term secured investments, in lieu of selling federal funds, or to acquire securities required for collateral purposes. Balances will fluctuate based on the Company's liquidity and investment decisions as well as the Company's correspondent bank borrowing levels. These investments averaged $310.5 million in 2023 and $959.2 million in 2022.

The Company also maintains an active securities trading inventory. The average holdings in the securities trading inventory in 2023 were $14.0 million, compared to $12.1 million in 2022, and were recorded at fair market value. As discussed in "Quantitative and Qualitative Disclosures About Market Risk – Trading Account" in Part II, Item 7A, the Company offsets the trading account securities by the sale of exchange-traded financial futures contracts, with both the trading account and futures contracts marked to market daily.

Interest-bearing due from banks totaled $5.2 billion as of December 31, 2023 compared to $1.2 billion as of December 31, 2022 and includes amounts due from the FRB and interest-bearing accounts held at other financial institutions. The amount due from the FRB averaged $2.0 billion and $2.3 billion during the years ended December 31, 2023 and 2022, respectively. The increase in the FRB balance at December 31, 2023 compared to the prior year is primarily due to an increase in deposit balances. The interest-bearing accounts held at other financial institutions totaled $78.7 million and $121.7 million at December 31, 2023 and 2022, respectively.

Deposits and Borrowed Funds

Deposits represent the Company's primary funding source for its asset base. In addition to the core deposits garnered by the Company's retail branch structure, the Company continues to focus on its cash management services, as well as its asset management and mutual fund servicing businesses in order to attract and retain additional core deposits. Deposits totaled $35.8 billion at December 31, 2023 and $32.6 billion at December 31, 2022, an increase of $3.2 billion, or 9.7%. There were $1.9 billion of brokered deposits as of December 31, 2023. Deposits averaged $31.8 billion in 2023, and $31.3 billion in 2022.

Noninterest-bearing demand deposits averaged $10.6 billion in 2023 and $13.3 billion in 2022. These deposits represented 33.5% of average deposits in 2023, compared to 42.3% in 2022. The Company's large commercial customer base provides a significant source of noninterest-bearing deposits. Many of these commercial accounts do not earn interest; however, they receive an earnings credit to offset the cost of other services provided by the Company.

Table 14

MATURITIES OF UNINSURED TIME DEPOSITS *(in thousands)*

	December 31,	
	2023	2022
Maturing within 3 months	$ 445,239	$ 389,367
After 3 months but within 6 months	65,985	39,651
After 6 months but within 12 months	44,077	28,446
After 12 months	21,384	9,837
Total	$ 576,685	$ 467,301

As of December 31, 2023, there were an estimated $24.4 billion of uninsured deposits, as compared to $24.7 billion as of December 31, 2022. Estimated uninsured deposits comprised approximately 68.2% and 75.5% of total deposits as of December 31, 2023 and December 31, 2022, respectively. A portion of these uninsured deposits represent affiliate deposits and collateralized deposits. Affiliate deposits represent deposit accounts owned by the wholly owned subsidiaries of UMB Financial Corporation that are on deposit at UMB Bank, n.a. Collateralized deposits are public fund deposits or corporate trust deposits that are collateralized by high quality securities within the investment portfolio. Excluding affiliate deposits of $2.0 billion and collateralized deposits of $6.2 billion, the adjusted estimated uninsured deposits were $16.2 billion as of December 31, 2023. The adjusted ratio of estimated uninsured deposits, excluding affiliate and collateralized deposits, as a percentage of total deposits was approximately 45.3% and 51.0% as of December 31, 2023, and December 31, 2022, respectively.

The Company participates in the IntraFi Cash Service program, which allows its customers to place deposits into the program to receive reciprocal FDIC insurance coverage. As of December 31, 2023, the Company had $1.2 billion of deposits in the program.

Table 15

ANALYSIS OF AVERAGE DEPOSITS *(in thousands)*

	December 31,	
	2023	2022
Amount:		
Noninterest-bearing demand	$ 10,640,344	$ 13,264,146
Interest-bearing demand and savings	18,374,884	17,332,972
Time deposits under $250,000	1,967,028	95,013
Total core deposits	30,982,256	30,692,131
Time deposits of $250,000 or more	780,393	635,513
Total deposits	$ 31,762,649	$ 31,327,644
As a % of total deposits:		
Noninterest-bearing demand	33.5 %	42.4 %
Interest-bearing demand and savings	57.8	55.3
Time deposits under $250,000	6.2	0.3
Total core deposits	97.5	98.0
Time deposits of $250,000 or more	2.5	2.0
Total deposits	100.0 %	100.0 %

Capital Resources and Liquidity

The Company places a significant emphasis on the maintenance of a strong capital position, which it believes promotes investor confidence, provides access to funding sources under favorable terms, and enhances the Company's ability to capitalize on business growth and acquisition opportunities. Higher levels of liquidity, however, bear corresponding costs, measured in terms of lower yields on short-term, more liquid earning assets, and higher expenses for extended liability maturities. The Company manages capital for each subsidiary based upon the subsidiary's respective risks and growth opportunities as well as regulatory requirements.

Total shareholders' equity increased $433.3 million, or 16.2% to $3.1 billion at December 31, 2023 as compared to December 31, 2022. The increase in shareholders' equity from 2022 to 2023 is largely due to increases in retained earnings and Accumulated other comprehensive income (AOCI) related to the decrease in unrealized losses on the securities portfolio.

The Board authorized, at its April 26, 2022, and April 27, 2021 meetings, the repurchase of up to two million shares of the Company's common stock during the twelve months following each meeting (each a Repurchase Authorization). On July 25, 2023, the Company's Board of Directors approved the repurchase of up to one million shares of the Company's common stock, which will terminate on April 30, 2024. During 2023, the Company did not repurchase shares of common stock pursuant to any of its announced Repurchase Authorizations. In 2022, the Company acquired 333,185 shares of its common stock pursuant to the applicable Repurchase Authorizations. The Company has not made any repurchase of its securities other than pursuant to the Repurchase Authorizations.

Risk-based capital guidelines established by regulatory agencies set minimum capital standards based on the level of risk associated with a financial institution's assets. The Company has implemented the Basel III regulatory capital rules adopted by the FRB. Basel III capital rules include a minimum ratio of common equity tier 1 capital to risk-weighted assets of 4.5% and a minimum tier 1 risk-based capital ratio of 6%. A financial institution's total capital is also required to equal at least 8% of risk-weighted assets.

The risk-based capital guidelines indicate the specific risk weightings by type of asset. Certain off-balance sheet items (such as standby letters of credit and binding loan commitments) are multiplied by credit conversion factors to translate them into balance sheet equivalents before assigning them specific risk weightings. The Company is also required to maintain a leverage ratio equal to or greater than 4%. The leverage ratio is tier 1 core capital to total average assets less goodwill and intangibles. The Company's capital position as of December 31, 2023 is summarized in the table below and exceeded regulatory requirements.

Table 16

RISK-BASED CAPITAL ***(in thousands)***

This table computes risk-based capital in accordance with current regulatory guidelines. These guidelines as of December 31, 2023, excluded net unrealized gains or losses on securities available for sale and net unrealized losses on securities held to maturity transferred from the available-for-sale category from the computation of regulatory capital and the related risk-based capital ratios.

	Risk-Weighted Category					
	0%	20%	50%	100%	150%	Total
Risk-Weighted Assets						
Loans held for sale	$ —	$ —	$ 4,420	$ —	$ —	$ 4,420
Loans and leases	81,742	64,087	2,541,783	20,432,420	52,452	23,172,484
Securities available for sale	2,570,383	4,733,221	7,188	382,068	—	7,692,860
Securities held to maturity	443,410	4,223,292	1,232,352	—	—	5,899,054
Federal funds and resell agreements	—	5,000	—	—	—	5,000
Trading securities	881	1,738	13,482	1,992	—	18,093
Cash and due from banks	5,174,791	432,212	—	—	—	5,607,003
All other assets	35,273	74,400	34,830	1,842,449	—	1,986,952
Category totals	$ 8,306,480	$ 9,533,950	$ 3,834,055	$ 22,658,929	$ 52,452	$ 44,385,866
Risk-weighted totals	$ —	$ 1,906,790	$ 1,917,028	$ 22,658,929	$ 78,678	$ 26,561,425
Off-balance-sheet items [3]	—	49,306	58,953	4,567,880	15,125	4,691,264
Total risk-weighted assets	$ —	$ 1,956,096	$ 1,975,981	$ 27,226,809	$ 93,803	$ 31,252,689

	Total
Regulatory Capital	
Shareholders' equity	$ 3,100,419
Less adjustments [1]	318,257
Common equity Tier 1/Tier 1 capital	3,418,676
Additional Tier 2 capital [2]	596,234
Total capital	$ 4,014,910

	Company
Capital ratios	
Common Equity Tier 1 capital to risk-weighted assets	10.94 %
Tier 1 capital to risk-weighted assets	10.94 %
Total capital to risk-weighted assets	12.85 %
Leverage ratio (Tier 1 capital to total average assets less adjustments [1])	8.49 %

(1) Adjustments include a portion of goodwill and intangibles as well as unrealized gains/losses on available-for-sale securities, cash flow hedges, and the impact of the Company's election to use the five-year CECL transition.
(2) Includes the Company's ACL (inclusive of the reserve for off-balance sheet arrangements), subordinated long-term debt, and trust preferred subordinated notes.
(3) After credit conversion factor and risk weighting is applied.

For further discussion of regulatory capital requirements, see Note 10, "Regulatory Requirements" within the Notes to Consolidated Financial Statements under Item 8.

Repurchase agreements are transactions involving the exchange of investment funds by the customer for securities by the Company, under an agreement to repurchase the same issues at an agreed-upon price and date. Securities sold under agreements to repurchase and federal funds purchased totaled $2.1 billion at December 31, 2023, and $2.2 billion at December 31, 2022. Repurchase agreements and federal funds purchased averaged $2.2 billion in 2023 and $2.8 billion in 2022. The Company enters into these transactions with its downstream correspondent banks, commercial customers, and various trust, mutual fund, and local government relationships.

The Company is a member bank with the FHLB of Des Moines, and through this relationship, the Company owns $55.2 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company's borrowing capacity is dependent upon the amount of collateral the Company places at the FHLB.

As of December 31, 2023, the Company had one short-term advance for $1.0 billion outstanding at the FHLB of Des Moines. Additionally, in 2023, the FHLB of Des Moines issued a letter of credit for $150.0 million on behalf of the Company to secure deposits. This letter of credit expired in January 2024 and was subsequently renewed with an expiration date in July 2024. The Company had no outstanding advances at FHLB Des Moines as of December 31, 2022. Based on the collateral pledged, the Company had $975.3 million of borrowing capacity remaining at the FHLB at December 31, 2023.

As of December 31, 2023, the Company had an $800.0 million short-term borrowing outstanding with the Federal Reserve Bank's Bank Term Funding Program (BTFP). As of December 31, 2023, the Company's borrowing capacity with the BTFP was $5.0 million and its remaining borrowing capacity at the Federal Reserve Discount Window was $10.5 billion.

In addition to the borrowing capacity with the FHLB and at the Federal Reserve Discount Window as described above, the Company had additional liquidity of $7.9 billion available via cash, unpledged bond collateral, the federal funds market, and the IntraFi Cash Service program as of December 31, 2023.

To enhance general working capital needs, the Company has a revolving line of credit with Wells Fargo Bank, N.A. which allows the Company to borrow up to $30.0 million for general working capital purposes. The interest rate applied to borrowed balances will be at the Company's option, either 1.40% above SOFR or 1.75% below the

prime rate on the date of an advance. The Company pays a 0.4% unused commitment fee for unused portions of the line of credit. The Company had no advances outstanding at December 31, 2023.

Long-term debt totaled $383.2 million at December 31, 2023, compared to $381.3 million at December 31, 2022. In September 2022, the Company issued $110.0 million in aggregate subordinated notes due in September 2032. The Company received $107.9 million, after deducting underwriting discounts and commissions and offering expenses, and used the proceeds from the offering for general corporate purposes, including, among other uses, contributing Tier 1 capital into the Bank. The subordinated notes were issued with a fixed-to-fixed rate of 6.25% and an effective rate of 6.64% due to issuance costs, with an interest rate reset date of September 2027.

In September 2020, the Company issued $200.0 million in aggregate subordinated notes due in September 2030. The Company received $197.7 million, after deducting underwriting discounts and commissions and offering expenses, and used the proceeds from the offering for general corporate purposes, including, among other uses, contributing Tier 1 capital into the Bank. The subordinated notes were issued with a fixed-to-fixed rate of 3.70% and an effective rate of 3.93%, due to issuance costs, with an interest rate reset date of September 2025.

The remainder of the Company's long-term debt was assumed from the acquisition of Marquette Financial Companies in 2015 and consists of debt obligations payable to four unconsolidated trusts (Marquette Capital Trust I, Marquette Capital Trust II, Marquette Capital Trust III, and Marquette Capital Trust IV) that previously issued trust preferred securities. These long-term debt obligations had an aggregate contractual balance of $103.1 million and had a carrying value of $75.6 million at December 31, 2023 and $74.6 million at December 31, 2022. Interest rates on trust preferred securities are tied to the three-month term SOFR with spreads ranging from 133 basis points to 160 basis points and reset quarterly. The trust preferred securities have maturity dates ranging from January 2036 to September 2036. For further information on long-term debt refer to Note 9, "Borrowed Funds," in the Notes to the Consolidated Financial Statements.

The Company has material off-balance sheet arrangements in the form of loan commitments, commercial and standby letters of credit, futures contracts and forward exchange contracts, which have maturity dates rather than payment due dates. These commitments and contingent liabilities are not required to be recorded on the Company's balance sheet. Since commitments associated with letters of credit and lending and financing arrangements may expire unused, the amounts shown do not necessarily reflect the actual future cash funding requirements. See Table 17 below, as well as Note 15, "Commitments, Contingencies and Guarantees" in the Notes to Consolidated Financial Statements under Item 8 for detailed information and further discussion of these arrangements. Management does not anticipate any material losses from its off-balance sheet arrangements.

Table 17

COMMITMENTS, MATERIAL CASH REQUIREMENTS AND OFF-BALANCE SHEET ARRANGEMENTS *(in thousands)*

The table below details the commitments, material cash requirements, and off-balance sheet arrangements for the Company as of December 31, 2023 and includes principal payments only. The Company has no capital leases or long-term purchase obligations.

	Payments due by Period				
	Total	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**
Material Cash Requirements					
Federal funds purchased and repurchase agreements	$ 2,119,644	$ 2,119,644	$ —	$ —	$ —
Short-term debt obligations	1,800,000	1,800,000	—	—	—
Long-term debt obligations	413,096	—	—	—	413,096
Operating lease obligations	65,796	11,994	21,622	17,473	14,707
Time deposits	3,073,591	2,868,335	188,079	14,463	2,714
Total	$ 7,472,127	$ 6,799,973	$ 209,701	$ 31,936	$ 430,517

		Maturities due by Period			
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Commitments, Contingencies and Guarantees					
Commitments to extend credit for loans (excluding credit card loans)	$ 12,831,831	$ 5,372,537	$ 4,448,389	$ 1,941,295	$ 1,069,610
Commitments to extend credit under credit card loans	4,286,604	4,286,604	—	—	—
Commercial letters of credit	1,224	1,224	—	—	—
Standby letters of credit	407,574	272,557	76,541	58,307	169
Forward contracts	26,471	26,471	—	—	—
Spot foreign exchange contracts	4,830	4,830	—	—	—
Total	$ 17,558,534	$ 9,964,223	$ 4,524,930	$ 1,999,602	$ 1,069,779

As of December 31, 2023, the Company's total liabilities for unrecognized tax benefits were $10.9 million. The Company cannot reasonably estimate the settlement of these liabilities. Therefore, these liabilities have been excluded from the table above. See Note 16, "Income Taxes," in the Notes to the Consolidated Financial Statements for information regarding the liabilities associated with unrecognized tax benefits.

For further discussion of capital and liquidity, see the "Quantitative and Qualitative Disclosures about Market Risk – Liquidity Risk" in Item 7A of this report.

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations discusses the Company's Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The preparation of these Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgments, including those related to customers and suppliers, allowance for credit losses, bad debts, investments, financing operations, long-lived assets, taxes, other contingencies and litigation. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which have formed the basis for making such judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Under different assumptions or conditions, actual results may differ from the recorded estimates.

Management believes that the Company's critical accounting policies and estimates are those relating to the allowance for credit losses.

Allowance for Credit Losses

The Company's ACL represents management's judgment of the total expected losses included in the Company's assets held at amortized cost. The Company's process for recording the ACL is based on the evaluation of the Company's lifetime historical loss experience, management's understanding of the credit quality inherent in the loan portfolio, and the impact of the current economic environment, coupled with reasonable and supportable economic forecasts.

A mathematical calculation of an estimate is made to assist in determining the adequacy and reasonableness of management's recorded ACL. To develop the estimate, the Company follows the guidelines in ASC Topic 326, *Financial Instruments – Credit Losses*. The estimate reserves for assets held at amortized cost, which include the Company's loan and held-to-maturity security portfolios.

The estimation process involves the consideration of quantitative and qualitative factors relevant to the specific segmentation of loans. These factors have been established over decades of financial institution experience and include economic observation and loan loss characteristics. This process is designed to produce a lifetime estimate of the losses, at a reporting date, that is based on evaluation of historical loss experience, current economic conditions, reasonable and supportable forecasts, and the qualitative framework outlined by the Office of the Comptroller of the Currency in the published 2020 Interagency Policy Statement. This process allows management

to take a holistic view of the recorded ACL reserve and ensure that all significant and pertinent information is considered in its estimate.

The Company considers a variety of factors to ensure the safety and soundness of its estimate including a strong internal control framework, extensive methodology documentation, credit underwriting standards which encompass the Company's desired risk profile, model validation, and ratio analysis. If the Company's total ACL estimate, as determined in accordance with the approved ACL methodology, is either outside a reasonable range based on review of economic indicators or by comparison of historical ratio analysis, the ACL estimate is an outlier and management will investigate the underlying reason(s). Based on that investigation, issues or factors that previously had not been considered may be identified in the estimation process, which may warrant adjustments to estimated credit losses.

The ending result of this process is a recorded consolidated ACL that represents management's best estimate of the total expected losses included in the loan and held-to-maturity security portfolios considering available information, from internal and external sources, relevant to assessing exposure to credit loss over the contractual term of the instrument. While management utilizes its best judgment and information available, the ultimate adequacy of the ACL is dependent upon a variety of factors beyond the Company's control, including the performance of its portfolios, the economy, and changes in interest rates. As such, significant downturns in circumstances relating to loan quality and economic conditions could result in a requirement for additional allowance. Likewise, an upturn in loan quality and improved economic conditions may allow a reduction in the required allowance. In either instance, unanticipated changes could have a significant impact on the Company's Provision for credit losses and ACL reported in its Consolidated Income Statements and Consolidated Balance Sheets, respectively.

For more information on loan portfolio segments, the Company's ACL methodology, and management's assumptions in estimating the ACL, refer to the section captioned "Allowance for Credit Losses" within Note 3, "Loans and Allowance for Credit Losses," in the Notes to the Consolidated Financial Statements.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

Risk Management

Market risk is a broad term for the risk of economic loss due to adverse changes in the fair value of a financial instrument. These changes may be the result of various factors, including interest rates, foreign exchange prices, commodity prices, or equity prices. Financial instruments that are subject to market risk can be classified either as held for trading or held for purposes other than trading.

The Company is subject to market risk primarily through the effect of changes in interest rates of its assets held for purposes other than trading. The following discussion of interest rate risk, however, combines instruments held for trading and instruments held for purposes other than trading because the instruments held for trading represent such a small portion of the Company's portfolio that the interest rate risk associated with them is immaterial.

Interest Rate Risk

In the banking industry, a major risk exposure is changing interest rates. To minimize the effect of interest rate changes to net interest income and exposure levels to economic losses, the Company manages its exposure to changes in interest rates through asset and liability management within guidelines established by its Asset Liability Committee (ALCO) and approved by the Board. The ALCO is responsible for approving and ensuring compliance with asset/liability management policies, including interest rate exposure. The Company's primary method for measuring and analyzing consolidated interest rate risk is the Net Interest Income Simulation Analysis. The Company also uses a Net Portfolio Value model to measure market value risk under various rate change scenarios and a gap analysis to measure maturity and repricing relationships between interest-earning assets and interest-bearing liabilities at specific points in time. On a limited basis, the Company uses hedges such as swaps, rate floors, and futures contracts to manage interest rate risk on certain loans, trading securities, trust preferred securities, and deposits. See further information in Note 17 "Derivatives and Hedging Activities" in the Notes to the Company's Consolidated Financial Statements.

Overall, the Company attempts to manage interest rate risk by positioning the balance sheet to maximize net interest income while maintaining an acceptable level of interest rate and credit risk, remaining mindful of the relationship among profitability, liquidity, interest rate risk and credit risk.

Net Interest Income Modeling

The Company's primary interest rate risk tool, the Net Interest Income Simulation Analysis, measures interest rate risk and the effect of interest rate changes on net interest income and net interest margin. This analysis incorporates all of the Company's assets and liabilities together with assumptions that reflect the current interest rate environment. Through these simulations, management estimates the impact on net interest income of a 200-basis-point upward or a 300-basis-point downward gradual change (e.g. ramp) and immediate change (e.g. shock) of market interest rates over a two-year period. In ramp scenarios, rates change gradually for a one-year period and remain constant in year two. In shock scenarios, rates change immediately and the change is sustained for the remainder of the two year scenario horizon. Assumptions are made to project rates for new loans and deposits based on historical analysis, management outlook and repricing strategies. Asset prepayments and other market risks are developed from industry estimates of prepayment speeds and other market changes. The results of these simulations can be significantly influenced by assumptions utilized and management evaluates the sensitivity of the simulation results on a regular basis.

Table 18 shows the net interest income percentage increase or decrease over the next twelve- and twenty-four-month periods as of December 31, 2023 and 2022 based on hypothetical changes in interest rates and a constant sized balance sheet with runoff being replaced.

Table 18

MARKET RISK

	Hypothetical change in interest rate – Rate Ramp			
	Year One		Year Two	
	December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
(basis points)	Percentage change	Percentage change	Percentage change	Percentage change
200	(0.7)%	(1.1)%	4.2%	7.1%
100	(0.3)	(0.4)	2.2	3.6
Static	—	—	—	—
(100)	0.3	0.4	(3.1)	(3.8)
(200)	0.9	n/a	(5.7)	n/a
(300)	1.5	n/a	(8.8)	n/a

	Hypothetical change in interest rate – Rate Shock			
	Year One		Year Two	
	December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
(basis points)	Percentage change	Percentage change	Percentage change	Percentage change
200	3.1%	2.4%	7.4%	9.5%
100	1.6	1.2	3.8	4.8
Static	—	—	—	—
(100)	(1.7)	(1.3)	(4.7)	(5.0)
(200)	(2.8)	n/a	(9.3)	n/a
(300)	(3.5)	n/a	(14.3)	n/a

The Company is positioned relatively neutral to changes in interest rates in the next year. Net interest income is predicted to decrease in all upward rate ramp scenarios and increase in all upward rate shock scenarios. In down rate scenarios, net interest income is predicted to increase in rate ramp scenarios and decrease in rate shock scenarios. The largest change in net interest income relative to base in either rate ramp or rate shock scenarios is less than 4% in year one. In year two, net interest income is predicted to rise in all increasing rate scenarios and decrease in falling rate scenarios. The Company's ability to price deposits consistent with its historical approach is a key assumption in these scenarios.

Repricing Mismatch Analysis

The Company also evaluates its interest rate sensitivity position in an attempt to maintain a balance between the amount of interest-bearing assets and interest-bearing liabilities which are expected to mature or reprice at any point in time. While a traditional repricing mismatch analysis (gap analysis) provides a snapshot of interest rate risk, it does not take into consideration that assets and liabilities with similar repricing characteristics may not, in fact, reprice at the same time or the same degree. Also, it does not necessarily predict the impact of changes in general levels of interest rates on net interest income.

Table 19 is a static gap analysis, which presents the Company's assets and liabilities, based on their repricing or maturity characteristics and reflecting principal amortization. Table 20 presents the break-out of fixed and variable rate loans by repricing or maturity characteristics for each loan class.

Table 19

INTEREST RATE SENSITIVITY ANALYSIS *(in millions)*

	1-90 Days	91-180 Days	181-365 Days	Total	1-5 Years	Over 5 Years	Total
December 31, 2023 Earning assets							
Loans	$ 14,520.2	$ 718.9	$ 1,252.4	$ 16,491.5	$ 4,983.0	$ 1,702.4	$ 23,176.9
Securities	2,105.2	598.3	557.6	3,261.1	5,141.9	4,850.5	13,253.5
Federal funds sold and resell agreements	245.3	—	—	245.3	—	—	245.3
Other	5,177.3	—	—	5,177.3	0.6	—	5,177.9
Total earning assets	$ 22,048.0	$ 1,317.2	$ 1,810.0	$ 25,175.2	$ 10,125.5	$ 6,552.9	$ 41,853.6
% of total earning assets	52.7 %	3.1 %	4.3 %	60.1 %	24.2 %	15.7 %	100.0 %
Funding sources							
Interest-bearing demand and savings	$ 20,588.6	$ —	$ —	$ 20,588.6	$ —	$ —	$ 20,588.6
Time deposits	1,019.6	1,627.3	221.4	2,868.3	202.6	2.7	3,073.6
Federal funds purchased and repurchase agreements	2,119.6	—	—	2,119.6	—	—	2,119.6
Short term debt	—	1,000.0	800.0	1,800.0	—	—	1,800.0
Long term debt	75.6	—	—	75.6	307.6	—	383.2
Noninterest-bearing sources	12,130.8	—	—	12,130.8	—	1,757.8	13,888.6
Total funding sources	$ 35,934.2	$ 2,627.3	$ 1,021.4	$ 39,582.9	$ 510.2	$ 1,760.5	$ 41,853.6
% of total earning assets	85.9 %	6.2 %	2.4 %	94.5 %	1.3 %	4.2 %	100.0 %
Interest sensitivity gap	$ (13,886.2)	$ (1,310.1)	$ 788.6	$ (14,407.7)	$ 9,615.3	$ 4,792.4	
Cumulative gap	(13,886.2)	(15,196.3)	(14,407.7)	(14,407.7)	(4,792.4)	—	
As a % of total earning assets	(33.2)%	(36.3)%	(34.4)%	(34.4)%	(11.5)%	— %	
Ratio of earning assets to funding sources	0.61	0.50	1.77	0.64	19.85	3.72	
Cumulative ratio of earning assets to funding sources							
2023	0.61	0.61	0.64	0.64	0.88	1.00	
2022	0.59	0.63	0.68	0.68	0.92	1.00	

Table 20

Maturities and Sensitivities to Changes in Interest Rates

This table details loan maturities by variable and fixed rates as of December 31, 2023 (in thousands):

	Due in one year or less	Due after one year through five years	Due after five years through fifteen years	Due after fifteen years	Total
Variable Rate					
Commercial and industrial	$ 7,056,626	$ 35,780	$ 171	$ 2,480	$ 7,095,057
Specialty lending	498,786	—	—	—	498,786
Commercial real estate	5,329,868	176,617	7,459	14	5,513,958
Consumer real estate	444,067	484,648	319,043	—	1,247,758
Consumer	58,787	14	—	—	58,801
Credit cards	423,502	454	—	—	423,956
Leases and other	251,727	743	28	—	252,498
Total variable rate loans	14,063,363	698,256	326,701	2,494	15,090,814
Fixed Rate					
Commercial and industrial	988,753	1,685,457	160,662	—	2,834,872
Specialty lending	—	—	—	—	—
Commercial real estate	1,130,647	1,856,898	386,753	5,670	3,379,968
Consumer real estate	241,581	658,767	629,616	187,330	1,717,294
Consumer	58,085	44,976	1,278	151	104,490
Credit cards	—	—	—	—	—
Leases and other	9,127	38,626	1,713	—	49,466
Total fixed rate loans	2,428,193	4,284,724	1,180,022	193,151	8,086,090
Total loans and loans held for sale	$ 16,491,556	$ 4,982,980	$ 1,506,723	$ 195,645	$ 23,176,904

Trading Account

The Bank carries taxable governmental securities in a trading account that is maintained in accordance with Board-approved policy and procedures. The policy limits the amount and type of securities that can be carried in the trading account and requires compliance with any limits under applicable law and regulations and mandates the use of a value-at-risk methodology to manage price volatility risks within financial parameters. The risk associated with the carrying of trading securities is offset by the sale of exchange-traded financial futures contracts, with both the trading account and futures contracts marked to market daily. This account had a balance of $18.1 million as of December 31, 2023, compared to $18.0 million as of December 31, 2022.

The Company is subject to market risk primarily through the effect of changes in interest rates of its assets held for purposes other than trading. The discussion in Table 19 above of interest rate risk, however, combines instruments held for trading and instruments held for purposes other than trading, because the instruments held for trading represent such a small portion of the Company's portfolio that the interest rate risk associated with them is immaterial.

Other Market Risk

The Company has minimal foreign currency risk as a result of foreign exchange contracts. See Note 10, "Commitments, Contingencies and Guarantees" in the Notes to the Consolidated Financial Statements.

Credit Risk Management

Credit risk represents the risk that a customer or counterparty may not perform in accordance with contractual terms. The Company utilizes a centralized credit administration function, which provides information on the Bank's risk levels, delinquencies, an internal risk grading system and overall credit exposure. Loan requests are centrally reviewed to ensure the consistent application of the loan policy and standards. In addition, the Company has an internal loan review staff that operates independently of the Bank. This review team performs periodic examinations of the Bank's loans for credit quality, documentation and loan administration. The respective regulatory authority of the Bank also reviews loan portfolios.

A primary indicator of credit quality and risk management is the level of nonperforming loans. Nonperforming loans include both nonaccrual loans and restructured loans on nonaccrual. The Company's nonperforming loans decreased $6.1 million to $13.2 million at December 31, 2023, compared to December 31, 2022. There was an immaterial amount of interest recognized on nonperforming loans during 2023, 2022, and 2021.

The Company had $1.7 million and $68 thousand of other real estate owned as of December 31, 2023 and December 31, 2022, respectively. Loans past due more than 90 days and still accruing interest totaled $3.1 million as of December 31, 2023, compared to $1.6 million as of December 31, 2022.

A loan is generally placed on nonaccrual status when payments are past due 90 days or more and/or when management has considerable doubt about the borrower's ability to repay on the terms originally contracted. The accrual of interest is discontinued and recorded thereafter only when actually received in cash.

Certain loans are restructured to provide a reduction or deferral of interest or principal due to deterioration in the financial condition of the respective borrowers. The Company had $548 thousand of restructured loans at December 31, 2023 and $5.2 million at December 31, 2022.

Table 21

LOAN QUALITY *(in thousands)*

	December 31,	
	2023	2022
Nonaccrual loans	$ 12,828	$ 16,838
Restructured loans on nonaccrual	384	2,431
Total non-performing loans	13,212	19,269
Other real estate owned	1,738	68
Total non-performing assets	$ 14,950	$ 19,337
Loans past due 90 days or more	$ 3,111	$ 1,617
Restructured loans accruing	164	2,790
Allowance for credit losses on loans	219,738	191,836
Ratios		
Non-performing loans as a % of loans	0.06 %	0.09 %
Non-performing assets as a % of loans plus other real estate owned	0.06	0.09
Non-performing assets as a % of total assets	0.03	0.05
Loans past due 90 days or more as a % of loans	0.01	0.01
Allowance for credit losses on loans as a % of loans	0.95	0.91
Allowance for credit losses on loans as a multiple of non-performing loans	16.63x	9.96x

Table 22

SUMMARY OF NET CHARGE-OFFS *(in thousands)*

	2023			2022		
	Net Charge-Offs (Recoveries)	Average Loans Outstanding	Net Charge-Offs (Recoveries) to Average Loans Outstanding	Net Charge-Offs (Recoveries)	Average Loans Outstanding	Net Charge-Offs (Recoveries) to Average Loans Outstanding
At December 31:						
Commercial and industrial	$ (248)	$ 9,669,378	(0.00)%	$ 35,719	$ 8,160,147	0.44 %
Specialty lending	761	540,371	0.14	(433)	525,697	(0.08)
Commercial real estate	155	8,359,937	0.00	(356)	6,784,082	(0.01)
Consumer real estate	1,140	2,858,510	0.04	(74)	2,512,597	(0.00)
Consumer real estate	1,021	147,240	0.69	674	146,949	0.46
Credit cards	7,645	478,328	1.60	4,338	431,003	1.01
Leases and other	—	281,178	—	—	261,941	—
Total	$ 10,474	$ 22,334,942	0.05 %	$ 39,868	$ 18,822,416	0.21 %

Net charge-offs for the year ended December 31, 2023 were $10.5 million, compared to $39.9 million for the year ended December 31, 2022.

Liquidity Risk

Liquidity represents the Company's ability to meet financial commitments through the maturity and sale of existing assets or availability of additional funds. The Company believes that the most important factor in the preservation of liquidity is maintaining public confidence that facilitates the retention and growth of a large, stable supply of core deposits and wholesale funds. Ultimately, the Company believes public confidence is generated through profitable operations, sound credit quality and a strong capital position. The primary source of liquidity for the Company is regularly scheduled payments on and maturity of assets, which include $7.1 billion of high-quality securities available for sale. The liquidity of the Company and the Bank is also enhanced by its activity in the federal funds market and by its core deposits. Additionally, management believes it can raise debt or equity capital on favorable terms in the future, should the need arise.

Another factor affecting liquidity is the amount of deposits and customer repurchase agreements that have pledging requirements. All customer repurchase agreements require collateral in the form of a security. The U.S.

Government, other public entities, and certain trust depositors require the Company to pledge securities if their deposit balances are greater than the FDIC-insured deposit limitations. These pledging requirements affect liquidity risk in that the related security cannot otherwise be disposed due to the pledging restriction. At December 31, 2023, $10.1 billion, or 79.2%, of securities were pledged or used as collateral, compared to $10.3 billion, or 80.3%, at December 31, 2022.

The Company also has other commercial commitments that may impact liquidity. These commitments include unused commitments to extend credit, standby letters of credit and financial guarantees, and commercial letters of credit. The total amount of these commercial commitments at December 31, 2023 was $17.5 billion. Since many of these commitments expire without being drawn upon, the total amount of these commercial commitments does not necessarily represent the future cash requirements of the Company.

The Company's cash requirements consist primarily of dividends to shareholders, debt service, operating expenses, and treasury stock purchases. Management fees and dividends received from bank and non-bank subsidiaries traditionally have been sufficient to satisfy these requirements and are expected to be sufficient in the future. The Bank is subject to various rules regarding payment of dividends to the Company. For the most part, the Bank can pay dividends at least equal to its current year's earnings without seeking prior regulatory approval. The Company also uses cash to inject capital into the Bank and its non-Bank subsidiaries to maintain adequate capital as well as to fund strategic initiatives.

In September 2022, the Company issued $110.0 million in aggregate subordinated notes due in September 2032. The Company received $107.9 million, after deducting underwriting discounts and commissions and offering expenses, and used the proceeds from the offering for general corporate purposes, including, among other uses, contributing Tier 1 capital into the Bank. The subordinated notes were issued with a fixed-to-fixed rate of 6.25% and an effective rate of 6.64%, due to issuance costs, with an interest rate reset date of September 2027.

In September 2020, the Company issued $200.0 million in aggregate subordinated notes due in September 2030. The Company received $197.7 million, after deducting underwriting discounts and commissions and offering expenses, and used the proceeds from the offering for general corporate purposes, including, among other uses, contributing Tier 1 capital into the Bank. The subordinated notes were issued with a fixed-to-fixed rate of 3.70% and an effective rate of 3.93%, due to issuance costs, with an interest rate reset date of September 2025.

To enhance general working capital needs, the Company has a revolving line of credit with Wells Fargo Bank, N.A. which allows the Company to borrow up to $30.0 million for general working capital purposes. The interest rate applied to borrowed balances will be at the Company's option, either 1.4% above Term SOFR or 1.75% below the prime rate on the date of an advance. The Company pays a 0.4% unused commitment fee for unused portions of the line of credit. The Company had no advances outstanding at December 31, 2023.

The Company is a member bank with the FHLB of Des Moines, and through this relationship, the Company owns $55.2 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company's borrowing capacity is dependent upon the amount of collateral the Company places at the FHLB. As of December 31, 2023, the Company had one short-term advance for $1.0 billion outstanding at the FHLB of Des Moines. Additionally, in 2023, the FHLB of Des Moines issued a letter of credit for $150.0 million on behalf of the Company to secure deposits. This letter of credit expired in January 2024. The Company had no outstanding advances at FHLB Des Moines as of December 31, 2022. Based on the collateral pledged, the Company had $975.3 million of borrowing capacity remaining at the FHLB at December 31, 2023.

As of December 31, 2023, the Company had an $800.0 million short-term borrowing outstanding with the Federal Reserve Bank's BTFP. As of December 31, 2023, the Company's borrowing capacity with the BTFP was $5.0 million and its remaining borrowing capacity at the Federal Reserve Discount Window was $10.5 billion.

In addition to the borrowing capacity with the FHLB and at the Federal Reserve Discount Window as described above, the Company had additional liquidity of $7.9 billion available via cash, unpledged bond collateral, the federal funds market, and the IntraFi Cash Service program as of December 31, 2023.

Operational Risk

Operational risk generally refers to the risk of loss resulting from the Company's operations, including those operations performed for the Company by third parties. This would include but is not limited to the risk of fraud by

employees or persons outside the Company, the execution of unauthorized transactions by employees or others, errors relating to transaction processing, breaches of the internal control system and compliance requirements, and unplanned interruptions in service. This risk of loss also includes the potential legal or regulatory actions that could arise as a result of an operational deficiency, or as a result of noncompliance with applicable regulatory standards.

The Company operates in many markets and relies on the ability of its employees and systems to properly process a high number of transactions. In the event of a breakdown in internal control systems, improper operation of systems or improper employee actions, the Company could suffer financial loss, face regulatory action and suffer damage to its reputation. In order to address this risk, management maintains a system of internal controls with the objective of providing proper transaction authorization and execution, safeguarding of assets from misuse or theft, and ensuring the reliability of financial and other data.

The Company maintains systems of internal controls that provide management with timely and accurate information about the Company's operations. These systems have been designed to manage operational risk at appropriate levels given the Company's financial strength, the environment in which it operates, and considering factors such as competition and regulation. The Company has also established procedures that are designed to ensure that policies relating to conduct, ethics and business practices are followed on a uniform basis. In certain cases, the Company has experienced losses from operational risk. Such losses have included the effects of operational errors that the Company has discovered and included as expense in the statement of income. While there can be no assurance that the Company will not suffer such losses in the future, management continually monitors and works to improve its internal controls, systems and corporate-wide processes and procedures.

ITEM 8. *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors
UMB Financial Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of UMB Financial Corporation and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2023, 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, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, 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, 2023, 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 22, 2024 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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.

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.

Allowance for credit losses on certain loans evaluated on a collective basis

As discussed in Notes 1 and 3 to the consolidated financial statements, the Company's total allowance for credit losses on loans was $219.7 million as of December 31, 2023, a substantial portion of which related to the allowance for credit losses for loans evaluated on a collective basis for the commercial and industrial and commercial real estate segments (the collective ACL). The collective ACL includes the measure of expected credit losses on a pool basis for loans where similar risk characteristics exist and is determined using relevant available information from internal and external sources related to historical credit loss experience, current

conditions, and reasonable and supportable economic forecasts. The Company uses probability of default (PD) and loss given default (LGD) models for the commercial and industrial and commercial real estate segments. For the commercial and industrial segment, the collective ACL is calculated by modeling PD over future periods multiplied by historical LGD multiplied by contractual exposure at default minus any modeled prepayments and charge offs. For the commercial real estate segment, the collective ACL is calculated by modeling PD over future periods based on peer bank data. The PD loss rate is then multiplied by historical LGD multiplied by contractual exposure at default minus any modeled prepayments and charge offs. Primary risk drivers are segment specific and include macro-economic variables and risk ratings of the individual loans within the commercial and industrial and commercial real estate loan segments. After the reasonable and supportable forecast periods, the Company reverts to historical loss experience for each portfolio using a cliff or straight-line reversion method. A portion of the collective ACL is comprised of qualitative factors which represent adjustments to historical loss experience.

We identified the assessment of the collective ACL 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 collective ACL. Specifically, the assessment encompassed the evaluation of the collective ACL methodology, including the methods and models used to estimate (1) the PD and LGD and historical loss rates and their significant assumptions, including average prepayment rates, the economic forecast scenario, macro-economic variables, the reasonable and supportable forecast periods, lengths of time and methods of reversion, and risk ratings, and (2) the qualitative factors and their significant assumptions. The assessment also included an evaluation of the conceptual soundness and performance of the PD and LGD and historical loss rate models.

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 measurement of the collective ACL, including controls related to the:

- design of the collective ACL methodology
- continued use of the PD and LGD and historical loss rate models
- determination and measurement of the significant assumptions used in the PD and LGD and historical loss rate models
- continued use of the qualitative factors
- performance monitoring of the PD and LGD and historical loss rate models
- analysis of the overall ACL results, trends, and ratios.

We evaluated the Company’s process to develop the collective ACL estimate 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. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in:

- evaluating the Company’s collective ACL methodology for compliance with U.S. generally accepted accounting principles
- evaluating judgments made by the Company relative to the continued use and performance monitoring of the PD and LGD and historical loss rate models by comparing them to relevant Company specific metrics and trends and the applicable industry and regulatory practices
- assessing the conceptual soundness and performance testing of the PD and LGD and historical loss rate models by inspecting the model documentation to determine whether the models are suitable for their intended use
- evaluating the methodology used to develop the economic forecast scenario and underlying assumptions by comparing it to the Company’s business environment and relevant industry practices
- testing the historical credit cycle period and evaluating the length of the reasonable and supportable forecast period by comparing to specific portfolio risk characteristics and trends

- testing individual risk ratings for a selection of commercial and industrial and commercial real estate loans by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral
- evaluating the methodology used to develop the qualitative factors and the effect of those factors on the collective ACL compared with relevant credit risk factors and consistency with credit trends and identified limitations of the underlying quantitative models.

/s/ KPMG LLP

We have served as the Company’s auditor since 2014.

Kansas City, Missouri
February 22, 2024

UMB FINANCIAL CORPORATION
CONSOLIDATED BALANCE SHEETS
(dollars in thousands, except share and per share data)

	December 31, 2023	December 31, 2022
ASSETS		
Loans	$ 23,172,484	$ 21,031,189
Allowance for credit losses on loans	(219,738)	(191,836)
Net loans	22,952,746	20,839,353
Loans held for sale	4,420	1,978
Securities:		
Available for sale (amortized cost of $7,692,860 and $7,777,950, respectively)	7,068,613	7,006,347
Held to maturity, net of allowance for credit losses of $3,258 and $2,407, respectively (fair value of $5,183,367 and $5,280,659, respectively)	5,688,610	5,859,192
Trading securities	18,093	17,980
Other securities	492,935	349,758
Total securities	13,268,251	13,233,277
Federal funds sold and securities purchased under agreements to resell	245,344	958,597
Interest-bearing due from banks	5,159,802	1,179,105
Cash and due from banks	447,201	500,682
Premises and equipment, net	241,700	263,649
Accrued income	220,306	189,231
Goodwill	207,385	207,385
Other intangibles, net	71,012	78,724
Other assets	1,193,507	1,060,480
Total assets	$ 44,011,674	$ 38,512,461
LIABILITIES		
Deposits:		
Noninterest-bearing demand	$ 12,130,662	$ 13,260,363
Interest-bearing demand and savings	20,588,606	18,461,632
Time deposits under $250,000	2,292,899	379,087
Time deposits of $250,000 or more	780,692	538,051
Total deposits	35,792,859	32,639,133
Federal funds purchased and repurchase agreements	2,119,644	2,222,167
Short-term debt	1,800,000	—
Long-term debt	383,247	381,311
Accrued expenses and taxes	389,860	239,624
Other liabilities	425,645	363,133
Total liabilities	40,911,255	35,845,368
SHAREHOLDERS' EQUITY		
Common stock, $1.00 par value; 80,000,000 shares authorized; 55,056,730 shares issued, 48,554,127 and 48,319,404 shares outstanding, respectively	55,057	55,057
Capital surplus	1,134,363	1,125,949
Retained earnings	2,810,824	2,536,086
Accumulated other comprehensive loss, net	(556,935)	(702,735)
Treasury stock, 6,502,603 and 6,737,326 shares, at cost, respectively	(342,890)	(347,264)
Total shareholders' equity	3,100,419	2,667,093
Total liabilities and shareholders' equity	$ 44,011,674	$ 38,512,461

See Notes to Consolidated Financial Statements.

UMB FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(dollars in thousands, except share and per share data)

	Year Ended December 31,		
	2023	2022	2021
INTEREST INCOME			
Loans	$ 1,399,961	$ 810,007	$ 619,273
Securities:			
Taxable interest	214,981	192,121	127,625
Tax-exempt interest	102,197	97,190	98,305
Total securities income	317,178	289,311	225,930
Federal funds and resell agreements	17,647	19,109	10,048
Interest-bearing due from banks	103,190	18,582	5,417
Trading securities	729	511	854
Total interest income	1,838,705	1,137,520	861,522
INTEREST EXPENSE			
Deposits	704,210	167,553	26,412
Federal funds and repurchase agreements	93,026	40,703	6,934
Other	121,353	15,467	12,655
Total interest expense	918,589	223,723	46,001
Net interest income	920,116	913,797	815,521
Provision for credit losses	41,227	37,900	20,000
Net interest income after provision for credit losses	878,889	875,897	795,521
NONINTEREST INCOME			
Trust and securities processing	257,200	237,207	224,126
Trading and investment banking	19,630	23,201	30,939
Service charges on deposit accounts	84,950	85,167	86,056
Insurance fees and commissions	1,009	1,338	1,309
Brokerage fees	54,119	43,019	12,171
Bankcard fees	74,719	73,451	64,576
Investment securities (losses) gains, net	(3,139)	58,444	5,057
Other	53,365	32,406	42,941
Total noninterest income	541,853	554,233	467,175
NONINTEREST EXPENSE			
Salaries and employee benefits	553,421	524,431	504,442
Occupancy, net	48,502	48,848	47,345
Equipment	68,718	74,259	78,398
Supplies and services	16,829	13,590	14,986
Marketing and business development	25,749	25,699	18,533
Processing fees	103,099	82,227	67,563
Legal and consulting	29,998	39,095	32,406
Bankcard	32,969	26,367	19,145
Amortization of other intangible assets	8,587	5,037	4,757
Regulatory fees	77,010	15,378	11,894
Other	34,258	43,188	34,167
Total noninterest expense	999,140	898,119	833,636
Income before income taxes	421,602	532,011	429,060
Income tax expense	71,578	100,329	76,042
NET INCOME	$ 350,024	$ 431,682	$ 353,018
PER SHARE DATA			
Net income – basic	$ 7.22	$ 8.93	$ 7.31
Net income – diluted	7.18	8.86	7.24
Dividends	1.53	1.49	1.38
Weighted average shares outstanding – basic	48,503,643	48,340,922	48,271,462
Weighted average shares outstanding – diluted	48,763,820	48,747,399	48,738,292

See Notes to Consolidated Financial Statements.

UMB FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(dollars in thousands)

	Year Ended December 31,		
	2023	2022	2021
Net income	$ 350,024	$ 431,682	$ 353,018
Other comprehensive income (loss), before tax:			
Unrealized gains and losses on debt securities:			
Change in unrealized holding gains and losses, net	147,977	(1,137,417)	(244,695)
Less: Reclassification adjustment for net losses (gains) included in net income	279	—	(7,817)
Amortization of net unrealized loss on securities transferred from available-for-sale to held-to-maturity	39,851	36,894	—
Change in unrealized gains and losses on debt securities	188,107	(1,100,523)	(252,512)
Unrealized gains and losses on derivative hedges:			
Change in unrealized gains and losses on derivative hedges, net	15,015	12,608	3,106
Less: Reclassification adjustment for net gains included in net income	(10,654)	(5,353)	(3,352)
Change in unrealized gains and losses on derivative hedges	4,361	7,255	(246)
Other comprehensive income (loss), before tax	192,468	(1,093,268)	(252,758)
Income tax (expense) benefit	(46,668)	264,219	60,732
Other comprehensive income (loss)	145,800	(829,049)	(192,026)
Comprehensive income (loss)	$ 495,824	$ (397,367)	$ 160,992

See Notes to Consolidated Financial Statements.

UMB FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(dollars in thousands, except per share data)

	Common Stock	Capital Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total
Balance January 1, 2021	$ 55,057	$ 1,090,450	$ 1,891,246	$ 318,340	$ (338,145)	$ 3,016,948
Total comprehensive income (loss)	—	—	353,018	(192,026)	—	160,992
Dividends ($1.38 per share)	—	—	(67,266)	—	—	(67,266)
Purchase of treasury stock	—	—	—	—	(5,506)	(5,506)
Issuances of equity awards, net of forfeitures	—	(4,605)	—	—	5,299	694
Recognition of equity-based compensation	—	20,514	—	—	—	20,514
Sale of treasury stock	—	316	—	—	283	599
Exercise of stock options	—	3,845	—	—	14,604	18,449
Balance December 31, 2021	$ 55,057	$ 1,110,520	$ 2,176,998	$ 126,314	$ (323,465)	$ 3,145,424
Total comprehensive income (loss)	—	—	431,682	(829,049)	—	(397,367)
Dividends ($1.49 per share)	—	—	(72,594)	—	—	(72,594)
Purchase of treasury stock	—	—	—	—	(31,997)	(31,997)
Issuances of equity awards, net of forfeitures	—	(6,143)	—	—	6,822	679
Recognition of equity-based compensation	—	20,812	—	—	—	20,812
Sale of treasury stock	—	351	—	—	245	596
Exercise of stock options	—	409	—	—	1,131	1,540
Balance December 31, 2022	$ 55,057	$ 1,125,949	$ 2,536,086	$ (702,735)	$ (347,264)	$ 2,667,093
Total comprehensive income	—	—	350,024	145,800	—	495,824
Dividends ($1.53 per share)	—	—	(75,286)	—	—	(75,286)
Purchase of treasury stock	—	—	—	—	(8,367)	(8,367)
Issuances of equity awards, net of forfeitures	—	(10,385)	—	—	11,104	719
Recognition of equity-based compensation	—	17,975	—	—	—	17,975
Sale of treasury stock	—	220	—	—	296	516
Exercise of stock options	—	604	—	—	1,341	1,945
Balance December 31, 2023	$ 55,057	$ 1,134,363	$ 2,810,824	$ (556,935)	$ (342,890)	$ 3,100,419

See Notes to Consolidated Financial Statements.

UMB FINANCIAL CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(dollars in thousands)

	Year Ended December 31,		
	2023	2022	2021
OPERATING ACTIVITIES			
Net income	$ 350,024	$ 431,682	$ 353,018
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	41,227	37,900	20,000
Net amortization of premiums and discounts from acquisition	1,060	1,340	535
Depreciation and amortization	58,723	54,022	55,747
Amortization of debt issuance costs	876	556	450
Deferred income tax benefit	(20,439)	(6,308)	(12,724)
Net (increase) decrease in trading securities and other earning assets	(113)	13,895	(10,329)
Losses (gains) on investment securities, net	3,139	(58,444)	(5,057)
Gains on sales of assets	(4,343)	(3,063)	(2,666)
Amortization of securities premiums, net of discount accretion	42,037	45,184	53,467
Originations of loans held for sale	(68,673)	(47,639)	(137,337)
Gains on sales of loans held for sale, net	(1,693)	(1,195)	(5,128)
Proceeds from sales of loans held for sale	67,924	48,133	147,896
Equity based compensation	18,694	21,491	21,208
Changes in:			
Accrued income	(31,075)	(58,222)	4,587
Accrued expenses and taxes	148,154	(10,995)	(51,740)
Other assets and liabilities, net	(132,918)	301,217	102,155
Net cash provided by operating activities	472,604	769,554	534,082
INVESTING ACTIVITIES			
Securities held to maturity:			
Maturities, calls and principal repayments	424,341	460,413	198,783
Purchases	(227,077)	(990,648)	(664,661)
Securities available for sale:			
Sales	22,193	—	372,644
Maturities, calls and principal repayments	1,204,346	1,114,560	1,743,809
Purchases	(1,162,115)	(1,205,396)	(5,080,172)
Equity securities with readily determinable fair values:			
Sales	—	46,379	79,013
Purchases	(277)	(1,085)	(6,376)
Equity securities without readily determinable fair values:			
Sales	5,614	194	14
Maturities, calls and principal repayments	334,898	172	2,514
Purchases	(404,972)	(29,660)	(77,709)
Payment of low-income housing tax credit (LIHTC) investment commitments	(40,806)	(35,854)	(15,410)
Net increase in loans	(2,159,132)	(3,952,154)	(1,117,707)
Net decrease in fed funds sold and resell agreements	713,253	257,760	433,978
Net cash activity from acquisitions and divestitures	(793)	548,624	18,431
Net decrease (increase) in interest-bearing balances due from other financial institutions	43,359	(13,705)	7,146
Purchases of bank premises and equipment	(26,910)	(51,716)	(33,687)
Proceeds from sales of bank premises and equipment	3,806	6,731	3,900
Purchases of bank-owned and company-owned life insurance	(3,000)	—	(100,000)
Net cash used in investing activities	(1,273,272)	(3,845,385)	(4,235,490)

FINANCING ACTIVITIES			
Net increase (decrease) in demand and savings deposits	997,273	(3,636,068)	8,573,130
Net increase (decrease) in time deposits	2,156,453	65,497	(24,454)
Net (decrease) increase in fed funds purchased and repurchase agreements	(102,523)	(1,016,268)	922,938
Proceeds from short-term debt	32,856,000	—	—
Repayment of short-term debt	(31,056,000)	—	—
Proceeds from long-term debt	—	110,000	—
Payment of debt issuance costs	—	(2,129)	—
Cash dividends paid	(74,245)	(72,030)	(66,750)
Proceeds from exercise of stock options and sales of treasury shares	2,461	2,136	19,048
Purchases of treasury stock	(8,367)	(31,997)	(5,506)
Net cash provided by (used in) financing activities	4,771,052	(4,580,859)	9,418,406
Increase (decrease) in cash and cash equivalents	3,970,384	(7,656,690)	5,716,998
Cash and cash equivalents at beginning of year	1,557,874	9,214,564	3,497,566
Cash and cash equivalents at end of year	$ 5,528,258	$ 1,557,874	$ 9,214,564
Supplemental disclosures:			
Income tax payments	$ 79,334	$ 101,952	$ 92,584
Total interest payments	844,397	196,482	47,106
Noncash disclosures:			
Acquisition of low-income housing tax credit investments	$ 85,555	$ 58,337	$ 30,182
Commitment to fund low-income housing tax credit investments	85,555	58,337	30,182
Transfer of loans to other real estate owned	1,738	12,381	—
Transfer of securities from available-for-sale to held-to-maturity	—	3,823,670	—

See Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. *SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES*

UMB Financial Corporation is a bank holding company, which offers a wide range of banking and other financial services to its customers through its branches and offices in the states of Missouri, Kansas, Colorado, Illinois, Oklahoma, Texas, Arizona, Nebraska, Iowa, Pennsylvania, South Dakota, Indiana, Utah, Minnesota, California, Wisconsin, Delaware, and New York. The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements. These estimates and assumptions also impact reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Following is a summary of the more significant accounting policies to assist the reader in understanding the financial presentation.

Consolidation

The Company and its wholly owned subsidiaries are included in the Consolidated Financial Statements (references hereinafter to the Company in these Notes to Consolidated Financial Statements include wholly owned subsidiaries). Intercompany accounts and transactions have been eliminated in consolidation.

Revenue Recognition

Interest on loans and securities is recognized based on rate multiplied by the principal amount outstanding. This includes the impact of amortization of premiums and discounts. Interest accrual is discontinued when, in the opinion of management, the likelihood of collection becomes doubtful. Noninterest income is recognized when performance obligations are satisfied.

Cash and cash equivalents

Cash and cash equivalents include Cash and due from banks and amounts due from the FRB. Cash on hand, cash items in the process of collection, and amounts due from correspondent banks are included in Cash and due from banks. Amounts due from the FRB are interest-bearing for all periods presented and are included in the Interest-bearing due from banks line on the Company's Consolidated Balance Sheets.

This table provides a summary of cash and cash equivalents as presented on the Consolidated Statements of Cash Flows as of December 31, 2023 and 2022 (in thousands):

	December 31,	
	2023	2022
Due from the FRB	$ 5,081,057	$ 1,057,192
Cash and due from banks	447,201	500,682
Cash and cash equivalents at end of year	$ 5,528,258	$ 1,557,874

Also included in the Interest-bearing due from banks line, but not considered cash and cash equivalents are interest-bearing accounts held at other financial institutions, which totaled $78.7 million and $121.7 million at December 31, 2023 and 2022, respectively.

Loans and Loans Held for Sale

Loans are classified by the portfolio segments of commercial and industrial, specialty lending, commercial real estate, consumer real estate, consumer, credit cards, and leases and other.

A loan is considered to be collateral dependent when management believes it is probable that it will be unable to collect all principal and interest due according to the contractual terms of the loan. If a loan is collateral dependent, the Company records a valuation allowance equal to the carrying amount of the loan in excess of the present value of the estimated future cash flows discounted at the loan's effective rate, based on the loan's observable market price or the fair value of the collateral.

A loan is accounted for as a modification made to a borrower experiencing financial difficulty when a modification has been granted that is deemed concessionary and not temporary to a debtor experiencing financial difficulty. The Company's modifications generally include interest rate adjustments, principal reductions, and amortization and maturity date extensions. These modifications allow the debtor short-term cash relief to allow them to improve their financial condition. If a loan modification is determined to be made to a borrower experiencing financial difficulty, the loan is considered to be collateral dependent and is evaluated for credit loss as part of the allowance for credit loss analysis.

Loans, including those that are considered to be collateral dependent, are evaluated regularly by management. Loans are considered delinquent when payment has not been received within 30 days of its contractual due date. Loans are placed on nonaccrual status when the collection of interest or principal is 90 days or more past due unless the loan is adequately secured and in the process of collection. When a loan is placed on nonaccrual status, any interest previously accrued but not collected is reversed against current income. Loans may be returned to accrual status when all the principal and interest amounts contractually due are brought current and future payments are reasonably assured. Interest payments received on nonaccrual loans are applied to principal unless the remaining principal balance has been determined to be fully collectible.

The adequacy of the ACL on loans is based on management's judgment and continuous evaluation of the pertinent factors underlying the credit quality inherent in the loan portfolio. Consideration of quantitative and qualitative factors relevant to each specific segmentation of loans includes lifetime historical loss experience, the impact of the current economic environment, reasonable and supportable forecasts, and detailed analysis of loans determined to be collateral dependent. The actual losses incurred over the lifetime of the portfolio, notwithstanding such considerations, however, could differ from the amounts estimated by management.

The Company maintains an allowance for off-balance sheet credit exposures, to address the credit risk to which the Company is exposed via a contractual obligation to extend credit, unless that obligation is unconditionally cancelable by the Company. The allowance for off-balance sheet credit exposure is included in the Accrued expenses and taxes line item in the Consolidated Balance Sheets. In order to maintain the allowance for off-balance sheet items at an appropriate level, a provision to increase or reduce the allowance is included in the Provision for credit losses line item in the Company's Consolidated Statements of Income. The allowance for off-balance sheet credit exposure is calculated by applying portfolio segment expected credit loss rates to the expected amount to be funded.

Loans held for sale are carried at the lower of aggregate cost or market value. Loan fees (net of certain direct loan origination costs) on loans held for sale are deferred until the related loans are sold or repaid. Gains or losses on loan sales are recognized at the time of sale and determined using the specific identification method.

Securities

Debt securities available for sale principally include U.S. Treasury and Agency securities, GSE mortgage-backed securities, certain securities of state and political subdivisions, corporates, and collateralized loan obligations. Debt securities classified as available for sale are measured at fair value. Unrealized holding gains and losses are excluded from earnings and reported in AOCI until realized.

Securities held to maturity are carried at amortized historical cost, net of the allowance for credit losses, based on management's intention, and the Company's ability to hold them to maturity. The Company classifies certain U.S. Agency securities, GSE mortgage-backed securities, and securities of state and political subdivisions as held to maturity.

Trading securities, acquired for subsequent sale to customers, are carried at fair value. Market adjustments, fees and gains or losses on the sale of trading securities are considered to be a normal part of operations and are included in trading and investment banking income.

Securities may be transferred from the available-for-sale classification to the held-to-maturity classification when the Company has the positive intent and ability to hold these securities to maturity. Transfers of securities are made at fair value at the time of transfer. The unrealized holding gain or loss at the time of transfer is retained in AOCI and amortized over the remaining life of the securities, offsetting the related amortization of discount or premium on the transferred securities. No gains or losses are recognized at the time of the transfer.

Equity-method investments

The Company accounts for certain other investments using equity-method accounting. For equity securities without readily determinable fair values, the Company's proportionate share of the income or loss is recognized on a one-quarter lag. When transparency in pricing exists, other investments are considered equity securities with readily determinable fair values.

Goodwill and Other Intangibles

Goodwill is tested for impairment annually and more frequently whenever events or changes in circumstances indicate that it is more likely than not that the fair value of a reporting unit is less than its carrying value. To test goodwill for impairment, the Company performs a qualitative assessment of each reporting unit. If the Company determines, on the basis of qualitative factors, that the fair value of the reporting unit is more likely than not greater than the carrying amount, the quantitative impairment test is not required. Otherwise, the Company compares the fair value of its reporting units to their carrying amounts to determine if an impairment exists and the amount of impairment loss. An impairment loss is measured as the excess of the carrying value of a reporting unit's goodwill over its fair value.

No goodwill impairments were recognized in 2023, 2022, or 2021. Other intangible assets, which relate to core deposits, non-compete agreements, and customer relationships, are amortized over their useful life. Intangible assets are evaluated for impairment when events or circumstances dictate. No intangible asset impairments were recognized in 2023, 2022, or 2021. The Company does not have any indefinite lived intangible assets.

Premises and Equipment

Premises and equipment are stated at cost less accumulated depreciation, which is computed primarily on the straight-line method. Premises are depreciated over 15 to 40 year lives, while equipment is depreciated over lives of 3 to 20 years. Gains and losses from the sale of Premises and equipment are included in Other noninterest income and Other noninterest expense, respectively.

Impairment of Long-Lived Assets

Long-lived assets, including Premises and equipment, are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset or group of assets may not be recoverable. The impairment review includes a comparison of future cash flows expected to be generated by the asset or group of assets to their current carrying value. If the carrying value of the asset or group of assets exceeds expected cash flows (undiscounted and without interest charges), an impairment loss is recognized to the extent the carrying value exceeds fair value. No impairments were recognized in 2023, 2022, or 2021.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are measured based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the periods in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date. The provision for deferred income taxes represents the change in the deferred income tax accounts during the year excluding the tax effect of the change in net unrealized gain (loss) on securities available for sale and certain derivative items.

The Company records deferred tax assets to the extent these assets will more likely than not be realized. All available evidence is considered in making such determination, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies and recent financial operations. A valuation allowance is recorded for the portion of deferred tax assets that are not more-likely-than-not to be realized, and any changes to the valuation allowance are recorded in income tax expense.

The Company records the financial statement effects of an income tax position when it is more likely than not, based on the technical merits, that it will be sustained upon examination. A tax position that meets the more-likely-than-not recognition threshold is measured and recorded as the largest amount of tax benefit that is greater than 50

percent likely of being realized upon ultimate settlement with a taxing authority. Previously recognized tax positions are derecognized in the first period in which it is no longer more likely than not that the tax position will be sustained. The benefit associated with previously unrecognized tax positions are generally recognized in the first period in which the more-likely-than-not threshold is met at the reporting date, the tax matter is ultimately settled through negotiation or litigation, or when the related statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired. The recognition, derecognition and measurement of tax positions are based on management's best judgment given the facts, circumstance and information available at the reporting date.

The Company recognizes accrued interest related to unrecognized tax benefits in interest expense and penalties in other noninterest expense. Accrued interest and penalties are included within the related liability lines in the Consolidated Balance Sheets. For the year ended December 31, 2023, the Company has recognized an immaterial amount in interest and penalties related to the unrecognized tax benefits.

Derivatives

The Company records all derivatives on the Consolidated Balance Sheets at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether the Company has elected to designate a derivative in a hedging relationship and apply hedge accounting, and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Currently, five of the Company's derivatives are designated in qualifying hedging relationships. The remainder of the Company's derivatives are not designated in qualifying hedging relationships, as the derivatives are not used to manage risks within the Company's assets or liabilities. All changes in fair value of the Company's non-designated derivatives and fair value hedges are recognized directly in earnings. Changes in fair value of the Company's cash flow hedges are recognized in AOCI and are reclassified to earnings when the hedged transaction affects earnings.

Per Share Data

Basic income per share is computed based on the weighted average number of shares of common stock outstanding during each period. Diluted year-to-date income per share includes the dilutive effect of 260,177, 406,477, and 466,830 shares issuable upon the exercise of stock options and nonvested restricted stock units granted by the Company that were outstanding at December 31, 2023, 2022, and 2021, respectively.

Certain options and restricted stock units issued under employee benefit plans were excluded from the computation of diluted earnings per share because they were anti-dilutive. For the year ended December 31, 2023, there were 55,649 outstanding stock options and restricted stock units excluded from the computation of diluted income per share because their inclusion would have been anti-dilutive. For the years ended December 31, 2022 and 2021, there were no outstanding stock options or restricted stock units excluded from the computation of diluted income per share.

Accounting for Stock-Based Compensation

The Company measures the cost of employee services received in exchange for an award of equity instruments based on the fair value of the award on the date of the grant. For stock options, restricted stock, and service-based restricted stock unit awards, the grant date fair value is estimated using either an option-pricing model which is consistent with the terms of the award or an observed market price, if such a price exists. For performance-based restricted stock unit awards, the grant date fair value is based on the quoted price of the Company's common stock on the grant date less the present value of expected dividends not received during the vesting period. Such cost is generally recognized over the vesting period during which an employee is required to provide service in exchange for the award and, in some cases, when performance metrics are met. The Company accounts for forfeitures of stock-based compensation on an actual basis as they occur.

2. *NEW ACCOUNTING PRONOUNCEMENTS*

Troubled Debt Restructurings In March 2022, the FASB issued ASU No. 2022-02, "Financial Instruments – Credit Losses: Troubled Debt Restructurings and Vintage Disclosures." The ASU eliminated the accounting guidance for troubled debt restructurings (TDR) by creditors and enhances disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty. The amendments

also added requirements to disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases, disclosed by credit-quality indicator and class of financing receivable. The amendments in this update were adopted prospectively on January 1, 2023. The adoption of the amendments had no impact on the Consolidated Financial Statements aside from additional and revised financial statement disclosures. See Note 3, "Loans and Allowance for Credit Losses" for related disclosures.

Income Taxes In December 2023, the FASB issued ASU No. 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures." The ASU is intended to enhance the transparency and decision usefulness of income tax disclosures. The amendments in this update require additional disclosures primarily related to the rate reconciliation and income taxes paid information. The amendments in this update are effective for fiscal years beginning after December 15, 2024. Early adoption is permitted. The adoption of this accounting pronouncement will have no impact on the Consolidated Financial Statements aside from additional disclosures.

3. *LOANS AND ALLOWANCE FOR CREDIT LOSSES*

Loan Origination/Risk Management

The Company has certain lending policies and procedures in place that are designed to minimize the level of risk within the loan portfolio. Diversification of the loan portfolio manages the risk associated with fluctuations in economic conditions. Authority levels are established for the extension of credit to ensure consistency throughout the Company. It is necessary that policies, processes, and practices implemented to control the risks of individual credit transactions and portfolio segments are sound and adhered to. The Company maintains an independent loan review department that reviews and validates the risk assessment on a continual basis. Management regularly evaluates the results of the loan reviews. The loan review process complements and reinforces the risk identification and assessment decisions made by lenders and credit personnel, as well as the Company's policies and procedures.

Commercial and industrial loans are underwritten after evaluating and understanding the borrower's ability to operate profitably and prudently expand its business. Commercial loans are made based on the identified cash flows of the borrower and on the underlying collateral provided by the borrower. The cash flows of the borrower, however, may not be as expected and the collateral securing these loans may fluctuate in value. Most commercial loans are secured by the assets being financed or other business assets such as accounts receivable or inventory and may incorporate a personal guarantee. In the case of loans secured by accounts receivable, the availability of funds for the repayment of these loans may be substantially dependent on the ability of the borrower to collect amounts from its customers.

Specialty lending loans include Asset-based loans, which are offered primarily in the form of revolving lines of credit to commercial borrowers that do not generally qualify for traditional bank financing. Asset-based loans are underwritten based primarily upon the value of the collateral pledged to secure the loan, rather than on the borrower's general financial condition. The Company utilizes pre-loan due diligence techniques, monitoring disciplines, and loan management practices common within the asset-based lending industry to underwrite loans to these borrowers.

Commercial real estate loans are subject to underwriting standards and processes similar to commercial loans, in addition to those of real estate loans. These loans are viewed primarily as cash flow loans and secondarily as loans secured by real estate. Commercial real estate lending typically involves higher loan principal amounts, and the repayment of these loans is largely dependent on the successful operation of the property securing the loan or the business conducted on the property securing the loan. The Company requires that an appraisal of the collateral be made at origination and on an as-needed basis, in conformity with current market conditions and regulatory requirements. The underwriting standards address both owner and non-owner-occupied real estate. Also included in Commercial real estate are Construction loans that are underwritten using feasibility studies, independent appraisal reviews, sensitivity analysis or absorption and lease rates, and financial analysis of the developers and property owners. Construction loans are based upon estimates of costs and value associated with the complete project. Construction loans often involve the disbursement of substantial funds with repayment substantially dependent on the success of the ultimate project. Sources of repayment for these types of loans may be pre-committed permanent loans, sales of developed property or an interim loan commitment from the Company until permanent financing is obtained. These loans are closely monitored by on-site inspections and are considered to have higher risks than other real estate loans due to their repayment being sensitive to interest rate changes, governmental regulation of real property, economic conditions, completion of the construction project, and the availability of long-term financing.

Consumer real estate loans, including residential real estate and home equity loans, are underwritten based on the borrower's loan-to-value percentage, collection remedies, and overall credit history.

Consumer loans are underwritten based on the borrower's repayment ability. The Company monitors delinquencies on all of its consumer loans and leases. The underwriting and review practices combined with the relatively small loan amounts that are spread across many individual borrowers, minimizes risk. Consumer loans and leases that are 90 days past due or more are considered non-performing.

Credit cards include both commercial and consumer credit cards. Commercial credit cards are generally unsecured and are underwritten with criteria similar to commercial loans, including an analysis of the borrower's cash flow, available business capital, and overall creditworthiness of the borrower. Consumer credit cards are underwritten based on the borrower's repayment ability. The Company monitors delinquencies on all of its consumer credit cards and periodically reviews the distribution of credit scores relative to historical periods to monitor credit risk on its consumer credit card loans.

Credit risk is a potential loss resulting from nonpayment of either the primary or secondary exposure. Credit risk is mitigated with formal risk management practices and a thorough initial credit-granting process including consistent underwriting standards and approval process. Control factors or techniques to minimize credit risk include knowing the client, understanding total exposure, analyzing the client and debtor's financial capacity, and monitoring the client's activities. Credit risk and portions of the portfolio risk are managed through concentration considerations, average risk ratings, and other aggregate characteristics.

Loan Aging Analysis

The following tables provide a summary of loan classes and an aging of past due loans at December 31, 2023 and 2022 (in thousands):

	December 31, 2023					
	30-89 Days Past Due and Accruing	**Greater than 90 Days Past Due and Accruing**	**Nonaccrual Loans**	**Total Past Due**	**Current**	**Total Loans**
Loans						
Commercial and industrial	$ 2,851	$ —	$ 7,033	$ 9,884	$ 9,920,045	$ 9,929,929
Specialty lending	—	—	—	—	498,786	498,786
Commercial real estate	1,848	—	737	2,585	8,891,341	8,893,926
Consumer real estate	1,137	—	5,058	6,195	2,954,437	2,960,632
Consumer	104	55	28	187	163,104	163,291
Credit cards	5,343	3,056	285	8,684	415,272	423,956
Leases and other	—	—	71	71	301,893	301,964
Total loans	$ 11,283	$ 3,111	$ 13,212	$ 27,606	$ 23,144,878	$ 23,172,484

	December 31, 2022					
	30-89 Days Past Due and Accruing	**Greater than 90 Days Past Due and Accruing**	**Nonaccrual Loans**	**Total Past Due**	**Current**	**Total Loans**
Loans						
Commercial and industrial	$ 2,456	$ 2	$ 11,356	$ 13,814	$ 9,192,172	$ 9,205,986
Specialty lending	—	—	—	—	602,706	602,706
Commercial real estate	2,167	191	2,505	4,863	7,611,223	7,616,086
Consumer real estate	10	—	4,882	4,892	2,718,377	2,723,269
Consumer	613	20	61	694	144,972	145,666
Credit cards	3,529	1,404	441	5,374	426,298	431,672
Leases and other	—	—	24	24	305,780	305,804
Total loans	$ 8,775	$ 1,617	$ 19,269	$ 29,661	$ 21,001,528	$ 21,031,189

The Company sold consumer real estate loans with proceeds of $67.9 million, $48.1 million, and $147.9 million in the secondary market without recourse during the periods ended December 31, 2023, 2022, and 2021, respectively.

The Company has ceased the recognition of interest on loans with a carrying value of $13.2 million and $19.3 million at December 31, 2023 and 2022, respectively. Restructured loans totaled $548 thousand and $5.2 million at December 31, 2023 and 2022, respectively. Loans 90 days past due and still accruing interest amounted to $3.1 million and $1.6 million at December 31, 2023 and 2022, respectively. All interest accrued but not received for loans placed on nonaccrual is reversed against interest income. There was an insignificant amount of interest reversed related to loans on nonaccrual during 2022 and 2021. Nonaccrual loans with no related allowance for credit losses totaled $13.2 million and $16.7 million at December 31, 2023 and 2022, respectively.

The following tables provide the amortized cost of nonaccrual loans with no related allowance for credit losses by loan class at December 31, 2023 and 2022 (in thousands):

	December 31, 2023	
	Nonaccrual Loans	**Amortized Cost of Nonaccrual Loans with no related Allowance**
Loans		
Commercial and industrial	$ 7,033	$ 7,033
Specialty lending	—	—
Commercial real estate	737	737
Consumer real estate	5,058	5,058
Consumer	28	28
Credit cards	285	285
Leases and other	71	71
Total loans	$ 13,212	$ 13,212

	December 31, 2022	
	Nonaccrual Loans	**Amortized Cost of Nonaccrual Loans with no related Allowance**
Loans		
Commercial and industrial	$ 11,356	$ 9,447
Specialty lending	—	—
Commercial real estate	2,505	2,505
Consumer real estate	4,882	4,226
Consumer	61	61
Credit cards	441	441
Leases and other	24	24
Total loans	$ 19,269	$ 16,704

Amortized Cost

The following tables provide a summary of the amortized cost balance of each of the Company's loan classes disaggregated by collateral type and origination year as of December 31, 2023 and 2022 as well as the gross charge-offs by loan class and origination year for the year ended December 31, 2023 (in thousands):

	December 31, 2023								
	Amortized Cost Basis by Origination Year - Term Loans								
Loan Segment and Type	**2023**	**2022**	**2021**	**2020**	**2019**	**Prior**	**Amortized Cost - Revolving Loans**	**Amortized Cost - Revolving Loans Converted to Term Loans**	**Total**
Commercial and industrial:									
Equipment/Accounts Receivable/Inventory	$ 1,787,301	$ 1,486,609	$ 1,123,732	$ 412,276	$ 202,827	$ 97,130	$ 4,615,872	$ 6,336	$ 9,732,083
Agriculture	13,934	5,840	3,785	920	477	239	169,173	—	194,368
Overdrafts	—	—	—	—	—	—	3,478	—	3,478
Total Commercial and industrial	1,801,235	1,492,449	1,127,517	413,196	203,304	97,369	4,788,523	6,336	9,929,929
Current period charge-offs	241	—	961	—	—	474	3,371	—	5,047
Specialty lending:									
Asset-based lending	13,938	16,103	35,466	32,229	—	—	401,050	—	498,786
Total Specialty lending	13,938	16,103	35,466	32,229	—	—	401,050	—	498,786
Current period charge-offs	—	—	—	—	—	—	762	—	762
Commercial real estate:									
Owner-occupied	276,284	629,514	499,020	335,133	152,539	215,373	30,842	—	2,138,705
Non-owner-occupied	556,369	901,614	849,496	449,547	293,531	185,679	36,313	—	3,272,549
Farmland	75,418	71,087	39,128	195,750	15,608	19,700	89,291	—	505,982
5+ Multi-family	34,714	27,668	240,724	29,840	16,861	4,982	9,274	—	364,063
1-4 Family construction	49,327	51,360	—	—	—	—	3,286	3,394	107,367
General construction	574,661	1,340,152	515,289	4,220	636	130	70,172	—	2,505,260
Total Commercial real estate	1,566,773	3,021,395	2,143,657	1,014,490	479,175	425,864	239,178	3,394	8,893,926
Current period charge-offs	—	—	—	—	—	266	—	—	266
Consumer real estate:									
HELOC	150	650	—	497	82	4,958	355,105	1,364	362,806
First lien: 1-4 family	419,312	585,401	682,008	548,859	158,228	165,197	2	—	2,559,007
Junior lien: 1-4 family	12,117	11,943	6,861	3,927	2,117	1,769	85	—	38,819
Total Consumer real estate	431,579	597,994	688,869	553,283	160,427	171,924	355,192	1,364	2,960,632
Current period charge-offs	9	45	—	—	11	1,120	—	—	1,185
Consumer:									
Revolving line	48	—	—	—	—	—	56,272	—	56,320
Auto	11,509	6,013	3,922	2,170	1,088	158	—	—	24,860
Other	4,853	22,147	26,125	574	365	1,243	26,804	—	82,111
Total Consumer	16,410	28,160	30,047	2,744	1,453	1,401	83,076	—	163,291
Current period charge-offs	72	17	26	7	6	28	1,076	—	1,232
Credit cards:									
Consumer	—	—	—	—	—	—	197,095	—	197,095
Commercial	—	—	—	—	—	—	226,861	—	226,861
Total Credit cards	—	—	—	—	—	—	423,956	—	423,956
Current period charge-offs	—	—	—	—	—	—	9,181	—	9,181
Leases and other:									
Leases	—	—	—	—	610	1,106	—	—	1,716
Other	100,484	95,909	16,968	16,949	1,620	13,966	54,352	—	300,248
Total Leases and other	100,484	95,909	16,968	16,949	2,230	15,072	54,352	—	301,964
Current period charge-offs	—	—	—	—	—	—	—	—	—
Total loans	$ 3,930,419	$ 5,252,010	$ 4,042,524	$ 2,032,891	$ 846,589	$ 711,630	$ 6,345,327	$ 11,094	$ 23,172,484

Loan Segment and Type	December 31, 2022								
	Amortized Cost Basis by Origination Year - Term Loans								
	2022	2021	2020	2019	2018	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
Commercial and industrial:									
Equipment/Accounts Receivable/Inventory	$ 2,140,609	$ 1,562,527	$ 642,649	$ 267,444	$ 96,916	$ 86,787	$ 4,223,358	$ 3,926	$ 9,024,216
Agriculture	13,630	5,415	2,046	1,985	396	541	149,266	562	173,841
Overdrafts	—	—	—	—	—	—	7,929	—	7,929
Total Commercial and industrial	2,154,239	1,567,942	644,695	269,429	97,312	87,328	4,380,553	4,488	9,205,986
Specialty lending:									
Asset-based lending	18,084	55,469	36,040	—	—	—	493,113	—	602,706
Total Specialty lending	18,084	55,469	36,040	—	—	—	493,113	—	602,706
Commercial real estate:									
Owner-occupied	656,860	593,861	388,519	180,786	136,499	167,628	8,685	—	2,132,838
Non-owner-occupied	1,128,978	855,508	568,489	368,203	64,915	229,826	28,679	—	3,244,598
Farmland	94,989	47,092	220,796	24,057	15,963	24,162	121,054	—	548,113
5+ Multi-family	30,920	35,869	68,996	18,978	1,334	5,776	4,908	—	166,781
1-4 Family construction	61,943	15,217	—	—	—	—	19	—	77,179
General construction	628,820	719,437	43,166	15,492	—	395	39,267	—	1,446,577
Total Commercial real estate	2,602,510	2,266,984	1,289,966	607,516	218,711	427,787	202,612	—	7,616,086
Consumer real estate:									
HELOC	237	—	618	224	654	5,389	339,066	981	347,169
First lien: 1-4 family	628,703	748,362	607,105	173,466	45,907	140,443	12	—	2,343,998
Junior lien: 1-4 family	13,490	8,445	5,107	2,529	940	1,504	87	—	32,102
Total Consumer real estate	642,430	756,807	612,830	176,219	47,501	147,336	339,165	981	2,723,269
Consumer:									
Revolving line	467	584	—	—	—	—	58,133	1,403	60,587
Auto	9,124	6,543	4,455	2,743	335	159	—	—	23,359
Other	26,306	27,751	1,096	876	1,133	591	3,967	—	61,720
Total Consumer	35,897	34,878	5,551	3,619	1,468	750	62,100	1,403	145,666
Credit cards:									
Consumer	—	—	—	—	—	—	200,348	—	200,348
Commercial	—	—	—	—	—	—	231,324	—	231,324
Total Credit cards	—	—	—	—	—	—	431,672	—	431,672
Leases and other:									
Leases	—	—	—	712	—	1,224	—	—	1,936
Other	125,095	34,282	22,552	32,055	17,764	1,066	71,054	—	303,868
Total Leases and other	125,095	34,282	22,552	32,767	17,764	2,290	71,054	—	305,804
Total loans	$ 5,578,255	$ 4,716,362	$ 2,611,634	$ 1,089,550	$ 382,756	$ 665,491	$ 5,980,269	$ 6,872	$ 21,031,189

Accrued interest on loans totaled $119.6 million and $90.6 million as of December 31, 2023 and 2022, respectively, and is included in the Accrued income line on the Company's Consolidated Balance Sheets. The total amount of accrued interest is excluded from the amortized cost basis of loans presented above. Further, the Company has elected not to measure an allowance for credit losses for accrued interest receivable.

Credit Quality Indicators

As part of the on-going monitoring of the credit quality of the Company's loan portfolio, management tracks certain credit quality indicators including trends related to the risk grading of specified classes of loans, net charge-offs, non-performing loans, and general economic conditions.

The Company utilizes a risk grading matrix to assign a rating to each of its commercial, commercial real estate, and construction real estate loans. Changes in credit risk are monitored on a continuous basis and changes in risk ratings are made when identified. The loan ratings are summarized into the following categories: Non-watch list, Watch, Special Mention, Substandard, and Doubtful. Any loan not classified in one of the categories described below is considered to be a Non-watch list loan. A description of the general characteristics of the loan rating categories is as follows:

- **Watch** – This rating represents credit exposure that presents higher than average risk and warrants greater than routine attention by Company personnel due to conditions affecting the borrower, the borrower's industry, or the economic environment. These conditions have resulted in some degree of uncertainty that results in higher-than-average credit risk. These loans are considered pass-rated credits.

- **Special Mention** – This rating reflects a potential weakness that deserves management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or the borrower's credit position at some future date. The rating is not adversely classified and does not expose an institution to sufficient risk to warrant adverse classification.
- **Substandard** – This rating represents an asset inadequately protected by the current sound worth and paying capacity of the borrower or of the collateral pledged, if any. Assets so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. Loans in this category are characterized by the distinct possibility that the Company will sustain some loss if the deficiencies are not corrected. Loss potential, while existing in the aggregate amount of substandard assets, does not have to exist in individual assets classified as substandard.
- **Doubtful** – This rating represents an asset that has all the weaknesses inherent in an asset classified as substandard, with the added characteristic that the weaknesses make collection or liquidation in full, based on currently existing facts, conditions and values, highly questionable and improbable. The possibility of loss is extremely high, but because of certain important and reasonably specific pending factors, which may work to the advantage of strengthening the asset, its classification as an estimated loss is deferred until its more exact status may be determined. Pending factors include proposed merger, acquisition, liquidation procedures, capital injection, or perfecting liens.

Commercial and industrial

A discussion of the credit quality indicators that impact each type of collateral securing Commercial and industrial loans is included below:

Equipment, accounts receivable, and inventory General commercial and industrial loans are secured by working capital assets and non-real estate assets. The general purpose of these loans is for financing capital expenditures and current operations for commercial and industrial entities. These assets are short-term in nature. In the case of accounts receivable and inventories, the repayment of debt is reliant upon converting assets into cash or through goods and services being sold and collected. Collateral-based risk is due to aged short-term assets, which can be indicative of underlying issues with the borrower and lead to the value of the collateral being overstated.

Agriculture Agricultural loans are secured by non-real estate agricultural assets. These include shorter-term assets such as equipment, crops, and livestock. The risks associated with loans to finance crops or livestock include the borrower's ability to successfully raise and market the commodity. Adverse weather conditions and other natural perils can dramatically affect farmers' or ranchers' production and ability to service debt. Volatile commodity prices present another significant risk for agriculture borrowers. Market price volatility and production cost volatility can affect both revenues and expenses.

Overdrafts Commercial overdrafts are typically short-term and unsecured. Some commercial borrowers tie their overdraft obligation to their line of credit, so any draw on the line of credit will satisfy the overdraft.

Based on the factors noted above for each type of collateral, the Company assigns risk ratings to borrowers based on their most recently assessed financial position.

The following tables provide a summary of the amortized cost balance by collateral type and risk rating as of December 31, 2023 and 2022 (in thousands):

	December 31, 2023								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2023	2022	2021	2020	2019	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
Equipment/Accounts Receivable/Inventory									
Non-watch list – Pass	$ 1,728,443	$ 1,381,481	$ 1,059,277	$ 402,632	$ 184,561	$ 92,979	$ 4,242,095	$ 6,194	$ 9,097,662
Watch – Pass	38,940	81,233	55,928	8,809	9,620	1,627	230,990	49	427,196
Special Mention	3,000	17,857	5,186	214	—	—	39,059	—	65,316
Substandard	15,708	6,038	3,341	621	8,646	2,524	103,728	93	140,699
Doubtful	1,210	—	—	—	—	—	—	—	1,210
Total Equipment/Accounts Receivable/Inventory	$ 1,787,301	$ 1,486,609	$ 1,123,732	$ 412,276	$ 202,827	$ 97,130	$ 4,615,872	$ 6,336	$ 9,732,083
Agriculture									
Non-watch list – Pass	$ 13,934	$ 5,122	$ 3,785	$ 839	$ 477	$ 239	$ 159,565	$ —	$ 183,961
Watch – Pass	—	—	—	—	—	—	—	—	—
Special Mention	—	66	—	—	—	—	1,236	—	1,302
Substandard	—	652	—	81	—	—	8,372	—	9,105
Doubtful	—	—	—	—	—	—	—	—	—
Total Agriculture	$ 13,934	$ 5,840	$ 3,785	$ 920	$ 477	$ 239	$ 169,173	$ —	$ 194,368

	December 31, 2022								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2022	2021	2020	2019	2018	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
Equipment/Accounts Receivable/Inventory									
Non-watch list – Pass	$ 2,079,002	$ 1,466,120	$ 588,562	$ 246,387	$ 90,656	$ 83,054	$ 3,879,709	$ 3,633	$ 8,437,123
Watch – Pass	28,570	78,523	52,696	7,493	3,617	2,275	213,871	—	387,045
Special Mention	4,072	5,637	1,178	—	1,817	899	34,631	—	48,234
Substandard	26,698	12,247	213	13,564	826	559	92,352	293	146,752
Doubtful	2,267	—	—	—	—	—	2,795	—	5,062
Total Equipment/Accounts Receivable/Inventory	$ 2,140,609	$ 1,562,527	$ 642,649	$ 267,444	$ 96,916	$ 86,787	$ 4,223,358	$ 3,926	$ 9,024,216
Agriculture									
Non-watch list – Pass	$ 12,252	$ 5,351	$ 1,693	$ 1,985	$ 396	$ 541	$ 137,759	$ —	$ 159,977
Watch – Pass	550	—	206	—	—	—	8,512	562	9,830
Special Mention	828	64	147	—	—	—	1,539	—	2,578
Substandard	—	—	—	—	—	—	1,456	—	1,456
Doubtful	—	—	—	—	—	—	—	—	—
Total Agriculture	$ 13,630	$ 5,415	$ 2,046	$ 1,985	$ 396	$ 541	$ 149,266	$ 562	$ 173,841

Specialty lending

A discussion of the credit quality indicators that impact each type of collateral securing Specialty loans is included below:

Asset-based lending General asset-based loans are secured by accounts receivable, inventory, equipment, and real estate. The purpose of these loans is for financing current operations for commercial customers. The repayment of debt is reliant upon collection of the accounts receivable within 30 to 90 days or converting assets into cash or through goods and services being sold and collected. The Company tracks each individual borrower credit risk based on their loan to collateral position. Any borrower position where the underlying value of collateral is below the fair value of the loan is considered out-of-margin and inherently higher risk.

The following table provides a summary of the amortized cost balance by risk rating for asset-based loans as of December 31, 2023 and 2022 (in thousands):

	Asset-based lending	
Risk	**December 31, 2023**	**December 31, 2022**
In-margin	$ 498,786	$ 602,706
Out-of-margin	—	—
Total	$ 498,786	$ 602,706

Commercial real estate

A discussion of the credit quality indicators that impact each type of collateral securing Commercial real estate loans is included below:

Owner-occupied Owner-occupied loans are secured by commercial real estate. These loans are often longer tenured and susceptible to multiple economic cycles. The loans rely on the owner-occupied operations to service debt which cover a broad spectrum of industries. Real estate debt can carry a significant amount of leverage for a borrower to maintain.

Non-owner-occupied Non-owner-occupied loans are secured by commercial real estate. These loans are often longer tenured and susceptible to multiple economic cycles. The key element of risk in this type of lending is the cyclical nature of real estate markets. Although national conditions affect the overall real estate industry, the effect of national conditions on local markets is equally important. Factors such as unemployment rates, consumer demand, household formation, and the level of economic activity can vary widely from state to state and among metropolitan areas. In addition to geographic considerations, markets can be defined by property type. While all sectors are influenced by economic conditions, some sectors are more sensitive to certain economic factors than others.

Farmland Farmland loans are secured by real estate used for agricultural purposes such as crop and livestock production. Assets used as collateral are long-term assets that carry the ability to have longer amortizations and maturities. Longer terms carry the risk of added susceptibility to market conditions. The limited purpose of some Agriculture-related collateral affects credit risk because such collateral may have limited or no other uses to support values when loan repayment problems emerge.

5+ Multi-family 5+ multi-family loans are secured by a multi-family residential property. The primary risks associated with this type of collateral are largely driven by economic conditions. The national and local market conditions can change with unemployment rates or competing supply of multi-family housing.   Tenants may not be able to afford their housing or have better options and this can result in increased vacancy. Rents may need to be lowered to fill apartment units. Increased vacancy and lower rental rates not only drive the borrower's ability to repay debt but also contribute to how the collateral is valued.

1-4 Family construction 1-4 family construction loans are secured by 1-4 family residential real estate and are in the process of construction or improvements being made. The predominant risk inherent to this portfolio is the risk associated with a borrower's ability to successfully complete a project on time and within budget. Market conditions also play an important role in understanding the risk profile. Risk from adverse changes in market conditions from the start of development to completion can result in deflated collateral values.

General construction General construction loans are secured by commercial real estate in process of construction or improvements being made and their repayment is dependent on the collateral's completion. Construction lending presents unique risks not encountered in term financing of existing real estate. The predominant risk inherent to this portfolio is the risk associated with a borrower's ability to successfully complete a project on time and within budget. Commercial properties under construction are susceptible to market and economic conditions. Demand from prospective customers may erode after construction begins because of a general economic slowdown or an increase in the supply of competing properties.

Based on the factors noted above for each type of collateral, the Company assigns risk ratings to borrowers based on their most recently assessed financial position.

The following tables provide a summary of the amortized cost balance by collateral type and risk rating as of December 31, 2023 and 2022 (in thousands):

	December 31, 2023								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	**2023**	**2022**	**2021**	**2020**	**2019**	**Prior**	**Amortized Cost - Revolving Loans**	**Amortized Cost - Revolving Loans Converted to Term Loans**	**Total**
Owner-occupied									
Non-watch list – Pass	$ 269,735	$ 607,418	$ 461,179	$ 319,610	$ 130,428	$ 209,707	$ 30,113	$ —	$ 2,028,190
Watch – Pass	2,105	18,701	24,164	8,769	15,547	4,324	—	—	73,610
Special Mention	—	1,609	12,911	6,741	4,015	—	729	—	26,005
Substandard	4,444	1,786	766	13	2,549	1,342	—	—	10,900
Doubtful	—	—	—	—	—	—	—	—	—
Total Owner-occupied	$ 276,284	$ 629,514	$ 499,020	$ 335,133	$ 152,539	$ 215,373	$ 30,842	$ —	$ 2,138,705
Non-owner-occupied									
Non-watch list – Pass	$ 481,902	$ 798,936	$ 773,032	$ 449,547	$ 217,240	$ 175,924	$ 36,313	$ —	$ 2,932,894
Watch – Pass	49,933	102,678	51,402	—	76,291	9,755	—	—	290,059
Special Mention	24,534	—	24,404	—	—	—	—	—	48,938
Substandard	—	—	658	—	—	—	—	—	658
Doubtful	—	—	—	—	—	—	—	—	—
Total Non-owner-occupied	$ 556,369	$ 901,614	$ 849,496	$ 449,547	$ 293,531	$ 185,679	$ 36,313	$ —	$ 3,272,549
Farmland									
Non-watch list – Pass	$ 48,615	$ 62,321	$ 38,681	$ 195,234	$ 11,735	$ 19,168	$ 89,241	$ —	$ 464,995
Watch – Pass	—	273	125	—	—	—	50	—	448
Special Mention	2,358	428	—	493	3,627	—	—	—	6,906
Substandard	24,445	8,065	322	23	246	532	—	—	33,633
Doubtful	—	—	—	—	—	—	—	—	—
Total Farmland	$ 75,418	$ 71,087	$ 39,128	$ 195,750	$ 15,608	$ 19,700	$ 89,291	$ —	$ 505,982
5+ Multi-family									
Non-watch list – Pass	$ 34,714	$ 27,668	$ 240,724	$ 29,840	$ 16,861	$ 4,982	$ 9,274	$ —	$ 364,063
Watch – Pass	—	—	—	—	—	—	—	—	—
Special Mention	—	—	—	—	—	—	—	—	—
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—
Total 5+ Multi-family	$ 34,714	$ 27,668	$ 240,724	$ 29,840	$ 16,861	$ 4,982	$ 9,274	$ —	$ 364,063
1-4 Family construction									
Non-watch list – Pass	$ 49,327	$ 51,360	$ —	$ —	$ —	$ —	$ 3,286	$ 3,394	$ 107,367
Watch – Pass	—	—	—	—	—	—	—	—	—
Special Mention	—	—	—	—	—	—	—	—	—
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—
Total 1-4 Family construction	$ 49,327	$ 51,360	$ —	$ —	$ —	$ —	$ 3,286	$ 3,394	$ 107,367
General construction									
Non-watch list – Pass	$ 572,847	$ 1,340,152	$ 507,276	$ 4,220	$ 625	$ 117	$ 70,172	$ —	$ 2,495,409
Watch – Pass	1,554	—	—	—	11	—	—	—	1,565
Special Mention	180	—	—	—	—	—	—	—	180
Substandard	—	—	8,013	—	—	13	—	—	8,026
Doubtful	80	—	—	—	—	—	—	—	80
Total General construction	$ 574,661	$ 1,340,152	$ 515,289	$ 4,220	$ 636	$ 130	$ 70,172	$ —	$ 2,505,260

	December 31, 2022								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2022	2021	2020	2019	2018	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
Owner-occupied									
Non-watch list – Pass	$ 628,858	$ 559,067	$ 364,760	$ 149,183	$ 133,339	$ 162,412	$ 7,850	$ —	$ 2,005,469
Watch – Pass	19,405	32,581	17,061	9,785	2,664	2,121	—	—	83,617
Special Mention	5,435	2,213	5,120	18,946	—	—	835	—	32,549
Substandard	3,162	—	1,578	2,872	496	3,095	—	—	11,203
Doubtful	—	—	—	—	—	—	—	—	—
Total Owner-occupied	$ 656,860	$ 593,861	$ 388,519	$ 180,786	$ 136,499	$ 167,628	$ 8,685	$ —	$ 2,132,838
Non-owner-occupied									
Non-watch list – Pass	$ 1,075,444	$ 810,926	$ 568,489	$ 356,896	$ 64,915	$ 214,635	$ 28,679	$ —	$ 3,119,984
Watch – Pass	53,534	44,582	—	11,307	—	5,071	—	—	114,494
Special Mention	—	—	—	—	—	10,109	—	—	10,109
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	11	—	—	11
Total Non-owner-occupied	$ 1,128,978	$ 855,508	$ 568,489	$ 368,203	$ 64,915	$ 229,826	$ 28,679	$ —	$ 3,244,598
Farmland									
Non-watch list – Pass	$ 62,357	$ 36,698	$ 218,704	$ 17,563	$ 2,830	$ 20,285	$ 113,385	$ —	$ 471,822
Watch – Pass	20,327	6,454	1,055	101	—	2,559	395	—	30,891
Special Mention	5,505	—	1,001	—	—	—	—	—	6,506
Substandard	6,800	3,940	36	6,393	13,133	1,318	7,274	—	38,894
Doubtful	—	—	—	—	—	—	—	—	—
Total Farmland	$ 94,989	$ 47,092	$ 220,796	$ 24,057	$ 15,963	$ 24,162	$ 121,054	$ —	$ 548,113
5+ Multi-family									
Non-watch list – Pass	$ 30,920	$ 35,869	$ 68,996	$ 18,978	$ 1,334	$ 5,776	$ 4,908	$ —	$ 166,781
Watch – Pass	—	—	—	—	—	—	—	—	—
Special Mention	—	—	—	—	—	—	—	—	—
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—
Total 5+ Multi-family	$ 30,920	$ 35,869	$ 68,996	$ 18,978	$ 1,334	$ 5,776	$ 4,908	$ —	$ 166,781
1-4 Family construction									
Non-watch list – Pass	$ 61,943	$ 15,217	$ —	$ —	$ —	$ —	$ 19	$ —	$ 77,179
Watch – Pass	—	—	—	—	—	—	—	—	—
Special Mention	—	—	—	—	—	—	—	—	—
Substandard	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—
Total 1-4 Family construction	$ 61,943	$ 15,217	$ —	$ —	$ —	$ —	$ 19	$ —	$ 77,179
General construction									
Non-watch list – Pass	$ 628,479	$ 699,698	$ 43,166	$ 15,384	$ —	$ 380	$ 39,267	$ —	$ 1,426,374
Watch – Pass	341	—	—	22	—	—	—	—	363
Special Mention	—	8,340	—	—	—	—	—	—	8,340
Substandard	—	11,399	—	—	—	15	—	—	11,414
Doubtful	—	—	—	86	—	—	—	—	86
Total General construction	$ 628,820	$ 719,437	$ 43,166	$ 15,492	$ —	$ 395	$ 39,267	$ —	$ 1,446,577

Consumer real estate

A discussion of the credit quality indicators that impact each type of collateral securing Consumer real estate loans is included below:

HELOC HELOC loans are revolving lines of credit secured by 1-4 family residential property. The primary risk is the borrower's inability to repay debt. Revolving notes are often associated with HELOCs that can be secured by real estate without a 1st lien priority. Collateral is susceptible to market volatility impacting home values or economic downturns.

First lien: 1-4 family First lien 1-4 family loans are secured by a first lien on 1-4 family residential property. These term loans carry longer maturities and amortizations. The longer tenure exposes the borrower to multiple economic cycles, coupled with longer amortizations that result in smaller principal reduction early in the life of the loan. Collateral is susceptible to market volatility impacting home values.

Junior lien: 1-4 family Junior lien 1-4 family loans are secured by a junior lien on 1-4 family residential property. The Company's primary risk is the borrower's inability to repay debt and not being in a first lien position. Collateral is susceptible to market volatility impacting home values or economic downturns.

A borrower is considered non-performing if the Company has ceased the recognition of interest and the loan is placed on non-accrual. Charge-offs and borrower performance are tracked on a loan origination vintage basis. Certain vintages, based on their maturation cycle, could be at higher risk due to collateral-based risk factors.

The following tables provide a summary of the amortized cost balance by collateral type and risk rating as of December 31, 2023 and 2022 (in thousands):

	December 31, 2023								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2023	2022	2021	2020	2019	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
HELOC									
Performing	$ 150	$ 579	$ —	$ 466	$ 82	$ 3,737	$ 355,047	$ 1,308	$ 361,369
Non-performing	—	71	—	31	—	1,221	58	56	1,437
Total HELOC	$ 150	$ 650	$ —	$ 497	$ 82	$ 4,958	$ 355,105	$ 1,364	$ 362,806
First lien: 1-4 family									
Performing	$ 418,766	$ 583,711	$ 681,921	$ 548,736	$ 158,037	$ 164,315	$ 2	$ —	$ 2,555,488
Non-performing	546	1,690	87	123	191	882	—	—	3,519
Total First lien: 1-4 family	$ 419,312	$ 585,401	$ 682,008	$ 548,859	$ 158,228	$ 165,197	$ 2	$ —	$ 2,559,007
Junior lien: 1-4 family									
Performing	$ 12,094	$ 11,911	$ 6,861	$ 3,927	$ 2,117	$ 1,722	$ 85	$ —	$ 38,717
Non-performing	23	32	—	—	—	47	—	—	102
Total Junior lien: 1-4 family	$ 12,117	$ 11,943	$ 6,861	$ 3,927	$ 2,117	$ 1,769	$ 85	$ —	$ 38,819

	December 31, 2022								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2022	2021	2020	2019	2018	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
HELOC									
Performing	$ 120	$ —	$ 592	$ 90	$ 148	$ 3,919	$ 338,979	$ 759	$ 344,607
Non-performing	117	—	26	134	506	1,470	87	222	2,562
Total HELOC	$ 237	$ —	$ 618	$ 224	$ 654	$ 5,389	$ 339,066	$ 981	$ 347,169
First lien: 1-4 family									
Performing	$ 628,678	$ 748,269	$ 607,055	$ 173,061	$ 45,907	$ 138,764	$ 12	$ —	$ 2,341,746
Non-performing	25	93	50	405	—	1,679	—	—	2,252
Total First lien: 1-4 family	$ 628,703	$ 748,362	$ 607,105	$ 173,466	$ 45,907	$ 140,443	$ 12	$ —	$ 2,343,998
Junior lien: 1-4 family									
Performing	$ 13,490	$ 8,445	$ 5,107	$ 2,529	$ 940	$ 1,437	$ 87	$ —	$ 32,035
Non-performing	—	—	—	—	—	67	—	—	67
Total Junior lien: 1-4 family	$ 13,490	$ 8,445	$ 5,107	$ 2,529	$ 940	$ 1,504	$ 87	$ —	$ 32,102

Consumer

A discussion of the credit quality indicators that impact each type of collateral securing Consumer loans is included below:

Revolving line Consumer Revolving lines of credit are secured by consumer assets other than real estate. The primary risk associated with this collateral is related to market volatility and the value of the underlying financial assets.

Auto Direct consumer auto loans are secured by new and used consumer vehicles. The primary risk with this collateral class is the rate at which the collateral depreciates.

Other This category includes Other consumer loans made to an individual. The primary risk for this category is for those loans where the loan is unsecured. This collateral type also includes other unsecured lending such as consumer overdrafts.

A borrower is considered non-performing if the Company has ceased the recognition of interest and the loan is placed on non-accrual. Charge-offs and borrower performance are tracked on a loan origination vintage basis. Certain vintages, based on their maturation cycle, could be at higher risk due to collateral-based risk factors.

The following tables provide a summary of the amortized cost balance by collateral type and risk rating as of December 31, 2023 and 2022 (in thousands):

	December 31, 2023								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2023	2022	2021	2020	2019	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
Revolving line									
Performing	$ 48	$ —	$ —	$ —	$ —	$ —	$ 56,272	$ —	$ 56,320
Non-performing	—	—	—	—	—	—	—	—	—
Total Revolving line	$ 48	$ —	$ —	$ —	$ —	$ —	$ 56,272	$ —	$ 56,320
Auto									
Performing	$ 11,509	$ 6,013	$ 3,908	$ 2,170	$ 1,088	$ 158	$ —	$ —	$ 24,846
Non-performing	—	—	14	—	—	—	—	—	14
Total Auto	$ 11,509	$ 6,013	$ 3,922	$ 2,170	$ 1,088	$ 158	$ —	$ —	$ 24,860
Other									
Performing	$ 4,853	$ 22,133	$ 26,125	$ 574	$ 365	$ 1,243	$ 26,804	$ —	$ 82,097
Non-performing	—	14	—	—	—	—	—	—	14
Total Other	$ 4,853	$ 22,147	$ 26,125	$ 574	$ 365	$ 1,243	$ 26,804	$ —	$ 82,111

	December 31, 2022								
	Amortized Cost Basis by Origination Year - Term Loans								
Risk by Collateral	2022	2021	2020	2019	2018	Prior	Amortized Cost - Revolving Loans	Amortized Cost - Revolving Loans Converted to Term Loans	Total
Revolving line									
Performing	$ 467	$ 584	$ —	$ —	$ —	$ —	$ 58,133	$ 1,403	$ 60,587
Non-performing	—	—	—	—	—	—	—	—	—
Total Revolving line	$ 467	$ 584	$ —	$ —	$ —	$ —	$ 58,133	$ 1,403	$ 60,587
Auto									
Performing	$ 9,124	$ 6,498	$ 4,454	$ 2,743	$ 335	$ 159	$ —	$ —	$ 23,313
Non-performing	—	45	1	—	—	—	—	—	46
Total Auto	$ 9,124	$ 6,543	$ 4,455	$ 2,743	$ 335	$ 159	$ —	$ —	$ 23,359
Other									
Performing	$ 26,291	$ 27,751	$ 1,096	$ 876	$ 1,133	$ 591	$ 3,967	$ —	$ 61,705
Non-performing	15	—	—	—	—	—	—	—	15
Total Other	$ 26,306	$ 27,751	$ 1,096	$ 876	$ 1,133	$ 591	$ 3,967	$ —	$ 61,720

Credit cards

A discussion of the credit quality indicators that impact Credit card loans is included below:

Consumer Consumer credit card loans are revolving loans made to individuals. The primary risk associated with this collateral class is credit card debt is generally unsecured; therefore, repayment depends primarily on a borrower's willingness and capacity to repay. The highly competitive environment for credit card lending provides consumers with ample opportunity to hold several credit cards from different issuers and to pay only minimum monthly payments on outstanding balances. In such an environment, borrowers may become over-extended and unable to repay, particularly in times of an economic downturn or a personal catastrophic event.

The consumer credit card portfolio is segmented by borrower payment activity. Transactors are defined as accounts that pay off their balance by the end of each statement cycle. Revolvers are defined as an account that carries a balance from statement cycle to the next. These accounts incur monthly finance charges, and, sometimes, late fees. Revolvers are inherently higher risk and are tracked by credit score.

Commercial Commercial credit card loans are revolving loans made to small and commercial businesses. The primary risk associated with this collateral class is credit card debt is generally unsecured; therefore, repayment depends primarily on a borrower's willingness and capacity to repay. Borrowers may become over-extended and unable to repay, particularly in times of an economic downturn or a catastrophic event.

The commercial credit card portfolio is segmented by current and past due payment status. A borrower is past due after 30 days. In general, commercial credit card customers do not have incentive to hold a balance resulting in paying interest on credit card debt as commercial customers will typically have other debt obligations with lower interest rates in which they can utilize for capital.

The following table provides a summary of the amortized cost balance of consumer credit cards by risk rating as of December 31, 2023 and 2022 (in thousands):

	Consumer	
Risk	**December 31, 2023**	**December 31, 2022**
Transactor accounts	$ 74,330	$ 73,670
Revolver accounts (by Credit score):		
Less than 600	7,140	4,684
600-619	3,572	2,515
620-639	5,343	4,959
640-659	9,536	8,655
660-679	9,642	9,593
680-699	11,220	12,023
700-719	13,489	14,098
720-739	12,896	15,036
740-759	12,434	13,638
760-779	12,955	13,768
780-799	11,822	13,172
800-819	7,808	9,257
820-839	4,054	4,363
840+	854	917
Total	$ 197,095	$ 200,348

The following table provides a summary of the amortized cost balance of commercial credit cards by risk rating as of December 31, 2023 and 2022 (in thousands):

	Commercial	
Risk	**December 31, 2023**	**December 31, 2022**
Current	$ 207,520	$ 219,558
Past Due	19,341	11,766
Total	$ 226,861	$ 231,324

Leases and other

A discussion of the credit quality indicators that impact each type of collateral securing Leases and other loans is included below:

Leases Leases are either loans to individuals for household, family and other personal expenditures or are loans related to all other direct financing and leveraged leases on property for leasing to lessees other than for household, family, and other personal expenditure purposes. All leases are secured by the lease between the lessor and the lessee. These assignments grant the creditor a security interest in the rent stream from any lease, an important source of cash to pay the note in case of the borrower's default.

Other Other loans are loans that are obligations of states and political subdivisions in the U.S., loans to non-depository financial institutions, loans for purchasing or carrying securities, or all other non-consumer loans. Risk associated with other loans is tied to the underlying collateral by each type of loan. Collateral is generally equipment, accounts receivable, inventory, 1-4 family residential construction and susceptible to the same risks mentioned with those collateral types previously. Other risks consist of collateral that is secured by the stock of a non-depository financial institution, which can be unlisted stock with a limited market for the stock, or volatility of asset values driven by market performance.

Based on the factors noted above for each type of collateral, the Company assigns risk ratings to borrowers based on their most recently assessed financial position.

The following table provides a summary of the amortized cost balance by collateral type and risk rating as of December 31, 2023 and 2022 (in thousands):

	Leases		Other	
Risk	**December 31, 2023**	**December 31, 2022**	**December 31, 2023**	**December 31, 2022**
Non-watch list – Pass	$ 1,716	$ 1,936	$ 285,497	$ 303,107
Watch – Pass	—	—	14,655	737
Special Mention	—	—	—	—
Substandard	—	—	96	24
Doubtful	—	—	—	—
Total	$ 1,716	$ 1,936	$ 300,248	$ 303,868

Allowance for Credit Losses

The ACL is a valuation account that is deducted from loans' and HTM securities' amortized cost bases to present the net amount expected to be collected on the instrument. Loans and HTM securities are charged off against the ACL when management believes the balance has become uncollectible. Expected recoveries are included in the allowance and do not exceed the aggregate of amounts previously charged-off and expected to be charged-off.

Management estimates the allowance balance using relevant available information, from internal and external sources, related to past events, current conditions, and reasonable and supportable economic forecasts. Historical credit loss experience provides the basis for the estimation of expected credit losses and is tracked over an economic cycle to capture a 'through the cycle' loss history. Adjustments to historical loss information are made for differences in current loan-specific risk characteristics such as differences in portfolio industry-based segmentation, risk rating and credit score changes, average prepayment rates, changes in environmental conditions, or other relevant factors. For economic forecasts, the Company uses the Moody's baseline scenario. The Company has developed a dynamic reasonable and supportable forecast period that ranges from one to three years and changes based on economic conditions. Due to current economic conditions, the Company's reasonable and supportable forecast period is one year. After the reasonable and supportable forecast period, the Company reverts to historical losses. The reversion method applied to each portfolio can either be cliff or straight-line over four quarters.

The ACL is measured on a collective (pool) basis when similar risk characteristics exists. The ACL also incorporates qualitative factors which represent adjustments to historical credit loss experience for items such as concentrations of credit and results of internal loan review. The Company has identified the following portfolio segments and measures the allowance for credit losses using the following methods. The Company's portfolio segmentation consists of Commercial and industrial, Specialty lending, Commercial real estate, Consumer real estate, Consumer, Credit cards, Leases and other, and Held-to-maturity securities. Multiple modeling techniques are used to measure credit losses based on the portfolio.

The ACL for Commercial and industrial and Leases and other segments are measured using a probability of default and loss given default method. Primary risk drivers within the segment are risk ratings of the individual loans along with changes of macro-economic variables. The economic variables utilized are typically comprised of leading and lagging indicators. The ACL for Commercial and industrial loans is calculated by modeling probability of default (PD) over future periods multiplied by historical loss given default rates (LGD) multiplied by contractual exposure at default minus any estimated prepayments and charge offs.

Collateral positions for Specialty lending loans are continuously monitored by the Company and the borrower is required to continually adjust the amount of collateral securing the loan. Credit losses are measured for any position where the amortized cost basis is greater than the fair value of the collateral. The ACL for specialty lending loans is calculated by using a bottom-up approach comparing collateral values to outstanding balances.

The ACL for the Commercial real estate segment is measured using a PD and LGD method. Primary risk characteristics within the segment are risk ratings of the individual loans, along with changes of macro-economic variables, such as interest rates, CRE price index, median household income, construction activity, farm income, and vacancy rates. The ACL for Commercial real estate loans is calculated by modeling PD over future periods based on peer bank data. The PD loss rate is then multiplied by historical LGD multiplied by contractual exposure at default minus any estimated prepayments and charge offs.

The ACL for the Consumer real estate and Consumer segments are measured using an origination vintage loss rate method applied to the loans' amortized cost balance. The primary risk driver within the segments is year of origination along with changes of macro-economic variables such as unemployment and the home price index.

The Credit card segment contains both consumer and commercial credit cards. The ACL for Consumer credit cards is measured using a PD and LGD method for Revolvers and average historical loss rates across a defined lookback period for Transactors. The PD and LGD method used for Revolvers is similar in nature to the method used in the Commercial and industrial and Commercial real estate segments. Primary risk drivers within the segment are credit ratings of the individual card holders along with changes of macro-economic variables such as unemployment and retail sales. The ACL for Commercial credit cards is measured using roll-rate loss rate method based on days past due.

The ACL for the State and political HTM securities segment is measured using a loss rate method based on historical bond rating transitions. Primary risk drivers within the segment are bond ratings in the portfolio along with changes of macro-economic conditions. There is no ACL for the U.S. Agency and GSE mortgage-backed HTM securities portfolios as they are considered to be agency-backed securities with no risk of loss as they are either explicitly or implicitly guaranteed by the U.S. government. For further discussion on these securities, including the aging and amortized cost balance of HTM securities, see Note 4, "Securities."

See the credit quality indicators presented previously for a summary of current risk in the Company's portfolio. Changes in economic forecasts will affect all portfolio segments, updated financial records from borrowers will affect portfolio segments by risk rating, updated credit scores will affect consumer credit cards, payment performance will affect consumer and commercial credit card portfolio segments, and updated bond credit ratings will affect held-to-maturity securities. The Company actively monitors all credit quality indicators for risk changes that will influence the current estimate.

Expected credit losses are estimated over the contractual term of the loans, adjusted for prepayments when appropriate. The contractual term excludes expected extensions, renewals, and modifications unless either of the following applies: management has a reasonable expectation at the reporting date that a concessionary loan term has been granted to a borrower experiencing financial difficulty or the extension or renewal options are included in the original or modified contract at the reporting date and are not unconditionally cancelable by the Company.

Credit card receivables do not have stated maturities. In determining the estimated life of a credit card receivable, management first estimates the future cash flows expected to be received and then applies those expected future cash flows to the credit card balance. Expected credit losses for credit cards are determined by estimating the amount and timing of principal payments expected to be received as payment for the balance outstanding as of the reporting period until the expected payments have been fully allocated. The ACL is recorded for the excess of the balance outstanding as of the reporting period over the expected principal payments.

Loans that do not share risk characteristics are evaluated on an individual basis. Loans evaluated individually include loans on nonaccrual, loans that include modifications deemed concessionary made to borrowers experiencing financial difficulty, or any loans specifically identified, and are excluded from the collective evaluation. When it is determined that payment of interest or recovery of all principal is questionable, expected credit losses are based on the fair value of the collateral at the reporting date, adjusted for undiscounted selling costs as appropriate. All loans are classified as collateral dependent if placed on non-accrual or include modifications made to borrowers experiencing financial difficulty.

ALLOWANCE FOR CREDIT LOSSES AND RECORDED INVESTMENT IN LOANS

The following tables provide a rollforward of the allowance for credit losses by portfolio segment for the year ended December 31, 2023, 2022, and 2021 (in thousands):

	Year Ended December 31, 2023									
	Commercial and industrial	Specialty lending	Commercial real estate	Consumer real estate	Consumer	Credit cards	Leases and other	Total - Loans	HTM	Total
Allowance for credit losses:										
Beginning balance	$ 136,737	$ —	$ 39,370	$ 6,148	$ 494	$ 6,866	$ 2,221	$ 191,836	$ 2,407	$ 194,243
Charge-offs	(5,047)	(762)	(266)	(1,185)	(1,232)	(9,181)	—	(17,673)	—	(17,673)
Recoveries	5,295	1	111	45	211	1,536	—	7,199	—	7,199
Provision	18,673	761	6,292	1,933	1,616	8,714	387	38,376	851	39,227
Ending balance - ACL	$ 155,658	$ —	$ 45,507	$ 6,941	$ 1,089	$ 7,935	$ 2,608	$ 219,738	$ 3,258	$ 222,996
Allowance for credit losses on off-balance sheet credit exposures:										
Beginning balance	$ 2,178	$ 186	$ 418	$ 124	$ 13	$ —	$ 62	$ 2,981	$ 107	$ 3,088
Provision	1,914	—	42	(7)	(4)	—	98	2,043	(43)	2,000
Ending balance - ACL on off-balance sheet	$ 4,092	$ 186	$ 460	$ 117	$ 9	$ —	$ 160	$ 5,024	$ 64	$ 5,088

	Year Ended December 31, 2022									
	Commercial and industrial	Specialty lending	Commercial real estate	Consumer real estate	Consumer	Credit cards	Leases and other	Total - Loans	HTM	Total
Allowance for credit losses:										
Beginning balance	$ 123,732	$ 1,738	$ 56,265	$ 3,921	$ 845	$ 6,075	$ 2,195	$ 194,771	$ 1,940	$ 196,711
Charge-offs	(37,269)	—	(29)	(57)	(800)	(6,150)	—	(44,305)	—	(44,305)
Recoveries	1,550	433	385	131	126	1,812	—	4,437	—	4,437
Provision	48,724	(2,171)	(17,251)	2,153	323	5,129	26	36,933	467	37,400
Ending balance - ACL	$ 136,737	$ —	$ 39,370	$ 6,148	$ 494	$ 6,866	$ 2,221	$ 191,836	$ 2,407	$ 194,243
Allowance for credit losses on off-balance sheet credit exposures:										
Beginning balance	$ 1,739	$ 160	$ 480	$ 106	$ —	$ —	$ 15	$ 2,500	$ 88	$ 2,588
Provision	439	26	(62)	18	13	—	47	481	19	500
Ending balance - ACL on off-balance sheet	$ 2,178	$ 186	$ 418	$ 124	$ 13	$ —	$ 62	$ 2,981	$ 107	$ 3,088

	Year Ended December 31, 2021									
	Commercial and industrial	Specialty lending	Commercial real estate	Consumer real estate	Consumer	Credit cards	Leases and other	Total - Loans	HTM	Total
Allowance for credit losses:										
Beginning balance	$ 122,700	$ 5,219	$ 61,931	$ 6,586	$ 1,480	$ 15,786	$ 2,271	$ 215,973	$ 2,610	$ 218,583
Charge-offs	(13,981)	(31,945)	(1,198)	(96)	(2,424)	(6,011)	(8)	(55,663)	—	(55,663)
Recoveries	6,694	187	1,560	142	223	1,967	18	10,791	—	10,791
Provision	8,319	28,277	(6,028)	(2,711)	1,566	(5,667)	(86)	23,670	(670)	23,000
Ending balance - ACL	$ 123,732	$ 1,738	$ 56,265	$ 3,921	$ 845	$ 6,075	$ 2,195	$ 194,771	$ 1,940	$ 196,711
Allowance for credit losses on off-balance sheet credit exposures:										
Beginning balance	$ 3,859	$ 287	$ 447	$ 145	$ 381	$ —	$ 414	$ 5,533	$ 55	$ 5,588
Provision	(2,120)	(127)	33	(39)	(381)	—	(399)	(3,033)	33	(3,000)
Ending balance - ACL on off-balance sheet	$ 1,739	$ 160	$ 480	$ 106	$ —	$ —	$ 15	$ 2,500	$ 88	$ 2,588

The allowance for credit losses on off-balance sheet credit exposures is recorded in the Accrued expenses and taxes line of the Company's Consolidated Balance Sheets, see Note 15 "Commitments, Contingencies and Guarantees."

Collateral Dependent Financial Assets

The following tables provide the amortized cost balance of financial assets considered collateral dependent as of December 31, 2023 and 2022 (in thousands):

	December 31, 2023		
Loan Segment and Type	Amortized Cost of Collateral Dependent Assets	Related Allowance for Credit Losses	Amortized Cost of Collateral Dependent Assets with no related Allowance
Commercial and industrial:			
Equipment/Accounts Receivable/Inventory	$ 7,033	$ —	$ 7,033
Agriculture	—	—	—
Total Commercial and industrial	7,033	—	7,033
Specialty lending:			
Asset-based lending	—	—	—
Total Specialty lending	—	—	—
Commercial real estate:			
Owner-occupied	632	—	632
Non-owner-occupied	—	—	—
Farmland	175	—	175
5+ Multi-family	—	—	—
1-4 Family construction	—	—	—
General construction	93	—	93
Total Commercial real estate	900	—	900
Consumer real estate:			
HELOC	1,437	—	1,437
First lien: 1-4 family	3,519	—	3,519
Junior lien: 1-4 family	102	—	102
Total Consumer real estate	5,058	—	5,058
Consumer:			
Revolving line	—	—	—
Auto	14	—	14
Other	14	—	14
Total Consumer	28	—	28
Leases and other:			
Leases	—	—	—
Other	71	—	71
Total Leases and other	71	—	71
Total loans	$ 13,090	$ —	$ 13,090

Loan Segment and Type	December 31, 2022 Amortized Cost of Collateral Dependent Assets		Related Allowance for Credit Losses		Amortized Cost of Collateral Dependent Assets with no related Allowance	
Commercial and industrial:						
Equipment/Accounts Receivable/Inventory	$	13,972	$	713	$	11,534
Agriculture		—		—		—
Total Commercial and industrial		13,972		713		11,534
Specialty lending:						
Asset-based lending		—		—		—
Total Specialty lending		—		—		—
Commercial real estate:						
Owner-occupied		2,204		—		2,204
Non-owner-occupied		—		—		—
Farmland		374		—		374
5+ Multi-family		—		—		—
1-4 Family construction		—		—		—
General construction		101		—		101
Total Commercial real estate		2,679		—		2,679
Consumer real estate:						
HELOC		2,562		—		2,562
First lien: 1-4 family		2,253		6		1,597
Junior lien: 1-4 family		67		—		67
Total Consumer real estate		4,882		6		4,226
Consumer:						
Revolving line		—		—		—
Auto		46		—		46
Other		15		—		15
Total Consumer		61		—		61
Leases and other:						
Leases		—		—		—
Other		24		—		24
Total Leases and other		24		—		24
Total loans	$	21,618	$	719	$	18,524

Modifications made to Borrowers Experiencing Financial Difficulty

In the normal course of business, the Company may execute loan modifications with borrowers. These modifications are analyzed to determine whether the modification is considered concessionary, long term and made to a borrower experiencing financial difficulty. The Company's modifications generally include interest rate adjustments, principal reductions, and amortization and maturity date extensions. These modifications allow the borrower short-term cash relief to allow them to improve their financial condition. If a loan modification is determined to be made to a borrower experiencing financial difficulty, the loan is considered collateral dependent and evaluated as part of the ACL as described above in the Allowance for Credit Losses section of this note.

For the year ended December 31, 2023, the Company did not modify any loans made to borrowers experiencing financial difficulty.

The Company had no commitments to lend to borrowers experiencing financial difficulty for which the Company has modified an existing loan as of December 31, 2023. The Company monitors loan payments on an on-going basis to determine if a loan is considered to have a payment default. Determination of payment default

involves analyzing the economic conditions that exist for each customer and their ability to generate positive cash flows during the loan term. For the year ended December 31, 2023, the Company had no loan modifications made to borrowers experiencing financial difficulty for which there was a payment default within the 12 months following the modification date.

Troubled Debt Restructurings

The prior period disclosures below are presented in accordance with previously applicable GAAP. A loan modification is considered a TDR when a concession has been granted to a debtor experiencing financial difficulties. The Company's modifications generally include interest rate adjustments, principal reductions, and amortization and maturity date extensions. These modifications allow the debtor short-term cash relief to allow them to improve their financial condition. The Company's restructured loans are considered collateral dependent and evaluated as part of the allowance for credit loss as described above in the Allowance for Credit Losses section of this note.

The Company had no commitments to lend to borrowers with loan modifications classified as TDRs as of December 31, 2022. The Company monitors loan payments on an on-going basis to determine if a loan is considered to have a payment default. Determination of payment default involves analyzing the economic conditions that exist for each customer and their ability to generate positive cash flows during the loan term.

For the year ended December 31, 2022, the Company had two commercial TDRs with a pre-modification loan balance of $5.1 million and a post-modification loan balance of $4.3 million. For the year ended December 31, 2022, the Company had no TDRs for which there was a payment default within the 12 months following the restructure date.

4. *SECURITIES*

Securities Available for Sale

This table provides detailed information about securities available for sale at December 31, 2023 and 2022 (in thousands):

2023	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury	$ 1,308,689	$ 254	$ (10,201)	$ 1,298,742
U.S. Agencies	162,406	252	(2,937)	159,721
Mortgage-backed	4,128,576	949	(508,740)	3,620,785
State and political subdivisions	1,359,744	2,218	(74,987)	1,286,975
Corporates	382,069	—	(30,794)	351,275
Collateralized loan obligations	351,376	811	(1,072)	351,115
Total	$ 7,692,860	$ 4,484	$ (628,731)	$ 7,068,613

2022	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury	$ 804,158	$ 58	$ (27,146)	$ 777,070
U.S. Agencies	178,261	—	(6,965)	171,296
Mortgage-backed	4,574,905	92	(592,875)	3,982,122
State and political subdivisions	1,465,598	1,608	(104,799)	1,362,407
Corporates	401,059	—	(33,559)	367,500
Collateralized loan obligations	353,969	32	(8,049)	345,952
Total	$ 7,777,950	$ 1,790	$ (773,393)	$ 7,006,347

The following table presents contractual maturity information for securities available for sale at December 31, 2023 (in thousands):

	Amortized Cost	Fair Value
Due in 1 year or less	$ 1,301,225	$ 1,293,481
Due after 1 year through 5 years	1,054,741	1,027,746
Due after 5 years through 10 years	699,993	664,751
Due after 10 years	508,325	461,850
Total	3,564,284	3,447,828
Mortgage-backed securities	4,128,576	3,620,785
Total securities available for sale	$ 7,692,860	$ 7,068,613

Securities may be disposed of before contractual maturities due to sales by the Company or because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

For the year ended December 31, 2023, there were $22.2 million in proceeds from the sales of securities available for sale. There were no sales of securities available for sale for year ended December 31, 2022. Securities transactions resulted in gross realized gains of $154 thousand and gross realized losses of $2 thousand for the year ended December 31, 2023. There were no gross realized gains or losses for the year ended December 31, 2022.

There were $10.1 billion and $10.3 billion of securities pledged to secure U.S. Government deposits, other public deposits, certain trust deposits, derivative transactions, and repurchase agreements at December 31, 2023 and December 31, 2022, respectively.

Accrued interest on securities available for sale totaled $31.6 million and $32.1 million as of December 31, 2023 and 2022, respectively, and is included in the Accrued income line on the Company's Consolidated Balance Sheets. The total amount of accrued interest is excluded from the amortized cost of available-for-sale securities presented above. Further, the Company has elected not to measure an ACL for accrued interest receivable.

The following table shows the Company's available-for-sale investments' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, at December 31, 2023 and 2022 (in thousands):

	Less than 12 months			12 months or more			Total		
2023	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses
Description of Securities									
U.S. Treasury	8	$ 509,946	$ (267)	63	$ 745,573	$ (9,934)	71	$ 1,255,519	$ (10,201)
U.S. Agencies	—	—	—	16	116,324	(2,937)	16	116,324	(2,937)
Mortgage-backed	14	19,154	(476)	852	3,526,296	(508,264)	866	3,545,450	(508,740)
State and political subdivisions	388	200,835	(9,202)	1,476	890,545	(65,785)	1,864	1,091,380	(74,987)
Corporates	—	—	—	267	351,275	(30,794)	267	351,275	(30,794)
Collateralized loan obligations	1	4,246	(4)	32	210,872	(1,068)	33	215,118	(1,072)
Total	411	$ 734,181	$ (9,949)	2,706	$ 5,840,885	$ (618,782)	3,117	$ 6,575,066	$ (628,731)

2022	Less than 12 months			12 months or more			Total		
	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses
Description of Securities									
U.S. Treasury	61	$ 688,208	$ (22,731)	4	$ 55,314	$ (4,415)	65	$ 743,522	$ (27,146)
U.S. Agencies	27	140,877	(4,734)	2	30,419	(2,231)	29	171,296	(6,965)
Mortgage-backed	687	1,415,169	(102,881)	205	2,557,035	(489,994)	892	3,972,204	(592,875)
State and political subdivisions	1,744	936,865	(51,427)	273	233,679	(53,372)	2,017	1,170,544	(104,799)
Corporates	86	146,615	(8,783)	189	216,885	(24,776)	275	363,500	(33,559)
Collateralized loan obligations	41	326,659	(7,820)	1	4,785	(229)	42	331,444	(8,049)
Total	2,646	$ 3,654,393	$ (198,376)	674	$ 3,098,117	$ (575,017)	3,320	$ 6,752,510	$ (773,393)

The unrealized losses in the Company's investments were caused by changes in interest rates, and not from a decline in credit of the underlying issuers. The U.S. Treasury, U.S. Agency, and GSE mortgage-backed securities are all considered to be agency-backed securities with no risk of loss as they are either explicitly or implicitly guaranteed by the U.S. government. The changes in fair value in the agency-backed portfolios are solely driven by change in interest rates caused by changing economic conditions. The Company has no knowledge of any underlying credit issues and the cash flows underlying the debt securities have not changed and are not expected to be impacted by changes in interest rates.

For the State and political subdivision portfolio, the majority of the Company's holdings are in general obligation bonds, which have a very low historical default rate due to issuers generally having unlimited taxing authority to service the debt. For the State and political, Corporates, and Collateralized loan obligations portfolios, the Company has a robust process for monitoring credit risk, including both pre-purchase and ongoing post-purchase credit reviews and analysis. The Company monitors credit ratings of all bond issuers in these segments and reviews available financial data, including market and sector trends.

During the year ended December 31, 2023, the Company recorded a $4.9 million impairment on one Corporate available-for-sale security.

As of both December 31, 2023 and 2022, there is no ACL related to the Company's available-for-sale securities as the decline in fair value did not result from credit issues.

Securities Held to Maturity

The following table provides detailed information about securities held to maturity at December 31, 2023 and 2022, respectively (in thousands):

2023	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Allowance for Credit Losses	Net Carrying Amount
U.S. Agency	$ 123,210	$ —	$ (2,686)	$ 120,524	$ —	$ 123,210
Mortgage-backed	2,738,253	18	(356,657)	2,381,614	—	2,738,253
State and political subdivisions	2,830,405	21,021	(170,197)	2,681,229	(3,258)	2,827,147
Total	$ 5,691,868	$ 21,039	$ (529,540)	$ 5,183,367	$ (3,258)	$ 5,688,610

2022	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Allowance for Credit Losses	Net Carrying Amount
U.S. Agency	$ 123,091	$ —	$ (4,567)	$ 118,524	$ —	$ 123,091
Mortgage-backed	2,965,586	11	(392,530)	2,573,067	—	2,965,586
State and political subdivisions	2,772,922	17,618	(201,472)	2,589,068	(2,407)	2,770,515
Total	$ 5,861,599	$ 17,629	$ (598,569)	$ 5,280,659	$ (2,407)	$ 5,859,192

The following table presents contractual maturity information for securities held to maturity at December 31, 2023 (in thousands):

	Amortized Cost	Fair Value
Due in 1 year or less	$ 104,561	$ 103,899
Due after 1 year through 5 years	327,449	319,378
Due after 5 years through 10 years	850,990	817,129
Due after 10 years	1,670,615	1,561,347
Total	2,953,615	2,801,753
Mortgage-backed securities	2,738,253	2,381,614
Total securities held to maturity	$ 5,691,868	$ 5,183,367

Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

There were no sales of securities held to maturity during 2023, 2022, or 2021.

During the year ended December 31, 2022, securities with an amortized cost of $4.1 billion and a fair value of $3.8 billion were transferred from the available-for-sale classification to the held-to-maturity classification as the Company has the positive intent and ability to hold these securities to maturity. The transfers of securities were made at fair value at the time of transfer. The unrealized holding gain or loss at the time of transfer is retained in AOCI and will be amortized over the remaining life of the securities, offsetting the related amortization of discount or premium on the transferred securities. No gains or losses were recognized at the time of the transfers. The amortized cost balance of securities held to maturity in the tables above includes a net unamortized unrealized loss of $207.2 million and $247.0 million at December 31, 2023 and 2022, respectively.

Accrued interest on securities held to maturity totaled $27.2 million and $27.0 million as of December 31, 2023 and 2022, respectively, and is included in the Accrued income line on the Company's Consolidated Balance Sheets. The total amount of accrued interest is excluded from the amortized cost of held-to-maturity securities presented above. Further, the Company has elected not to measure an ACL for accrued interest receivable.

The following table shows the Company's held-to-maturity investments' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, at December 31, 2023 and 2022 (in thousands):

	Less than 12 months			12 months or more			Total		
2023	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses
U.S. Agency	—	$ —	$ —	11	$ 120,524	$ (2,686)	11	$ 120,524	$ (2,686)
Mortgage-backed	2	1,469	(14)	263	2,377,922	(356,643)	265	2,379,391	(356,657)
State and political subdivisions	146	570,950	(22,557)	1,343	1,612,442	(147,640)	1,489	2,183,392	(170,197)
Total	148	$ 572,419	$ (22,571)	1,617	$ 4,110,888	$ (506,969)	1,765	$ 4,683,307	$ (529,540)

	Less than 12 months			12 months or more			Total		
2022	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses	Count	Fair Value	Unrealized Losses
U.S. Agency	11	$ 118,524	$ (4,567)	—	$ —	$ —	11	$ 118,524	$ (4,567)
Mortgage-backed	254	2,342,656	(346,611)	11	228,079	(45,919)	265	2,570,735	(392,530)
State and political subdivisions	1,403	1,543,692	(177,957)	61	617,805	(23,515)	1,464	2,161,497	(201,472)
Total	1,668	$ 4,004,872	$ (529,135)	72	$ 845,884	$ (69,434)	1,740	$ 4,850,756	$ (598,569)

The unrealized losses in the Company's held-to-maturity portfolio were caused by changes in the interest rate environment. The U.S. Agency and GSE mortgage-backed securities are considered to be agency-backed securities with no risk of loss as they are either explicitly or implicitly guaranteed by the U.S. government. Therefore, the Company's expected lifetime loss for these portfolios is zero and there is no ACL recorded for these portfolios. The

Company has no knowledge of any underlying credit issues and the cash flows underlying the debt securities have not changed and are not expected to be impacted by changes in interest rates.

For the State and political subdivision portfolio, the Company's holdings are in general obligation bonds as well as private placement bonds, which have very low historical default rates due to issuers generally having unlimited taxing authority to service the debt. The Company has a robust process for monitoring credit risk, including both pre-purchase and ongoing post-purchase credit reviews and analysis. The Company monitors credit ratings of all bond issuers in these segments and reviews available financial data, including market and sector trends. The underlying bonds are evaluated for credit losses in conjunction with management's estimate of the ACL based on credit rating.

The following table shows the amortized cost basis by credit rating of the Company's held-to-maturity State and political subdivisions bond investments at December 31, 2023 and 2022 (in thousands):

	Amortized Cost Basis by Credit Rating - HTM Debt Securities							
2023	**AAA**	**AA**	**A**	**BBB**	**BB**	**B**	**CCC-C**	**Total**
State and political subdivisions:								
Competitive	$ —	$ 7,704	$ 464,349	$ 641,743	$ 30,734	$ 15,326	$ 2,649	$ 1,162,505
Utilities	757,381	795,448	87,736	26,720	615	—	—	1,667,900
Total state and political subdivisions	$ 757,381	$ 803,152	$ 552,085	$ 668,463	$ 31,349	$ 15,326	$ 2,649	$ 2,830,405

	Amortized Cost Basis by Credit Rating - HTM Debt Securities						
2022	**AAA**	**AA**	**A**	**BBB**	**BB**	**CCC-C**	**Total**
State and political subdivisions:							
Competitive	$ —	$ —	$ 435,953	$ 618,517	$ 17,120	$ 2,934	$ 1,074,524
Utilities	759,539	824,386	84,293	29,599	581	—	1,698,398
Total state and political subdivisions	$ 759,539	$ 824,386	$ 520,246	$ 648,116	$ 17,701	$ 2,934	$ 2,772,922

Competitive held-to-maturity securities include not-for-profit enterprises that provide public functions such as housing, higher education, or healthcare, but do so in a competitive environment. It also includes project financings that can have relatively high enterprise risk, such as deals backed by revenues from sports or convention facilities or start-up transportation revenues.

Utilities are public enterprises providing essential services with a monopoly or near-monopoly over the service area. This includes environmental utilities (water, sewer, solid waste), power utilities (electric distribution and generation, gas), and transportation utilities (airports, parking, toll roads, mass transit, ports).

All held-to-maturity securities were current and not past due at December 31, 2023 and 2022.

Trading Securities

The net unrealized gain on trading securities was $272 thousand and the net unrealized loss on trading securities was $26 thousand as of December 31, 2023 and 2022, respectively. The net unrealized gain on trading securities was $2 thousand as of December 31, 2021. Net unrealized gains and losses are included in trading and investment banking income on the Consolidated Statements of Income. Securities sold not yet purchased totaled $8.0 million and $3.5 million at December 31, 2023 and 2022, respectively, and are classified within the Other liabilities line of the Company's Consolidated Balance Sheets.

Other Securities

The table below provides detailed information for Other securities at December 31, 2023 and 2022 (in thousands):

	December 31, 2023	December 31, 2022
FRB and FHLB stock	$ 87,672	$ 41,472
Equity securities with readily determinable fair values	11,228	10,782
Equity securities without readily determinable fair values	394,035	297,504
Total	$ 492,935	$ 349,758

Investment in FRB stock is based on the capital structure of the investing bank, and investment in FHLB stock is mainly tied to the level of borrowings from the FHLB. These holdings are carried at cost. Equity securities with readily determinable fair values are generally traded on an exchange and market prices are readily available. Equity securities without readily determinable fair values include equity investments which are held by a subsidiary qualified as a Small Business Investment Company, as well as investments in low-income housing partnerships within the areas the Company serves. Unrealized gains or losses on equity securities with and without readily determinable fair values are recognized in the Investment securities gains, net line of the Company's Consolidated Statements of Income.

Investment Securities Gains, Net

The following table presents the components of Investment securities (losses) gains, net for the years ended December 31, 2023, 2022, and 2021 (in thousands):

	Year Ended December 31, 2023	2022	2021
Investment securities (losses) gains, net			
Available-for-sale debt securities:			
Gains realized on sales	$ 154	$ —	$ 7,819
Losses realized on sales	(2)	—	(2)
Impairment on AFS security	(4,925)	—	—
Equity securities with readily determinable fair values:			
Fair value adjustments, net	168	(8,073)	(10,881)
Equity securities without readily determinable fair values:			
Fair value adjustments, net	1,334	355	8,121
Sales	132	66,162	—
Total investment securities (losses) gains, net	$ (3,139)	$ 58,444	$ 5,057

During 2022, the Company sold the entirety of its Visa Inc. Class B common shares in a cash transaction which resulted in a pre-tax gain of $66.2 million. Prior to the sale, the Visa Inc. Class B shares had no carrying value on the Company's Consolidated Balance Sheets as the Company had no historical cost basis in the shares.

5. *SECURITIES PURCHASED UNDER AGREEMENTS TO RESELL*

The Company regularly enters into agreements for the purchase of securities with simultaneous agreements to resell (resell agreements). The agreements permit the Company to sell or repledge these securities. Resell agreements were $240.3 million and $951.6 million at December 31, 2023 and 2022, respectively. The Company obtains possession of collateral with a market value equal to or in excess of the principal amount loaned under resell agreements.

6. *LOANS TO OFFICERS AND DIRECTORS*

Certain executive officers and directors of the Company and the Bank, including companies in which those persons are principal holders of equity securities or are general partners, borrow in the normal course of business from the Bank. All such loans have been made on substantially the same terms, including interest rates and collateral, as those prevailing at the same time for comparable transactions with unrelated parties. In addition, all such loans are current as to repayment terms.

For the years 2023 and 2022, an analysis of activity with respect to such aggregate loans to related parties appears below (in thousands):

	Year Ended December 31, 2023	Year Ended December 31, 2022
Balance – beginning of year	$ 362,853	$ 279,717
New loans	177,354	192,595
Repayments	(27,271)	(109,459)
Reduction due to change in reportable loans	(4,429)	—
Balance – end of year	$ 508,507	$ 362,853

7. *GOODWILL AND OTHER INTANGIBLES*

Changes in the carrying amount of goodwill for the years ended December 31, 2023 and December 31, 2022 by operating segment are as follows (in thousands):

	Commercial Banking	Institutional Banking	Personal Banking	Total
Balances as of January 1, 2023	$ 63,113	$ 76,492	$ 67,780	$ 207,385
Balances as of December 31, 2023	$ 63,113	$ 76,492	$ 67,780	$ 207,385
Balances as of January 1, 2022	$ 59,419	$ 51,332	$ 63,767	$ 174,518
Healthcare savings account business acquisition	—	25,160	—	25,160
Branch acquisition	3,694	—	4,013	7,707
Balances as of December 31, 2022	$ 63,113	$ 76,492	$ 67,780	$ 207,385

Following are the intangible assets that continue to be subject to amortization as of December 31, 2023 and 2022 (in thousands):

	As of December 31, 2023		
	Core Deposit Intangible Assets	Customer Relationships	Total
Gross carrying amount	$ 2,345	$ 109,978	$ 112,323
Accumulated amortization	1,135	40,176	41,311
Net carrying amount	$ 1,210	$ 69,802	$ 71,012

	As of December 31, 2022		
	Core Deposit Intangible Assets	Customer Relationships	Total
Gross carrying amount	$ 16,661	$ 114,978	$ 131,639
Accumulated amortization	14,827	38,088	52,915
Net carrying amount	$ 1,834	$ 76,890	$ 78,724

On November 18, 2022, the Company acquired a healthcare savings account business, which included $383.0 million of deposits. The purchase resulted in recognition of $25.2 million of goodwill and a $67.0 million customer relationship intangible asset.

On March 28, 2022, the Company acquired a bank branch. Included in the branch acquisition were $43.0 million in loans and $226.8 million of deposits. The purchase resulted in recognition of $7.7 million of goodwill and a $2.3 million core deposit intangible asset.

Amortization expense for the years ended December 31, 2023, 2022, and 2021 was $8.6 million, $5.0 million, and $4.8 million, respectively.

The following table discloses the estimated amortization expense of intangible assets in future years (in thousands):

For the year ending December 31, 2024	$	7,694
For the year ending December 31, 2025		7,487
For the year ending December 31, 2026		6,628
For the year ending December 31, 2027		4,655
For the year ending December 31, 2028		4,544

8. *PREMISES, EQUIPMENT, AND LEASES*

Premises and equipment consisted of the following (in thousands):

	December 31,	
	2023	**2022**
Land	$ 41,368	$ 41,368
Buildings and leasehold improvements	370,646	361,346
Equipment	194,171	187,208
Software	287,592	285,833
Total	893,777	875,755
Accumulated depreciation	(394,892)	(371,958)
Accumulated amortization	(257,185)	(240,148)
Premises and equipment, net	$ 241,700	$ 263,649

Premises and equipment depreciation and amortization expenses were $46.5 million in 2023, $46.8 million in 2022, and $49.6 million in 2021.

The Company primarily has leases of real estate, including buildings, or portions of buildings, used for bank branches or general office operations. These leases have remaining lease terms that range from less than one year to 24 years and most leases include one or more options to renew, with renewal terms that can extend the lease term from one month to 35 years or more. The exercise of lease renewal options is at the Company's sole discretion. No renewal options were included in the Company's calculation of its lease liabilities or right of use assets since it is not reasonably certain that the Company will exercise these options. No leases include options to purchase the leased property. The lease agreements do not contain any material residual value guarantees or material restrictive covenants. An insignificant number of leases include variable lease payments that are based on the Consumer Price Index (CPI). For the calculation of the lease liability and right of use asset for these leases, the Company has included lease payments based on CPI as of the effective date of ASC 842. The Company has made the election not to separate lease and non-lease components for existing real estate leases when determining consideration within the lease contract. All of the Company's lease agreements are classified as operating leases under ASC 842.

As of December 31, 2023 and 2022, right-of-use assets of $50.0 million and $54.6 million, respectively, were included as part of Other assets on the Company's Consolidated Balance Sheets. In addition, lease liabilities of $58.9 million and $63.5 million were included as part of Other liabilities on the Company's Consolidated Balance Sheets as of December 31, 2023 and 2022, respectively. For the years ended December 31, 2023, 2022, and 2021, lease expense of $11.1 million, $11.9 million, and $11.8 million, respectively, was recognized as part of Occupancy expense on the Company's Consolidated Statements of Income. For the years ended December 31, 2023, 2022, and 2021, cash payments of $12.2 million, $12.9 million, and $12.6 million, respectively, were made for leases included in the measurement of lease liabilities and are classified as cash flows from operating activities in the Company's

Consolidated Statements of Cash Flows. For the years ended December 31, 2023 and 2022, leased assets obtained in exchange for new operating lease liabilities were $5.7 million and $11.3 million, respectively. As of December 31, 2023 and 2022, the weighted average remaining lease terms of the Company's leases were 6.5 years and 7.0 years, respectively, and the weighted average discount rates were 3.17% and 2.96%, respectively.

As of December 31, 2023, future minimum lease payments under non-cancelable operating leases were as follows (in thousands):

2024	$	11,994
2025		11,070
2026		10,552
2027		9,538
2028		7,935
Thereafter		14,707
Total lease payments		65,796
Less: Interest		6,866
Present value of lease liabilities	$	58,930

9. *BORROWED FUNDS*

The components of the Company's long-term debt are as follows (in thousands):

	December 31,			
	2023		2022	
Short-term debt:				
Federal Home Loan Bank 5.04% due 2024	$	1,000,000	$	—
Federal Reserve Bank Term Funding Program 4.83% due 2024		800,000		—
Total short-term debt		1,800,000		—
Long-term debt:				
Trust Preferred Securities:				
Marquette Capital Trust I Subordinated Debentures 6.99% due 2036		18,607		18,319
Marquette Capital Trust II Subordinated Debentures 6.99% due 2036		19,132		18,863
Marquette Capital Trust III Subordinated Debentures 7.12% due 2036		7,517		7,415
Marquette Capital Trust IV Subordinated Debentures 7.25% due 2036		30,356		29,956
Subordinated notes 3.70% due 2030, net of issuance costs		199,232		198,781
Subordinated notes 6.25% due 2032, net of issuance costs		108,403		107,977
Total long-term debt		383,247		381,311
Total borrowed funds	$	2,183,247	$	381,311

The aggregate contractual repayment of long-term debt of $413.1 million is due after December 31, 2028.

The Company assumed long-term debt obligations from the acquisition of Marquette consisting of debt obligations payable to four unconsolidated trusts (Marquette Capital Trust I, Marquette Capital Trust II, Marquette Capital Trust III, and Marquette Capital Trust IV) that previously issued trust preferred securities. These long-term debt obligations had an aggregate contractual balance of $103.1 million and had a carrying value of $75.6 million as of December 31, 2023. Interest rates on trust preferred securities are tied to the three-month Term SOFR rate with spreads ranging from 133 basis points to 160 basis points and reset quarterly. The trust preferred securities have maturity dates ranging from January 2036 to September 2036.

In September 2020, the Company issued $200.0 million of 3.70% fixed-to-fixed rate subordinated notes that mature on September 17, 2030. The notes bear interest at the rate of 3.70% per annum, payable semi-annually on each March 17 and September 17. The Company may redeem the notes, in whole or in part, on September 17, 2025, or on any interest payment date thereafter. Unamortized debt issuance costs related to these notes totaled $0.8 million as of December 31, 2023. Proceeds from the issuance of the notes were used for general corporate purposes, including contributing Tier 1 capital into the Bank.

In September 2022, the Company issued $110.0 million of 6.25% fixed-to-fixed rate subordinated notes that mature on September 28, 2032. The notes bear interest at the rate of 6.25% per annum, payable semi-annually on each March 28 and September 28. The Company may redeem the notes, in whole or in part, on September 28, 2027, or on any interest payment date thereafter. Unamortized debt issuance costs related to these notes totaled $1.6 million as of December 31, 2023. Proceeds from the issuance of the notes were used for general corporate purposes, including contributing Tier 1 capital into the Bank.

The Company is a member bank of the FHLB of Des Moines. Through this relationship, the Company purchased $55.2 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company's borrowing capacity is dependent upon the amount of collateral the Company places at the FHLB. The Company had one short-term advance of $1.0 billion outstanding at FHLB Des Moines as of December 31, 2023. Additionally, in 2023, the FHLB Des Moines issued a letter of credit for $150.0 million on behalf of the Company to secure deposits. This letter of credit expired in January 2024 and was subsequently renewed with an expiration date in July 2024. The Company's borrowing capacity with the FHLB was $975.3 million as of December 31, 2023.

The Company had an $800.0 million short-term borrowing outstanding with the Federal Reserve Bank's BTFP as of December 31, 2023. The Company's remaining borrowing capacity with the BTFP was $5.0 million and its remaining borrowing capacity at the Federal Reserve Discount Window was $10.5 billion as of December 31, 2023.

The Company has a revolving line of credit with Wells Fargo Bank, N.A. which allows the Company to borrow up to $30.0 million for general working capital purposes. The interest rate applied to borrowed balances will be at the Company's option either 1.40% above Term SOFR or 1.75% below the prime rate on the date of an advance. The Company pays 0.4% unused commitment fee for unused portions of the line of credit. The Company currently has no outstanding balance on this line of credit.

The Company enters into sales of securities with simultaneous agreements to repurchase (repurchase agreements). The Company utilizes repurchase agreements to facilitate the needs of customers and to facilitate secured short-term funding needs. Repurchase agreements are stated at the amount of cash received in connection with the transaction. The Company monitors collateral levels on a continuous basis and may be required to provide additional collateral based on the fair value of the underlying securities. Securities pledged as collateral under repurchase agreements are maintained with the Company's safekeeping agents. The amounts received under these agreements represent short-term borrowings. The amount outstanding at December 31, 2023, was $2.1 billion, with accrued interest payable of $1.5 million. The amount outstanding at December 31, 2022, was $2.2 billion, with accrued interest payable of $1.4 million.

The carrying amounts and market values of the securities and the related repurchase liabilities and weighted average interest rates of the repurchase liabilities (grouped by maturity of the repurchase agreements) were as follows as of December 31, 2023 and 2022 (in thousands):

	As of December 31, 2023		
	Securities Fair Market Value	Repurchase Liabilities	Weighted Average Interest Rate
Maturity of the Repurchase Liabilities			
2 to 29 days	$ 1,544,906	$ 1,830,542	4.41 %
30 to 90 Days	188,424	186,289	5.67
Over 90 Days	91,140	89,000	5.08
Total	$ 1,824,470	$ 2,105,831	4.55 %

	As of December 31, 2022		
	Securities Fair Market Value	Repurchase Liabilities	Weighted Average Interest Rate
Maturity of the Repurchase Liabilities			
2 to 29 days	$ 1,756,837	$ 1,869,186	3.32 %
30 to 90 Days	295,901	290,501	4.59
Total	$ 2,052,738	$ 2,159,687	3.49 %

The table below presents the remaining contractual maturities of repurchase agreements outstanding at December 31, 2023 and 2022, in addition to the various types of marketable securities that have been pledged as collateral for these borrowings (in thousands):

	As of December 31, 2023			
	Remaining Contractual Maturities of the Agreements			
	2-29 days	30-90 days	Over 90 Days	Total
Repurchase agreements, secured by:				
U.S. Treasury	$ 119,528	$ —	$ 43,618	$ 163,146
U.S. Agency	1,711,014	186,289	45,382	1,942,685
Total repurchase agreements	$ 1,830,542	$ 186,289	$ 89,000	$ 2,105,831

	As of December 31, 2022		
	Remaining Contractual Maturities of the Agreements		
	2-29 days	30-90 days	Total
Repurchase agreements, secured by:			
U.S. Treasury	$ 33,888	$ —	$ 33,888
U.S. Agency	1,835,298	290,501	2,125,799
Total repurchase agreements	$ 1,869,186	$ 290,501	$ 2,159,687

10. *REGULATORY REQUIREMENTS*

Payment of dividends by the Bank to the parent company is subject to various regulatory restrictions. For national banks, the governing regulatory agency must approve the declaration of any dividends generally in excess of the sum of net income for that year and retained net income for the preceding two years.

The Bank maintains a reserve balance with the FRB as required by law. During 2023, this amount averaged $2.0 billion, compared to $2.3 billion in 2022.

At December 31, 2023, the Company is required to have minimum common equity tier 1, tier 1, and total capital ratios of 4.5%, 6.0% and 8.0%, respectively. The Company's actual ratios at that date were 10.94%, 10.94% and 12.85%, respectively. The Company is required to have a minimum leverage ratio of 4.0%, and the leverage ratio at December 31, 2023, was 8.49%.

As of December 31, 2023, the most recent notification from the OCC categorized the Bank as well capitalized under the regulatory framework for prompt corrective action. To be categorized as well-capitalized the Bank must maintain total risk-based, tier 1 risk-based, common equity tier 1, and tier 1 leverage ratios of 10.0%, 8.0%, 6.5%, and 5.0%, respectively. There are no conditions or events that have occurred since the receipt of the most recent notification that management believes have changed the Bank's categorization.

In addition, under amendments to the BHCA introduced by the Dodd-Frank Act and commonly known as the Volcker Rule, the Company and its subsidiaries are subject to extensive limits on proprietary trading and on owning or sponsoring hedge funds and private-equity funds. The limits on proprietary trading are largely focused on purchases or sales of financial instruments by a banking entity as principal primarily for the purpose of short-term resale, benefiting from actual or expected short-term price movements, or realizing short-term arbitrage profits. The limits on owning or sponsoring hedge funds and private-equity funds are designed to ensure that banking entities generally maintain only small positions in managed or advised funds and are not exposed to significant losses arising directly or indirectly from them. The Volcker Rule also provides for increased capital charges, quantitative limits, rigorous compliance programs, and other restrictions on permitted proprietary trading and fund activities, including a prohibition on transactions with a covered fund that would constitute a covered transaction under Sections 23A and 23B of the Federal Reserve Act. The fund activities of the Company and its subsidiaries are in conformance with the Volcker Rule.

Actual capital amounts as well as required and well-capitalized common equity tier 1, tier 1, total and tier 1 leverage ratios as of December 31, 2023 and 2022 for the Company and the Bank are as follows (in thousands):

	2023					
	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Common Equity Tier 1 Capital:						
UMB Financial Corporation	$ 3,418,676	10.94 %	$ 1,406,371	4.50 %	$ N/A	N/A %
UMB Bank, n. a.	3,477,634	11.21	1,395,873	4.50	2,016,261	6.50
Tier 1 Capital:						
UMB Financial Corporation	3,418,676	10.94	1,875,161	6.00	N/A	N/A
UMB Bank, n. a.	3,477,634	11.21	1,861,164	6.00	2,481,551	8.00
Total Capital:						
UMB Financial Corporation	4,014,910	12.85	2,500,215	8.00	N/A	N/A
UMB Bank, n. a.	3,690,378	11.90	2,481,551	8.00	3,101,939	10.00
Tier 1 Leverage:						
UMB Financial Corporation	3,418,676	8.49	1,611,076	4.00	N/A	N/A
UMB Bank, n. a.	3,477,634	8.52	1,633,347	4.00	2,041,684	5.00
	2022					
Common Equity Tier 1 Capital:						
UMB Financial Corporation	$ 3,129,030	10.62 %	$ 1,325,893	4.50 %	$ N/A	N/A %
UMB Bank, n. a.	3,184,837	10.88	1,317,571	4.50	1,903,158	6.50
Tier 1 Capital:						
UMB Financial Corporation	3,129,030	10.62	1,767,857	6.00	N/A	N/A
UMB Bank, n. a.	3,184,837	10.88	1,756,762	6.00	2,342,349	8.00
Total Capital:						
UMB Financial Corporation	3,682,619	12.50	2,357,142	8.00	N/A	N/A
UMB Bank, n. a.	3,359,158	11.47	2,342,349	8.00	2,927,936	10.00
Tier 1 Leverage:						
UMB Financial Corporation	3,129,030	8.43	1,483,953	4.00	N/A	N/A
UMB Bank, n. a.	3,184,837	8.46	1,506,443	4.00	1,883,054	5.00

11. *EMPLOYEE BENEFITS*

The Company has a discretionary noncontributory profit-sharing plan, which features an employee stock ownership plan. This plan is for the benefit of substantially all eligible officers and employees of the Company and its subsidiaries. The Company recognized expense related to such contributions of $2.0 million, $2.0 million, and $2.5 million for the years ended December 31, 2023, 2022, and 2021, respectively.

The Company has a qualified 401(k) profit sharing plan that permits participants to make contributions by salary deduction, to which the Company makes matching contributions. The Company recognized expense related to matching contributions of $15.2 million, $13.6 million, and $11.4 million for the years ended December 31, 2023, 2022 and 2021, respectively.

The Company recognized $16.2 million, $20.6 million, and $18.6 million in expense related to outstanding restricted stock unit grants for the years ended December 31, 2023, 2022 and 2021, respectively. The Company did not recognize any expense related to outstanding restricted stock grants for the year ended December 31, 2023. The Company recognized $196 thousand and $1.9 million in expense related to outstanding restricted stock grants for the years ended December 31, 2022 and 2021, respectively. The Company did not recognize any expense related to outstanding stock options for the years ended December 31, 2023 or 2022. The Company recognized $40 thousand in expense related to outstanding stock options for the year ended December 31, 2021. The Company had $15.5 million of unrecognized compensation expense related to outstanding restricted stock unit grants at December 31, 2023.

Long-Term Incentive Compensation Plan

At the April 26, 2005 shareholders' meeting, the shareholders of the Company approved the UMB Financial Corporation Long-Term Incentive Compensation Plan (LTIP) which became effective as of January 1, 2005. The LTIP permits the issuance to selected officers of the Company service-based restricted stock grants, performance-based restricted stock grants and non-qualified stock options. Service-based restricted stock grants contain a service requirement. The performance-based restricted grants contain performance and service requirements. The non-qualified stock option grants contain a service requirement.

At the April 23, 2013 shareholders' meeting, the shareholders of the Company approved amendments to the LTIP Plan, including increasing the number of shares of the Company's stock reserved for issuance under the Plan from 5.25 million shares to 7.44 million shares. Additionally, the shareholders approved increasing the maximum benefits any one eligible employee may receive under the plan during any one fiscal year from $1 million to $2 million taking into account the value of all stock options and restricted stock received.

At the April 24, 2018 shareholders' meeting, the shareholders of the Company approved the UMB Financial Corporation Omnibus Incentive Compensation Plan which became effective as of April 24, 2018 and replaced the LTIP plan. No service-based restricted stock grants, performance-based restricted stock grants or non-qualified stock options have been issued under the LTIP since 2018.

The service-based restricted stock grants issued under the LTIP contained a service requirement with varying vesting schedules. The majority of these grants issued in 2016 through 2018 utilized a vesting schedule in which 50% of the shares vest after two years of service, 75% after three years of service and 100% after four years of service. Certain other grants utilized vesting schedules in which the grants vest ratably over the requisite service period or contain a three-year cliff vesting.

The dividends on service-based restricted stock grants are treated as two separate transactions. First, cash dividends are paid on the restricted stock. Those cash dividends are then paid to purchase additional shares of restricted stock. Dividends earned as additional shares of restricted stock have the same terms as the associated grant. The dividends paid on the stock are recorded as a reduction to retained earnings, similar to all dividend transactions.

Total fair value of shares vested during the years ended December 31, 2022, and 2021 was $2.5 million and $3.2 million, respectively.

The non-qualified stock options carry a service requirement and grants issued prior to 2016 vested 50% after three years, 75% after four years and 100% after five years, while grants issued in 2016 through 2018 vested 50% after two years, 75% after three years and 100% after four years.

The table below discloses the information relating to non-qualified option activity in 2023 under the LTIP:

	Number of Shares	Weighted Average Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Stock Options Under the LTIP				
Outstanding - December 31, 2022	137,858	$ 62.08		
Granted	—	—		
Canceled	—	—		
Expired	(4,956)	69.85		
Exercised	(35,278)	55.12		
Outstanding - December 31, 2023	97,624	$ 64.20	2.5	$ 1,888,911
Exercisable - December 31, 2023	97,624	$ 64.20	2.5	$ 1,888,911

There were no options granted during 2023, 2022, or 2021. The total intrinsic value of options exercised during the years ended December 31, 2023, 2022, and 2021, was $640 thousand, $1.2 million and $12.9 million, respectively. As of December 31, 2023, there was no unrecognized compensation cost related to nonvested options.

Cash received from options exercised under all share-based compensation plans was $1.9 million, $1.5 million, and $18.4 million for the years ended December 31, 2023, 2022, and 2021, respectively. The tax benefit realized for stock options exercised was $1.6 million, $2.2 million, and $2.6 million for the years ended December 31, 2023, 2022, and 2021, respectively.

The Company has no specific policy to repurchase common shares to mitigate the dilutive impact of options; however, the Company has historically made adequate discretionary repurchases of common shares in an amount that exceeds stock option exercise activity. See a description of the Company's Repurchase Authorizations in Note 14, "Common Stock and Earnings Per Share," in the Notes to the Consolidated Financial Statements provided in Item 8 of this report.

Omnibus Incentive Compensation Plan

At the April 24, 2018 shareholders' meeting, the shareholders of the Company approved the UMB Financial Corporation Omnibus Incentive Compensation Plan (OICP) which became effective as of April 24, 2018. The OICP permits the issuance to key employees of the Company various types of awards, including stock options, restricted stock and restricted stock units, performance awards and other stock-based awards. Service-based restricted stock unit awards contain a service requirement and the performance-based restricted stock unit awards contain performance and service requirements. The number of shares of the Company's stock reserved for issuance under the OICP is 5.40 million shares.

The service-based restricted stock unit awards are payable in shares of stock and the majority contain a service requirement with a four-year graded vesting schedule in which 50% of the units are vested after two years, 75% are vested after three years, and 100% are vested after four years. Grants of service-based restricted stock units made beginning in 2023 contain a service requirement with a three-year pro-rata vesting schedule. Certain other grants utilize vesting schedules in which the grants vest ratably over the requisite service period or have a cliff vesting.

The performance-based restricted stock unit awards are payable in shares of stock and contain a service and a performance requirement. The performance requirement is based on two predetermined performance requirements over a three-year period. The service requirement portion is a three-year cliff vesting. If the minimum performance requirement is not met, the participants do not receive the shares.

The dividends on service-based restricted stock units are treated as two separate transactions. First, cash dividends are paid on the restricted stock units. Those cash dividends are then paid to purchase additional shares of restricted stock units. Dividends earned as additional shares of restricted stock units have the same terms as the associated grant. The dividends paid on the stock are recorded as a reduction to retained earnings, similar to all dividend transactions. Dividends are not paid on performance-based restricted stock units.

The table below discloses the status of the service-based restricted stock units during 2023:

	Number of Units	Weighted Average Price Per Unit
Service-Based Restricted Stock Units Under the OICP		
Nonvested - December 31, 2022	379,986	$ 82.64
Granted	168,254	88.74
Canceled	(42,988)	89.57
Vested	(140,142)	72.64
Nonvested - December 31, 2023	365,110	$ 88.47

As of December 31, 2023, there was $13.5 million of unrecognized compensation cost related to the nonvested service-based restricted stock units. The cost is expected to be recognized over a period of 1.9 years.

Total fair value of units vested during the years ended December 31, 2023, 2022, and 2021 was $9.7 million, $11.4 million, and $6.7 million, respectively.

The table below discloses the status of the performance-based restricted stock units during 2023:

	Number of Units	Weighted Average Price Per Unit
Performance-Based Restricted Stock Units Under the OICP		
Nonvested - December 31, 2022	165,110	$ 64.21
Granted	54,026	82.27
Canceled	(9,756)	81.09
Vested	(128,496)	61.68
Performance-based adjustment	64,248	61.68
Nonvested - December 31, 2023	145,132	$ 70.92

As of December 31, 2023, there was $2.0 million of unrecognized compensation cost related to the nonvested performance-based restricted stock units. The cost is expected to be recognized over a period of 1.6 years. The fair value of units vested during the years ended December 31, 2023, 2022 and 2021 was $11.1 million, $7.4 million, and $2.7 million, respectively.

12. BUSINESS SEGMENT REPORTING

The Company has strategically aligned its operations into the following three reportable segments: Commercial Banking, Institutional Banking, and Personal Banking (collectively, the Business Segments, and each, a Business Segment). The Company's senior executive officers regularly evaluate Business Segment financial results produced by the Company's internal reporting system in deciding how to allocate resources and assess performance for individual Business Segments. The Company's reportable Business Segments include certain corporate overhead, technology and service costs that are allocated based on methodologies that are applied consistently between periods. For comparability purposes, amounts in all periods are based on methodologies in effect at December 31, 2023. Previously reported results have been reclassified in this filing to conform to the current organizational structure.

The following summaries provide information about the activities of each segment:

Commercial Banking serves the commercial banking and treasury management needs of the Company's small to middle-market businesses through a variety of products and services. Such services include commercial loans, commercial real estate financing, commercial credit cards, letters of credit, loan syndication services, and consultative services. In addition, the Company's specialty lending group offers a variety of business solutions including asset-based lending, mezzanine debt and minority equity investments. Treasury management services include depository services, account reconciliation and cash management tools such as, accounts payable and receivable solutions, electronic fund transfer and automated payments, controlled disbursements, lockbox services, and remote deposit capture services.

Institutional Banking is a combination of banking services, fund services, asset management services, and healthcare services provided to institutional clients. This segment also provides fixed income sales, trading and underwriting, corporate trust and escrow services, as well as institutional custody. Institutional Banking includes UMBFS, which provides fund administration and accounting, investor services and transfer agency, and other services to mutual fund and alternative investment groups. Healthcare services provides healthcare payment solutions including custodial services for health savings accounts (HSAs) and private label, multipurpose debit cards to insurance carriers, third-party administrators, software companies, employers, and financial institutions.

Personal Banking combines consumer banking and wealth management services offered to clients and delivered through personal relationships and the Company's bank branches, ATM network and internet banking. Products offered include deposit accounts, retail credit cards, private banking, installment loans, home equity lines of credit, and residential mortgages. The range of client services extends from a basic checking account to estate planning and trust services and includes private banking, brokerage services, and insurance services in addition to a full spectrum of investment advisory, trust, and custody services.

BUSINESS SEGMENT INFORMATION

Segment financial results were as follows (in thousands):

	Year Ended December 31, 2023			
	Commercial Banking	Institutional Banking	Personal Banking	Total
Net interest income	$ 598,371	$ 192,765	$ 128,980	$ 920,116
Provision for credit losses	33,184	1,406	6,637	41,227
Noninterest income	97,614	347,933	96,306	541,853
Noninterest expense	365,856	382,770	250,514	999,140
Income (loss) before taxes	296,945	156,522	(31,865)	421,602
Income tax expense (benefit)	48,403	26,838	(3,663)	71,578
Net income (loss)	$ 248,542	$ 129,684	$ (28,202)	$ 350,024
Average assets	$ 20,676,000	$ 12,504,000	$ 6,550,000	$ 39,730,000

	Year Ended December 31, 2022			
	Commercial Banking	Institutional Banking	Personal Banking	Total
Net interest income	$ 596,031	$ 159,679	$ 158,087	$ 913,797
Provision for credit losses	32,851	495	4,554	37,900
Noninterest income	122,614	323,794	107,825	554,233
Noninterest expense	332,912	320,976	244,231	898,119
Income before taxes	352,882	162,002	17,127	532,011
Income tax expense	67,134	31,889	1,306	100,329
Net income	$ 285,748	$ 130,113	$ 15,821	$ 431,682
Average assets	$ 17,489,000	$ 13,100,000	$ 6,990,000	$ 37,579,000

	Year Ended December 31, 2021			
	Commercial Banking	Institutional Banking	Personal Banking	Total
Net interest income	$ 579,992	$ 87,644	$ 147,885	$ 815,521
Provision for credit losses	15,543	630	3,827	20,000
Noninterest income	84,417	273,483	109,275	467,175
Noninterest expense	306,424	292,142	235,070	833,636
Income before taxes	342,442	68,355	18,263	429,060
Income tax expense	58,580	12,101	5,361	76,042
Net income	$ 283,862	$ 56,254	$ 12,902	$ 353,018
Average assets	$ 15,243,000	$ 12,255,000	$ 7,831,000	$ 35,329,000

13. *REVENUE RECOGNITION*

The following is a description of the principal activities from which the Company generates revenue that are within the scope of ASC 606, *Revenue from Contracts with Customers*:

Trust and securities processing – Trust and securities processing income consists of fees earned on personal and corporate trust accounts, custody of securities services, trust investments and wealth management services, and mutual fund and alternative asset servicing. The performance obligations related to this revenue include items such as performing full bond trustee service administration, investment advisory services, custody and record-keeping services, and fund administrative and accounting services. These fees are part of long-term contractual agreements and the performance obligations are satisfied upon completion of service and fees are generally a fixed flat monthly rate or based on a percentage of the account's market value per the contract with the customer. These fees are primarily recorded within the Company's Institutional and Personal Banking segments.

Trading and investment banking – Trading and investment banking income consists of income earned related to the Company's trading securities portfolio, including futures hedging, dividends, bond underwriting, and other securities incomes. The vast majority of this revenue is recognized in accordance with ASC 320, *Debt and Equity Securities*, and is out of the scope of ASC 606. A portion of trading and investment banking represents fees earned for management fees, commissions, and underwriting of corporate bond issuances. The performance obligations

related to these fees include reviewing the credit worthiness of the customer, ensuring appropriate regulatory approval and participating in due diligence. The fees are fixed per the bond prospectus and the performance obligations are satisfied upon registration approval of the bonds by the applicable regulatory agencies. Revenue is recognized at the point in time upon completion of service and when approval is granted by the regulators.

Service charges on deposits – Service charges on deposit accounts represent monthly analysis fees recognized for the services related to customer deposit accounts, including account maintenance and depository transactions processing fees. Commercial Banking and Institutional Banking depository accounts charge fees in accordance with the customer's pricing schedule while Personal Banking account holders are generally charged a flat service fee per month. Deposit service charges for the healthcare accounts included in the Institutional Banking segment are priced according to either standard pricing schedules with individual account holders or according to service agreements between the Company and employer groups or third-party administrators. The Company satisfies the performance obligation related to providing depository accounts monthly as transactions are processed and deposit service charge revenue is recorded monthly. These fees are recognized within all Business Segments.

Insurance fees and commissions – Insurance fees and commissions includes all insurance-related fees earned, including commissions for individual life, variable life, group life, health, group health, fixed annuity, and variable annuity insurance contracts. The performance obligations related to these revenues primarily represent the placement of insurance policies with the insurance company partners. The fees are based on the contracts with insurance company partners and the performance obligations are satisfied when the terms of the policy have been agreed to and the insurance policy becomes effective.

Brokerage fees – Brokerage fees represent income earned related to providing brokerage transaction services, including commissions on equity and commodity trades, and fees for investment management, advisory and administration. The performance obligations related to transaction services are executing the specified trade and are priced according to the customer's fee schedule. Such income is recognized at a point in time as the trade occurs and the performance obligation is fulfilled. The performance obligations related to investment management, advisory and administration include allocating customer assets across a wide range of mutual funds and other investments, on-going account monitoring and re-balancing of the portfolio. These performance obligations are satisfied over time and the related revenue is calculated monthly based on the assets under management of each customer. All material performance obligations are satisfied as of the end of each accounting period.

Bankcard fees – Bankcard fees primarily represent income earned from interchange revenue from MasterCard and Visa for the Company's processing of debit, credit, HSA, and flexible spending account transactions. Additionally, the Company earns income and incentives related to various referrals of customers to card programs. The performance obligation for interchange revenue is the processing of each transaction through the Company's access to the banking system. This performance obligation is completed for each individual transaction and income is recognized per transaction in accordance with interchange rates established by MasterCard and Visa. The performance obligations for various referral and incentive programs include either referring customers to certain card products or issuing exclusively branded cards for certain customer segments. The pricing of these incentive and referral programs are in accordance with the agreement with the individual card partner. These performance obligations are completed as the referrals are made or over a period of time when the Company is exclusively issuing branded cards. For the years ended December 31, 2023, 2022 and 2021, the Company also has approximately $39.7 million, $34.5 million, and $34.0 million of expense, respectively, recorded within the Bankcard fees line on the Company's Consolidated Statements of Income related to rebates and rewards programs that are outside of the scope of ASC 606. All material performance obligations are satisfied as of the end of each accounting period.

Investment securities gains, net – In the regular course of business, the Company recognizes gains and losses on the sale of available-for-sale securities. Additionally, the Company recognizes gains and losses on equity securities with readily determinable fair values and equity securities without readily determinable fair values. These gains and losses are recognized in accordance with ASC 320, *Debt and Equity Securities*, and are outside of the scope of ASC 606.

Other income – The Company recognizes other miscellaneous income through a variety of other revenue streams, the most material of which include letter of credit fees, certain loan origination fees, gains on the sale of assets, derivative income, and bank-owned and company-owned life insurance income. These revenue streams are outside of the scope of ASC 606 and are recognized in accordance with the applicable U.S. GAAP. The remainder of Other income is primarily earned through transactions with personal banking customers, including wire transfer

service charges, stop payment charges, and fees for items like money orders and cashier's checks. The performance obligations of these types of fees are satisfied as transactions are completed and revenue is recognized upon transaction execution according to established fee schedules with the customers.

The Company had no material contract assets, contract liabilities, or remaining performance obligations as of December 31, 2023 or 2022. Total receivables from revenue recognized under the scope of ASC 606 were $86.6 million and $76.1 million as of December 31, 2023 and December 31, 2022, respectively. These receivables are included as part of the Other assets line on the Company's Consolidated Balance Sheets.

The following tables depict the disaggregation of revenue according to revenue stream and Business Segment for the three years ended December 31, 2023, 2022, and 2021. As stated in Note 12, "Business Segment Reporting," for comparability purposes, amounts in all periods are based on methodologies in effect at December 31, 2023 and previously reported results have been reclassified in this filing to conform to the current organizational structure.

Disaggregated revenue is as follows (in thousands):

	Year Ended December 31, 2023				
NONINTEREST INCOME	**Commercial Banking**	**Institutional Banking**	**Personal Banking**	**Revenue (Expense) out of Scope of ASC 606**	**Total**
Trust and securities processing	$ —	$ 203,887	$ 53,313	$ —	$ 257,200
Trading and investment banking	—	298	—	19,332	19,630
Service charges on deposit accounts	38,358	40,578	5,918	96	84,950
Insurance fees and commissions	—	—	1,009	—	1,009
Brokerage fees	374	46,395	7,350	—	54,119
Bankcard fees	65,302	26,153	22,246	(38,982)	74,719
Investment securities losses, net	—	—	—	(3,139)	(3,139)
Other	762	2,835	2,582	47,186	53,365
Total noninterest income	$ 104,796	$ 320,146	$ 92,418	$ 24,493	$ 541,853

	Year Ended December 31, 2022				
NONINTEREST INCOME	**Commercial Banking**	**Institutional Banking**	**Personal Banking**	**Revenue (Expense) out of Scope of ASC 606**	**Total**
Trust and securities processing	$ —	$ 183,724	$ 53,483	$ —	$ 237,207
Trading and investment banking	—	319	—	22,882	23,201
Service charges on deposit accounts	34,399	43,054	7,543	171	85,167
Insurance fees and commissions	—	—	1,338	—	1,338
Brokerage fees	230	35,141	7,648	—	43,019
Bankcard fees	61,939	21,998	23,049	(33,535)	73,451
Investment securities gains, net	—	—	—	58,444	58,444
Other	810	1,812	2,642	27,142	32,406
Total noninterest income	$ 97,378	$ 286,048	$ 95,703	$ 75,104	$ 554,233

NONINTEREST INCOME	Year Ended December 31, 2021				
	Commercial Banking	Institutional Banking	Personal Banking	Revenue (Expense) out of Scope of ASC 606	Total
Trust and securities processing	$ —	$ 164,480	$ 59,646	$ —	$ 224,126
Trading and investment banking	—	793	—	30,146	30,939
Service charges on deposit accounts	33,350	45,934	6,457	315	86,056
Insurance fees and commissions	—	—	1,309	—	1,309
Brokerage fees	107	4,069	7,995	—	12,171
Bankcard fees	56,918	19,117	21,779	(33,238)	64,576
Investment securities gains, net	—	—	—	5,057	5,057
Other	889	1,634	2,622	37,796	42,941
Total noninterest income	$ 91,264	$ 236,027	$ 99,808	$ 40,076	$ 467,175

14. *COMMON STOCK AND EARNINGS PER SHARE*

The following table summarizes the share transactions for the three years ended December 31, 2023 (in thousands, except for share data):

	Shares Issued	Shares in Treasury
Balance January 1, 2021	55,056,730	(7,050,344)
Purchase of Treasury Stock	—	(67,671)
Sale of Treasury Stock	—	6,835
Issued for stock options and restricted stock	—	485,255
Balance December 31, 2021	55,056,730	(6,625,925)
Purchase of Treasury Stock	—	(341,785)
Sale of Treasury Stock	—	6,487
Issued for stock options and restricted stock	—	223,897
Balance December 31, 2022	55,056,730	(6,737,326)
Purchase of Treasury Stock	—	(94,727)
Sale of Treasury Stock	—	7,782
Issued for stock options and restricted stock	—	321,668
Balance December 31, 2023	55,056,730	(6,502,603)

The Board authorized, at its April 26, 2022, and April 27, 2021 meetings, the repurchase of up to two million shares of the Company’s common stock during the twelve months following each meeting. On July 25, 2023, the Company's Board of Directors approved the repurchase of up to one million shares of the Company's common stock, which will terminate on April 30, 2024. All share purchases pursuant to the Repurchase Authorizations are intended to be within the scope of Rule 10b-18 promulgated under the Exchange Act. Rule 10b-18 provides a safe harbor for purchases in a given day if the Company satisfies the manner, timing and volume conditions of the rule when purchasing its own common shares. The Company has not made any repurchase of its securities other than pursuant to the Repurchase Authorizations.

Basic earnings per share are computed by dividing income available to common shareholders by the weighted average number of shares outstanding during the year. Diluted earnings per share gives effect to all potential common shares that were outstanding during the year.

The shares used in the calculation of basic and diluted earnings per share, are shown below:

	For the Years Ended December 31,		
	2023	2022	2021
Weighted average basic common shares outstanding	48,503,643	48,340,922	48,271,462
Dilutive effect of stock options and restricted stock	260,177	406,477	466,830
Weighted average diluted common shares outstanding	48,763,820	48,747,399	48,738,292

15. *COMMITMENTS, CONTINGENCIES AND GUARANTEES*

In the normal course of business, the Company is a party to financial instruments with off-balance-sheet risk in order to meet the financing needs of its customers and to reduce its own exposure to fluctuations in interest rates. These financial instruments include commitments to extend credit, commercial letters of credit, standby letters of credit, and futures contracts. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the Consolidated Balance Sheets. The contract or notional amount of those instruments reflects the extent of involvement the Company has in particular classes of financial instruments. Many of the commitments expire without being drawn upon; therefore, the total amount of these commitments does not necessarily represent the future cash requirements of the Company.

The Company's exposure to credit loss in the event of nonperformance by the other party to the financial instruments for commitments to extend credit, commercial letters of credit, and standby letters of credit is represented by the contract or notional amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as it does for on-balance-sheet instruments.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the agreement. These conditions generally include, but are not limited to, each customer being current as to repayment terms of existing loans and no deterioration in the customer's financial condition. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. The interest rate is generally a variable rate. If the commitment has a fixed interest rate, the rate is generally not set until such time as credit is extended. For credit card customers, the Company has the right to change or terminate terms or conditions of the credit card account at any time. Since a large portion of the commitments and unused credit card lines are never actually drawn upon, the total commitment amount does not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on an individual basis. The amount of collateral obtained, if deemed necessary by the Company upon extension of credit, is based on management's credit evaluation. Collateral pledged by customers varies but may include accounts receivable, inventory, real estate, plant and equipment, stock, securities and certificates of deposit.

Commercial letters of credit are issued specifically to facilitate trade or commerce. Under the terms of a commercial letter of credit, as a general rule, drafts will be drawn when the underlying transaction is consummated as intended.

Standby letters of credit are conditional commitments issued by the Company payable upon the non-performance of a customer's obligation to a third party. The Company issues standby letters of credit for terms ranging from three months to six years. The Company generally requires the customer to pledge collateral to support the letter of credit. The maximum liability to the Company under standby letters of credit at December 31, 2023 and 2022, was $407.6 million and $437.0 million, respectively. As of December 31, 2023 and 2022, standby letters of credit totaling $29.7 million and $25.5 million, respectively, were with related parties to the Company.

The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities. The Company holds collateral supporting those commitments when deemed necessary. Collateral varies but may include such items as those described for commitments to extend credit.

Futures contracts are contracts for delayed delivery of securities or money market instruments in which the seller agrees to make delivery at a specified future date, of a specified instrument, at a specified yield. Risks arise from the possible inability of counterparties to meet the terms of their contracts and from movement in securities values and interest rates. Instruments used in trading activities are carried at fair value and gains and losses on futures contracts are settled in cash daily. Any changes in the fair value are recognized in trading and investment banking income.

The Company uses contracts to offset interest rate risk on specific securities held in the trading portfolio. As of December 31, 2023 and 2022, there were no notional amounts outstanding for these contracts. There were no open futures contract positions during the years ended December 31, 2023 or 2022. There was no net futures activity for the years ended December 31, 2023, 2022, or 2021. The Company controls the credit risk of its futures contracts through credit approvals, limits and monitoring procedures.

The Company also enters into foreign exchange contracts on a limited basis. For operating purposes, the Company maintains certain balances in foreign banks. Foreign exchange contracts are purchased on a monthly basis

to avoid foreign exchange risk on these foreign balances. The Company will also enter into foreign exchange contracts to facilitate foreign exchange needs of customers. The Company will enter into a contract to buy or sell a foreign currency at a future date only as part of a contract to sell or buy the foreign currency at the same future date to a customer. During 2023, contracts to purchase and to sell foreign currency averaged approximately $19.3 million compared to $13.8 million during 2022. The net gains on these foreign exchange contracts for 2023, 2022 and 2021 were $4.2 million, $3.4 million and $2.6 million, respectively.

With respect to group concentrations of credit risk, most of the Company's business activity is with customers in the states of Missouri, Kansas, Colorado, Oklahoma, Nebraska, Arizona, Illinois, and Texas. At December 31, 2023, the Company did not have any significant credit concentrations in any particular industry.

The following table summarizes the Company's off-balance sheet financial instruments as described above (in thousands):

	Contract or Notional Amount December 31,	
	2023	2022
Commitments to extend credit for loans (excluding credit card loans)	$ 12,831,831	$ 12,988,231
Commitments to extend credit under credit card loans	4,286,604	4,008,386
Commercial letters of credit	1,224	3,334
Standby letters of credit	407,574	436,965
Forward contracts	26,471	32,552
Spot foreign exchange contracts	4,830	5,112

Allowance for Credit Losses on Off-Balance Sheet Credit Exposure

The Company estimates expected credit losses over the contractual period in which the Company is exposed to credit risk via a contractual obligation to extend credit, unless that obligation is unconditionally cancelable by the Company. 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. The estimate is based on expected utilization rates by portfolio segment. Utilization rates are influenced by historical trends and current conditions. The expected utilization rates are applied to the total commitment to determine the expected amount to be funded. The allowance for off-balance sheet credit exposure is calculated by applying portfolio segment expected credit loss rates to the expected amount to be funded.

The following categories of off-balance sheet credit exposures have been identified:

Revolving Lines of Credit: includes commercial, construction, agricultural, personal, and home-equity. Risk inherent to revolving lines of credit often are related to the susceptibility of an individual or business experiencing unpredictable cash flow or financial troubles, thus leading to payment default. During these financial troubles, the borrower could have less than desirable assets collateralizing the revolving line of credit. The financial strain the borrower is experiencing could lead to drawing against the line without the ability to pay the line down.

Non-Revolving Lines of Credit: include commercial and personal. Lines that do not carry a revolving feature are generally associated with a specific expenditure or project, such as to purchase equipment or the construction of real estate. The predominate risk associated with non-revolving lines is the diversion of funds for other expenditures. If the funds get diverted, the contributory value to collateral suffers.

Letters of Credit: includes standby letters of credit. Generally, a standby letter of credit is established to provide assurance to the beneficiary that the applicant will perform certain obligations arising out of a separate transaction between the beneficiary and the applicant. These obligations might be the performance of a service or delivery of a product. If the obligations are not met, it gives the beneficiary the right to draw on the letter of credit.

The ACL for off-balance sheet credit exposures was $5.1 million and $3.1 million as of December 31, 2023 and 2022, respectively, and was recorded in the Accrued expenses and taxes line of the Company's Consolidated Balance Sheets. Provision of $2.0 million was recorded for off-balance sheet credit exposures for the year ended December 31, 2023. A $500 thousand of provision for off-balance sheet credit exposures was recorded for the year ended December 31, 2022. A reduction of $3.0 million of provision for off-balance sheet credit exposures was

recorded for the year ended December 31, 2021. Provision for off-balance sheet credit exposures is recorded in the Provision for credit losses line of the Company's Consolidated Statements of Income.

16. *INCOME TAXES*

Income taxes as set forth below produce effective income tax rates of 17.0% in 2023, 18.9% in 2022, and 17.7% in 2021. These percentages are computed by dividing Income tax expense by Income before income taxes.

Income tax expense includes the following components (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Current tax			
Federal	$ 81,565	$ 92,673	$ 72,410
State	10,452	13,964	16,356
Total current tax expense	92,017	106,637	88,766
Deferred tax			
Federal	(19,438)	(3,998)	(9,872)
State	(1,001)	(2,310)	(2,852)
Total deferred tax benefit	(20,439)	(6,308)	(12,724)
Total tax expense	$ 71,578	$ 100,329	$ 76,042

The reconciliation between the income tax expense and the amount computed by applying the statutory federal tax rate of 21% for income before income taxes is as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Statutory federal income tax expense	$ 88,536	$ 111,722	$ 90,103
Tax-exempt interest income	(20,614)	(20,206)	(20,635)
Tax-exempt life insurance related income	(4,961)	(723)	(2,631)
Meals, entertainment and related expenses	1,582	854	580
State and local income taxes, net of federal tax benefits	7,466	9,207	10,659
Equity-based compensation	(1,377)	(1,921)	(1,889)
Federal tax credits, net of amortization of LIHTC investments	(5,049)	(3,748)	(2,634)
Other	5,995	5,144	2,489
Total tax expense	$ 71,578	$ 100,329	$ 76,042

In preparing its tax returns, the Company is required to interpret tax laws and regulations to determine its taxable income. Periodically, the Company is subject to examinations by various taxing authorities that may give rise to differing interpretations of these laws. Upon examination, agreement of tax liabilities between the Company and the multiple tax jurisdictions in which the Company files tax returns may ultimately be different. The Company is in the examination process with two state tax authorities for tax years 2019 and 2020. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial condition, results of operations, or cash flows of the Company.

Deferred income taxes result from differences between the carrying value of assets and liabilities measured for financial reporting and the tax basis of assets and liabilities for income tax return purposes.

The significant components of deferred tax assets and liabilities are reflected in the following table (in thousands):

	December 31,	
	2023	2022
Deferred tax assets:		
Net unrealized loss on securities available for sale	$ 202,804	$ 248,001
Loans, principally due to allowance for credit losses	47,995	43,129
Equity-based compensation	7,446	7,743
Accrued expenses	35,779	25,007
Deferred compensation	17,918	15,375
Miscellaneous	3,617	2,289
Total deferred tax assets before valuation allowance	315,559	341,544
Valuation allowance	(3,286)	(180)
Total deferred tax assets	312,273	341,364
Deferred tax liabilities:		
Net unrealized gain on fair value hedges	(17,855)	(18,617)
Net unrealized gain on cash flow hedges	(4,133)	(1,798)
Land, buildings and equipment	(27,772)	(33,036)
Original issue discount	(496)	(992)
Prepaid expenses	(6,672)	(5,862)
Partnership investments	(6,059)	(6,737)
Trust preferred securities	(6,673)	(6,912)
Intangibles	(16,843)	(17,225)
Miscellaneous	(3,574)	(1,760)
Total deferred tax liabilities	(90,077)	(92,939)
Net deferred tax asset	$ 222,196	$ 248,425

As of December 31, 2023, state net operating loss carryforwards of approximately $1.2 million are included in the miscellaneous deferred tax assets line item above. These deferred tax assets include approximately $34.1 million related to net operating loss carryforwards that can be used to offset taxable income in future periods and reduce our income taxes payable in those future periods. Most of these net operating losses expire at various times between 2024 and 2043 and some have an indefinite carryforward. During the year ended December 31, 2023, due to cumulative losses, the Company established a state valuation allowance of $2.1 million, against certain state deferred tax assets. As of December 31, 2023 and 2022, the Company had a valuation allowance of $1.2 million and $13 thousand, respectively, for certain state net operating losses as they are not expected to be realized. In addition, as of December 31, 2023 and 2022, the Company had a valuation allowance of $2.1 million and $167 thousand, respectively, to reduce certain other state deferred tax assets to the amount management believes will be more likely than not realized.

The net deferred tax asset at December 31, 2023 and December 31, 2022 are included in the Other assets line of the Company's Consolidated Balance Sheets.

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and local jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state and local income tax examinations by tax authorities for tax years prior to 2018 in the jurisdictions in which it files.

Liabilities Associated With Unrecognized Tax Benefits

The gross amount of unrecognized tax benefits totaled $10.9 million and $9.4 million at December 31, 2023 and 2022, respectively. The total amount of unrecognized tax benefits, net of associated deferred tax benefit, that would impact the effective tax rate, if recognized, would be $8.6 million and $7.4 million at December 31, 2023 and December 31, 2022, respectively. The unrecognized tax benefits relate to state tax positions that have a corresponding federal tax benefit. While it is expected that the amount of unrecognized tax benefits will change in the next twelve months, the Company does not expect this change to have a material impact on the financial condition, results of operations, or cash flows of the Company.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	December 31,	
	2023	2022
Unrecognized tax benefits - opening balance	$ 9,360	$ 8,798
Gross increases - tax positions in prior period	64	—
Gross decreases - tax positions in prior period	—	(63)
Gross increases - current-period tax positions	2,807	2,621
Lapse of statute of limitations	(1,310)	(1,996)
Unrecognized tax benefits - ending balance	$ 10,921	$ 9,360

17. *DERIVATIVES AND HEDGING ACTIVITIES*

Risk Management Objective of Using Derivatives

The Company is exposed to certain risks arising from both its business operations and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Company manages economic risks, including interest rate, liquidity, and credit risk, primarily by managing the amount, sources, and duration of its assets and liabilities. Specifically, the Company 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 Company's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company's known or expected cash receipts and its known or expected cash payments principally related to the Company's loans and borrowings. The Company also has interest rate derivatives that result from a service provided to certain qualifying customers and, therefore, are not used to manage interest rate risk of the Company's assets or liabilities. The Company has entered into an offsetting position for each of these derivative instruments with a matching instrument from another financial institution in order to minimize its net risk exposure resulting from such transactions.

Fair Values of Derivative Instruments on the Consolidated Balance Sheets

The table below presents the fair value of the Company's derivative financial instruments as of December 31, 2023 and 2022. The Company's derivative assets and derivative liabilities are located within Other assets and Other liabilities, respectively, on the Company's Consolidated Balance Sheets.

Derivative fair values are determined using valuation techniques including discounted cash flow analysis on the expected cash flows from each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves, foreign exchange rates, and implied volatilities. The Company 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 contracts for the effect of nonperformance risk, the Company has considered the impact of netting and any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

This table provides a summary of the fair value of the Company's derivative assets and liabilities as of December 31, 2023 and December 31, 2022 (in thousands):

	Derivative Assets		Derivative Liabilities	
	December 31,		December 31,	
Fair Value	2023	2022	2023	2022
Interest Rate Products:				
Derivatives not designated as hedging instruments	$ 99,574	$ 47,638	$ 105,016	$ 126,231
Derivatives designated as hedging instruments	61,922	483	67	103
Total	$ 161,496	$ 48,121	$ 105,083	$ 126,334

Fair Value Hedges of Interest Rate Risk

The Company is exposed to changes in the fair value of certain of its fixed-rate assets and liabilities due to changes in interest rates. Interest rate swaps designated as fair value hedges involve making fixed rate payments to a counterparty in exchange for the Company receiving variable rate payments over the life of the agreements without the exchange of the underlying notional amount. The Company did not have any interest rate swaps that were designated as fair value hedges as of December 31, 2023. As of December 31, 2022, the Company had three interest rate swaps that were designated as fair value hedges of interest rate risk associated with the Company's municipal bond securities. These swaps had a notional amount of $254.6 million as of December 31, 2022. During the year ended December 31, 2023, the Company terminated all three fair value hedges. In connection with these terminated hedges, $11.5 million of hedging adjustments will be amortized through the contractual maturity date of each respective hedged item.

For derivatives designated and that qualify as fair value hedges, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in Interest income in the Consolidated Statements of Income.

Cash Flow Hedges of Interest Rate Risk

The Company's objective in using interest rate derivatives is to manage its exposure to interest rate movements. To accomplish this objective, the Company primarily uses interest rate swaps and floors as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount. As of December 31, 2023 and 2022, the Company had two interest rate swaps that were designated as cash flow hedges of interest rate risk associated with the Company's variable-rate subordinated debentures issued by Marquette Capital Trusts III and IV. These swaps had an aggregate notional amount of $51.5 million at both December 31, 2023 and 2022. Interest rate floors designated as cash flow hedges involve the receipt of variable-rate amounts from a counterparty if interest rates fall below the strike rate on the contract in exchange for an upfront premium. As of December 31, 2023, the Company had three interest rate floors with an aggregate notional amount of $1.0 billion that were designated as cash flow hedges of interest rate risk. The Company did not have any interest rate floors designated as cash flow hedges as of December 31, 2022.

On August 28, 2020, the Company terminated an interest rate floor with a notional amount of $750.0 million. At the date of termination, the interest rate floor had a net asset fair value of $34.1 million. The gross unrealized gain on the terminated interest rate floor remaining in AOCI was $2.7 million, or $2.0 million net of tax, and $7.4 million, or $5.6 million net of tax, as of December 31, 2023 and 2022, respectively. The unrealized gain will be reclassified into Interest income as the underlying forecasted transactions impact earnings through the original maturity of the hedged forecasted transactions. The total remaining term over which the unrealized gain will be reclassified into earnings is 0.7 years.

For derivatives designated and that qualify as cash flow hedges of interest rate risk, the gain or loss on the derivative is recorded in AOCI and is subsequently reclassified into interest expense and interest income in the period during which the hedged forecasted transaction affects earnings. Amounts reported in AOCI related to interest rate swap derivatives will be reclassified to Interest expense as interest payments are received or paid on the Company's hedged items. Amounts reported in AOCI related to interest rate floor derivatives will be reclassified to Interest income as interest payments are received or paid on the Company's hedged items. The Company expects to reclassify $1.1 million from AOCI as a reduction to Interest expense and $2.5 million from AOCI to Interest income during the next 12 months. As of December 31, 2023, the Company is hedging its exposure to the variability in future cash flows for forecasted transactions over a maximum period of 12.7 years.

Non-designated Hedges

The remainder of the Company's derivatives are not designated in qualifying hedging relationships. Derivatives not designated as hedges are not speculative and result from a service the Company provides to certain customers. The Company executes interest rate swaps with commercial banking customers to facilitate their respective risk management strategies. Those interest rate swaps are simultaneously offset by interest rate swaps that the Company executes with a third party, such that the Company minimizes its net risk exposure resulting from such transactions. As the interest rate swaps associated with this program do not meet the strict hedge accounting requirements, changes in the fair value of both the customer swaps and the offsetting swaps are recognized directly

in earnings. As of December 31, 2023, the Company had 258 interest rate swaps with an aggregate notional amount of $4.3 billion related to this program. As of December 31, 2022, the Company had 230 interest rate swaps with an aggregate notional amount of $3.5 billion.

Effect of Derivative Instruments on the Consolidated Statements of Income and Accumulated Other Comprehensive Income

This table provides a summary of the amount of gain or loss recognized in Other noninterest expense in the Consolidated Statements of Income for the years ended December 31, 2023, 2022, and 2021 related to the Company's derivative assets and liabilities (in thousands):

	Amount of Gain (Loss) Recognized		
	For the Year Ended December 31,		
	2023	2022	2021
Interest Rate Products			
Derivatives not designated as hedging instruments	$ (69)	$ 423	$ 387
Total	$ (69)	$ 423	$ 387
Interest Rate Products			
Derivatives designated as hedging instruments:			
Fair value adjustments on derivatives	$ 904	$ 72,539	$ 5,231
Fair value adjustments on hedged items	(902)	(72,047)	(5,832)
Total	$ 2	$ 492	$ (601)

This table provides a summary of the effect of hedges on AOCI in the Consolidated Statements of Comprehensive Income for the years ended December 31, 2023, 2022, and 2021 related to the Company's derivative assets and liabilities (in thousands):

	For the Year Ended December 31, 2023					
Derivatives in Cash Flow Hedging Relationships	**Gain Recognized in OCI on Derivative**	**Gain Recognized in OCI Included Component**	**Loss Recognized in OCI Excluded Component**	**Gain Reclassified from AOCI into Earnings**	**Gain Reclassified from AOCI into Earnings Included Component**	**Loss Reclassified from AOCI into Earnings Excluded Component**
Interest rate floors	$ 14,123	$ 24,826	$ (10,703)	$ 4,605	$ 6,948	$ (2,343)
Interest rate swaps	892	892	—	1,312	1,312	—
Total	$ 15,015	$ 25,718	$ (10,703)	$ 5,917	$ 8,260	$ (2,343)

	For the Year Ended December 31, 2022					
Derivatives in Cash Flow Hedging Relationships	**Gain Recognized in OCI on Derivative**	**Gain Recognized in OCI Included Component**	**Gain Recognized in OCI Excluded Component**	**Gain (Loss) Reclassified from AOCI into Earnings**	**Gain (Loss) Reclassified from AOCI into Earnings Included Component**	**Loss Reclassified from AOCI into Earnings Excluded Component**
Interest rate floor	$ —	$ —	$ —	$ 4,998	$ 7,248	$ (2,250)
Interest rate swaps	12,608	12,608	—	(502)	(502)	—
Total	$ 12,608	$ 12,608	$ —	$ 4,496	$ 6,746	$ (2,250)

	For the Year Ended December 31, 2021					
Derivatives in Cash Flow Hedging Relationships	**Gain Recognized in OCI on Derivative**	**Gain Recognized in OCI Included Component**	**Gain Recognized in OCI Excluded Component**	**Gain (Loss) Reclassified from AOCI into Earnings**	**Gain (Loss) Reclassified from AOCI into Earnings Included Component**	**Loss Reclassified from AOCI into Earnings Excluded Component**
Interest rate floor	$ —	$ —	$ —	$ 4,696	$ 6,946	$ (2,250)
Interest rate swaps	3,106	3,106	—	(1,344)	(1,344)	—
Total	$ 3,106	$ 3,106	$ —	$ 3,352	$ 5,602	$ (2,250)

Credit-risk-related Contingent Features

The Company has agreements with certain of its derivative counterparties that contain a provision that if the Company defaults on any of its indebtedness, including default where repayment of the indebtedness has not been accelerated by the lender, then the Company could also be declared in default on its derivative obligations.

The Company has minimum collateral posting thresholds with certain of its derivative counterparties. As of December 31, 2023, the Company had not posted any collateral as there were no derivatives in a net liability position. If the Company had breached any of these provisions at December 31, 2023, it could have been required to settle its obligations under the agreements at the termination value.

18. *DISCLOSURES ABOUT FAIR VALUE OF FINANCIAL INSTRUMENTS*

The following table presents information about the Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 and 2022 and indicates the fair value hierarchy of the valuation techniques utilized by the Company to determine such fair value.

Fair values determined by Level 1 inputs utilize quoted prices in active markets for identical assets and liabilities that the Company has the ability to access. Fair values determined by Level 2 inputs utilize inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets or liabilities in active markets, and inputs other than quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals. Level 3 inputs are unobservable inputs for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability. In certain cases, the inputs used to measure fair value may fall into different levels of the hierarchy. In such cases, the fair value is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

Assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 and 2022 (in thousands):

	Fair Value Measurement at December 31, 2023 Using			
Description	**December 31, 2023**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Assets				
U.S. Treasury	$ 881	$ 881	$ —	$ —
U.S. Agencies	—	—	—	—
Mortgage-backed	1,738	—	1,738	—
State and political subdivisions	13,482	—	13,482	—
Corporates	1,974	1,974	—	—
Trading – other	18	18	—	—
Trading securities	18,093	2,873	15,220	—
U.S. Treasury	1,298,742	1,298,742	—	—
U.S. Agencies	159,721	—	159,721	—
Mortgage-backed	3,620,785	—	3,620,785	—
State and political subdivisions	1,286,975	—	1,286,975	—
Corporates	351,275	351,275	—	—
Collateralized loan obligations	351,115	—	351,115	—
Securities available for sale	7,068,613	1,650,017	5,418,596	—
Equity securities with readily determinable fair values	11,228	11,228	—	—
Company-owned life insurance	69,727	—	69,727	—
Bank-owned life insurance	523,960	—	523,960	—
Derivatives	161,496	—	161,496	—
Total	$ 7,853,117	$ 1,664,118	$ 6,188,999	$ —
Liabilities				
Derivatives	$ 105,083	$ —	$ 105,083	$ —
Securities sold not yet purchased	8,018	—	8,018	—
Total	$ 113,101	$ —	$ 113,101	$ —

Description	December 31, 2022	Fair Value Measurement at December 31, 2022 Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
U.S. Treasury	$ 580	$ 580	$ —	$ —
U.S. Agencies	7,558	—	7,558	—
Mortgage-backed	—	—	—	—
State and political subdivisions	8,038	—	8,038	—
Corporates	1,024	1,024	—	—
Trading – other	780	780	—	—
Trading securities	17,980	2,384	15,596	—
U.S. Treasury	777,070	777,070	—	—
U.S. Agencies	171,296	—	171,296	—
Mortgage-backed	3,982,122	—	3,982,122	—
State and political subdivisions	1,362,407	—	1,362,407	—
Corporates	367,500	367,500	—	—
Collateralized loan obligations	345,952	—	345,952	—
Securities available for sale	7,006,347	1,144,570	5,861,777	—
Equity securities with readily determinable fair values	10,782	10,782	—	—
Company-owned life insurance	56,769	—	56,769	—
Bank-owned life insurance	510,293	—	510,293	—
Derivatives	48,121	—	48,121	—
Total	$ 7,650,292	$ 1,157,736	$ 6,492,556	$ —
Liabilities				
Derivatives	$ 126,334	$ —	$ 126,334	$ —
Securities sold not yet purchased	3,503	—	3,503	—
Total	$ 129,837	$ —	$ 129,837	$ —

Valuation methods for instruments measured at fair value on a recurring basis

The following methods and assumptions were used to estimate the fair value of each class of financial instruments measured on a recurring basis:

Trading Securities Fair values for trading securities (including financial futures), are based on quoted market prices where available. If quoted market prices are not available, fair values are based on quoted market prices for similar securities.

Securities Available for Sale Fair values are based on quoted market prices or dealer quotes, if available. If a quoted market price is not available, fair value is estimated using quoted market prices for similar securities. Prices are provided by third-party pricing services and are based on observable market inputs. On an annual basis, the Company compares a sample of these prices to other independent sources for the same securities. Additionally, throughout the year, if securities are sold, comparisons are made between the pricing services prices and the market prices at which the securities were sold. Variances are analyzed, and, if appropriate, additional research is conducted with the third-party pricing services. Based on this research, the pricing services may affirm or revise their quoted price. No significant adjustments have been made to the prices provided by the pricing services. The pricing services also provide documentation on an ongoing basis that includes reference data, inputs and methodology by asset class, which is reviewed to ensure that security placement within the fair value hierarchy is appropriate.

Equity securities with readily determinable fair values Fair values are based on quoted market prices.

Company-owned Life Insurance Fair value is equal to the cash surrender value of the life insurance policies.

Bank-owned Life Insurance Fair value is equal to the cash surrender value of the life insurance policies.

Derivatives Fair values are determined using valuation techniques including discounted cash flow analysis on the expected cash flows from each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves, foreign exchange rates, and implied volatilities. The Company 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 contracts for the effect of nonperformance risk, the Company has considered the impact of netting and any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

Securities sold not yet purchased Fair values are based on quoted market prices or dealer quotes, if available. If a quoted market price is not available, fair value is estimated using quoted market prices for similar securities. Prices are provided by third-party pricing services and are based on observable market inputs.

Assets measured at fair value on a non-recurring basis as of December 31, 2023 and 2022 (in thousands):

		Fair Value Measurement at December 31, 2023 Using			
Description	**December 31, 2023**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total Gains Recognized During the Twelve Months Ended December 31**
Collateral dependent assets	$ 2,796	$ —	$ —	$ 2,796	$ 141
Other real estate owned	1,738	—	—	1,738	66
Total	$ 4,534	$ —	$ —	$ 4,534	$ 207

		Fair Value Measurement at December 31, 2022 Using			
Description	**December 31, 2022**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total Losses Recognized During the Twelve Months Ended December 31**
Collateral dependent assets	$ 4,373	$ —	$ —	$ 4,373	$ (2,998)
Other real estate owned	68	—	—	68	—
Total	$ 4,441	$ —	$ —	$ 4,441	$ (2,998)

Valuation methods for instruments measured at fair value on a non-recurring basis

The following methods and assumptions were used to estimate the fair value of each class of financial instruments measured on a non-recurring basis:

Collateral Dependent Assets Collateral dependent assets are assets evaluated as part of the ACL on an individual basis. Those assets for which there is an associated allowance are considered financial assets measured at fair value on a non-recurring basis. Adjustments are recorded on certain assets to reflect write-downs that are based on the external appraised value of the underlying collateral. The external appraisals are generally based on recent sales of comparable properties which are then adjusted for the unique characteristics of the property being valued. In the case of non-real estate collateral, reliance is placed on a variety of sources, including external estimates of value and judgments based on the experience and expertise of internal specialists within the Company's property management group and the Company's credit department. The valuation of collateral dependent assets and impaired loans are reviewed on a quarterly basis. Because many of these inputs are not observable, the measurements are classified as Level 3.

Other real estate owned Other real estate owned consists of loan collateral which has been repossessed through foreclosure. This collateral is comprised of commercial and residential real estate and other non-real estate property, including auto, recreational and marine vehicles. Other real estate owned is recorded as held for sale initially at the fair value of the collateral less estimated selling costs. The initial valuation of the foreclosed property

is obtained through an appraisal process similar to the process described in the collateral dependent/impaired loans paragraph above. Subsequent to foreclosure, valuations are reviewed quarterly and updated periodically, and the assets may be marked down further, reflecting a new cost basis. Fair value measurements may be based upon appraisals, third-party price opinions, or internally developed pricing methods and those measurements are classified as Level 3.

Fair value disclosures require disclosure of the fair value of financial assets and financial liabilities, including those financial assets and financial liabilities that are not measured and reported at fair value on a recurring basis or non-recurring basis.

The estimated fair value of the Company's financial instruments at December 31, 2023 and 2022 are as follows (in thousands):

	Fair Value Measurement at December 31, 2023 Using				
	Carrying Amount	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total Estimated Fair Value**
FINANCIAL ASSETS					
Cash and short-term investments	$ 5,852,347	$ 5,612,003	$ 240,344	$ —	$ 5,852,347
Securities available for sale	7,068,613	1,650,017	5,418,596	—	7,068,613
Securities held to maturity (exclusive of allowance for credit losses)	5,691,868	—	5,183,367	—	5,183,367
Trading securities	18,093	2,873	15,220	—	18,093
Other securities	492,935	11,228	481,707	—	492,935
Loans (exclusive of allowance for credit losses)	23,176,904	—	22,969,788	—	22,969,788
Derivatives	161,496	—	161,496	—	161,496
FINANCIAL LIABILITIES					
Demand and savings deposits	32,719,268	32,719,268	—	—	32,719,268
Time deposits	3,073,591	—	3,073,591	—	3,073,591
Other borrowings	3,919,644	13,813	3,905,831	—	3,919,644
Long-term debt	383,247	—	413,896	—	413,896
Derivatives	105,083	—	105,083	—	105,083
OFF-BALANCE SHEET ARRANGEMENTS					
Commitments to extend credit for loans					11,523
Commitments to extend resell agreements					208
Commercial letters of credit					138
Standby letters of credit					4,047

		Fair Value Measurement at December 31, 2022 Using			
	Carrying Amount	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Estimated Fair Value
FINANCIAL ASSETS					
Cash and short-term investments	$ 2,638,384	$ 1,686,787	$ 951,597	$ —	$ 2,638,384
Securities available for sale	7,006,347	1,144,570	5,861,777	—	7,006,347
Securities held to maturity (exclusive of allowance for credit losses)	5,861,599	—	5,280,659	—	5,280,659
Trading securities	17,980	2,384	15,596	—	17,980
Other securities	349,758	10,782	338,976	—	349,758
Loans (exclusive of allowance for credit losses)	21,033,167	—	20,816,899	—	20,816,899
Derivatives	48,121	—	48,121	—	48,121
FINANCIAL LIABILITIES					
Demand and savings deposits	31,721,995	31,721,995	—	—	31,721,995
Time deposits	917,138	—	917,138	—	917,138
Other borrowings	2,222,167	62,480	2,159,687	—	2,222,167
Long-term debt	381,311	—	418,737	—	418,737
Derivatives	126,334	—	126,334	—	126,334
OFF-BALANCE SHEET ARRANGEMENTS					
Commitments to extend credit for loans					9,260
Commercial letters of credit					185
Standby letters of credit					3,982

Cash and short-term investments The carrying amounts of cash and due from banks, federal funds sold and resell agreements are reasonable estimates of their fair values.

Securities held to maturity For U.S. Agency and mortgage-backed securities, as well as general obligation bonds in the State and political subdivision portfolio, fair values are based on quoted market prices or dealer quotes, if available. If a quoted market price is not available, fair value is estimated using quoted market prices for similar securities. Prices are provided by third-party pricing services and are based on observable market inputs. On an annual basis, the Company compares a sample of these prices to other independent sources for the same securities. Variances are analyzed, and, if appropriate, additional research is conducted with the third-party pricing services. Based on this research, the pricing services may affirm or revise their quoted price. No significant adjustments have been made to the prices provided by the pricing services. The pricing services also provide documentation on an ongoing basis that includes reference data, inputs and methodology by asset class, which is reviewed to ensure that security placement within the fair value hierarchy is appropriate. For private placement bonds in the State and political subdivision portfolio, fair values are estimated by discounting the future cash flows using current market rates.

Other securities Amount consists of FRB and FHLB stock held by the Company, equity securities with readily determinable fair values, and equity securities without readily determinable fair values, including equity-method investments and other miscellaneous investments. The carrying amount of the FRB and FHLB stock equals its fair value because the shares can only be redeemed by the FRB and FHLB at their carrying amount. Equity securities with readily determinable fair values are measured at fair value using quoted market prices. Equity securities without readily determinable fair values are carried at cost, which approximates fair value.

Loans Fair values are estimated for portfolios with similar financial characteristics. Loans are segregated by type, such as commercial, real estate, consumer, and credit card. Each loan category is further segmented into fixed and variable interest rate categories. The fair value of loans is estimated by discounting the future cash flows. The discount rates used are estimated using comparable market rates for similar types of instruments adjusted to be commensurate with the credit risk, overhead costs, and optionality of such instruments.

Demand and savings deposits The fair value of demand deposits and savings accounts was the amount payable on demand at period-end.

Time deposits The fair value of fixed-maturity certificates of deposit is estimated by discounting the future cash flows using the rates that are currently offered for deposits of similar remaining maturities.

Other borrowings The carrying amounts of federal funds purchased, repurchase agreements and other short-term debt are reasonable estimates of their fair value because of the short-term nature of their maturities. Federal funds purchased are classified as Level 1 based on availability of quoted market prices and repurchase agreements and other short-term debt are classified as Level 2.

Long-term debt Rates currently available to the Company for debt with similar terms and remaining maturities are used to estimate fair value of existing debt.

Other off-balance sheet instruments The fair value of loan commitments and letters of credit are determined based on the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreement and the present creditworthiness of the counterparties. Neither the fees earned during the year on these instruments nor their fair value at period-end are significant to the Company's consolidated financial position.

19. *PARENT COMPANY FINANCIAL INFORMATION*

UMB FINANCIAL CORPORATION

BALANCE SHEETS *(in thousands)*

	December 31,	
	2023	**2022**
ASSETS		
Investment in subsidiaries:		
Banks	$ 3,123,373	$ 2,685,783
Non-banks	173,725	178,973
Total investment in subsidiaries	3,297,098	2,864,756
Goodwill on purchased affiliates	5,011	5,011
Cash	109,352	139,058
Investment securities and other	138,721	106,294
Total assets	$ 3,550,182	$ 3,115,119
LIABILITIES AND SHAREHOLDERS' EQUITY		
Long-term debt	$ 383,247	$ 381,311
Accrued expenses and other	66,516	66,715
Total liabilities	449,763	448,026
Shareholders' equity	3,100,419	2,667,093
Total liabilities and shareholders' equity	$ 3,550,182	$ 3,115,119

STATEMENTS OF INCOME AND COMPREHENSIVE INCOME ***(in thousands)***

	Year Ended December 31,		
	2023	2022	2021
INCOME			
Dividends and income received from subsidiaries	$ 88,500	$ 57,000	$ 129,217
Service fees from subsidiaries	66,450	74,472	60,346
Other	13,268	55,988	12,771
Total income	168,218	187,460	202,334
EXPENSE			
Salaries and employee benefits	67,015	60,094	62,109
Other	43,418	35,943	31,022
Total expense	110,433	96,037	93,131
Income before income taxes and equity in undistributed earnings of subsidiaries	57,785	91,423	109,203
Income tax (benefit) expense	(9,165)	10,958	(10,322)
Income before equity in undistributed earnings of subsidiaries	66,950	80,465	119,525
Equity in undistributed earnings of subsidiaries:			
Banks	291,473	344,567	263,084
Non-Banks	(8,399)	6,650	(29,591)
Net income	$ 350,024	$ 431,682	$ 353,018
Other comprehensive income (loss)	145,800	(829,049)	(192,026)
Comprehensive income (loss)	$ 495,824	$ (397,367)	$ 160,992

STATEMENTS OF CASH FLOWS ***(in thousands)***

	Year Ended December 31,		
	2023	2022	2021
OPERATING ACTIVITIES			
Net income	$ 350,024	$ 431,682	$ 353,018
Adjustments to reconcile net income to cash provided by operating activities:			
Equity in earnings of subsidiaries	(371,574)	(408,217)	(362,709)
Dividends received from subsidiaries	88,500	57,000	129,217
Depreciation and amortization	18	12	15
Amortization of debt issuance costs	876	556	450
Equity based compensation	18,694	21,491	21,208
Changes in other assets and liabilities, net	(32,493)	12,522	(4,049)
Net cash provided by operating activities	54,045	115,046	137,150
INVESTING ACTIVITIES			
Net capital investment in subsidiaries	(3,570)	(207,575)	(60,264)
Net (increase) decrease in investment securities	(30)	40,235	(11,051)
Net cash used in investing activities	(3,600)	(167,340)	(71,315)
FINANCING ACTIVITIES			
Cash dividends paid	(74,245)	(72,030)	(66,750)
Proceeds from long-term debt	—	110,000	—
Payment of debt issuance costs	—	(2,129)	—
Proceeds from exercise of stock options and sales of treasury stock	2,461	2,136	19,048
Purchases of treasury stock	(8,367)	(31,997)	(5,506)
Net cash (used in) provided by financing activities	(80,151)	5,980	(53,208)
Net (decrease) increase in cash	(29,706)	(46,314)	12,627
Cash and cash equivalents at beginning of period	139,058	185,372	172,745
Cash and cash equivalents at end of period	$ 109,352	$ 139,058	$ 185,372

ITEM 9. ***CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE***

None.

ITEM 9A. ***CONTROLS AND PROCEDURES***

Disclosure Controls and Procedures At the end of the period covered by this Annual Report on Form 10-K, the Company's Chief Executive Officer and Chief Financial Officer have each evaluated the effectiveness of the Company's "Disclosure Controls and Procedures" (as defined in Rule 13a-15(e) of the Exchange Act) and have concluded that the Company's Disclosure Controls and Procedures were effective as of the end of the period covered by this Annual Report on Form 10-K.

Management's Report on Internal Control Over Financial Reporting Management of the Company is responsible for establishing and maintaining adequate "internal control over financial reporting," as such term is defined in Rule 13a-15(f) promulgated under the Exchange Act. Under the supervision and with the participation of management, including the Chief Executive Officer and Chief Financial Officer of the Company, and effected by the Board, management and other personnel, an evaluation of the effectiveness of internal control over financial reporting was conducted based on the criteria established by the Committee of Sponsoring Organizations of the Treadway Commission's *Internal Control* - *Integrated Framework (2013)*.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate. In addition, given the Company's size, operations and footprint, lapses or deficiencies in internal controls may occur from time to time.

Based on the evaluation under the framework in Internal Control - Integrated Framework (2013), management (with the participation of the Company's Chief Executive Officer and Chief Financial Officer) under the oversight of the Board of Directors, has concluded that internal control over financial reporting was effective at the end of the period covered by this Annual Report on Form 10-K. KPMG LLP, Kansas City, Missouri, (U.S. PCAOB Auditor Firm ID: 185), the independent registered public accounting firm that audited the financial statements included within this report, has issued an attestation report on the effectiveness of internal control over financial reporting at the end of the period covered by this report. KPMG LLP's attestation report is set forth below.

Changes in Internal Control Over Financial Reporting No change in the Company's internal control over financial reporting occurred during the last quarter of the period covered by this Annual Report on Form 10-K that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors
UMB Financial Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited UMB Financial Corporation and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2023, 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, 2023, 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, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes (collectively, the consolidated financial statements), and our report dated February 22, 2024 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 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 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.

/s/ KPMG LLP

Kansas City, Missouri
February 22, 2024

ITEM 9B. *OTHER INFORMATION*

On December 13, 2023, four foundations and trusts that are related interests of Chairman and Chief Executive Officer J. Mariner Kemper adopted a single, pre-arranged stock sale plan in accordance with Rule 10b5-1(c) (Rule 10b5-1) under the Exchange Act for the sale of shares of the Company's common stock (the 2024 Plan). The 2024 Plan was entered into during an open trading window in accordance with the Company's requirements regarding transactions in the Company's securities and is intended to satisfy the affirmative defense conditions of Rule 10b5-1. The 2024 Plan provides for the monthly sale of an initial number of shares of the Company's common stock once the market price of the Company's common stock meets or exceeds certain minimum threshold prices as specified in the 2024 Plan. Should the market price of the Company's shares meet or exceed secondary and tertiary pricing thresholds as specified in the 2024 Plan, up to double and triple the initial number of shares in the aggregate may be sold in that month, respectively. If no sales occur in a month, the initial number of shares may be carried forward for sale in the following month subject to the pricing thresholds. Sales under the 2024 Plan may occur beginning in March of 2024 (after conclusion of the applicable cooling off period following adoption of the 2024 Plan) and end no later than December 31, 2024. The aggregate number of shares of common stock of the Company that will be available for sale under the 2024 Plan will vary depending on the market price achieved but will not exceed a maximum of 399,000 shares in aggregate.

ITEM 9C. *DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS*

None.

PART III

ITEM 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

The information required by this item relating to executive officers is included in Part I of this Annual Report on Form 10-K under the caption "Executive Officers of the Registrant."

The information required by this item regarding Directors is incorporated herein by reference to information to be included under the caption "Proposal #1: Election of Directors" of the Company's Proxy Statement for the Annual Meeting of Shareholders to be held on April 30, 2024 (the 2024 Annual Meeting of Shareholders), which will be provided to shareholders within 120 days after December 31, 2023.

The information required by this item regarding the Audit Committee and the Audit Committee financial experts is incorporated herein by reference to information to be included under the caption "Corporate Governance – Committees of the Board of Directors – Audit Committee" of the Company's Proxy Statement for the 2024 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2023.

The information required by this item concerning Section 16(a) beneficial ownership reporting compliance is incorporated herein by reference to information to be included under the caption "Stock Ownership – Section 16(a) Beneficial Ownership Reporting Compliance" of the Company's Proxy Statement for the 2023 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2023.

The Company has adopted a code of ethics that applies to all directors, officers and employees, including its chief executive officer, chief financial officer and chief accounting officer. You can find the Company's code of ethics on its website by going to the following address: http://investorrelations.umb.com. Information on the Company’s website is not incorporated by reference into this report and should not be considered part of this document. The Company will post on its website any amendments or waivers to its code of ethics that are required to be disclosed under the rules of either the SEC or NASDAQ. A copy of the code of ethics will be provided, at no charge, to any person requesting the same, by written notice sent to the Company's Corporate Secretary, 6th floor, 1010 Grand Blvd., Kansas City, Missouri 64106.

ITEM 11. *EXECUTIVE COMPENSATION*

The information required by this item is incorporated herein by reference to information to be included under the Executive Compensation sections of the Company's Proxy Statement for the 2024 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2023.

ITEM 12. *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

Security Ownership of Certain Beneficial Owners

The information required by this item is incorporated herein by reference to the Company's Proxy Statement for the 2024 Annual Meeting of Shareholders to information to be included under the caption "Stock Ownership - Principal Shareholders," which will be provided to shareholders within 120 days after December 31, 2023.

Security Ownership of Management

The information required by this item is incorporated herein by reference to the Company's Proxy Statement for the 2024 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2023, under the caption "Stock Ownership – Stock Owned by Directors, Nominees, and Executive Officers."

The following table summarizes shares authorized for issuance under the Company’s equity compensation plans as of December 31, 2023:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders			
2005 Long Term Incentive Plan	97,624	$ 64.20	None
2018 Omnibus Incentive Compensation Plan	None	None	1,592,762
Equity compensation plans not approved by security holders	None	None	None
Total	97,624	$ 64.20	1,592,762

For additional information concerning the Company’s equity compensation plans, see Note 11, “Employee Benefits,” in the Notes to the Consolidated Financial Statements provided in Item 8 of this report.

ITEM 13. *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

The information required by this item is incorporated herein by reference to the information to be provided under the captions “Corporate Governance – Transactions with Related Persons”, “Corporate Governance – The Board of Directors – Independent Directors” and “Corporate Governance – Committees of the Board of Directors” of the Company's Proxy Statement for the 2024 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2023.

ITEM 14. *PRINCIPAL ACCOUNTANT FEES AND SERVICES*

The information required by this item is incorporated herein by reference to the information to be provided under the caption "Proposal #3: Ratification of the Corporate Audit Committee’s Engagement of KPMG LLP as UMB’s Independent Public Accounting Firm for 2024” of the Company's Proxy Statement for the 2024 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2023.

PART IV

ITEM 15. *EXHIBITS AND FINANCIAL STATEMENT SCHEDULES*

Consolidated Financial Statements and Financial Statement Schedules

The following Consolidated Financial Statements of the Company are included in Item 8 of this Annual Report on Form 10-K.

Consolidated Balance Sheets as of December 31, 2023 and 2022
Consolidated Statements of Income for the Three Years Ended December 31, 2023
Consolidated Statements of Comprehensive Income for the Three Years Ended December 31, 2023
Consolidated Statements of Changes in Shareholders' Equity for the Three Years Ended December 31, 2023
Consolidated Statements of Cash Flows for the Three Years Ended December 31, 2023
Notes to Consolidated Financial Statements
Report of Independent Registered Public Accounting Firm

Condensed Consolidated Financial Statements for the parent company only may be found in Item 8 above. All other schedules have been omitted because the required information is presented in the Consolidated Financial Statements or in the notes thereto, the amounts involved are not significant or the required subject matter is not applicable.

Exhibits

The following Exhibit Index lists the Exhibits to Form 10-K:

3.1	Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006 and filed with the Commission on May 9, 2006).
3.2	Bylaws, amended as of April 13, 2023 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K dated April 13, 2023 and filed with the Commission on April 13, 2023).
4.1	Description of the capital stock included in the Registration Statement on Form 8-A (incorporated by reference to the Registration Statement on Form 8-A dated May 1, 2018 and filed with the Commission on May 1, 2018).
4.2	Description of the capital stock included in the Registration Statement on Form S-3 (incorporated by reference to the Registration Statement on Form S-3 ASR dated August 17, 2022 and filed with the Commission on August 17, 2022).
4.3	Description of UMB Financial Corporation's Securities (incorporated by reference to Exhibit 4.3 to the Company's Form 10-K for December 31, 2019 and filed with the Commission on February 27, 2020).
4.4	Indenture, dated as of September 17, 2020, by and between UMB Financial Corporation and Wells Fargo, National Association (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K dated September 17, 2020 and filed with the Commission on September 22, 2020).
4.5	Supplemental Indenture, dated as of September 17, 2020, by and between UMB Financial Corporation and Wells Fargo, National Association, as Trustee, with respect to the 3.700% Fixed-to-Fixed Rate Subordinated Notes due 2030 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K dated September 17, 2020 and filed with the Commission on September 22, 2020).
4.6	Form of 3.700% Fixed-to-Fixed Rate Subordinated Notes due 2030 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K dated September 17, 2020 and filed with the Commission on September 22, 2020).
4.7	Second Supplemental Indenture, dated as of September 28, 2022, by and between UMB Financial Corporation and Wells Fargo, National Association, as Trustee, with respect to the 6.250% Fixed-to-Fixed Rate Subordinated Notes due 2032 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K dated September 28, 2022 and filed with the Commission on September 28, 2022).

4.8	Form of 6.250% Fixed-to-Fixed Rate Subordinated Notes due 2032 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K dated September 28, 2022 and filed with the Commission on September 28, 2022).
10.1	UMB Financial Corporation Long-Term Incentive Compensation Plan amended and restated as of April 23, 2013 (incorporated by reference to Appendix A of the Company's Proxy Statement for the Company's April 23, 2013 Annual Meeting filed with the Commission on March 13, 2013).
10.2	Deferred Compensation Plan, dated as of December 1, 2008 (incorporated by reference to Exhibit 10.3 to the Company's Form 10-K for December 31, 2017 and filed with the Commission on February 22, 2018).
10.3	UMBF 2005 Short-Term Incentive Plan (incorporated by reference to Exhibit 10.7 to the Company's Form 10-K for December 31, 2004 and filed with the Commission on March 14, 2005).
10.4	Performance Share Unit Award Agreement for the UMB Financial Corporation Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K dated June 8, 2018 and filed with the Commission on June 14, 2018).
10.5	Restricted Share Unit Award Agreement for the UMB Financial Corporation Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.5 to the Company's Form 10-K for December 31, 2022 and filed with the Commission on February 23, 2023).
10.6	Form of 2016 Stock Option Award Agreement for the UMB Financial Corporation Long-Term Incentive Compensation Plan (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10Q filed with the Commission on August 2, 2016).
10.7	UMBF Omnibus Incentive Compensation Plan (incorporated by reference to Appendix A of the Company's Proxy Statement for the Company's April 24, 2018 Annual Meeting filed with the Commission on March 13, 2018).
10.8	Performance Share Unit Award Agreement with Shannon A. Johnson (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated July 25, 2022 and filed with the Commission on July 29, 2022).
21.1	Subsidiaries of the Registrant filed herewith.
23.1	Consent of Independent Registered Public Accounting Firm – KPMG LLP filed herewith.
24.1	Power of Attorney filed herewith.
31.1	CEO Certification pursuant to Section 302 of the Sarbanes-Oxley Act filed herewith.
31.2	CFO Certification pursuant to Section 302 of the Sarbanes-Oxley Act filed herewith.
32.1	CEO Certification pursuant to Section 906 of the Sarbanes-Oxley Act filed herewith.
32.2	CFO Certification pursuant to Section 906 of the Sarbanes-Oxley Act filed herewith.
97.1	Compensation Recovery Policy filed herewith.
101.INS	XBRL Instance Document – The instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema With Embedded Linkbases Document filed herewith.
104	The cover page of our Form 10-K for the year ended December 31, 2023, formatted in iXBRL.

ITEM 16. ***FORM 10-K SUMMARY***

None.

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, as of February 22, 2024.

UMB FINANCIAL CORPORATION

/s/ J. Mariner Kemper
J. Mariner Kemper
Chairman of the Board,
Chief Executive Officer

/s/ Ram Shankar
Ram Shankar
Chief Financial Officer

/s/ David C. Odgers
David C. Odgers
Chief Accounting Officer

Date: February 22, 2024

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 on the date indicated.

Signature	Title	Signature	Title
/s/ Robin C. Beery Robin C. Beery	Director	/s/ Leroy J. Williams Leroy J. Williams	Director
/s/ Janine A. Davidson Janine A. Davidson	Director	/s/ Kevin C. Gallagher Kevin C. Gallagher	Director
/s/ Greg M. Graves Greg M. Graves	Director	/s/ Gordon E. Lansford III Gordon E. Lansford III	Director
/s/ Timothy R. Murphy Timothy R. Murphy	Director	/s/ Tamara M. Peterman Tamara M. Peterman	Director
/s/ Kris A. Robbins Kris A. Robbins	Director	/s/ L. Joshua Sosland L. Joshua Sosland	Director
/s/ J. Mariner Kemper J. Mariner Kemper Attorney-in-Fact for each director	Director, Chairman of the Board, Chief Executive Officer		

Exhibit 21.1

SUBSIDIARIES OF UMB FINANCIAL CORPORATION
December 31, 2023

Name of Entity Organization	Incorporation or Jurisdiction of	Parent Ownership Percentage
UMB Financial Corporation (Registrant and Parent Company)	Missouri	
UMB Bank, n.a.	United States	100 %
UMB Bank & Trust, n.a.	Missouri	100 %
UMB Capital Corporation	Missouri	100 %
UMB Banc Leasing Corporation	Missouri	100 %
UMB Trust Company of South Dakota	South Dakota	100 %
UMB Insurance, Inc.	Missouri	100 %
Kansas City Realty Company	Kansas	100 %
UMB Realty Company, LLC	Delaware	100 %
Kansas City Financial Corporation	Kansas	100 %
UMB Colorado Property, LLC	Colorado	100 %
Conifer Properties LLC	Missouri	100 %
Meridian AZ Properties, LLC	Delaware	100 %
SB&T Assets, LLC	Texas	100 %
UMB Foreign LLC	Delaware	100 %
UMBF Trust and Agency Services (Ireland) Limited	Dublin, Ireland	100 %
UMB Delaware, Inc.	Delaware	100 %
1268 South Jones Spring Lane, LLC	Missouri	100 %
UMBCDC, Inc.	Missouri	100 %
UMB Fund Services, Inc.	Wisconsin	100 %
UMB Distribution Services, LLC	Wisconsin	100 %
UMB Financial Services, Inc.	Missouri	100 %
UMB Asset Management, LLC	Delaware	100 %
UMB Family Wealth GP 1, LLC	Delaware	100 %
FW Motif LP	Delaware	UMB Family Wealth GP 1, LLC is the general partner
UMB Management Equity Holdings, Inc.	Delaware	100 %
UMB Merchant LLC	Delaware	100 %
UMB Family Wealth - KS Halite LLC	Delaware	100 %
UMB Family Wealth - FW Tessera Horizon LLC	Delaware	100 %
FW Tessera Horizon LLC	Delaware	UMB Family Wealth - FW Tessera Horizon LLC is the managing member
UMB Family Wealth - FW Tessera LLC	Delaware	100 %
FW Tessera LLC	Delaware	UMB Family Wealth - FW Tessera LLC is the managing member
UMB Family Wealth - FW Tessera Royale LLC	Delaware	100 %
FW Tessera Royale LLC	Delaware	UMB Family Wealth - FW Tessera Royale LLC is the managing member

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-230787 and 333-266941) on Form S-3 and (Nos. 333-65807, 333-125067, 333-161398, 333-181111, 333-188100, and 333-224585) on Form S-8 of our reports dated February 22, 2024, with respect to the consolidated financial statements of UMB Financial Corporation and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Kansas City, Missouri
February 22, 2024

Exhibit 24.1

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.

UMB FINANCIAL CORPORATION

Date February 22, 2024	By /s/ J. Mariner Kemper J. Mariner Kemper Chairman of the Board

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints J. Mariner Kemper and Ram Shankar his true and lawful attorneys-in-fact and agents, each acting alone, with full power of substitution and resubstitution, for and in his name, place and stead, in any and all capacities, to file this report the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing required and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents, each acting alone, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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 in the capacities and on the dates indicated.

Signature and Name	Capacity	Date
/s/ Robin C. Beery Robin C. Beery	Director	1/30/2024
/s/ Janine A. Davidson Janine A. Davidson	Director	1/30/2024
/s/ Kevin C. Gallagher Kevin C. Gallagher	Director	1/30/2024

Signature and Name	Capacity	Date
/s/ Greg M. Graves Greg M. Graves	Director	1/30/2024
/s/ J. Mariner Kemper J. Mariner Kemper	Director, Chief Executive Officer Chairman of the Board	1/30/2024
/s/ Gordon E. Lansford III Gordon E. Lansford III	Director	1/30/2024
/s/ Timothy R. Murphy Timothy R. Murphy	Director	1/30/2024
/s/ Tamara M. Peterman Tamara M. Peterman	Director	1/30/2024
/s/ Kris A. Robbins Kris A. Robbins	Director	1/30/2024
/s/ Ram Shankar Ram Shankar	Chief Financial Officer	1/30/2024
/s/ L. Joshua Sosland L. Joshua Sosland	Director	1/30/2024
/s/ Leroy J. Williams Leroy J. Williams	Director	1/30/2024

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT

I, J. Mariner Kemper, certify that:

1. I have reviewed this Annual Report on Form 10-K of UMB Financial Corporation;

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 22, 2024

/s/ J. Mariner Kemper

J. Mariner Kemper
Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT

I, Ram Shankar, certify that:

1. I have reviewed this Annual Report on Form 10-K of UMB Financial Corporation;

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 22, 2024

/s/ Ram Shankar

Ram Shankar
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of UMB Financial Corporation (the Company) for the year ended December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, J. Mariner Kemper, Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 22, 2024

/s/ J. Mariner Kemper

J. Mariner Kemper
Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to UMB Financial Corporation and will be retained by UMB Financial Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of UMB Financial Corporation (the Company) for the year ended December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Ram Shankar, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 22, 2024

/s/ Ram Shankar

Ram Shankar
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to UMB Financial Corporation and will be retained by UMB Financial Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 97.1

Compensation Recovery Policy

Status: Approved

Revision Date: 10/31/2023

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Compensation Recovery Policy

Status: Approved
Revision Date: 10/31/2023

1. Policy Overview

The Board of Directors (the "**Board**") of UMB Financial Corporation (the "**Company**") believes that it is in the best interest of the Company and its shareholders to create and maintain a culture that emphasizes integrity and accountability and reinforces the Company's pay-for-performance compensation philosophy. This Compensation Recovery Policy (this "**Policy**") provides for the mandatory recoupment of "**erroneously awarded**" (defined below) Incentive-Based Compensation (defined below) to Executive Officers (defined below) in the event that the Company is required to prepare an "**accounting restatement**" due to the material noncompliance of the Company with any financial reporting requirement under applicable securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period. This Policy also provides for the discretionary recoupment of Incentive-Based Compensation from employees who engaged in misconduct that led to a material error in a Financial Reporting Measure (defined below) leading to erroneously awarded Incentive-Based Compensation.

2. Scope

The Board of the Company adopts this Policy to address the mandatory recoupment of certain Incentive-Based Compensation (defined below) in the event of an accounting restatement. The Policy is designed to comply with Section 10D-1 of the Securities and Exchange Act of 1934, as amended (the "**Exchange Act**"), and Rule 5608 of the NASDAQ listing standards and is made in accordance with the provisions of the Compensation Committee's charter. This Policy also addresses the discretionary recoupment of Incentive-Based Compensation from employees who engage in any illegal, dishonest, fraudulent, or intentional misconduct that materially contributes to the Company erroneously awarding Incentive-Based Compensation. The Policy supersedes and replaces in its entirety any prior or existing policies adopted by the Company with respect to the clawback of incentive-based compensation payable to an individual covered by this Policy. Any determinations made by the Compensation Committee of the Board (the "**Compensation Committee**") relating to this Policy shall be binding on all individuals.

3. Definitions

The term "**Executive Officer**" means any individual identified as an officer of the Company pursuant to Rule 16a-1 of the Exchange Act during the relevant recovery period.

The term "**Incentive-Based Compensation**" means any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure. For the

Company, Incentive-Based Competition may include, but is not limited to:

- Bonuses under any Company Short-Term Incentive Compensation Program (or any equivalent successor plan or program)
- Performance Shares
- Performance Units
- Stock Options
- Cash Incentive Awards under the UMB Financial Corporation Omnibus Incentive Compensation Plan

Incentive-Based Compensation is deemed "**Received**" in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of the Incentive-Based Compensation occurs after the end of that period.

The term "**Financial Reporting Measures**" refers to measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived in whole or in part from such measures. A Financial Reporting Measure need not be presented within the financial statements of the Company or included in a filing made by the Company with the Securities and Exchange Commission. Financial Reporting Measures include, but are not limited to:

- Company stock price
- Total shareholder return (TSR)
- Revenue
- Net income
- Pre-provision net revenue
- Return measures such as return on assets (ROA), return on equity (ROE), and return on average tangible common equity (ROTCE)
- Earnings measures such as earnings per share

4. Policy Requirements

Mandatory Recoupment of Erroneously Awarded Incentive-Based Compensation

In the event the Company is required to prepare an accounting restatement, the Company will require reimbursement or forfeiture of any erroneously awarded Incentive-Based Compensation Received by any Executive Officer during the three completed fiscal years

immediately preceding the date on which the Company is required to prepare an accounting restatement.

The compensation that is subject to mandatory recoupment under this Policy is erroneously awarded Incentive-Based Compensation that is Received by an Executive Officer:

a. after such person began service as an Executive Officer;
b. who served as an Executive Officer at any time during the performance period for such Incentive-Based Compensation (for the avoidance of doubt, this includes both current and former Executive Officers);
c. while the Company has a class of securities listed on Nasdaq (or such other national securities exchange on which the Company's securities are then listed); and
d. during the three completed fiscal years immediately preceding the date that the Company is required to prepare an accounting restatement.

The Company's obligation to recover erroneously awarded Incentive-Based Compensation is not dependent on if or when the restated financial statements are filed.

Discretionary Recoupment

The Compensation Committee may, in its discretion, require reimbursement or forfeiture of any or all Incentive-Based Compensation from any individual who is identified by the Compensation Committee to have engaged in any illegal, dishonest, fraudulent, or intentional misconduct that materially contributed to the Company erroneously awarding Incentive-Based Compensation during any portion of the three completed fiscal years immediately preceding the discovery of the illegal, dishonest, fraudulent, or intentional misconduct irrespective of whether an accounting restatement is required.

Determination of Recovery Period

For purposes of determining the relevant recovery period for any mandatory recoupment, the date that the Company is required to prepare an accounting restatement shall be the earlier to occur of:

a. The date the Board, a committee of the Board, or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an accounting restatement; or
b. The date a court, regulator, or other legally authorized body directs the Company to prepare the accounting restatement.

Amount Subject to Mandatory Recoupment

The amount to be recovered ("**erroneously awarded Incentive-Based Compensation**") will be the amount of Incentive-Based Compensation Received by the Executive Officer that exceeds the amount of Incentive-Based Compensation that otherwise would have been Received had it been determined based on the restated amounts computed without regard to any taxes paid, as determined by the Compensation Committee. If the erroneously awarded Incentive-Based Compensation is based on a measurement that is not subject to a mathematical recalculation directly from the information in the accounting restatement (i.e., stock price or total shareholder return), the amount must be based on a reasonable estimate of the effect of the accounting restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was Received, and the Company must maintain documentation of the determination of the reasonable estimate and provide such documentation to Nasdaq.

Amount Subject to Discretionary Recoupment

The Compensation Committee shall determine the amount of discretionary recoupment up to the full amount of any Incentive-Based Compensation received by an individual during a period where the individual was found to have engaged in any illegal, dishonest, fraudulent, or intentional misconduct that had a material impact on causing the Company to erroneously award Incentive-Based Compensation.

Method of Recoupment; Reasonably Promptly

The Company shall in the case of mandatory recoupment, or may in the case of discretionary recoupment, recover "**reasonably promptly**" any erroneously awarded Incentive-Based Compensation in accordance with this Policy in a method determined by the Compensation Committee which may include, without limitation:

a. Requiring reimbursement of cash Incentive-Based Compensation previously paid;
b. Seeking recovery of any gain realized on the vesting, exercise, settlement, sale, transfer, or other distribution of equity awards;
c. Offsetting the recouped amount from any compensation otherwise owed by the Company to the individual(s);
d. Cancelling outstanding vested or unvested equity awards; and/or
e. Taking any other remedial and recovery action permitted by law, as determined by the Compensation Committee.

The Compensation Committee shall determine the repayment schedule for each amount of erroneously awarded Incentive-Based Compensation in a manner that complies with the

"reasonably promptly" requirement. Such determination shall be made consistent with any applicable legal guidance, by the SEC, Nasdaq, judicial opinion, or otherwise. The determination of what constitutes "reasonably promptly" may vary from case to case and will depend on the particular facts and circumstances applicable to the Company, the accounting restatement and the erroneously awarded Incentive-Based Compensation, among other factors. The Compensation Committee is authorized to adopt additional rules to further describe what repayment schedules satisfy this requirement.

In the case of mandatory recoupment, the Compensation Committee may determine that the recovery of erroneously awarded compensation would be impracticable if:

a. The direct expense paid to a third party to assist in enforcing this Policy would exceed the amount to be recovered. Before concluding that it would be impracticable to recover erroneously awarded Incentive-Based Compensation based on expense of enforcement, the Company shall make a reasonable attempt to recover such erroneously awarded Incentive-Based Compensation, document such reasonable attempt(s) to recover, and provide documentation to Nasdaq.
b. Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

Notwithstanding the foregoing, in the event that a court, regulator, or other legally authorized body directs the Company to prepare an accounting restatement, the Committee may direct the Company to postpone the recovery of any Incentive-Based Compensation: (a) if the Company undertakes any legal challenge to such direction to prepare an accounting restatement; and (b) for only such time as it takes for the process to complete such legal challenge is underway.

No Indemnification

Notwithstanding anything to the contrary in any other policy or governing document of the Company or any agreement between the Company and an Executive Officer or an employee, the Company shall not indemnify or reimburse any Executive Officer or employee against the loss of any erroneously awarded Incentive-Based Compensation.

Agreement to the Policy by Executive Officers

The Compensation Committee will take reasonable steps to inform Executive Officers and employees of this Policy. Executive Officers should read this Policy carefully and ask questions of the Company's General Counsel.

Compensation Recovery Policy
Status: Approved
Revision Date: 10/31/2023

5. Roles and Responsibilities

The Compensation Committee shall administer and interpret this Policy, make any required determinations under this Policy and amend this Policy as it deems appropriate at any time. The Compensation Committee shall also consider any guidelines, directives and authorizations provided to the Compensation Committee by the Board from time to time in the course of administering this Policy. Decisions of the Compensation Committee with respect to this Policy shall be final, conclusive, and binding on all individuals subject to this Policy, unless determined to be an abuse of discretion or determined to be unenforceable by the SEC or NASDAQ.

6. Exceptions

There shall be no exceptions to this Policy.

7. Legal Authority and References

Rule 10D-1 of the Exchange Act

Rule 5608 of the NASDAQ listing standards

Charter of the Compensation Committee

8. Revision History

Creation Date: October 31, 2023

Date of Last Review October 31, 2023

Revision Date	Rev No	Reviewer	Change	Reference Sections

9. Appendices

None.