2022

Mercantile®
Bank Corporation

ANNUAL REPORT

MISSION

To deliver financial solutions that
empower people to achieve
their goals and dreams.

VISION

To be *the* financial and career partner
of choice, bettering the lives of our
customers and enriching
the communities we serve.

VALUES

To build strong relationships,
accomplished through: Accountability,
Collaboration, Excellence, Inclusivity,
and Innovation.

We believe that by fulfilling our mission, striving towards our vision and living our values, we will provide shareholders of Mercantile Bank Corporation with an excellent return on their investment.

LETTER TO OUR SHAREHOLDERS

The performance of our company in 2022 was a clear demonstration of the exceptional work of the Mercantile Bank team. Our cultural commitment to excellence along with an organizational nimbleness allowed us to develop new and enhance existing relationships with our clients and our communities. The result was another year of strong performance for our shareholders.

2022 marked the 25th anniversary of Mercantile's founding in Grand Rapids, Michigan. The foundational principles and raison d'être that brought our company into existence in 1997 still drive us today.

We strive to fulfill the financial needs of our customers and potential customers by providing excellent products and services through engaging in mutually beneficial relationships.

At the end of our twenty-fifth year, we have grown to nearly $5 billion in total assets and now serve communities across the state of Michigan, and two years ago entered the state of Ohio with a new mortgage operation as well. Customers who engage in partnership with Mercantile quickly experience our relationship-based approach to financial services which provides them with a trusted adviser who understands their needs and works with them to craft strategies and solutions.

COMMUNITY

As 2022 began, there was much conversation about the condition and direction of the national economy. Early in the new year, it became apparent that this would be another year of the unexpected. As states and their communities recovered from the effects of the Covid-19 pandemic from the prior two years, businesses and consumers were thrust into a period of persistent supply chain challenges, labor shortages and inflationary pressures across a wide spectrum of sectors, led by fuel costs. Many opined that the inflation being experienced was a temporary effect of a rebounding economy and would quickly subside. Once it became clearer that inflation wasn't transitory, the Federal Open Market Committee (FOMC) quickly pivoted to a rising interest rate strategy to slow the economy and bring inflation under control.

Seven rate increases totaling 4.25% were implemented by the FOMC throughout 2022. However, Mercantile had positioned its balance sheet in anticipation of increased rates. We deployed our interest rate swap program in our commercial loan portfolio in late 2020, bringing about a shift in the mix of variable rate commercial loans as a percentage of total commercial loans from 41% at December 31, 2020, to 65% at year-end 2022.

The rising interest rates allowed Mercantile to normalize its net interest margin from the tight margins that resulted from the incredibly low rates that were initiated to boost the economy during the pandemic. From a low point of 2.57% during the first quarter 2022 to a robust 4.30% for the fourth quarter, Mercantile's net interest margin settled in at 3.33% for all of 2022 compared to 2.76% during 2021.

While our income was boosted by the rate environment, mortgage production was hampered as mortgage refinancing production dropped to all but nominal levels. Overall, production by the residential mortgage function was $614 million for 2022 compared to $952 million during 2021. Mortgage banking income of $8.7 million in 2022 reflected the new rate environment compared to $30.0 million for 2021. As customers sought the lower-costing adjustable rate mortgage products rather than the long-term fixed-rate products, loan production shifted more toward portfolio purchase loans as well as construction loans.

During 2022, Mercantile earned $3.85 per share on revenues of $190.3 million compared to $3.69 per share on revenues of $180.3 million during 2021, which represented 4.3% growth in earnings per share year-over-year. One of the main catalysts of our 2022 performance was strong net loan growth of $463 million. Mercantile's relationship-building approach to client acquisition served our company very well once again in 2022, with solid gains in each of the markets we serve.

This year-over-year loan growth of 13.4% reflected the onboarding of significant numbers of new clients in both the commercial and retail portfolios as well as the enhancement of existing relationships with new credit facilities or increases to existing loan relationships.

Increases in most fee income categories, other than mortgage banking, supplemented the growth in net interest income. Solid gains were realized in service charges on deposit accounts, credit and debit card income, and payroll services/human capital management fee income.

Continuation of our diligent management of expenses was another highlight of Mercantile's 2022 performance. During a year with rising costs in most areas, including a continued effort to remain competitive in all facets of our employment package for new and existing team members, our management team did a fabulous job of allocating our resources effectively while maintaining best-in-class responsiveness and delivery for our clients. Our efficiency ratio, which measures overhead expenses as a percentage of total revenue was 56.7% for 2022 compared with 61.5% in 2021.

As interest rates rose during the year, concerns started to grow about a potential downturn in the economy or a recession. Despite the numerous challenges faced by businesses and consumers over the last several years since the start of the pandemic, including operational restrictions, supply chain issues, fuel price increases, labor shortages, increased borrowing costs, etc., the loan portfolio has performed very well.

PARTNERS

Ongoing customer engagement by our lending team allows us to stay close to our clients and understand any emerging challenges they may encounter and provide value to them while allowing the Bank to manage its risks.

At the end of 2022, our loan portfolio continued to perform in extremely healthy fashion. For the fourth time in the past five years, our company finished with loan recoveries exceeding loan charge-offs, with a net recovery position of $733,000 for 2022. We also maintained zero assets held in Other Real Estate Owned (OREO) throughout all of 2022. Non-performing assets to total assets were 0.16% at December 31, 2022, which put Mercantile among the best in its peer group for asset quality.

At the core, our Company's success since its founding is attributable to our team and culture. Since 1997, when that intrepid group of nineteen bankers opened the doors of Mercantile for the first time, to twenty-five years later with nearly $5 billion in assets and 669 total employees, a strong team of skillful, dedicated, customer focused and empathetic employees has been our hallmark. The ongoing consolidation in the banking industry has often resulted in customers slipping through the cracks, with their needs being ignored or misunderstood. The Mercantile culture has been constructed and maintained on the premise that the reason for our existence is our customers. Our job is to understand THEIR needs and craft solutions that fulfill those needs, and not just push random products on customers that only serve OUR needs.

Mercantile has grown and expanded over the years through a relationship-based, customer-focused approach to our business. The team members we hire into our Company are, of course, skillful in the aspects of financial services and also possess other characteristics that allow them to thrive in our environment.

One of the most important attributes of our team is that they are passionate about our clients, their teammates and the communities we serve.

RELATIO

This mindset provides them a solid foundation and is the common starting point for individuals who come to work for Mercantile. Other key traits Mercantile team members exhibit are problem solving skills, a commitment to excellence in all that they do, a positive and optimistic attitude, and a natural curiosity. As we witnessed over the last few years during the pandemic, they are also adaptable, nimble and open to change and new possibilities.

Our team members allow us to make a significant impact in the markets and communities we serve. In 2022, Mercantile forged new partnerships and enhanced existing ones through the tremendous work of our staff by offering their time and talents. Our employees volunteered at various nonprofit and charitable organizations during the year with over 21,000 hours served. These hours represent leadership positions on boards and committees of countless 501(c)(3) nonprofit organizations, as well as the offering of their time and skills for the benefit of events conducted by such organizations.

During 2022, Mercantile, and its Foundation, the Mercantile Bank Foundation, which was formed in 2021, contributed monetary donations of nearly $950,000. These donations consisted of annual support for the operations of our nonprofit partners and investments in their capital campaigns as well as sponsorship of fundraising events. Mercantile also continued its ongoing investment in our youth with four full scholarships at a local university with a special attention to first generation college students of color in our communities. Mercantile's focus on equitable community investment was once again present in our various internship opportunities for high school and college students who were interested in learning more about potential careers in the financial services industry. During 2022, Mercantile hired sixteen students, eleven of them being students of color, in our paid summer internship program. Some of these students were deployed for the summer term while others spent a full semester in various departments throughout our company. In these internships, the students learned about the operation of a bank, and the role of specific functions, including human

ONSHIPS

resources, operations, lending and administration. The students were also able to build relationships with Mercantile team members and experience the collaborative environment that we foster at our Company.

With the tireless work of our team, Mercantile was recognized with various awards and highlights in 2022. This recognition includes:

- Best and Brightest Company to Work For® — 18th year in a row
- Michigan Bankers Association Financial Literacy Award and the 2022 MBA Innovator of the Year Award — 2nd year in a row
- Corp! Magazine Salute to Diversity Award as a Diversity Focused Company
- Top lender for production in the SBA 504 Program for 2022, with nearly $20 million in production
- Grand Rapids Business Journal — Mercantile was the #1 bank in West Michigan ranked by commercial loan portfolio and commercial real estate loan portfolio
- Heart of West Michigan United Way — recognized as a top campaign
- Ottawa County United Way 2022 Community Builder Award

While this recognition is meaningful and appreciated by our entire organization, the true reward for our work is stronger communities, filled with members who have countless opportunities to improve their lives and the lives of their families for generations to come.

The needs of those in our communities were most pronounced during the last several years with the effects of the pandemic and now with the rising cost of living, as many families are struggling to provide for their basic needs. Mercantile remains steadfastly committed to being a strong community partner for the betterment of all of its members. If we remain successful in our efforts, not only will we provide members of our communities with the products and services they need to realize their financial goals and ambitions, we will also be a source of satisfying and rewarding jobs.

As we look ahead to 2023, we remain extraordinarily optimistic about the future of our company. There will be challenges and other forks in the road on our path forward, of course, just as there were over our first twenty-five years. There will also be many more opportunities which will allow Mercantile and its incredible team to demonstrate their talents and enjoy new successes. As we navigate another new year, our leadership team eagerly looks ahead to crafting new plans and strategies for the future.

We have continually demonstrated the ability to profitably grow our company by purposefully engaging our clients to anticipate their current needs as well as their emerging needs in the years ahead.

As the pace of change in the financial services industry continues to accelerate, we remain committed to thoughtful and evolving strategic decision-making. We endeavor to continue enhancing our partnerships on all levels as a premier community bank, providing valuable returns on the investments of our shareholders.

Robert B. Kaminski, Jr.
President and Chief Executive Officer

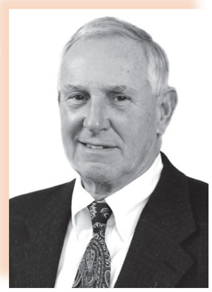
TEAMWORK

2022 BOARD OF DIRECTORS

David M. Cassard
Retired
Real Estate Executive

Michael S. Davenport
Owner
Jireh Metal Products, Inc.

Michelle L. Eldridge
Owner
Clear Ridge Wealth Management



Jeff A. Gardner, CPM
Owner
Superior Property Management of St. Joseph

Robert B. Kaminski, Jr.
President and
Chief Executive Officer

Michael H. Price
Chairman of the Board
Retired
Banking Executive

David B. Ramaker
Retired
Banking Executive

2022 EXECUTIVE OFFICERS

Charles E. Christmas
Executive Vice President,
Chief Financial Officer and Treasurer

Robert B. Kaminski, Jr.
President
and Chief Executive Officer

Raymond E. Reitsma
Executive Vice President,
Chief Operating Officer
and President of Mercantile Bank

Lonna L. Wiersma
Senior Vice President
and Human Resource Director
of Mercantile Bank
(Retired March 4, 2022)

Robert T. Worthington
Senior Vice President,
Chief Risk Officer, General Counsel
and Secretary

EXECUTIVE OFFICERS

MERCANTILE BANK
2023 STRATEGIC PLANNING TEAM

Sonali D. Allen
Senior Vice President
Chief Compliance and
Community Development Officer

Mark S. Augustyn
Executive Vice President
Chief Lending Officer

Charles E. Christmas
Executive Vice President
Chief Financial Officer

Douglas J. Holtrop
Executive Vice President
Senior Lending Officer

Brett E. Hoover
Senior Vice President
Human Resource Director

Amy W.M. Kam
Vice President
Executive Administrator

Robert B. Kaminski, Jr.
Chief Executive Officer

Justin M. Karl
Executive Vice President
Senior Lending Officer

David L. Miller
Senior Vice President
Training and Marketing Director

Douglas J. Ouellette
Senior Vice President
Chief Community Banking Officer

Tara M. Randall
Senior Vice President
Chief Retail Banking Officer

Raymond E. Reitsma
President

John R. Schulte
Senior Vice President
Chief Digital Banking Officer

Scott P. Setlock
Executive Vice President
Chief Operating Officer

Misti L. Stanton
Vice President
Diversity, Equity and Inclusion Officer

Robert T. Worthington
Senior Vice President
Chief Risk Officer, General Counsel
and Secretary

STRATEGIC

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2022
or
[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from __________________ to __________________

Commission file number 000-26719

MERCANTILE BANK CORPORATION

(Exact name of registrant as specified in its charter)

Michigan	**38-3360865**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
310 Leonard Street NW, Grand Rapids, Michigan	**49504**
(Address of principal executive offices)	(Zip Code)

(616) 406-3000
(Registrant's telephone number, including area code)

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	MBWM	The Nasdaq Stock Market LLC

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 _X_

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 _X_

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 _X_ 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes _X_ 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 (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer ___	Accelerated filer _X_	Emerging growth company ___
Non-accelerated filer ___	Smaller reporting 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 USC.7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes _X_ No ___

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. Yes ___ No ___

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 Section 240.10D-1(b). Yes ___ No ___

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

The aggregate value of the common equity held by non-affiliates (persons other than directors and executive officers) of the registrant, computed by reference to the closing price of the common stock as of the last business day of the registrant's most recently completed second fiscal quarter, was approximately $487 million. As of February 28, 2023, there were issued and outstanding 15,995,107 shares of the registrant's common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's proxy statement for the Annual Meeting of Shareholders to be held May 25, 2023 are incorporated by reference into Part III of this report. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2022. Additionally, portions of the Annual Report are incorporated by reference in this Form 10-K in response to Items within Part II.

PART I

Item 1. Business.

The Company

Mercantile Bank Corporation is a registered bank holding company under the Bank Holding Company Act of 1956, as amended (the "Bank Holding Company Act"). Unless the text clearly suggests otherwise, references to "us," "we," "our," or "the company" include Mercantile Bank Corporation and its wholly-owned subsidiaries. As a bank holding company, we are subject to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"). We were organized on July 15, 1997, under the laws of the State of Michigan, primarily for the purpose of holding all of the stock of Mercantile Bank ("our bank"), and of such other subsidiaries as we may acquire or establish. Our bank commenced business on December 15, 1997. During the third quarter of 2013, we filed an election to become a financial holding company, which election became effective April 14, 2014. Mercantile Insurance Center, Inc. ("our insurance company"), a subsidiary of our bank, commenced operations during 2002 to offer insurance products. Our expenses have generally been paid using cash dividends from our bank. Our principal source of future operating funds is expected to be dividends from our bank.

Our Bank

Our bank is a state banking company that operates under the laws of the State of Michigan, pursuant to a charter issued by the Michigan Department of Insurance and Financial Services. Our bank's deposits are insured to the maximum extent permitted by law by the Federal Deposit Insurance Corporation ("FDIC"). Our bank, through its 46 office locations, provides commercial banking services primarily to small- to medium-sized businesses and retail banking services. Our bank's main office is located in Grand Rapids, and our operations are centered around the West and Central portions of Michigan. We also have a banking office located in the metropolitan Detroit, Michigan area, as well as residential mortgage loan production offices in Midland and Petoskey, Michigan and in the Cincinnati, Ohio metropolitan area. Our bank makes secured and unsecured commercial, construction, mortgage and consumer loans, and accepts checking, savings and time deposits. Our bank owns 20 automated teller machines ("ATM") and 21 video banking machines at a majority of our office locations that participate in the ACCEL/EXCHANGE and PLUS regional network systems, as well as other ATM networks throughout the country. Our bank also enables customers to conduct certain loan and deposit transactions by personal computer and through mobile applications. Courier service is provided to certain commercial customers, and safe deposit facilities are available at a vast majority of our office locations. Our bank does not have trust powers.

Our Insurance Company

Our insurance company acquired an existing shelf insurance agency effective April 15, 2002. An Agency and Institution Agreement was entered into among our insurance company, our bank and Hub International for the purpose of providing programs of mass marketed personal lines of insurance. Insurance product offerings include private passenger automobile, homeowners, personal inland marine, boat owners, recreational vehicle, dwelling fire, umbrella policies, small business and life insurance products, all of which are provided by and written through companies that have appointed Hub International as their agent. To date, we have not provided the insurance products noted above and currently have no plans to do so.

Our Trusts

We have five business trusts that are wholly-owned subsidiaries of Mercantile Bank Corporation but are not consolidated. Each of the trusts was formed to issue preferred securities that were sold in private sales, as well as to sell common securities to Mercantile Bank Corporation. The proceeds from the preferred and common securities sales were used by the trusts to purchase floating rate notes issued by Mercantile Bank Corporation. The rates of interest, interest payment dates, call features and maturity dates of each floating rate note are identical to its respective preferred securities. The net proceeds from the issuance of the floating rate notes were used for a variety of purposes, including contributions to our bank as capital to provide support for asset growth and the funding of stock repurchase programs and certain acquisitions. The only significant assets of our trusts are the floating rate notes, and the only significant liabilities of our trusts are the preferred securities. The floating rate notes are categorized on our Consolidated Balance Sheets as subordinated debentures, and the interest expense is recorded on our Consolidated Statements of Income under interest expense on other borrowings.

Effect of Government Monetary Policies

Our earnings are affected by domestic economic conditions and the monetary and fiscal policies of the United States Government, its agencies, and the Federal Reserve Board. The Federal Reserve Board's monetary policies have had, and will likely continue to have, an important impact on the operating results of commercial banks through its power to implement national monetary policy in order to, among other things, curb inflation, maintain or encourage employment, and mitigate economic recessions. The policies of the Federal Reserve Board have a major effect upon the levels of bank loans, investments and deposits through its open market operations in United States Government securities, and through its regulation of, among other things, the discount rate on borrowings of member banks. Our bank maintains reserves directly with the Federal Reserve Bank of Chicago to the extent required by law. It is not possible to predict the nature and impact of future changes in monetary and fiscal policies.

Regulation and Supervision

Banks and bank holding companies, like many other financial institutions, are regulated under a variety of federal and state statutes and the regulations that implement those statutes. These statutes include, among others, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA"), the Truth in Lending Act, the Truth in Savings Act, the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the Expedited Funds Availability Act, the Community Reinvestment Act, the Real Estate Settlement Procedures Act, the USA PATRIOT Act, the FACT Act, the Gramm-Leach-Bliley Act, the Sarbanes Oxley Act, the Bank Secrecy Act, electronic funds transfer laws, redlining laws, predatory lending laws, antitrust laws, environmental laws, money laundering laws, privacy laws, state usury statutes, and statutes relating to fiduciaries. Our growth and earnings performance may be impacted by the statutes administered by, and the regulations and policies of, various governmental regulatory authorities. Those regulatory authorities include, but are not limited to, the Federal Reserve Board, the FDIC, the Michigan Department of Insurance and Financial Services, the Internal Revenue Service and state taxing authorities. The effect of such statutes, regulations and policies, and any changes thereto, may significantly impact our business which cannot necessarily be predicted.

As a registered bank holding company under the Bank Holding Company Act, we are required to file an annual report with the Federal Reserve Board and such additional information as the Federal Reserve Board may require. We are also subject to periodic examinations by the Federal Reserve Board.

The Bank Holding Company Act limits the activities of bank holding companies to banking and the management of banking organizations, and to certain permitted non-banking activities. The permitted non-banking activities generally include those limited activities that the Federal Reserve Board has determined, by order or regulation as of the day prior to enactment of the Gramm-Leach-Bliley Act, to be so closely related to banking as to be a proper incident to banking. These permitted non-banking activities include, among other things: operating a mortgage company, finance company, or factoring company; performing certain data processing operations; providing certain investment and financial advice; acting as an insurance agent for certain types of credit-related insurance; leasing property on a full-payout, nonoperating basis; and providing discount securities brokerage services for customers. Neither we nor any of our subsidiaries engage in any of the non-banking activities listed above.

On April 14, 2014, our election to become a financial holding company, as permitted by the Bank Holding Company Act, as amended by Title I of the Gramm-Leach-Bliley Act, was accepted and made effective by the Federal Reserve Board. In order to maintain our status as a financial holding company, we and our bank must satisfy statutory requirements regarding capitalization, management and compliance with the Community Reinvestment Act. As a financial holding company, we are permitted to engage in a broader range of activities under the Bank Holding Company Act that are permitted for bank holding companies. Those expanded activities include any activity which the Federal Reserve Board (in certain instances in consultation with the Department of the Treasury) determines, by order or by regulation, to be financial in nature or incidental to such financial activity, or to be complementary to a financial activity, and not to pose a substantial risk to the safety and soundness of depository institutions or the financial system generally. Such expanded activities that have been previously approved by the Federal Reserve Board include, among others: insuring, guaranteeing, or indemnifying against loss, harm, damage, illness, disability or death, or issuing annuities, and acting as principal, agent or broker for such purposes; providing financial, investment or economic advisory services, including advising a mutual fund; and underwriting, dealing in, or making a market in securities. While our insurance company is permitted to engage in the insurance agency activities described above by virtue of our financial holding company status, neither we nor any of our subsidiaries currently engage in these expanded activities.

Our bank is subject to restrictions imposed by federal and state laws and regulations. Among other things, these restrictions limit the transactions our bank conducts with us, our other subsidiaries or other affiliates, limit our securities borrowing or lending, derivatives, and repurchase transactions with us, our other subsidiaries or other affiliates, limit investments in stock or other securities that we issue, limit the taking of such stock or securities as collateral for loans to any borrower, and limit acquisitions of assets or services from, and sales of certain types of assets to, us, our other subsidiaries or other affiliates. Michigan banking laws place additional restrictions on various aspects of banking, including branching, payment of dividends, loan interest rates and capital and surplus requirements. Federal law restricts our ability to borrow from our bank by limiting the aggregate amount we may borrow and by requiring that all loans to us be secured in designated amounts by specified forms of collateral.

With respect to the acquisition of banking organizations, we are generally required to obtain the prior approval of the Federal Reserve Board before we can acquire all or substantially all of the assets of any bank, or acquire ownership or control of any voting shares of any bank or bank holding company, if, after the acquisition, we would own or control more than 5% of the voting shares of the bank or bank holding company. Acquisitions of banking organizations across state lines are subject to additional restrictions imposed by federal and state laws and regulations.

The scope of regulations and supervision of various aspects of our business have expanded as a result of the adoption in July, 2010 of the Dodd-Frank Act, and may continue to expand as the result of implementing regulations being adopted by federal regulators. However, on May 24, 2018, EGRRCPA amended certain provisions of the Dodd-Frank Act to tailor them to the specific circumstances of various categories of financial institutions and transactions. Many of the statutes and regulations under which we and our bank operate may change in the future, which may significantly impact our business.

Competition

We face substantial competition in all phases of our operations from a variety of different competitors. We compete for deposits, loans and other financial services with numerous Michigan-based and national and regional banks, savings banks, thrifts, credit unions and other financial institutions as well as with other entities that provide financial services. Some of the financial institutions and financial service organizations with whom we compete are not subject to the same degree of regulation as we are. Many of our primary competitors have been in business for many years, have established customer bases, are larger, have substantially higher lending limits than we do, and offer larger branch networks and other services which we do not. Most of these same entities have greater capital resources than we do, which, among other things, may allow them to price their services at levels more favorable to the customer and to provide larger credit facilities than we do. Under specified circumstances (that have been modified by the Dodd-Frank Act and EGRRCPA), securities firms and insurance companies that elect to become financial holding companies under the Bank Holding Company Act may acquire banks and other financial institutions. Federal and state banking law affects the competitive environment in which we conduct our business. The financial services industry is also likely to become more competitive as further technological advances enable more companies to provide financial services. We also face new competition as a result of expansion into new markets.

Human Capital

As of December 31, 2022, we employed 601 full-time and 68 part-time persons. Our human capital is the most valuable asset we have and we believe embracing human diversity makes us a better financial institution. The collective sum of the individual differences, life experiences, knowledge, inventiveness, innovation, self-expression, unique capabilities and talent that our employees invest in their work represents a significant part of not only our culture, but our reputation and our achievements as well. We embrace and encourage our employees' differences in age, color, disability, ethnicity, family or marital status, gender identity or expression, language, national origin, physical and mental ability, political affiliation, race, religion, sexual orientation, socio-economic status, veteran status and other characteristics that make our employees unique.

Talent Acquisition. We hire people who are able to connect, listen and deliver the best solutions to our customers and communicate with integrity every time. We are devoted to attracting and retaining the best talent in the markets we serve and have implemented HireReach's evidence-based selection process with all branch new hires. The system utilizes a standardized, consistent process and relevant quantitative data to facilitate a multidimensional assessment of job candidates to create better matches between workers and jobs, decrease time-to-hire, reduce first-year turnover, increase workforce diversity and boost productivity. We believe in leading through example in our communities and are proud to be part of a cohort of 15 local companies that have adopted this evidence-based hiring process to help increase diversity in the workforce.

Employee Safety and Health. The prioritization of our people is reflected in the robust employee benefits and compensation packages offered to our staff, including health and wellness insurance plans and incentives, a 401(k) plan with matching contributions, dedicated internship programs for young professionals in finance and business, employee stock ownership plan participation, as well as clothing, home office and fitness equipment interest-free loans. Approximately 84% of our eligible employees participate in our medical benefit plans which include a health savings account plan in which we pay the full monthly premiums. We offer our employees generous paid time off for vacations, holidays, sick time and bereavement, along with pay-it-forward initiatives and paid volunteer time. In addition, with obstacles in maintaining balance between work responsibilities and personal time, we have enabled staff to pursue a safe and healthy work-life balance by increasing paid time off benefits for our employees.

Diversity and Inclusion. We believe in respecting, recognizing and valuing the importance of Diversity, Equity and Inclusion ("DEI") as a natural part of our culture. Our exceptional team members are committed to maintaining an environment of personal growth and development. Our employees subscribe to a common goal: To make this financial institution the best it can possibly be. Diversity is an asset in the pursuit of this goal. Employees with dissimilar backgrounds, perspectives, opinions and lifestyles help us understand the motivations and desires of the communities we serve. We believe that each member of our workforce should be accorded the utmost respect and should be given equal opportunity and encouragement to achieve their full potential. Cooperation and teamwork are valued as much as individual growth and contribution. All employees are required to attend and complete foundational DEI training, and regular expanded learning opportunities are provided. Throughout 2022, monthly live webinars were offered to our staff as well as recorded video access to a wide variety of DEI topics along with resources such as books, group discussions and supervisor support materials.

In further support of our inclusion efforts, we have a Diversity Council comprised of members representing diverse perspectives across departments and viewpoints. The Diversity Council is designed to bring together ideas and experiences from various backgrounds to help develop respect and an appreciation for differences among employees.

Climate Change

We define sustainability as the leveraging of combined abilities to ensure our ongoing impact on people, the environment and our success is always focused on upholding long-lasting, positive results. From an efficient branch footprint to utilizing the latest technology, we are continuously focused on seeking new and better ways to be more productive with our time and energy while remaining good stewards of the resources with which we are entrusted. In each of our facilities, we follow LEED green certification guidelines wherever practical, evaluating all facilities for opportunities to incorporate energy efficient updates and space planning for new construction, renovations or expansion projects. All of our new construction and renovation projects include low-flow devices as well as LED lighting to enhance our efficiency of utility usage. Over the past four years, we have reduced our use of natural gas by 7% and electricity by 29%. All renovation and expansion projects involve the donation of former office furniture to non-profit organizations.

We continue to strive for the reduction of mail and paper usage through the promotion of customer eStatement adoption. The eStatement adoption rate continues to grow, and we were approaching 60% adoption at year-end 2022. Our online accounts payable system has also enabled us to significantly reduce paper and printing, and saves time. Every effort is made to recycle all paper, and we continue to offer community paper shredding events. Additionally, we have implemented recycling stations at all of our office locations to divert cardboard, plastic and metal items from landfills. Water bottle refill stations also aid to reduce plastic bottle usage.

Our Environmental, Social and Governance ("ESG") Committee supports our ongoing commitment to environmental, health and safety, corporate social responsibility, corporate governance, sustainability and other public policy matters relevant to our organization. The ESG Committee is a cross-functional management committee, led by the Chief Risk Officer, that assists us in: 1) setting general strategies relating to ESG matters; 2) developing, implementing and monitoring initiatives and policies based on those strategies; 3) recommending communications with employees, investors and shareholders with respect to ESG matters; and 4) monitoring and assessing developments relating to, and improving our understanding of, ESG matters. The ESG Committee met four times during 2022. Highlights for 2022 included the enhancement of our online financial wellness tools, the rollout of the MercStart Fresh deposit program, the development of a diverse vendor database for employee use and the creation of a Vendor and Supplier Code of Conduct. The Vendor and Supplier Code of Conduct, along with our Environmental Policy, DEI Policy, Human Rights Policy, and the Supplier Diversity Program Policy, are reviewed and approved by our Board of Directors annually. These polices are available on our website, along with an application for diverse suppliers. Also during 2022, we moved Board of Director oversight of ESG matters from the Audit Committee to the Governance Committee. The meetings were well attended.

Lending Policy

As a routine part of our business, we make loans to businesses and individuals located within our market areas. Our lending policy states that the function of the lending operation is twofold: to provide a means for the investment of funds at a profitable rate of return with an acceptable degree of risk, and to meet the credit needs of the creditworthy businesses and individuals who are our customers. We recognize that in the normal business of lending, some losses on loans will be inevitable and should be considered a part of the normal cost of doing business.

Our lending policy anticipates that priorities in extending loans will be modified from time to time as interest rates, market conditions and competitive factors change. The policy sets forth guidelines on a nondiscriminatory basis for lending in accordance with applicable laws and regulations. The policy describes various criteria for granting loans, including the ability to pay; the character of the customer; evidence of financial responsibility; purpose of the loan; knowledge of collateral and its value; terms of repayment; source of repayment; payment history; and economic conditions.

The lending policy further limits the amount of funds that may be loaned against specified types of real estate collateral. For certain loans secured by real estate, the policy requires an appraisal of the property offered as collateral by a state certified independent appraiser. The policy also provides general guidelines for loan to value for other types of collateral, such as accounts receivable and machinery and equipment. In addition, the policy provides general guidelines as to environmental analysis, loans to employees, executive officers and directors, problem loan identification, maintenance of an allowance for credit losses, loan review and grading, mortgage and consumer lending, and other matters relating to our lending practices.

The Board of Directors has delegated significant lending authority to officers of our bank. The Board of Directors believes this empowerment, supported by our strong credit culture and the significant experience of our commercial lending staff, enables us to be responsive to our customers. The loan policy specifies lending authority for our lending officers with amounts based on the experience level and ability of each lender. Our loan officers and loan managers are generally able to approve loans ranging from $0.25 million and $2.5 million. We have established higher approval limits for our bank's Chief Lending Officer, President and Chief Executive Officer ranging from $4.0 million up to $10.0 million. These lending authorities, however, are typically used only in rare circumstances where timing is of the essence. Loan requests exceeding $5.0 million require approval by the Officers Loan Committee, and loan requests exceeding $15.0 million, up to the legal lending limit of $101.4 million, require approval by our bank's Board of Directors. We generally apply an in-house lending limit that is significantly less than our bank's legal lending limit.

Lending Activity

Commercial Loans. Our commercial lending group originates commercial loans primarily in our market areas. Our commercial lenders have extensive commercial lending experience, with most having at least ten years' experience. Loans are originated for general business purposes, including working capital, accounts receivable financing, machinery and equipment acquisition, and commercial real estate financing, including new construction and land development.

In most instances, commercial line of credit facilities have a term ranging from 12 to 24 months with a floating rate tied to the Wall Street Journal Prime Rate, 30-Day London Interbank Offered Rate ("Libor") or 30-Day Secured Overnight Funding Rate ("SOFR"). Commercial term debt secured by real estate are generally at a floating rate tied to the Wall Street Journal Prime Rate, 30-Day Libor Rate or 30-Day SOFR. Since the fourth quarter of 2020, a fixed rate option for commercial term debt loans secured by real estate is generally not offered for loans over $2.5 million; instead, customers are offered participation in our back-to-back interest rate swap program to achieve a desired fixed rate. For loans under $2.5 million, we offer a rate primarily equal to the commensurate cost of funds using Federal Home Loan Bank of Indianapolis ("FHLBI") advance rates as a proxy and a credit spread as indicated by the credit rating we assign. Commercial term debt secured by real estate generally balloon within five years, with payments based on amortizations ranging from 10 to 25 years. Commercial term debt secured by non-real estate collateral are generally at a floating rate tied to the Wall Street Journal Prime Rate, 30-Day Libor Rate or 30-Day SOFR, or a fixed rate primarily equal to the commensurate cost of funds using FHLBI advance rates as a proxy and a credit spread as indicated by the credit rating we assign, and generally mature and fully amortize within three to seven years. Effective January 1, 2022, we replaced the 30-Day Libor Rate with 30-Day SOFR for all new and renewing floating rate commercial loans and commitments. Commercial loans tied to the 30-Day Libor Rate outstanding on June 30, 2023 will convert to an equivalent fallback SOFR Rate. As of December 31, 2022, outstanding balances on loans tied to the 30-Day Libor Rate aggregated $368 million.

We evaluate many aspects of a commercial loan transaction in order to minimize credit and interest rate risk. Underwriting includes an assessment of the management, products, markets, cash flow, capital, income and collateral of the borrowing entity. This analysis includes a review of the borrower's historical and projected financial results. Appraisals are generally required to be performed by certified independent appraisers where real estate is the primary collateral, and in some cases, where equipment is the primary collateral. In certain situations, for creditworthy customers, we may accept title reports instead of requiring lenders' policies of title insurance.

Commercial real estate lending involves more risk than residential lending because loan balances are typically greater and repayment is dependent upon the borrower's business operations. We attempt to minimize the risks associated with these transactions by generally limiting our commercial real estate lending to owner-operated properties and to owners of non-owner occupied properties who have an established profitable history and satisfactory tenant structure. In many cases, risk is further reduced by requiring personal guarantees, limiting the amount of credit to any one borrower to an amount considerably less than our legal lending limit and avoiding certain types of commercial real estate financings.

We have no material foreign loans, and only limited exposure to companies engaged in energy producing and agricultural-related activities.

Single-Family Residential Real Estate Loans. We originate single-family residential real estate loans in our market areas, generally according to secondary market underwriting standards. Loans not conforming to those standards are made in certain circumstances. Single-family residential real estate loans provide borrowers with a fixed or adjustable interest rate with terms up to 30 years, with the fixed interest rate loans generally sold to various investors.

Our bank has a home equity line of credit program. Home equity lines of credit are generally secured by either a first or second mortgage on the borrower's primary residence. The program provides revolving credit at a rate tied to the Wall Street Journal Prime Rate.

Consumer Loans. We originate various types of consumer loans, including new and used automobile and boat loans, credit cards and overdraft protection lines of credit for our checking account customers. Consumer loans generally have shorter terms and higher interest rates and usually involve more credit risk than single-family residential real estate loans because of the type and nature of the collateral.

We believe our consumer loans are underwritten carefully, with a strong emphasis on the amount of the down payment, credit quality, employment stability and monthly income of the borrower. These loans are generally repaid on a monthly repayment schedule with the source of repayment tied to the borrower's periodic income. In addition, consumer lending collections are dependent on the borrower's continuing financial stability, and are thus likely to be adversely affected by job loss, illness and personal bankruptcy. In many cases, repossessed collateral for a defaulted consumer loan will not provide an adequate source of repayment of the outstanding loan balance because of depreciation of the underlying collateral. We believe that the generally higher yields earned on consumer loans compensate for the increased credit risk associated with such loans, and that consumer loans are important to our efforts to serve the credit needs of the communities and customers that we serve.

Loan Portfolio Quality

We utilize a comprehensive grading system for our commercial loans, whereby all commercial loans are graded on a ten grade rating system. The rating system utilizes standardized grade paradigms that analyze several critical factors such as cash flow, operating performance, financial condition, collateral, industry condition and management. All commercial loans are graded at inception and reviewed at various intervals.

Our independent loan review program is primarily responsible for the administration of the grading system and ensuring adherence to established lending policies and procedures. The loan review program is an integral part of maintaining our strong asset quality culture. The loan review function works closely with senior management, although it functionally reports to the Board of Directors. Using a risk-based approach to selecting credits for review, our loan review program covered approximately 62% of total commercial loans outstanding during 2022. In addition, a random sampling of retail loans is reviewed each quarter. Our watch list credits are reviewed monthly by our Board of Directors and our Watch List Committee, the latter of which is comprised of senior level officers from the administration, lending and loan review functions.

Loans are placed in a nonaccrual status when, in our opinion, uncertainty exists as to the ultimate collection of all principal and interest. As of December 31, 2022, loans placed in nonaccrual status totaled \$7.7 million, or 0.2% of total loans, compared to \$2.3 million, or 0.1% of total loans, at December 31, 2021. We had no loans past due 90 days or more and still accruing interest at year-end 2022, compared to \$0.2 million in such loans as of December 31, 2021.

Additional detail and information relative to the loan portfolio is incorporated by reference to Management's Discussion and Analysis of Financial Condition and Results of Operations ("Management's Discussion and Analysis") and Note 3 of the Notes to Consolidated Financial Statements in this Annual Report.

Allowance for Credit Losses

The allowance is maintained at a level we believe is adequate to absorb estimated credit losses identified and inherent in the loan portfolio. Our evaluation of the adequacy of the allowance is an estimate based on past loan loss experience, the nature and volume of the loan portfolio, information about specific borrower situations and estimated collateral values, guidance from bank regulatory agencies, and assessments of the impact of current and anticipated economic conditions on the loan portfolio. Allocations of the allowance may be made for specific loans, but the entire allowance is available for any loan that, in our judgment, should be charged-off. Credit losses are charged against the allowance when we believe the uncollectibility of a loan is likely. The balance of the allowance represents our best estimate, but significant downturns in circumstances relating to loan quality or economic conditions could result in a requirement for an increased allowance in the future. Likewise, an upturn in loan quality or improved economic conditions may result in a decline in the required allowance in the future. In either instance, unanticipated changes could have a significant impact on the allowance and operating results. The allowance is increased through a provision charged to operating expense. Uncollectible loans are charged-off through the allowance, while recoveries of loans previously charged-off are added to the allowance.

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*. This ASU (as subsequently amended by ASU 2018-19) significantly changed how entities measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. This standard replaced the "incurred loss" approach with an "expected loss" model. Referred to as the current expected credit loss ("CECL") model, it applies to financial assets subject to credit losses and measured at amortized cost, and certain off-balance sheet credit exposures. The standard also expanded disclosure requirements regarding an entity's assumptions, models, and methods for estimating the allowance. In addition, entities need to disclose the amortized cost balance for each class of financial asset by credit quality indicator, disaggregated by the year of origination. This ASU was effective for interim and annual reporting periods beginning after December 15, 2019.

Financial institutions were not required to comply with the CECL methodology requirements from the enactment date of the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") until the earlier of the end of the President's declaration of a National Emergency or December 31, 2020. The Consolidated Appropriations Act, 2021, that was enacted in December 2020, provided for a further extension of the required CECL adoption date to January 1, 2022. An economic forecast is a key component of the CECL methodology. As we continued to experience an unprecedented economic environment whereby a sizable portion of the economy had been significantly impacted by government-imposed activity limitations and similar reactions by businesses and individuals, substantial government stimulus was provided to businesses, individuals and state and local governments and financial institutions offered businesses and individuals payment relief options, economic forecasts were regularly revised with no economic forecast consensus. Given the high degree of uncertainty surrounding economic forecasting, we elected to postpone the adoption of CECL until January 1, 2022, and continued to use our incurred loan loss reserve model as permitted through December 31, 2021.

We adopted CECL effective January 1, 2022 using the modified retrospective method for all financial assets measured at amortized cost and off-balance sheet credit exposures. Results for reporting periods beginning after January 1, 2022, are presented under CECL while prior period amounts continue to be reported in accordance with the incurred loss accounting standards. The transition adjustment of the CECL adoption included a decrease in the allowance of $0.4 million, and a $0.3 million increase to the retained earnings account to reflect the cumulative effect of adopting CECL on our Consolidated Balance Sheet, with the $0.1 million tax impact portion being recorded as part of the deferred tax asset in other assets on our Consolidated Balance Sheet.

Additional detail regarding the allowance is incorporated by reference to Management's Discussion and Analysis and Note 3 of the Notes to Consolidated Financial Statements included in this Annual Report.

Investments

Bank Holding Company Investments. The principal investments of our bank holding company are the investments in the common stock of our bank and the common securities of our trusts. Other funds of our bank holding company may be invested from time to time in various debt instruments.

Subject to the limitations of the Bank Holding Company Act, we are also permitted to make portfolio investments in equity securities and to make equity investments in subsidiaries engaged in a variety of non-banking activities, which include real estate-related activities such as community development, real estate appraisals, arranging equity financing for commercial real estate, and owning and operating real estate used substantially by our bank or acquired for its future use. Our bank holding company has no plans at this time to make directly any of these equity investments at the bank holding company level. Our Board of Directors may, however, alter the investment policy at any time without shareholder approval.

Our Bank's Investments. Our bank may invest its funds in a wide variety of debt instruments and may participate in the federal funds market with other depository institutions. Subject to certain exceptions, our bank is prohibited from investing in equity securities. Among the equity investments permitted for our bank under various conditions and subject in some instances to amount limitations, are shares of a subsidiary insurance agency, mortgage company, real estate company, or Michigan business and industrial development company, such as our insurance company. Under another such exception, in certain circumstances and with prior notice to or approval of the FDIC, our bank could invest up to 10% of its total assets in the equity securities of a subsidiary corporation engaged in the acquisition and development of real property for sale, or the improvement of real property by construction or rehabilitation of residential or commercial units for sale or lease. Our bank has no present plans to make such an investment. Real estate acquired by our bank in satisfaction of or foreclosure upon loans may be held by our bank for specified periods. Our bank is also permitted to invest in such real estate as is necessary for the convenient transaction of its business. Our bank's Board of Directors may alter the bank's investment policy without shareholder approval at any time.

Additional detail and information relative to the securities portfolio is incorporated by reference to Management's Discussion and Analysis and Note 2 of the Notes to Consolidated Financial Statements included in this Annual Report.

Available Information

We maintain an internet website at www.mercbank.com. We make available on or through our website, free of charge, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practical after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. We do not intend the address of our website to be an active link or to otherwise incorporate the contents of our website into this Annual Report.

Item 1A. Risk Factors.

The following risk factors could affect our business, financial condition or results of operations. These risk factors should be considered in connection with evaluating the forward-looking statements contained in this Annual Report because they could cause the actual results and conditions to differ materially from those projected in forward-looking statements. Before you buy our common stock, you should know that investing in our common stock involves risks, including the risks described below. The risks that are highlighted here are not the only ones we face. If the adverse matters referred to in any of the risks actually occur, our business, financial condition or operations could be adversely affected. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business

The Coronavirus Pandemic has impacted our business, financial condition and results of operations and will continue to have an impact, the scope and duration of which is highly uncertain and dependent on factors that are outside of our control.

For nearly the past three years, the ongoing Coronavirus Pandemic and efforts to control its spread have significantly impacted the movement of people, goods and services worldwide, including in most of or all of the regions in which we offer our services and conduct our business operations. The pandemic has resulted in, and may continue to or at a later time result in, a global slowdown of economic activity, including travel restrictions, prohibitions of non-essential activities in some cases, disruption and shutdown of businesses and greater uncertainty in global financial markets.

Overall, the ongoing Coronavirus Pandemic has caused a sustained global economic slowdown of varying durations across different industries, and it is possible that it could still cause a global recession. Deteriorating economic and political conditions caused by the ongoing Coronavirus Pandemic, such as increased unemployment, decreased capital spending, declines in consumer confidence and economic slowdowns or recessions, have caused and could continue to cause a decrease in demand for our products and services. The severity, magnitude and duration of the ongoing Coronavirus Pandemic is hard to predict due to uncertainty surrounding severity and transmission rates of new variants and rate of public acceptance and efficacy of vaccines and other treatments. We may not be able to respond to the impacts of the ongoing Coronavirus Pandemic on a timely basis to prevent near- or long-term adverse impacts on our results of operations. Although the immediate impacts of the Coronavirus Pandemic have been assessed and mitigated, the ultimate extent of the impact of this ongoing pandemic, including as a result of possible subsequent outbreaks of Coronavirus or new variants thereof and measures taken in response therein, will depend on future developments, which remain highly uncertain and cannot currently be predicted. Any negative impact on our business, financial condition, results of operations and cash flows cannot be reasonably estimated at this time, but the ongoing Coronavirus Pandemic could lead to extended disruption of economic activity and the impact on our business, financial condition, results of operations and cash flows could be material.

Although many health and safety restrictions have been lifted and vaccine distribution has increased, certain adverse consequences of the pandemic continue to impact the macroeconomic environment and may persist for some time. Given the ongoing dynamic nature of variants of the Coronavirus, it is difficult to predict the full impact of the ongoing Coronavirus Pandemic outbreak on our business. As the result of the ongoing Coronavirus Pandemic and the related adverse local and national economic consequences, we could be subject to a number of risks, any of which could have a material, adverse effect on our business, financial condition, liquidity and cash flow, results of operations, ability to execute our growth strategy and ability to pay cash dividends. These risks include, but are not limited to, the following:

- Increased loan losses or other impairments in our loan portfolios and increases in our allowance for credit losses,
- Collateral for loans, especially real estate, may decline in value, which could cause an increase in loan losses,
- Limitations may be placed on our ability to foreclose on properties we hold as collateral,
- Our allowance for credit losses may have to be increased if borrowers experience financial difficulties beyond forbearance periods, which would adversely affect our net income,
- The net worth and liquidity of loan guarantors may decline, impairing their ability to honor commitments to us,
- FDIC premiums may increase if the agency experiences additional resolution costs,
- Litigation arising from our participation in the Small Business Administration's Paycheck Protection Program,
- Unanticipated unavailability of employees,
- Increased cybersecurity risks as employees work remotely,
- A triggering event leading to impairment testing on our goodwill or core deposit and customer relationships intangibles, which could result in an impairment charge, and
- A prolonged weakness in economic conditions resulting in a reduction of future projected earnings could necessitate a valuation allowance against our current outstanding deferred tax assets.

Changes in interest rates may reduce our net interest income, may result in higher defaults in a rising rate environment and may hurt our earnings and asset value.

Our earnings and cash flows are largely dependent upon our net interest income. Interest rates are highly sensitive to many factors that are beyond our control, including general economic conditions and policies of various governmental and regulatory agencies and, in particular, the Federal Reserve Board. Since March 2022, in response to inflation, the Federal Open Market Committee ("FOMC") of the Federal Reserve has significantly increased the target range for the federal funds rate by hundreds of basis points. As it seeks to control inflation without creating a recession, the FOMC has indicated further increases are to be expected in 2023. If the FOMC further increases the targeted federal funds rate, overall interest rates will likely continue to rise, which will likely positively impact our net interest income but may negatively impact both the housing market by reducing refinancing activity and new home purchases and the U.S. economy. In addition, inflationary pressures may increase our operational costs and could have a significant negative effect on our borrowers, especially our business borrowers, and the values of collateral securing loans which could negatively affect our financial performance.

We principally manage interest rate risk by managing our volume and mix of our earning assets and funding liabilities. Changes in monetary policy, including changes in interest rates, could influence not only the interest we receive on loans and investments and the amount of interest we pay on deposits and borrowings, but these changes could also affect: (1) our ability to originate and/or sell loans and obtain deposits; (2) the fair value of our financial assets and liabilities, which could negatively impact shareholders' equity, and our ability to realize gains from the sale of such assets; (3) our ability to obtain and retain deposits in competition with other available investment alternatives; (4) the ability of our borrowers to repay adjustable or variable rate loans; and (5) the average duration of our investment securities portfolio and other interest-earning assets. If the interest rates paid on deposits and borrowings increase at a faster rate than the interest received on loans and other investments, our net interest income, and therefore earnings, could be adversely affected. Earnings could also be adversely affected if the interest rates received on loans and other investments decline more rapidly than the interest rates paid on deposits and other borrowings. In a changing interest rate environment, we may not be able to manage this risk effectively. If we are unable to manage interest rate risk effectively, our business, financial condition and results of operations could be materially affected.

Unfavorable global economic, geopolitical conflicts and other political conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy, the global financial markets and global political conditions. The United States and global economies are facing high levels of inflation, higher interest rates and potential recession. Furthermore, a severe or prolonged economic downturn, including a recession or depression resulting from the ongoing Coronavirus Pandemic or political disruption, such as the war between Ukraine and Russia or political conflict between China and Taiwan, could result in a variety of risks to our business, including weakened demand for our products and services as well as our ability to raise additional capital if needed on acceptable terms. A weak or declining economy or political disruption, including any international trade disputes, could also strain our manufacturers or suppliers, possibly resulting in supply disruptions, or cause our customers to delay making payments for our products and services. Any of the foregoing could seriously harm our business, and we cannot anticipate all of the ways in which the political or economic climate and financial market conditions could seriously harm our business.

Significant declines in the value of commercial real estate could adversely impact us.

Approximately 62% of our total commercial loans, or about 50% of our total loans, relate to commercial real estate. Stressed economic conditions may reduce the value of commercial real estate and strain the financial condition of our commercial real estate borrowers, especially in the land development and non-owner occupied commercial real estate segments of our loan portfolio. Those difficulties could adversely affect us and could produce losses and other adverse effects on our business.

Market volatility may adversely affect us.

The capital and credit markets may experience volatility and disruption. In some cases, the markets have produced downward pressure on stock prices and credit availability for certain issuers without apparent regard to those issuers' underlying financial strength. Future levels of market disruption and volatility may have an adverse effect, which may be material, on our ability to access capital and on our business, financial condition and results of operations.

Our future success is dependent on our ability to compete effectively in the highly competitive banking industry.

We face substantial competition in all phases of our operations from a variety of different competitors. Our future growth and success will depend on our ability to compete effectively in this highly competitive environment. We compete for deposits, loans and other financial services with numerous Michigan-based and national and regional banks, thrifts, credit unions and other financial institutions as well as other entities that provide financial services, including securities firms and mutual funds. Some of the financial institutions and financial service organizations with which we compete are not subject to the same degree of regulation as we are. Many of our competitors have been in business for many years, have established customer bases, are larger, have substantially higher lending limits than we do and offer larger branch networks and other services which we do not, including trust and international banking services. Most of these entities have greater capital and other resources than we do, which, among other things, may allow them to price their services at levels more favorable to the customer and to provide larger credit facilities than we do. This competition may limit our growth or earnings. Under specified circumstances (that have been modified by the Dodd-Frank Act and EGRRCPA), securities firms and insurance companies that elect to become financial holding companies under the Bank Holding Company Act may acquire banks and other financial institutions. Federal banking law affects the competitive environment in which we conduct our business. The financial services industry is also likely to become more competitive as further technological advances enable more companies to provide financial services. These technological advances may diminish the importance of depository institutions and other financial intermediaries in the transfer of funds between parties.

Our risk management systems may fall short of their intended objectives.

We seek to monitor and control our risk exposure through a risk and control framework encompassing a variety of separate but complementary financial, credit, operational, compliance and legal reporting systems, internal controls, management review processes and other mechanisms. Our risk management process seeks to balance our ability to profit from investing or lending positions with our exposure to potential losses. While we employ a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgments that accompany their application cannot anticipate every economic and financial outcome or the specifics and timing of such outcomes. Thus, we may, in the course of our activities, incur losses.

We may not be able to successfully adapt to evolving industry standards and market pressures.

Our success depends, in part, on the ability to adapt products and services to evolving industry standards. There is increasing pressure to provide products and services at lower prices. This can reduce net interest income and noninterest income from fee-based products and services. In addition, the widespread adoption of new technologies could require us to make substantial capital expenditures to modify or adapt existing products and services or develop new products and services. We may not be successful in introducing new products and services in response to industry trends or developments in technology, or those new products may not achieve market acceptance. As a result, we could lose business, be forced to price products and services on less advantageous terms to retain or attract clients, or be subject to cost increases. As a result, our business, financial condition, or results of operations may be adversely affected.

Our inability to execute or integrate potential future acquisitions successfully could impede us from realizing all of the benefits of the acquisitions, which could weaken our operations.

In addition to pursuing organic growth, we may also pursue strategic acquisition opportunities that we believe will fit our core philosophy and culture, enhance our profitability and provide appropriate risk-adjusted returns. These acquisition opportunities could be material to our business and involve a number of risks, including the following:

- intense competition from other banking organizations and other acquirers for potential merger candidates drives market pricing;
- time and expense associated with identifying and evaluating potential acquisitions and negotiating potential transactions may divert human and capital resources without producing the desired returns;
- estimates and judgments used to evaluate credit, operations, management and market risks with respect to the target institution or assets are inherently complex and may be inaccurate;
- potential exposure to unknown or contingent liabilities of targets; and
- regulatory timeframes for review of applications may limit the number and frequency of transactions we may be able to consummate.

If we are unable to successfully integrate potential future acquisitions, we could be impeded from realizing all of the benefits of those acquisitions and could weaken our business operations. The integration process may disrupt our business and, if implemented ineffectively, may preclude realization of the full benefits expected by us and could harm our results of operations. In addition, the overall integration of the combining companies may result in unanticipated problems, expenses, liabilities and competitive responses, and may cause our stock price to decline. The difficulties of integrating an acquisition include, among others:

- ° unanticipated issues in integration of information, communications and other systems;
- ° unanticipated incompatibility of logistics, marketing and administrative methods;
- ° maintaining employee morale and retaining key employees;
- ° integrating the business cultures of both companies;
- ° preserving important strategic client relationships;
- ° coordinating geographically diverse organizations; and
- ° consolidating corporate and administrative infrastructures and eliminating duplicative operations.

Finally, even if the operations of an acquisition are integrated successfully, we may not realize the full benefits of the acquisition, including the synergies, cost savings or growth opportunities we expect. These benefits may not be achieved within the anticipated time frame as well.

Our inability to overcome these risks could have an adverse effect on our ability to implement our business strategy, which, in turn, could have an adverse effect on our business, financial condition and results of operations.

The soundness of other financial institutions could adversely affect us.

Our ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions. Financial services institutions are interrelated as a result of trading, clearing, counterparty or other relationships. We have exposure to many different industries and counterparties, and we routinely execute transactions with counterparties in the financial industry. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by us or by other institutions. Even routine funding transactions expose us to credit risk in the event of default of our counterparty or client. In addition, our credit risk may be exacerbated when the collateral held by us cannot be realized upon or is liquidated at prices not sufficient to recover the full amount of the financial instrument exposure due us. There is no assurance that any such losses would not materially and adversely affect our results of operations.

Our credit losses could increase and our allowance may not be adequate to cover actual loan losses.

The risk of nonpayment of loans is inherent in all lending activities, and nonpayment, when it occurs, may have a materially adverse effect on our earnings and overall financial condition as well as the value of our common stock. Our focus on commercial lending may result in a larger concentration of loans to small businesses. As a result, we may assume different or greater lending risks than other banks. We make various assumptions and judgments about the collectability of our loan portfolio and provide an allowance for losses based on several factors. If our assumptions are wrong, our allowance may not be sufficient to cover our losses, which would have an adverse effect on our operating results. The actual amounts of future provisions for credit losses cannot be determined at this time and may exceed the amounts of past provisions. Additions to our allowance decrease our net income.

We rely heavily on our management and other key personnel, and the loss of any of them may adversely affect our operations.

We are and will continue to be dependent upon the services of our management team, including our executive officers and our other senior managers. The unanticipated loss of our executive officers, or any of our other senior managers, could have an adverse effect on our growth and performance.

In addition, we continue to depend on our key commercial loan officers. Several of our commercial loan officers are responsible, or share responsibility, for generating and managing a significant portion of our commercial loan portfolio. Our success can be attributed in large part to the relationships these officers as well as members of our management team have developed and are able to maintain with our customers as we continue to implement our community banking philosophy. The loss of any of these commercial loan officers could adversely affect our loan portfolio and performance, and our ability to generate new loans. Many of our key employees have signed agreements with us agreeing not to compete with us in one or more of our markets for specified time periods if they leave employment with us. However, we may not be able to effectively enforce such agreements.

Some of the other financial institutions in our markets also require their key employees to sign agreements that preclude or limit their ability to leave their employment and compete with them or solicit their customers. These agreements make it more difficult for us to hire loan officers with experience in our markets who can immediately solicit their former or new customers on our behalf.

Direct and indirect effects of climate change may adversely affect us.

Climate change presents immediate and long-term risks to us and to our customers and communities, with risks expected to increase over time. Climate change refers to risk of life and property damage occurring due to naturally occurring events induced by human behavior and can manifest in the form of physical risk and indirect risk. Physical risk refers to results of severe weather, such as floods, hurricanes, rising sea levels, fires and water availability. Indirect risk refers to how changes in regulation, conscious consumer choices, competition for sustainable products, and reduced demand for goods or services that produce significant green-house gas emissions may have on the results and operations of a company. Physical effects of climate change to our offices, branches or personnel could have an immediate adverse effect on our operations and financial condition, whereas indirect consequences may result in increased expenditures to comply with climate-related regulations.

Similarly, physical effects could have a severe impact on the business and operations of our customers and vendors. Furthermore, consumer choices and shareholder demands could require our customers to invest more in cleaner energy manufacturing and procurement and to compete with innovative new products that generate lower emissions, which may or may not be successful. If our customers are not able to keep up with evolving climate change effects, it could ultimately have an adverse effect on our business and results of operations. Lastly, like other financial institutions, we also run a reputational risk of financing businesses that are responsible for significant green-house gas emissions or are related to carbon-based energy sources. While our risk management framework monitors various types of risks and applies risk mitigation techniques including for environmental risks, and while we have been conscious of our own carbon footprint and have established an ESG Committee, introduction of new climate-related legislation and related compliance costs as well as the unpredictable effects of climate change on us or our customers could have a negative impact on our business, financial condition and results of operations, even if temporary in nature.

Failure to meet ESG expectations or standards, or achieve our ESG goals, could adversely affect our business, results of operations, financial condition or stock price.

There has been an increased focus from regulators and stockholders on ESG matters, including greenhouse gas emissions, sustainability and climate-related risks; diversity, equity and inclusion; responsible sourcing and supply chain; human rights and social responsibility; and corporate governance and oversight. Given our commitment to ESG, we actively manage these issues and have established and publicly announced certain goals, commitments and targets which we may refine or even expand further in the future. These goals, commitments and targets reflect our current plans and aspirations and are not guarantees that we will be able to achieve them. Evolving stakeholder expectations and our efforts and ability to manage these issues, provide updates on them and accomplish our goals, commitments and targets present numerous operational, regulatory, reputational, financial, legal and other risks, any of which may be outside of our control or could have a material adverse impact on our business, including on our reputation and stock price. Further, there is uncertainty around the accounting standards and climate-related disclosures associated with emerging laws and reporting requirements and the related costs to comply with the emerging regulations.

Our failure or perceived failure to achieve our ESG goals, maintain ESG practices or comply with emerging ESG regulations that meet evolving regulatory or stakeholder expectations could harm our reputation, adversely impact our ability to attract and retain customers and talent and expose us to increased scrutiny from the investment community and enforcement authorities. Our reputation also may be harmed by the perceptions that our stakeholders have about our action or inaction on ESG-related issues. Damage to our reputation and loss of brand equity may reduce demand for our products and services and thus have an adverse effect on our future financial results, as well as require additional resources to rebuild our reputation and could also reduce our stock price.

The adoption of the Secured Overnight Funding Rate may adversely affect interest income or expense, and may be more volatile than other benchmark or market interest rates.

On July 27, 2017, the United Kingdom Financial Conduct Authority ("FCA"), which oversees Libor, formally announced that it could not assure the continued existence of Libor in its current form beyond the end of 2021, and that an orderly transition process to one or more alternative benchmarks should begin. In June 2017, the Alternative Reference Rates Committee ("ARRC"), a steering committee comprised of large U.S. financial institutions organized by the Federal Reserve, announced that it had selected a modified version of the unpublished Broad Treasuries Financing Rate as the preferred alternative reference rate for U.S. dollar obligations. That rate, now referred to as SOFR, is determined based upon actual transactions in certain portions of the bi-lateral and tri-party overnight repurchase agreement markets for certain U.S. Treasury obligations. On April 3, 2018, the Federal Reserve Bank of New York ("FRBNY") began publishing three new reference rates, including SOFR. SOFR is observed and backward-looking, which stands in contrast with Libor under the current methodology, which is an estimated forward-looking rate and relies, to some degree, on the expert judgment of submitting panel members. Given the SOFR is a secured rate backed by government securities, it is a rate that does not take into account bank credit risk (as is the case with Libor). SOFR is therefore likely to be lower than LIBOR and is less likely to correlate with the funding costs of financial institutions.

During 2019 and 2020, among other things, the ARRC published a white paper on ways in which market participants could use SOFR in cash markets, conducted surveys of market participants, engaged with cognizant U.S. government agencies and private sector groups regarding tax, securities, and derivatives issues presented by the transition from Libor, published sample transition provisions for a variety of types of loan and note agreements, and investigated methods by which a forward-looking term SOFR index could be established. To facilitate the development of a generally-recognized forward-looking SOFR index, on March 2, 2020 the FRBNY began publication of 30-, 90-, and 180-day SOFR Averages, as well as a SOFR Index, on each business day. The FRBNY has stated that it will consider the potential benefits of introducing calendar month-based rates and/or adding further tenors as additional reference rates.

In November 2020, the ICE Benchmark Administration announced a consultation regarding the cessation of the publication of Libor. The consultation proposed a December 31, 2021 cessation for all tenors of various foreign currencies and for the one week and two-month U.S. dollar Libor, and a June 30, 2023 cessation for the remaining overnight, one-month, three-month, six-month and twelve-month U.S. dollar Libor tenors. This represented an 18-month extension of Libor publication for the most frequently used tenors of U.S. dollar Libor from the cessation date originally proposed in 2017. The consultation period closed on January 25, 2021. The ICE Benchmark Administration concluded the consultation on its intent to cease publication of one-week and two-month U.S. dollar Libor on December 31, 2021 and to extend the publication of all remaining U.S. dollar Libor tenors until June 30, 2023 for legacy contracts.

Effective January 1, 2022, we replaced the 30-Day Libor Rate with the CME Term SOFR Rate for all new floating rate commercial loan commitments. It is expected that currently outstanding commercial loans tied to the 30-Day Libor Rate will convert to an equivalent fallback SOFR Rate on or about June 30, 2023.

The FRBNY, who originally started publishing SOFR, states that it obtains information from DTCC Solutions LLC, an affiliate of DTCC. FRBNY currently publishes SOFR daily on its website at https://apps.newyorkfed.org/markets/autorates/sofr. FRBNY states that use of SOFR is subject to important disclaimers, limitations and indemnification obligations, including that FRBNY may alter the methods of calculations, publication schedule, rate revision practices or availability of SOFR at any time without notice. The foregoing Internet website is an inactive textual reference only, meaning that the information contained on the website is not part of this filing or incorporated by reference herein.

Since the initial publication of SOFR, daily changes in the rate have, on occasion, been more volatile than daily changes in comparable benchmark or market interest rates, and SOFR over time may bear little or no relation to the historical actual or historical indicative data. In addition, the return on and value of SOFR-linked instruments may fluctuate more than floating rate securities that are linked to less volatile interest rates.

Changes in SOFR could adversely affect the amount of interest that accrues on SOFR-linked instruments.

Because SOFR is published by the FRBNY based on data received from other sources, we have no control over its determination, calculation or publication. There can be no assurance that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in SOFR-linked instruments. If the manner in which SOFR is calculated is changed, that change may result in a change in the amount of interest that accrues on the SOFR-linked instruments. In addition, the interest rate on SOFR-linked instruments may for any day not be adjusted for any modification or amendments to SOFR for that day that the FRBNY may publish if the interest rate for that day has already been determined prior to such determination. There is no assurance that changes in SOFR could not have a material adverse effect on the yield on, value of, and market for SOFR-linked instruments, which could have a material adverse effect on our business.

Further, SOFR is a relatively new interest rate, and the FRBNY or any successor, as administrator of SOFR, may make methodological or other changes that could change the value of SOFR, including changes related to the methodology by which SOFR is calculated, eligibility criteria applicable to the transactions used to calculate SOFR or timing related to the publication of SOFR. If the manner in which SOFR is calculated is changed, the change may result in a reduction of the amount of interest payable on loans we have made to customers, which could have a material adverse effect on our business. The administrator of SOFR may withdraw, modify, suspend or discontinue the calculation or dissemination of SOFR in its sole discretion and without notice, and has no obligation to consider the interests of investors in calculating, withdrawing, modifying, amending, suspending or discontinuing SOFR.

Our accounting policies and methods are the basis for how we prepare our consolidated financial statements, and they require management to make estimates about matters that are inherently uncertain.

Accounting policies and processes are fundamental to how we record and report our financial condition and results of operations. We must exercise judgment in selecting and applying many of these accounting policies and processes so they comply with U.S. GAAP. In some cases, we must select the accounting policy or method to apply from two or more alternatives, any of which may be reasonable under the circumstances, yet may result in our reporting materially different results than would have been reported under a different alternative.

We have identified certain accounting policies as being critical because they require us to make difficult, subjective or complex judgments about matters that are uncertain. Materially different amounts could be reported under different conditions or using different assumptions or estimates. We have established detailed policies and control procedures that are intended to ensure these critical accounting estimates and judgments are well controlled and applied consistently. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. Because of the uncertainty surrounding management's judgments and the estimates pertaining to these matters, we cannot guarantee that we will not be required to adjust accounting policies or restate prior period financial statements. For additional information, see "Critical Accounting Estimates" beginning on page F-3 of this Annual Report and "Note 1 – Summary of Significant Accounting Policies" beginning on page F-41 of this Annual Report.

We continually encounter technological change, and we may have fewer resources than our competitors to continue to invest in technological improvements.

The banking industry is undergoing technological changes with frequent introductions of new technology-driven products and services. In addition to better serving customers, the effective use of technology increases efficiency and enables financial institutions to reduce costs. Our future success will depend, in part, on our ability to address the needs of our customers by using technology to provide products and services that will satisfy customer demands for convenience as well as create additional efficiencies in our operations. Many of our competitors have substantially greater resources to invest in technological improvements than we do. There can be no assurance that we will be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers.

Damage to our reputation could materially harm our business.

Our relationship with many of our clients is predicated upon our reputation as a fiduciary and a service provider that adheres to the highest standards of ethics, service quality and regulatory compliance. Adverse publicity, regulatory actions, litigation, operational failures, the failure to meet client expectations and other issues with respect to one or more of our businesses could materially and adversely affect our reputation, our ability to attract and retain clients or our sources of funding for the same or other businesses. Preserving and enhancing our reputation also depends on maintaining systems and procedures that address known risks and regulatory requirements, as well as our ability to identify and mitigate additional risks that arise due to changes in our businesses and the marketplaces in which we operate, the regulatory environment and client expectations. If any of these developments has a material effect on our reputation, our business will suffer.

Our business is subject to operational risks.

We, like most financial institutions, are exposed to many types of operational risks, including the risk of fraud by employees or outsiders, unauthorized transactions by employees or operational errors. To date, we have not experienced a significant compromise, significant data loss or any material financial losses related to cybersecurity attacks, but our systems and those of our customers and third-party service providers are under constant threat, and it is possible that we could experience a significant event in the future. Operational errors may include clerical or record keeping errors or those resulting from faulty or disabled computer or telecommunications systems. Given our volume of transactions, certain errors may be repeated or compounded before they are discovered and successfully corrected. Our necessary dependence upon automated systems to record and process our transaction volume may further increase the risk that technical system flaws or employee tampering or manipulation of those systems will result in losses that are difficult to detect.

We may also be subject to disruptions of our operating systems arising from events that are wholly or partially beyond our control, including, for example, computer viruses or electrical or telecommunications outages, which may give rise to losses in service to customers and to loss or liability to us. We are further exposed to the risk that our external vendors may be unable to fulfill their contractual obligations to us, or will be subject to the same risk of fraud or operational errors by their respective employees as are we, and to the risk that our or our vendors' business continuity and data security systems prove not to be adequate. We also face the risk that the design of our controls and procedures proves inadequate or is circumvented, causing delays in detection or errors in information. Although we maintain a system of controls designed to keep operational risks at appropriate levels, there can be no assurance that we will not suffer losses from operational risks in the future that may be material in amount.

We face the risk of cyber-attack to our computer systems.

In the ordinary course of business, we collect and store sensitive data, including proprietary business information and personally identifiable information of our customers and employees in systems and on networks. The secure processing, maintenance and use of this information is critical to our operations. To date, we have not experienced a significant compromise, significant data loss or any material financial losses related to cybersecurity attacks, but our systems and those of our customers and third-party service providers are under constant threat, and it is possible that we could experience a significant event in the future. Cybersecurity threats include unauthorized access, loss or destruction of data (including confidential client information), account takeovers, unavailability of service, computer viruses or other malicious code, cyber-attacks and other events. Remote working of employees during the Coronavirus Pandemic introduces additional potential cybersecurity risks due to the use of home networks, video conferencing and other remote work technologies over which we do not have as much control as our internal systems. Cyber threats may derive from human error, fraud or malice on the part of employees or third parties, or may result from accidental technological failure. We cannot assure that such breaches, failures or interruptions will not occur or, if they do occur, that they will be adequately addressed by us or the third parties on which we rely. We may not be insured against all types of losses as a result of third-party failures, and insurance coverage may be inadequate to cover all losses resulting from breaches, systems failures or other disruptions. If one or more of these events occurs, it could result in the disclosure of confidential client information, damage to our reputation with our clients and the market, additional costs to us (such as repairing systems or adding new personnel or protection technologies), regulatory penalties and financial losses, to both us and our clients and customers. Such events could also cause interruptions or malfunctions in our operations (such as the lack of availability of our online banking system), as well as the operations of our clients, customers or other third parties. 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, as well as due to the expanding use of internet banking, mobile banking and other technology-based products and services by us and our customers. Although we maintain safeguards to protect against these risks, there can be no assurance that we will not suffer losses in the future that may be material in amount.

As a bank, we are susceptible to fraudulent activity that may be committed against us or our customers which may result in financial losses or increased costs to us or our customers, disclosure or misuse of our information or our customers' information, misappropriation of assets, privacy breaches against our customers, litigation or damage to our reputation. Such fraudulent activity may take many forms, including check fraud, electronic fraud, wire fraud, phishing, social engineering and other dishonest acts. Nationally, reported incidents of fraud and other financial crimes have increased.

In March 2015, federal regulators issued two related statements regarding cybersecurity. One statement indicates that financial institutions should design multiple layers of security controls to establish lines of defense and to ensure that their risk management processes also address the risk posed by compromised customer credentials, including security measures to reliably authenticate customers accessing internet-based services of the financial institution. The other statement indicates that a financial institution's management is expected to maintain sufficient business continuity planning processes to ensure the rapid recovery, resumption and maintenance of the institution's operations after a cyber-attack involving destructive malware. A financial institution is also expected to develop appropriate processes to enable recovery of data and business operations and address rebuilding network capabilities and restoring data if the institution or its critical service providers fall victim to this type of cyber-attack. In August 2019, the federal bank regulatory agencies issued a statement recommending that banking organizations use a standardized approach to assess and improve cybersecurity preparedness. The agencies noted that the use of standardized tools, such as the FFIEC Cybersecurity Assessment Tool, makes firms better able to track their progress over time, and to share information and best practices with other financial institutions, a behavior which the bank regulatory agencies encourage. In April 2020, the federal banking agencies issued a statement highlighting the risks presented by banking organizations' use of cloud computing services in their business. The statement noted specific risks unique to the cloud computing environment, and the importance of ongoing controls of virtual infrastructure, care in the use of containers for data, and the sensitivity of use of managed security services, among other things. Although guidance of this nature does not have the full force and effect of law, it sets out supervisory priorities and expectations regarding safe and sound operation. Failure to observe such guidance may result in supervisory identification of unsafe or unsound practices or other deficiencies in risk management or other areas that do not constitute violations of law or regulation.

Regulatory Risks

We are subject to significant government regulation, and any regulatory changes may adversely affect us.

The banking industry is subject to extensive regulation, supervision and legal requirements under both federal and state law that govern almost all aspects of our operations. These regulations are primarily intended to protect customers, the federal deposit insurance fund, and the stability of the U.S. financial system, not our creditors or shareholders. Existing state and federal banking laws subject us to substantial limitations with respect to our activities, including the making of loans, the purchase of securities, the payment of dividends and many other aspects of our business. Some of these laws may benefit us, others may increase our costs of doing business, or otherwise adversely affect us and create competitive advantages for others. Regulations affecting banks and financial services companies undergo continuous change, which may be accelerated by changes in the administration of federal and state governments, and we cannot predict the ultimate effect of these changes, which could have a material adverse effect on our profitability or financial condition. Federal economic and monetary policy may also affect our ability to attract deposits, make loans and achieve satisfactory interest spreads. The implementation, amendment or repeal of federal financial services laws or regulations may limit our business opportunities, impose additional costs on us, impact our revenues or the value of our assets, or otherwise adversely affect our business, financial condition or results of operations.

Minimum capital requirements may adversely affect our ability (and that of our bank) to pay cash dividends, reduce our profitability, or otherwise adversely affect our business, financial condition or results of operations.

We are subject to extensive capital regulations imposed by federal and state banking regulations. These regulations, among other things, establish minimum requirements to qualify as a "well-capitalized" institution. If our bank were to fail to maintain its status of "well-capitalized" under the applicable regulatory capital regulations, we may lose our status as a financial holding company and be subjected to a consent agreement requiring us to bring our bank back to a "well-capitalized" status. Such an agreement may impose restrictions on our activities. If we were to fail to enter into such an agreement, or fail to comply with the terms of such agreement, the Federal Reserve may impose more severe restrictions on our activities, including requiring us to cease and desist activities permitted under the Bank Holding Company Act of 1956. The regulatory environment is constantly evolving, with requirements frequently being introduced or amended. It is possible that increases in regulatory capital requirements and changes in how regulatory capital is calculated could require us to increase our capital levels by issuing additional securities that qualify as regulatory capital, thus potentially diluting our existing shareholders, or by taking other actions, such as selling assets, in order to maintain required capital ratios. We may be unable to sell some of our assets, or we may have to sell assets at a discount from market value, either of which could adversely affect our results of operations, cash flow and financial condition.

Risks Related to Our Stock

Issuance of debt securities or sales of our common stock or other securities may dilute the value of our common stock.

We have issued both trust preferred securities and subordinated notes. In the event of our liquidation, the holders of our debt securities would receive a distribution of our available assets before distributions are made to holders of our common stock. In many situations, our Board of Directors has the authority, without any vote of our shareholders, to issue shares of our authorized but unissued preferred or common stock, including shares authorized and unissued under our equity incentive plans. In the future, we may issue additional debt or equity securities, through public or private offerings, in order to raise additional capital. Any such issuance of equity securities would dilute the percentage of ownership interest of existing shareholders and may dilute the per share book value of the common stock. In addition, option holders under our stock-based incentive plans may exercise their options at a time when we would otherwise be able to obtain additional equity capital on more favorable terms.

We may need to raise additional capital in the future, and such capital may not be available when needed or at all.

We may need or want to raise additional capital in the future by issuing debt or equity securities to provide us with sufficient capital resources and liquidity to meet our commitments and business needs, particularly if our asset quality or earnings were to deteriorate significantly. Our ability to raise additional capital will depend on, among other things, conditions in the capital markets at that time, which are outside of our control, and our financial performance. Economic conditions and any loss of confidence in financial institutions generally may increase our cost of funding and limit access to certain customary sources of capital.

There can be no assurance that capital will be available on acceptable terms or at all. Any occurrence that may limit our access to the capital markets, such as a decrease in our credit rating or a decline in the confidence of equity or debt purchasers, or counterparties participating in the capital markets, may adversely affect our capital costs and our ability to raise capital and, potentially, our liquidity. Also, if we need to raise capital in the future, we may have to do so when many other financial institutions are also seeking to raise capital and would have to compete with those institutions for investors. An inability to raise additional capital on acceptable terms when needed could have a materially adverse effect on our business, financial condition and results of operations.

Our Articles of Incorporation and By-laws and the laws of the State of Michigan contain provisions that may discourage or prevent a takeover of our company and reduce any takeover premium.

Our Articles of Incorporation and By-laws, and the corporate laws of the State of Michigan, include provisions which are designed to provide our Board of Directors with time to consider whether a hostile takeover offer is in our and our shareholders' best interest. These provisions, however, could discourage potential acquisition proposals and could delay or prevent a change in control. The provisions also could diminish the opportunities for a holder of our common stock to participate in tender offers, including tender offers at a price above the then-current market price for our common stock. These provisions could also prevent transactions in which our shareholders might otherwise receive a premium for their shares over then-current market prices, and may limit the ability of our shareholders to approve transactions that they may deem to be in their best interest.

The Michigan Business Corporation Act contains provisions intended to protect shareholders and prohibit or discourage various types of hostile takeover activities. In addition to these provisions and the provisions of our Articles of Incorporation and By-laws, federal law requires the Federal Reserve Board's approval prior to acquiring "control" of a bank holding company. All of these provisions may delay or prevent a change in control without action by our shareholders and could adversely affect the price of our common stock.

There is a limited trading market for our common stock.

The price of our common stock has been, and will likely continue to be, subject to fluctuations based on, among other things, economic and market conditions for bank holding companies and the stock market in general, as well as changes in investor perceptions of our company. The issuance of new shares of our common stock also may affect the market for our common stock.

Our common stock is traded on the Nasdaq Global Select Market under the symbol "MBWM." The development and maintenance of an active public trading market depends upon the existence of willing buyers and sellers, the presence of which is beyond our control. While we are a publicly-traded company, the volume of trading activity in our stock is still relatively limited. Even if a more active market develops, there can be no assurance that such a market will continue, or that our shareholders will be able to sell their shares at or above the price at which they acquired shares.

The value of securities in our investment securities portfolio may be negatively affected by disruptions in securities markets.

Prices and volumes of transactions in the nation's securities markets can be affected suddenly by economic crises, or by other national or international crises, such as national disasters, acts of war or terrorism, changes in commodities markets, or instability in foreign governments. Disruptions in securities markets may detrimentally affect the value of securities that we hold in our investment portfolio, such as through reduced valuations due to the perception of heightened credit and liquidity risks. There can be no assurance that declines in market value associated with these disruptions will not result in other-than-temporary impairments of these assets, which would lead to accounting charges that could have a material adverse effect on our net income and capital levels.

Item 1B. Unresolved Staff Comments

We have received no written comments regarding our periodic or current reports from the staff of the Securities and Exchange Commission that were issued 180 days or more before the end of our 2022 fiscal year and that remain unresolved.

Item 2. Properties.

Our headquarters is located in our bank's main office facility in Grand Rapids, Michigan. Our bank operates 46 banking offices primarily concentrated throughout Western and Central Michigan, most of which are full-service facilities. We also have a banking office in Troy, Michigan, and residential mortgage loan production offices in Midland and Petoskey, Michigan and the Cincinnati, Ohio metropolitan area. We have larger banking facilities in Kalamazoo, Lansing, Mt. Pleasant and West Branch. The remaining banking offices generally range in size from 1,200 to 3,200 square feet, based on the location and number of employees located at the facility. All of our banking offices are owned by our bank except for eleven that are rented under various operating lease agreements. In several instances, the banking offices contain more usable space than what is needed for current banking operations. This excess space, totaling approximately 23,500 square feet, is generally leased to unrelated businesses. In addition, certain functions operate out of our standalone facility located in Alma, Michigan.

We consider our properties and equipment to be well maintained, in good operating condition and capable of accommodating current growth forecasts. However, we may choose to add branch locations to expand our presence in current markets and/or in new markets or, alternatively, to consolidate, close or relocate branches if we believe it would be beneficial to our overall performance.

Item 3. Legal Proceedings.

From time to time, we may be involved in various legal proceedings that are incidental to our business. In the opinion of management, we are not a party to any legal proceedings that are material to our financial condition, either individually or in the aggregate.

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.

Market Information and Holders

Our common stock is traded on the Nasdaq Global Select Market under the symbol "MBWM." At March 1, 2023, there were approximately 1,200 record holders of our common stock. In addition, we estimate that there were approximately 7,000 beneficial owners of our common stock who own their shares through brokers or banks.

Dividend Policy

The following table shows the high and low sales prices for our common stock as reported by the Nasdaq Global Select Market for the periods indicated and the quarterly cash dividends paid by us during those periods.

	High	Low	Dividend
2022			
First Quarter	$ 40.01	$ 34.93	$ 0.31
Second Quarter	36.04	30.10	0.31
Third Quarter	39.03	29.26	0.32
Fourth Quarter	36.36	30.02	0.32
2021			
First Quarter	$ 34.47	$ 26.75	$ 0.29
Second Quarter	33.41	29.65	0.29
Third Quarter	33.18	28.51	0.30
Fourth Quarter	37.33	32.13	0.30

Holders of our common stock are entitled to receive dividends that the Board of Directors may declare from time to time. We may only pay dividends out of funds that are legally available for that purpose. We are a financial holding company and substantially all of our assets are held by our bank and its subsidiaries. Our ability to pay dividends to our shareholders depends primarily on our bank's ability to pay dividends to us. Dividend payments and extensions of credit to us from our bank are subject to legal and regulatory limitations, generally based on capital levels and current and retained earnings, imposed by law and regulatory agencies with authority over our bank. The ability of our bank to pay dividends is also subject to its profitability, financial condition, capital expenditures and other cash flow requirements. In addition, under the terms of our subordinated debentures, we would be precluded from paying dividends on our common stock if an event of default has occurred and is continuing under the subordinated debentures, or if we exercised our right to defer payments of interest on the subordinated debentures, until the deferral ended.

We and our bank are subject to regulatory capital requirements administered by state and federal banking agencies. Failure to meet the various capital requirements can initiate regulatory action that could have a direct material effect on our financial statements. Our bank's ability to pay cash and stock dividends or repurchase equity securities is subject to limitations under various laws and regulations and to prudent and sound banking practices.

On January 13, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.31 per share that was paid on March 16, 2022 to shareholders of record as of March 4, 2022. On April 14, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.31 per share that was paid on June 15, 2022 to shareholders of record as of June 3, 2022. On July 14, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.32 per share that was paid on September 14, 2022 to shareholders of record as of September 2, 2022. On October 13, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.32 per share that was paid on December 14, 2022 to shareholders of record as of December 2, 2022.

On January 14, 2021, our Board of Directors declared a cash dividend on our common stock in the amount of $0.29 per share that was paid on March 17, 2021 to shareholders of record as of March 5, 2021. On April 15, 2021, our Board of Directors declared a cash dividend on our common stock in the amount of $0.29 per share that was paid on June 16, 2021 to shareholders of record as of June 4, 2021. On July 15, 2021, our Board of Directors declared a cash dividend on our common stock in the amount of $0.30 per share that was paid on September 15, 2021 to shareholders of record as of September 3, 2021. On October 14, 2021, our Board of Directors declared a cash dividend on our common stock in the amount of $0.30 per share that was paid on December 15, 2021 to shareholders of record as of December 3, 2021.

On January 12, 2023, our Board of Directors declared a cash dividend on our common stock in the amount of $0.33 per share that will be paid on March 15, 2023 to shareholders of record as of March 3, 2023.

Issuer Purchases of Equity Securities

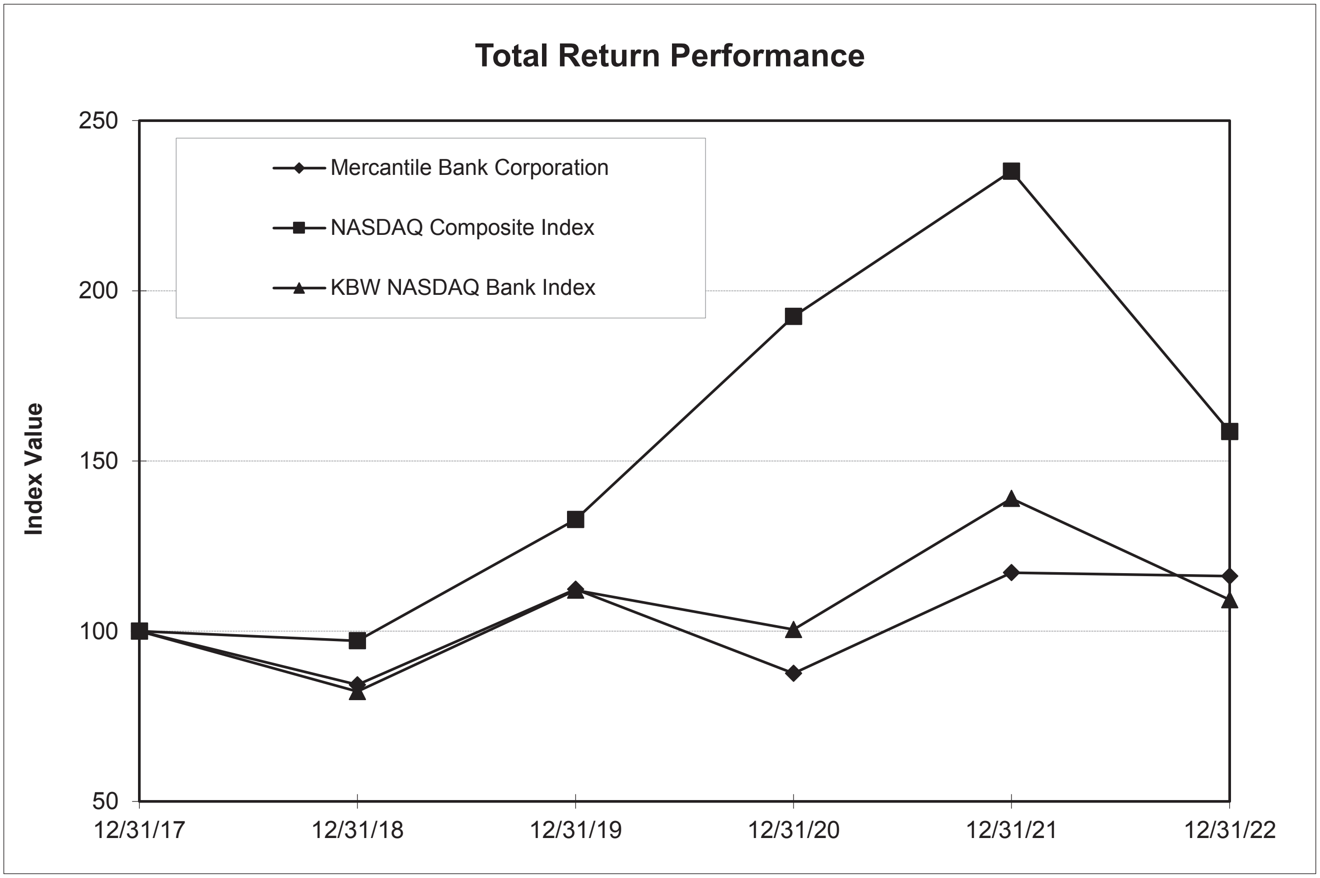
On May 27, 2021, we announced that our Board of Directors had authorized a program to repurchase up to $20.0 million of our common stock from time to time in open market transactions at prevailing market prices or by other means in accordance with applicable regulations. The actual timing, number and value of shares repurchased under the program will be determined by management in its discretion and will depend on a number of factors, including the market price of our stock, general market and economic conditions, our capital position, financial performance and alternative uses of capital, and applicable legal requirements. The program may be discontinued at any time. No shares were repurchased during 2022. Historically, stock repurchases have been funded from cash dividends paid to us from our bank. Additional repurchases may be made in future periods under the authorized plan or a new plan, which would also likely be funded from cash dividends paid to us from our bank. As of December 31, 2022, repurchases aggregating $6.8 million were available to be made under the current repurchase program.

Repurchases made during the fourth quarter of 2022 are detailed in the table below.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares or Approximate Dollar Value that May Yet Be Purchased Under the Plans or Programs
October 1 – 31	0	$ NA	0	$ 6,818,000
November 1 – 30	0	NA	0	6,818,000
December 1 – 31	0	NA	0	6,818,000
Total	0	$ NA	0	$ 6,818,000

Shareholder Return Performance Graph

Set forth below is a line graph comparing the yearly percentage change in the cumulative total shareholder return on our common stock (based on the last reported sales price of the respective year) with the cumulative total return of the Nasdaq Composite Index and the SNL Bank Nasdaq Index from December 31, 2017 through December 31, 2022. The following is based on an investment of $100 on December 31, 2017 in our common stock, the Nasdaq Composite Index and the SNL Bank Nasdaq Index, with dividends reinvested where applicable.



	Period Ending					
Index	**12/31/17**	**12/31/18**	**12/31/19**	**12/31/20**	**12/31/21**	**12/31/22**
Mercantile Bank Corporation	100.00	84.26	112.35	87.59	117.18	116.19
NASDAQ Composite Index	100.00	97.16	132.81	192.47	235.15	158.65
KBW Bank NASDAQ Index	100.00	82.29	112.01	100.46	138.97	109.23

Item 6. Reserved.

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

Management's Discussion and Analysis included in this Annual Report is incorporated here by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The information under the heading "Market Risk Analysis" included in this Annual Report is incorporated here by reference.

Item 8. Financial Statements and Supplementary Data.

The Consolidated Financial Statements, the Notes to Consolidated Financial Statements and the Reports of Independent Registered Public Accounting Firm included in this Annual Report are incorporated here by reference.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None

Item 9A. Controls and Procedures.

As of December 31, 2022, an evaluation was performed under the supervision of and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, our management, including our Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were effective as of December 31, 2022.

There have been no significant changes in our internal control over financial reporting during the year ended December 31, 2022, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f). There are inherent limitations in the effectiveness of any system of internal control. Accordingly, even an effective system of internal control can provide only reasonable assurance with respect to financial statement preparation.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022. This evaluation was based on criteria for effective internal control over financial reporting described in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on our evaluation under the COSO framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2022. Refer to page F-32 for management’s report.

Our independent registered public accounting firm has issued an audit report on our internal control over financial reporting which is included in this Annual Report.

Item 9B. Other Information.

None

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information presented under the captions “Election of Directors,” “Executive Officers,” “Section 16(a) Beneficial Ownership Reporting Compliance” and “Corporate Governance – Code of Ethics” in the definitive Proxy Statement of Mercantile Bank Corporation for our May 25, 2023 Annual Meeting of Shareholders (the “Proxy Statement”), a copy of which will be filed with the Securities and Exchange Commission before April 30, 2023, is incorporated here by reference.

Item 11. Executive Compensation.

The information presented under the captions “Executive Compensation,” “Corporate Governance – Compensation Committee Interlocks and Insider Participation” and “Compensation Committee Report” in the Proxy Statement is incorporated here by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information presented under the caption "Stock Ownership of Certain Beneficial Owners and Management" in the Proxy Statement is incorporated here by reference.

Equity Compensation Plan Information

The following table summarizes information, as of December 31, 2022, relating to compensation plans under which equity securities are authorized for issuance.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	5,000	$ 36.22	66,000 (1)
Equity compensation plans not approved by security holders	0	0	0
Total	5,000	$ 36.22	66,000

(1) These securities are available under the Stock Incentive Plan of 2020. Incentive awards may include, but are not limited to, stock options, restricted stock, stock appreciation rights and stock awards.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information presented under the captions "Transactions with Related Persons" and "Corporate Governance – Director Independence" in the Proxy Statement is incorporated here by reference.

Item 14. Principal Accountant Fees and Services.

The information presented under the caption "Principal Accountant Fees and Services" in the Proxy Statement is incorporated here by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) (1) Financial Statements. The following financial statements and reports of the independent registered public accounting firm of Mercantile Bank Corporation and its subsidiaries are filed as part of this report:

Reports of Independent Registered Public Accounting Firm

Consolidated Balance Sheets --- December 31, 2022 and 2021

Consolidated Statements of Income for each of the three years in the period ended December 31, 2022

Consolidated Statements of Comprehensive Income (Loss) for each of the three years in the period ended December 31, 2022

Consolidated Statements of Changes in Shareholders' Equity for each of the three years in the period ended December 31, 2022

Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2022

Notes to Consolidated Financial Statements

The Consolidated Financial Statements, the Notes to Consolidated Financial Statements, and the Reports of Independent Registered Public Accounting Firm listed above are incorporated by reference in Item 8 of this report.

(2) Financial Statement Schedules

Not applicable

(b) Exhibits:

The Exhibit Index immediately preceding the Signatures Page hereto is incorporated by reference under this item.

(c) Financial Statements Not Included In Annual Report

Not applicable

Item 16. Form 10-K Summary

None

MERCANTILE BANK CORPORATION

FINANCIAL INFORMATION
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MERCANTILE BANK CORPORATION

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CONTENTS

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

FORWARD-LOOKING STATEMENTS

The following discussion and other portions of this Annual Report contain forward-looking statements that are based on management's beliefs, assumptions, current expectations, estimates, and projections about the financial services industry, the economy, and our company. Words such as "anticipates," "believes," "estimates," "expects," "intends," "is likely," "plans," "projects," "indicates," "strategy," "future," "likely," "may," "should," "will," and variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions ("Future Factors") that are difficult to predict with regard to timing, extent, likelihood, and degree of occurrence. Therefore, actual results and outcomes may materially differ from what may be expressed or forecasted in such forward-looking statements. We undertake no obligation to update, amend, or clarify forward-looking statements, whether as a result of new information, future events (whether anticipated or unanticipated), or otherwise.

Future Factors include, among others, adverse changes in interest rates and interest rate relationships; increasing rates of inflation and slower growth rates; significant declines in the value of commercial real estate; market volatility; demand for products and services; climate impacts; labor markets; the degree of competition by traditional and non-traditional financial services companies; changes in banking regulation or actions by bank regulators; changes in tax laws; changes in prices, levies, and assessments; the impact of technological advances; potential cyber-attacks, information security breaches, and other criminal activities; litigation liabilities; governmental and regulatory policy changes; the outcomes of existing or future contingencies; trends in customer behavior as well as their ability to repay loans; changes in local real estate values; damage to our reputation resulting from adverse publicity, regulatory actions, litigation, operational failures, and the failure to meet client expectations and other facts; changes in the method of determining Libor and the phase-out of Libor; changes in the national and local economies, including the ongoing disruption to supply chain and financial markets caused by the Coronavirus Pandemic and unstable political and economic environments; and risk factors described in our annual report on Form 10-K for the year ended December 31, 2022. These are representative of the Future Factors that could cause a difference between an ultimate actual outcome and a forward-looking statement.

Discussions of 2020 items and year-to-year comparisons between 2021 and 2020 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

CRITICAL ACCOUNTING ESTIMATES

Management's Discussion and Analysis of Financial Condition and Results of Operations ("Management's Discussion and Analysis") is based on Mercantile Bank Corporation's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. Our critical accounting estimates are highly dependent upon subjective or complex judgments and assumptions, and changes in such may have a significant impact on the financial statements, just as actual results may differ. We have reviewed the application of our critical accounting estimates with the Audit Committee of our Board of Directors.

Allowance For Credit Losses ("allowance"): The allowance is maintained at a level we believe is adequate to absorb estimated credit losses identified and inherent in the loan portfolio. Our evaluation of the adequacy of the allowance is an estimate based on past loan loss experience, the nature and volume of the loan portfolio, information about specific borrower situations and estimated collateral values, guidance from bank regulatory agencies, and assessments of the impact of current and anticipated economic conditions on the loan portfolio. Allocations of the allowance may be made for specific loans, but the entire allowance is available for any loan that, in our judgment, should be charged-off. Credit losses are charged against the allowance when we believe the uncollectibility of a loan is likely. The balance of the allowance represents our best estimate, but significant downturns in circumstances relating to loan quality or economic conditions could result in a requirement for an increased allowance in the future. Likewise, an upturn in loan quality or improved economic conditions may result in a decline in the required allowance in the future. In either instance, unanticipated changes could have a significant impact on the allowance and operating results. The allowance is increased through a provision charged to operating expense. Uncollectible loans are charged-off through the allowance, while recoveries of loans previously charged-off are added to the allowance.

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*. This ASU (as subsequently amended by ASU 2018-19) significantly changed how entities measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. This standard replaced the "incurred loss" approach with an "expected loss" model. Referred to as the current expected credit loss ("CECL") model, this standard applies to financial assets subject to credit losses and measured at amortized cost, and certain off-balance sheet credit exposures. The standard also expanded disclosure requirements regarding an entity's assumptions, models, and methods for estimating the allowance. In addition, entities need to disclose the amortized cost balance for each class of financial asset by credit quality indicator, disaggregated by the year of origination. This ASU was effective for interim and annual reporting periods beginning after December 15, 2019.

Financial institutions were not required to comply with the CECL methodology requirements from the enactment date of the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") until the earlier of the end of the President's declaration of a National Emergency or December 31, 2020. The Consolidated Appropriations Act, 2021, that was enacted in December 2020, provided for a further extension of the required CECL adoption date to January 1, 2022. An economic forecast is a key component of the CECL methodology. As we continued to experience an unprecedented economic environment whereby a sizable portion of the economy had been significantly impacted by government-imposed activity limitations and similar reactions by businesses and individuals, substantial government stimulus was provided to businesses, individuals and state and local governments and financial institutions offered businesses and individuals payment relief options, economic forecasts were regularly revised with no economic forecast consensus. Given the high degree of uncertainty surrounding economic forecasting, we elected to postpone the adoption of CECL until January 1, 2022, and continued to use our incurred loan loss reserve model as permitted through December 31, 2021.

We adopted CECL effective January 1, 2022 using the modified retrospective method for all financial assets measured at amortized cost and off-balance sheet credit exposures. Results for reporting periods beginning after January 1, 2022 are presented under CECL while prior period amounts continue to be reported in accordance with the incurred loss accounting standards. The transition adjustment of the CECL adoption included a decrease in the allowance of $0.4 million, and a $0.3 million increase to the retained earnings account to reflect the cumulative effect of adopting CECL on our Consolidated Balance Sheet, with the $0.1 million tax impact portion being recorded as part of the deferred tax asset in other assets on our Consolidated Balance Sheet.

See Note 1 – Significant Accounting Policies in the Notes to our Consolidated Financial Statements in this Form 10-K for additional information on our estimation process and methodology related to the allowance. See also Note 3 – Loans and Allowance for Credit Losses in the Notes to our Consolidated Financial Statements in this Form 10-K for further information regarding our loan portfolio and allowance.

Mortgage Servicing Rights: Mortgage servicing rights are recognized as assets based on the allocated fair value of retained servicing rights on loans sold. Servicing rights are carried at the lower of amortized cost or fair value and are expensed in proportion to, and over the period of, estimated net servicing income. We utilize a discounted cash flow model to determine the value of our servicing rights. The valuation model utilizes mortgage loan prepayment speeds, the remaining life of the mortgage loan pool, delinquency rates, our cost to service loans, and other factors to determine the cash flow that we will receive from servicing each grouping of loans. These cash flows are then discounted based on current interest rate assumptions to arrive at the fair value of the right to service those loans. Impairment is evaluated quarterly based on the fair value of the servicing rights, using groupings of the underlying loans classified by interest rates. Any impairment of a grouping is reported as a valuation allowance.

Goodwill: Accounting rules require us to determine the fair value of all the assets and liabilities of an acquired entity, and to record their fair value on the date of acquisition. We employ a variety of means in determining fair value, including the use of discounted cash flow analysis, market comparisons and projected future revenue streams. For those items for which we conclude that we have the appropriate expertise to determine fair value, we may choose to use our own calculation of fair value. In other cases, where the fair value is not readily determined, consultation with outside parties is used to determine fair value. Once valuations have been determined, the net difference between the price paid for the acquired entity and the fair value of the balance sheet is recorded as goodwill. Goodwill is assessed at least annually for impairment, with any such impairment recognized in the period identified. A more frequent assessment is performed if there are material changes in the market place or within the organizational structure.

INTRODUCTION

This Management's Discussion and Analysis should be read in conjunction with the consolidated financial statements contained in this Annual Report. This discussion provides information about the consolidated financial condition and results of operations of Mercantile Bank Corporation and its consolidated subsidiary, Mercantile Bank ("our bank"), and Mercantile Insurance Center, Inc. ("our insurance company"), a subsidiary of our bank. Unless the text clearly suggests otherwise, references to "us," "we," "our," or "the company" include Mercantile Bank Corporation and its wholly-owned subsidiaries referred to above.

CORONAVIRUS PANDEMIC

Although virtually all related restrictions have been terminated, impacts remain across national and global economies due to the pandemic of coronavirus disease 2019 ("Covid-19") caused by severe acute respiratory syndrome coronavirus 2 (the "Coronavirus Pandemic"). Overall, the Coronavirus Pandemic has caused a sustained global economic slowdown of varying durations across different industries, and it is possible that it could still cause a global recession as a result of deteriorating economic and political conditions such as increased unemployment, decreased capital spending, declines in consumer confidence, and economic slowdowns. This uncertainty is heightened in certain geographic areas due to continued surges in Covid-19 cases, and governments at all levels continue to react to changes in circumstances, including vaccine hesitancy, booster shot efficacy, supply chain disruptions and inflationary pressures. For example, although many health and safety restrictions have been lifted and vaccine distribution has increased, certain adverse consequences of the Coronavirus Pandemic continue to impact the macroeconomic environment and may persist for some time, including labor shortages and disruptions of global supply chains, particularly in China and other parts of Asia. In addition, this uncertainty is further heightened by the possibility that new and highly infectious variants and subvariants of Covid-19 might arise which are more severe, more transmissible, and capable of evading vaccinations, booster shots and prior immunity.

The Coronavirus Pandemic has had a significant impact on our financial condition and operating results since its onset in March, 2020. Federal government stimulus programs resulted in a massive increase to the money supply, providing significant inflationary pressures that the Federal Reserve's Federal Open Market Committee ("FOMC") has been attempting to manage through substantial increases in the federal funds rate since March, 2022. In addition, we experienced significant growth in liquidity as federal government stimulus monies were deposited by program recipients, providing for sizable impacts to our operating performance as well as our capital and liquidity positions during 2022 and 2021.

The following section summarizes the primary Covid-19 related measures that directly impacted us and our customers.

- Paycheck Protection Program
  The Paycheck Protection Program ("PPP") reflected a substantial expansion of the Small Business Administration's 100% guaranteed 7(a) loan program. The CARES Act authorized up to $350 billion in loans to businesses with fewer than 500 employees, including non-profit organizations, tribal business concerns, and self-employed and individual contractors. The PPP provided 100% guaranteed loans to cover specific operating costs. PPP loans were eligible to be forgiven based upon certain criteria. In general, the amount of the loan that is forgivable is the sum of the payroll costs, interest payments on mortgages, rent, and utilities incurred or paid by the business during a prescribed period beginning on the loan origination date. Any remaining balance after forgiveness is maintained at the 100% guarantee for the duration of the loan. The interest rate on the loan is fixed at 1.00%, with the financial institution receiving a loan origination fee from the Small Business Administration. The loan origination fees, net of the direct origination costs, are accreted into interest income on loans using the level yield methodology. The program ended on August 8, 2020. We originated approximately 2,200 loans aggregating $554 million. As of December 31, 2022, we recorded forgiveness transactions on all but five loans aggregating $0.5 million. Net loan origination fees of less than $0.1 million were recorded during 2022.

  The Consolidated Appropriations Act, 2021 authorized an additional $284 billion in Second Draw PPP loans ("Second Draw"). This program ended on May 31, 2021. Under the Second Draw, we originated approximately 1,200 loans aggregating $209 million. As of December 31, 2022, we recorded forgiveness transactions on all but six loans aggregating $0.4 million. Net loan origination fees of $1.0 million were recorded during 2022.

- Individual Economic Impact Payments
  The Internal Revenue Service made three rounds of Individual Economic Impact Payments via direct deposit or mailed checks. In general, and subject to adjusted gross income limitations, qualifying individuals received payments of $1,200 in April 2020, $600 in January 2021, and $1,400 in March 2021.

- Troubled Debt Restructuring Relief
  From March 1, 2020 through 60 days after the end of the National Emergency (or December 31, 2020 if earlier), a financial institution may elect to suspend GAAP principles and regulatory determinations with respect to loan modifications related to Covid-19 that would otherwise be categorized as troubled debt restructurings. Banking agencies must defer to the financial institution's election. The Consolidated Appropriations Act, 2021 extended the suspension date to January 1, 2022. We elected to suspend GAAP principles and regulatory determinations as permitted up to December 31, 2021.

- Current Expected Credit Loss Methodology Delay
  Financial institutions were not required to comply with the CECL methodology requirements from the enactment date of the CARES Act until the earlier of the end of the National Emergency or December 31, 2020. We elected to postpone CECL adoption as permitted. The Consolidated Appropriations Act, 2021 extended the adoption deferral date to January 1, 2022. We adopted the CECL methodology effective January 1, 2022.

We continue to monitor the situation, including cases of sickness within our workforce, and will take action to adjust office attendance policies as circumstances warrant in order to protect the health and safety of employees, contractors, and others who visit our offices. However, if the Coronavirus Pandemic worsens and shutdown orders are issued in the future, our ability to operate could be adversely impacted, depending on the language of such orders. The extent to which the Coronavirus Pandemic continues to impact us will depend on future developments, which are highly uncertain and cannot be predicted.

CLIMATE CHANGE

Increased public and investor concern about climate change will likely continue to (1) generate more regional and/or national requirements to reduce greenhouse gas emissions; (2) increase energy efficiency and reduce carbon pollution; and (3) cause a shift to cleaner and more sustainable sources of energy which may be more expensive than using fossil fuels as an energy source. The potential impact of climate changes on our operations and the needs of our customers remains uncertain. Scientists have proposed that the impacts of climate change could include changes in rainfall patterns, water shortages, changes to the water levels of lakes and other bodies of water, changing storm patterns and intensities, and changing temperature levels. These changes could be severe and vary by geographic location. Climate change may also affect the occurrence of certain natural events, the incidence and severity of which are inherently unpredictable. We could also face indirect financial risks passed through the supply chain that could result in higher prices for resources, such as energy. Additionally, climate change may adversely impact the demand, prices, and availability of property and casualty insurance that insures our loan collateral. Due to significant economic variability associated with potential future changing climate conditions, we are unable to predict the impact climate change will have on us.

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE MATTERS

There has been an increased focus from regulators and stakeholders on environmental, social, and governance ("ESG") matters, including greenhouse gas emissions, sustainability, and climate-related risks; diversity, equity and inclusion; responsible sourcing and supply chain; human rights and social responsibility; and corporate governance and oversight. Given our commitment to ESG matters, we actively manage these issues and have established and publicly announced certain goals, commitments, and targets which we may refine or even expand further in the future. These goals, commitments, and targets reflect our current plans and aspirations and are not guarantees that we will be able to achieve them. Evolving stakeholder expectations and our efforts and ability to manage these issues, provide updates on them, and accomplish our goals, commitments, and targets present numerous operational, regulatory, reputational, financial, legal, and other risks, any of which may be outside of our control or could have a material adverse impact on our business, including on our reputation and stock price. Further, there is uncertainty around the accounting standards and climate-related disclosures associated with emerging laws and reporting requirements and the related costs to comply with the emerging regulations. Our failure or perceived failure to achieve our ESG goals, maintain ESG practices, or comply with emerging ESG regulations that meet evolving regulatory or stakeholder expectations could harm our reputation, adversely impact our ability to attract and retain customers and talent, and expose us to increased scrutiny from the investment community and regulatory authorities. Our reputation also may be harmed by the perception that our stakeholders have about our action or inaction on ESG-related issues.

Our ESG Committee supports our ongoing commitment to environmental, health and safety, corporate social responsibility, corporate governance, sustainability, and other public policy matters relevant to our organization. The ESG Committee is a cross-functional management committee, led by the Chief Risk Officer, that assists us in: (1) setting general strategies relating to ESG matters; (2) developing, implementing, and monitoring initiatives and polices based on those strategies; (3) recommending communications with employees, investors, and shareholders with respect to ESG matters; and (4) monitoring and assessing developments relating to, and improving our understanding of, ESG matters. The committee met four times during 2022. Highlights for 2022 included the enhancement of our online financial wellness tools, the rollout of the MercStart Fresh deposit program, the development of a diverse vendor database for employee use, and the creation of a Vendor and Supplier Code of Conduct. The Vendor and Supplier Code of Conduct, along with our Environmental Policy, Diversity, Equity and Inclusion Policy, Human Rights Policy, and Supplier Diversity Program Policy, are reviewed and approved by our Board of Directors at least annually. These polices are available on our website, along with an application for diverse suppliers. Also during 2022, we moved Board of Director oversight of ESG matters from the Audit Committee to the Governance Committee.

FINANCIAL OVERVIEW

We recorded net income of $61.1 million, or $3.85 per basic and diluted share, for 2022, compared with net income of $59.0 million, or $3.69 per basic and diluted share, for 2021. Higher net interest income, stemming from an improved net interest margin and ongoing strong loan growth, combined with continued strength in asset quality metrics and ongoing increases in treasury management fee income, more than offset a significant decline in residential mortgage banking revenue as industry-wide originations come off of the record levels of 2020 and 2021 which were driven by low residential mortgage rates and resulting refinancing activity. Our earnings performance in 2021 also benefited from negative provisions to the allowance.

Commercial loans increased $181 million during 2022, reflecting the combined growth of commercial loans and activity under the PPP. Core commercial loans (commercial loans excluding PPP loans) increased $221 million, or almost 8%, during 2022, while PPP loans declined $39.2 million. Core commercial and industrial loans increased $86.9 million, owner-occupied commercial real estate ("CRE") loans grew $73.4 million, multi-family and residential rental property loans increased $35.4 million, vacant land, land development, and residential construction loans increased $18.6 million, and nonowner-occupied CRE loans grew $6.3 million. As a percentage of total core commercial loans, commercial and industrial loans and owner-occupied CRE loans combined equaled 58.2% at December 31, 2022, compared to 57.1% at year-end 2021. The new commercial loan pipeline remains strong, and at December 31, 2022, we had $197 million in unfunded loan commitments on commercial construction and development loans that are in the construction phase.

Residential mortgage loans, excluding home equity lines of credit, increased $275 million during 2022, representing a growth rate of approximately 62%. With the increase in residential mortgage loan interest rates during 2022, we witnessed a shift in borrowers primarily selecting adjustable rate residential mortgage loans compared to fixed rate residential mortgage loans in the prior two years. Generally, we sell fixed rate residential mortgage loans to third-party investors, while we maintain adjustable rate residential mortgage loans on our balance sheet. During 2022, approximately 35% of our residential mortgage loan production was comprised of longer-term fixed rate loans, compared to about 68% during 2021. The shift in product mix impacts the timing of revenue recognition; it takes an estimated 24 months for the amount of net interest income earned on a residential mortgage loan that is retained on our balance sheet to approximate the amount of immediately recorded gain on sale of a residential mortgage loan that has been sold to a third-party investor.

The overall quality of our loan portfolio remains strong, with nonperforming loans equaling 0.20% of total loans as of December 31, 2022. Accruing loans past due 30 to 89 days remain very low, and we had no foreclosed properties throughout 2022. Gross loan charge-offs totaled $0.3 million during 2022, while recoveries of prior period loan charge-offs totaled $1.0 million, providing for net loan recoveries of $0.7 million, or 0.02% of average total loans, for the year.

We recorded a credit loss provision expense of $6.6 million during 2022, compared to a negative provision expense of $4.3 million during 2021. The provision expense recorded during 2022 was necessitated by the net increase in required reserve levels stemming from changes to several environmental factors that largely reflected enhanced inherent risk within the commercial loan and residential mortgage loan portfolios, loan growth, and increased specific reserves for certain distressed loan relationships. A higher reserve for residential mortgage loans reflecting slower principal prepayment rates, and the resulting extended average life of the portfolio also impacted provision expense in 2022. The negative provision expense recorded during 2021 primarily reflected reduced allowance allocations attributed to improvement in both current and forecasted economic conditions and net loan recoveries, which more than offset required allowance allocations necessitated by strong loan growth.

Interest-earning deposits, primarily consisting of funds deposited at the Federal Reserve Bank of Chicago, are used to manage daily liquidity needs and interest rate risk sensitivity. During 2022, the average balance of these funds equaled $445 million, or 9.3% of average earning assets, compared to $671 million, or 14.9% of average earning assets, during 2021. Typically, we maintain our interest-earning deposits at approximately $75 million, or about 2% of average earning assets. The elevated levels during 2022 and 2021 primarily reflected increased local deposits stemming from Covid-19-related federal government stimulus programs and reduced business and consumer investing and spending. The excess level of interest-earning deposits had a negative impact on our net interest margin. The level of interest-earning deposits was on a declining trend throughout 2022, as excess monies were used to fund loan growth as well as brokered deposit and Federal Home Loan Bank of Indianapolis ("FHLBI") advance maturities. We also experienced a net decline in local deposit balances throughout 2022. Our deposit balance at the Federal Reserve Bank of Chicago equaled $29.4 million as of December 31, 2022.

Total deposits decreased $370 million during 2022, and totaled $3.71 billion at December 31, 2022. Local deposits declined $346 million, and out-of-area deposits decreased $23.9 million. A large portion of the decline in local deposits was comprised of a single customer's anticipated withdrawal of funds that had been deposited in late 2021 from the sale of a business; excluding the withdrawal of these monies, local deposits were down approximately $150 million in 2022. Sizable withdrawals by other customers to fund bonus and tax payments, especially during the latter part of the fourth quarter, and public unit withdrawals primarily reflecting transfers into high-yielding accounts at other banks and nonbanks, also contributed to the decrease in local deposits.

Net interest income increased $34.2 million during 2022 compared to 2021. Interest income was up $38.3 million, while interest expense increased $4.1 million. Interest income on loans increased significantly during 2022 due to a rapidly increasing interest rate environment and loan growth. Our yield on loans was 3.87% during the first quarter of 2022, growing to 5.49% during the fourth quarter of 2022, and equaling 4.50% for all of 2022. Our yield on loans during 2021 was 4.06%, which had been significantly positively impacted by PPP net fee income accretion. We also recorded growth in interest income on securities, reflecting portfolio growth as we deployed a portion of our excess liquid funds position and the higher interest rate environment. The higher interest rate environment also provided for increased interest income on our interest-earning deposits. Interest expense on deposits increased a relatively low $0.9 million in 2022, in large part reflecting generally steady deposit rates in a rapidly increasing interest rate environment during most of 2022. Interest expense on other borrowed money increased $4.2 million during 2022, reflecting interest costs associated with the $90.0 million in subordinated notes issued between December 2021 and January 2022, and higher interest rates on our floating rate subordinated debentures.

Noninterest income was $32.1 million during 2022, compared to $56.2 million during 2021. The decline mainly resulted from a $21.3 million reduction in mortgage banking income, reflecting the aforementioned increase in residential mortgage loan interest rates and corresponding substantial reduction in refinancing activity. We also recorded a $3.4 million decline in interest rate swap income, as the higher interest rate environment resulted in less transactions. We continued to record meaningful increased fee income in our treasury management products and services, with service charges on deposit and sweep accounts, credit and debit card fees, and payroll services growing $0.9 million, $0.7 million and $0.4 million, respectively.

Noninterest expense was $108 million during 2022, compared to $111 million during 2021. Excluding contributions to The Mercantile Bank Foundation, noninterest expense totaled $106 million and $107 million in 2022 and 2021, respectively. Aggregate salary and benefit costs declined $1.3 million in 2022, in large part reflecting lower residential mortgage lender commissions, reduced stock-based compensation costs, and higher residential mortgage loan deferred costs, which more than offset higher salary costs stemming from annual merit increases, market adjustments, and higher bonus accruals.

FINANCIAL CONDITION

Our total assets decreased $385 million during 2022, and totaled $4.87 billion as of December 31, 2022. Total loans increased $463 million and securities available for sale were up $10.2 million, while interest-earning deposits declined $881 million. Total deposits decreased $370 million and FHLBI advances were down $65.8 million, while net proceeds from the issuance of subordinated notes totaled $14.6 million. In large part, the excess funds maintained with the Federal Reserve Bank of Chicago at year-end 2021 were used to fund loan growth, deposit withdrawals, and FHLBI advance maturities during 2022.

Earning Assets

Average earning assets equaled 94.3% of average total assets during 2022, compared to 93.9% during 2021. The loan portfolio continued to comprise a majority of earning assets, followed by securities and interest-earning deposits. Average total loans equaled 77.8% of average earning assets during 2022, compared to 73.7% in 2021, while average securities and interest-earning deposits comprised 12.9% and 9.3% of average earning assets during 2022 and 11.4% and 14.9% of average earning assets during 2021, respectively.

Our loan portfolio has historically been primarily comprised of commercial loans. Commercial loans increased $181 million during 2022, reflecting the combined net growth of core commercial loans and net activity under the PPP. Core commercial loans increased $221 million, or almost 8%, during 2022, while PPP loans declined $39.2 million. Core commercial and industrial loans increased $86.9 million, owner-occupied CRE loans grew $73.4 million, multi-family and residential rental property loans increased $35.4 million, vacant land, land development, and residential construction loans increased $18.6 million, and nonowner-occupied CRE loans grew $6.3 million. As a percentage of total core commercial loans, commercial and industrial loans and owner-occupied CRE loans combined equaled 58.2% at December 31, 2022, compared to 57.1% at year-end 2021. The new commercial loan pipeline remains strong, and at December 31, 2022, we had $197 million in unfunded loan commitments on commercial construction and development loans that are in the construction phase. We believe our commercial loan portfolio remains well diversified.

As of December 31, 2022, availability on commercial construction and development loans that are in the construction phase totaled $197 million, with most of the funds expected to be drawn over the next 12 to 18 months. Our current pipeline reports indicate continued strong commercial loan funding opportunities in future periods, including $330 million in new lending commitments, a majority of which we expect to be accepted and funded over the next 12 to 18 months. Our commercial lenders also report additional opportunities they are currently discussing with existing borrowers and potential new customers. We remain committed to prudent underwriting standards that provide for an appropriate yield and risk relationship, as well as concentration limits we have established within our commercial loan portfolio. Usage of existing commercial lines of credit was relatively stable during 2022 at approximately 42%, compared to about 36% during the latter half of 2020 and all of 2021, and our historical average of about 47% prior to the Coronavirus Pandemic.

Residential mortgage loans totaled $755 million, or 19.3% of total loans, at December 31, 2022, compared to $443 million, or 12.8% of total loans, as of December 31, 2021. Residential mortgage loans, excluding home equity lines of credit, increased $275 million during 2022, representing a growth rate of approximately 62%. We originated $614 million in residential mortgage loans during 2022, compared to $952 million in 2021, a reduction of about 36%. The decline primarily reflected an increase in residential mortgage loan interest rates throughout 2022, resulting in a substantial reduction of refinancing activity. Production associated with refinancing activity totaled $134 million in 2022, compared to $458 million in 2021. With the increase in residential mortgage loan rates, we also witnessed a shift in borrowers primarily selecting adjustable rate residential mortgage loans compared to fixed rate residential mortgage loans in 2021. Generally, we sell fixed rate residential mortgage loans to third-party investors, while we maintain adjustable rate residential mortgage loans on our balance sheet. During 2022, approximately 35% of our residential mortgage loan production was comprised of longer-term fixed rate loans, compared to about 68% during 2021. The shift in product mix impacts the timing of revenue recognition; it takes an estimated 24 months for the amount of net interest income earned on a residential mortgage loan that is retained on our balance sheet to approximate the amount of immediately recorded gain on sale of a residential mortgage loan that has been sold to a third-party investor.

Other consumer-related loans increased $4.9 million during 2022, and at December 31, 2022 totaled $29.8 million, or 0.7% of total loans. As of December 31, 2021, the other consumer-related loan portfolio comprised 0.7% of total loans. We expect this loan portfolio segment to remain relatively steady in dollar amount but decline as a percent of total loans in future periods as commercial loans and residential mortgage loan portfolios grow.

The following table summarizes our loan portfolio:

	12/31/22	12/31/21	12/31/20	12/31/19	12/31/18
Commercial:					
Commercial & Industrial *	$1,185,083,000	$1,137,419,000	$1,145,423,000	$ 846,551,000	$ 822,723,000
Land Development & Construction	61,873,000	43,239,000	55,055,000	56,119,000	44,885,000
Owner Occupied Commercial Real Estate	639,192,000	565,758,000	529,953,000	579,003,000	548,619,000
Non-Owner Occupied Commercial Real Estate	1,033,734,000	1,027,415,000	917,436,000	835,346,000	816,282,000
Multi-Family & Residential Rental	211,948,000	176,593,000	146,095,000	124,525,000	127,597,000
Total Commercial	3,131,830,000	2,950,424,000	2,793,962,000	2,441,544,000	2,360,106,000
Retail:					
1-4 Family Mortgages	755,036,000	442,547,000	337,888,000	334,771,000	307,540,000
Other Consumer Loans (**)	29,753,000	60,488,000	61,620,000	75,374,000	85,439,000
Total Retail	784,789,000	503,035,000	399,508,000	410,145,000	392,979,000
Total Loans	$3,916,619,000	$3,453,459,000	$3,193,470,000	$2,851,689,000	$2,753,085,000

(*) For December 31, 2022, December 31, 2021, and December 31, 2020, includes $0.9 million, $40.1 million, and $365 million in loans originated under the Paycheck Protection Program, respectively.

(**) In conjunction with the adoption of the CECL methodology effective January 1, 2022, home equity lines of credit were reclassified to 1-4 family mortgage loans from consumer loans. Home equity lines of credit totaled $37.4 million, $29.5 million, $32.6 million, $37.7 million, and $41.6 million as of December 31, 2022, December 31, 2021, December 31, 2020, December 31, 2019, and December 31, 2018, respectively.

The following table presents total loans outstanding as of December 31, 2022, according to scheduled repayments of principal on fixed rate loans and repricing frequency on variable rate loans. Floating rate commercial loans that are currently at interest rate floors are treated as fixed rate loans and are reflected using maturity date and not repricing frequency.

	Less Than One Year	One Through Five Years	Five Through Fifteen Years	Total
Construction and land development	$ 243,660,000	$ 58,870,000	$ 68,387,000	$ 370,917,000
Real estate - residential properties	67,086,000	157,904,000	474,846,000	699,836,000
Real estate - multi-family properties	92,105,000	66,017,000	3,418,000	161,540,000
Real estate - commercial properties	790,993,000	603,002,000	93,719,000	1,487,714,000
Commercial and industrial	966,786,000	175,781,000	40,521,000	1,183,088,000
Consumer	3,497,000	9,299,000	728,000	13,524,000
Total loans	$2,164,127,000	$1,070,873,000	$681,619,000	$3,916,619,000
Fixed rate loans	$ 126,669,000	$ 911,168,000	$281,563,000	$1,319,400,000
Floating rate loans	2,037,458,000	159,705,000	400,056,000	2,597,219,000
Total loans	$2,164,127,000	$1,070,873,000	$681,619,000	$3,916,619,000

Our credit policies establish guidelines to manage credit risk and asset quality. These guidelines include loan review and early identification of problem loans to provide effective loan portfolio administration. The credit policies and procedures are meant to minimize the risk and uncertainties inherent in lending. In following these policies and procedures, we must rely on estimates, appraisals and evaluations of loans and the possibility that changes in these items could occur quickly because of changing economic conditions or other factors. Identified problem loans, which exhibit characteristics (financial or otherwise) that could cause the loans to become nonperforming or require restructuring in the future, are included on the internal loan watch list. Senior management and the Board of Directors review this list regularly. Market value estimates of collateral on nonperforming loans, as well as on foreclosed and repossessed assets, are reviewed periodically. We have a process in place to monitor whether value estimates at each quarter-end are reflective of current market conditions. Our credit policies establish criteria for obtaining appraisals and determining internal value estimates. We may also adjust outside and internal valuations based on identifiable trends within our markets, such as recent sales of similar properties or assets, listing prices, and offers received. In addition, we may discount certain appraised and internal value estimates to address distressed market conditions.

Nonaccrual loans totaled $7.7 million, or 0.2% of total loans, as of December 31, 2022, compared to $2.3 million, or 0.1% of total loans, as of December 31, 2021. Nonperforming assets, comprised of nonaccrual loans, loans past due 90 days or more and accruing interest and foreclosed properties, totaled $7.7 million (0.2% of total assets) as of December 31, 2022, compared to $2.5 million (0.1% of total assets) as of December 31, 2021. The volume of nonperforming assets has remained under 0.3% of total assets since year-end 2015, and has averaged 0.1% over the past four years. Given the low level of nonperforming loans and accruing loans 30 to 89 days delinquent, combined with what we believe are strong credit administration practices, we are pleased with the overall quality of the loan portfolio.

The following tables provide a breakdown of nonperforming assets by property type:

NONPERFORMING LOANS

	12/31/22	12/31/21	12/31/20	12/31/19	12/31/18
Residential Real Estate:					
Land Development	$ 29,000	$ 32,000	$ 35,000	$ 34,000	$ 0
Construction	124,000	0	0	0	0
Owner Occupied / Rental	1,304,000	1,768,000	2,519,000	2,104,000	3,157,000
	1,457,000	1,800,000	2,554,000	2,138,000	3,157,000
Commercial Real Estate:					
Land Development	0	0	0	0	0
Construction	0	0	0	0	0
Owner Occupied	248,000	0	619,000	134,000	950,000
Non-Owner Occupied	0	0	22,000	0	0
	248,000	0	641,000	134,000	950,000
Non-Real Estate:					
Commercial Assets	6,023,000	662,000	172,000	0	17,000
Consumer Assets	0	6,000	17,000	12,000	17,000
	6,023,000	668,000	189,000	12,000	34,000
Total	$ 7,728,000	$ 2,468,000	$ 3,384,000	$ 2,284,000	$ 4,141,000

OTHER REAL ESTATE OWNED & REPOSSESSED ASSETS

	12/31/22	12/31/21	12/31/20	12/31/19	12/31/18
Residential Real Estate:					
Land Development	$ 0	$ 0	$ 0	$ 0	$ 0
Construction	0	0	0	0	0
Owner Occupied / Rental	0	0	88,000	260,000	398,000
	0	0	88,000	260,000	398,000
Commercial Real Estate:					
Land Development	0	0	0	0	0
Construction	0	0	0	0	0
Owner Occupied	0	0	613,000	192,000	413,000
Non-Owner Occupied	0	0	0	0	0
	0	0	613,000	192,000	413,000
Non-Real Estate:					
Commercial Assets	0	0	0	0	0
Consumer Assets	0	0	0	0	0
	0	0	0	0	0
Total	$ 0	$ 0	$ 701,000	$ 452,000	$ 811,000

The following tables provide a reconciliation of nonperforming assets:

NONPERFORMING LOANS RECONCILIATION

	2022	2021	2020	2019	2018
Beginning balance	$ 2,468,000	$ 3,384,000	$ 2,284,000	$ 4,141,000	$ 7,143,000
Additions	6,770,000	1,187,000	3,361,000	698,000	2,909,000
Returns to performing status	(373,000)	(165,000)	(105,000)	(126,000)	(175,000)
Principal payments	(1,042,000)	(1,711,000)	(1,701,000)	(2,140,000)	(5,028,000)
Loan charge-offs	(95,000)	(227,000)	(455,000)	(289,000)	(708,000)
Total	$ 7,728,000	$ 2,468,000	$ 3,384,000	$ 2,284,000	$ 4,141,000

OTHER REAL ESTATE OWNED & REPOSSESSED ASSETS RECONCILIATION

	2022	2021	2020	2019	2018
Beginning balance	$ 0	$ 701,000	$ 452,000	$ 811,000	$ 2,260,000
Additions	0	30,000	758,000	462,000	1,114,000
Sale proceeds	0	(397,000)	(485,000)	(792,000)	(2,380,000)
Valuation write-downs	0	(334,000)	(24,000)	(29,000)	(183,000)
Total	$ 0	$ 0	$ 701,000	$ 452,000	$ 811,000

During 2022, loan charge-offs totaled $0.3 million, while recoveries of prior period loan charge-offs equaled $1.0 million, providing for net loan recoveries of $0.7 million, or 0.02% of average total loans. During 2021, loan charge-offs totaled $1.0 million, while recoveries of prior period loan charge-offs equaled $2.7 million, providing for net loan recoveries of $1.7 million, or 0.05% of average total loans. We continue our collection efforts on charged-off loans, and we expect to record recoveries in future periods; however, given the nature of these efforts, it is not practical to forecast the dollar amount and timing of the recoveries.

The following table illustrates the breakdown of the allowance for credit losses by loan type (dollars in thousands) and of the total loan portfolio (in percentages). For the years 2019 and 2018, presented loan and allowance data are reflective of only originated loans and the allowance for originated loans. We terminated the application of purchase accounting associated with our merger with Firstbank effective January 1, 2020.

	12/31/22		12/31/21		12/31/20		12/31/19		12/31/18	
	Amount	Loan Portfolio	Amount	Loan Portfolio	Amount	Loan Portfolio	Amount	Loan Portfolio	Amount	Loan Portfolio
Commercial, financial and agricultural	$27,550	72.3%	$30,224	77.3%	$33,235	79.6%	$20,599	76.0%	$19,228	86.7%
Construction and land development	490	9.5	2,324	8.9	813	7.2	340	9.0	270	2.0
Residential real estate	14,027	17.9	2,524	13.4	3,595	12.7	1,863	14.2	1,778	10.0
Instalment loans to individuals	160	0.3	246	0.4	265	0.5	294	0.8	234	1.3
Unallocated	19	0.0	45	0.0	59	0.0	70	0.0	44	0.0
Total	$42,246	100.0%	$35,363	100.0%	$37,967	100.0%	$23,166	100.0%	$21,554	100.0%

The following table depicts the ratio of our allowance to nonperforming loans:

	12/31/22	12/31/21	12/31/20	12/31/19	12/31/18
Ratio of allowance to nonperforming loans	546.7%	1,432.9%	1,122.0%	1,045.9%	540.4%

We adopted CECL effective January 1, 2022 using the modified retrospective method for all financial assets measured at amortized cost and off-balance sheet credit exposures. Results for reporting periods beginning after January 1, 2022 are presented under CECL while prior period amounts continue to be reported in accordance with the incurred loss accounting standards. The transition adjustment of the CECL adoption included a decrease in the allowance of $0.4 million, which included a $0.3 million increase to the retained earnings account to reflect the cumulative effect of adopting CECL on our Consolidated Balance Sheet, with the $0.1 million tax impact portion being recorded as part of the deferred tax asset in other assets on our Consolidated Balance Sheet.

The allowance for loan loss accounting in effect at December 31, 2021 and all prior periods was based on our estimate of probable incurred loan losses as of the reporting date ("incurred loss" methodology). Under the CECL methodology, our allowance is based on the total amount of credit losses that are expected over the remaining life of the loan portfolio. Our estimate of credit losses under CECL is determined using a complex model that relies on historical loss information, reasonable and supportable economic forecasts, and various qualitative factors.

The primary risk elements with respect to commercial loans are the financial condition of the borrower, the sufficiency of collateral, and timeliness of scheduled payments. We have a policy of requesting and reviewing periodic financial statements from commercial loan customers, and we have a disciplined and formalized review of the existence of collateral and its value. The primary risk element with respect to each residential mortgage loan and consumer loan is the timeliness of scheduled payments. We have a reporting system that monitors past due loans and have adopted policies to pursue creditors' rights in order to preserve our collateral position.

See Note 1 - Significant Accounting Policies in this Form 10-K for further detailed descriptions of our estimation process and methodology related to the allowance. See also Note 3 - Loans and Allowance for Credit Losses in this Form 10-K for further information regarding our loan portfolio and allowance.

The allowance equaled $42.2 million, or 1.08% of total loans, and over 500% of nonperforming loans, as of December 31, 2022. As of December 31, 2022, the allowance was comprised of $39.6 million in general reserves relating to performing loans and $2.6 million in specific reserves on other loans, primarily nonperforming loans. Troubled debt restructurings totaled $11.6 million at December 31, 2022, consisting of $6.1 million that are on nonaccrual status and $5.5 million that are on accrual status. The latter are not included in our nonperforming loan totals. Loans with an aggregate carrying value of $0.4 million as of December 31, 2022 had been subject to previous partial charge-offs aggregating $0.3 million over the past several years. As of December 31, 2022, there were no specific reserves allocated to loans that had been subject to a previous partial charge-off.

The following table provides a breakdown of our loans categorized as troubled debt restructurings:

	12/31/22	12/31/21	12/31/20	12/31/19	12/31/18
Performing	$ 5,470,000	$ 16,728,000	$ 23,133,000	$ 11,788,000	$ 19,223,000
Nonperforming	6,113,000	746,000	510,000	353,000	229,000
Total	$ 11,583,000	$ 17,474,000	$ 23,643,000	$ 12,141,000	$ 19,452,000

Although we believe the allowance is adequate to absorb loan losses in our originated loan portfolio as they arise, there can be no assurance that we will not sustain loan losses in any given period that could be substantial in relation to, or greater than, the size of the allowance.

Securities available for sale increased $10.2 million during 2022, totaling $603 million as of December 31, 2022. Purchases of U.S. Government agency bonds totaled $54.5 million during 2022, while purchases of U.S. Government agency guaranteed mortgage-backed securities totaled $2.1 million. There were no U.S. Government agency bond maturities or calls during 2022, while principal paydowns on U.S. Government agency guaranteed mortgage-backed securities totaled $5.8 million. Purchases of municipal bonds totaled $50.4 million during 2022; proceeds from matured and called municipal bonds totaled $12.1 million. At December 31, 2022, the portfolio was primarily comprised of U.S. Government agency bonds (65%), municipal bonds (30%), and U.S. Government agency guaranteed mortgage-backed securities (5%). All of our securities are currently designated as available for sale and are therefore stated at fair value. The fair value of securities designated as available for sale at December 31, 2022 totaled $603 million, including a net unrealized loss of $82.7 million. After we considered whether the securities were issued by the federal government or its agencies and whether downgrades by bond rating agencies had occurred, we determined that the unrealized losses were due to changing interest rate environments. As we do not intend to sell our debt securities before recovery of their cost basis, and we believe it is more likely than not that we will not be required to sell our debt securities before recovery of the cost basis, no unrealized losses are deemed to be other-than-temporary. We maintain the securities portfolio at levels to provide adequate pledging and secondary liquidity for our daily operations. In addition, the securities portfolio serves a primary interest rate risk management function. We expect upcoming purchases to generally consist of municipal bonds, with the securities portfolio maintained at about 12% of total assets.

The following table reflects the composition of the securities portfolio:

	12/31/22		12/31/21		12/31/20	
	Carrying Value	Percent	Carrying Value	Percent	Carrying Value	Percent
U.S. Government agency debt obligations	$388,744,000	64.5%	$390,371,000	65.9%	$242,141,000	62.5%
Mortgage-backed securities	31,953,000	5.3	41,803,000	7.0	24,890,000	6.4
Municipal general obligations	154,433,000	25.6	137,594,000	23.2	107,824,000	27.9
Municipal revenue bonds	27,306,000	4.5	22,475,000	3.8	11,992,000	3.1
Other investments	500,000	0.1	500,000	0.1	500,000	0.1
Totals	$602,936,000	100.0%	$592,743,000	100.0%	$387,347,000	100.0%

Market values on our U.S. Government agency bonds, mortgage-backed securities issued or guaranteed by U.S. Government agencies, and municipal bonds are generally determined on a monthly basis with the assistance of a third party vendor. Evaluated pricing models that vary by type of security and incorporate available market data are utilized. Standard inputs include issuer and type of security, benchmark yields, reported trades, broker/dealer quotes, and issuer spreads. The market value of certain non-rated securities issued by relatively small municipalities generally located within our markets is estimated at carrying value. We believe our valuation methodology provides for a reasonable estimation of market value, and that it is consistent with the requirements of accounting guidelines.

FHLBI stock totaled $17.7 million as of December 31, 2022, compared to $18.0 million as of December 31, 2021. The reduction reflects the FHLBI's repurchase of excess stock. Our investment in FHLBI stock is necessary to engage in their advance and other financing programs. We have regularly received quarterly cash dividends, and we expect a cash dividend will continue to be paid in future quarterly periods.

The following table shows by class of maturities as of December 31, 2022 the amounts and weighted average yields (on a fully taxable-equivalent basis) of investment securities:

	Carrying Value	Average Yield
Obligations of U.S. Government agencies:		
One year or less	$ 11,531,000	0.29%
Over one through five years	174,389,000	0.90
Over five through ten years	189,149,000	1.60
Over ten years	13,675,000	1.95
	388,744,000	1.26
Obligations of states and political subdivisions:		
One year or less	9,200,000	1.36
Over one through five years	52,968,000	2.39
Over five through ten years	82,503,000	2.65
Over ten years	37,068,000	3.51
	181,739,000	2.68
Mortgage-backed securities	31,953,000	2.10
Other investments	500,000	4.94
Totals	$ 602,936,000	1.72%

Interest-earning deposits, primarily consisting of funds deposited at the Federal Reserve Bank of Chicago, are used to manage daily liquidity needs and interest rate risk sensitivity. During 2022, the average balance of these funds equaled $445 million, or 9.3% of average earning assets, compared to $671 million, or 14.9% of average earning assets, during 2021. Typically, we maintain our interest-earning deposits at approximately $75 million, or about 2% of average earning assets. The elevated levels during 2022 and 2021 primarily reflected increased local deposits stemming from Covid-19-related federal government stimulus programs and reduced business and consumer investing and spending. The excess level of interest-earning deposits had a negative impact on our net interest margin. The level of interest-earning deposits was on a declining trend throughout 2022, as excess monies were used to fund loan growth as well as brokered deposit and FHLBI advance maturities. We also experienced a net decline in local deposit balances throughout 2022. Our deposit balance at the Federal Reserve Bank of Chicago equaled $29.4 million as of December 31, 2022.

Non-Earning Assets
Cash and due from bank balances averaged 1.5% of total assets during 2022, similar to the average level during 2021, and no significant changes are expected in future periods. Net premises and equipment equaled $51.5 million at December 31, 2022, representing a decrease of $5.8 million during 2022. The decline primarily reflected the sale of a branch facility located in Lansing, Michigan as part of a branch relocation project whereby we are moving our operations to a leased facility that better aligns with our operations in the greater Lansing area and provides for lower operating costs, along with depreciation expense. We had no foreclosed or repossessed assets as of December 31, 2022, unchanged from December 31, 2021.

Other assets equaled $95.0 million at December 31, 2022, reflecting an increase of $40.7 million during 2022. The increase is primarily associated with $21.1 million of growth in the fair value of interest rates swaps and a $16.6 million increase in a deferred tax benefit related to unrealized losses on available for sale securities.

Source of Funds
Total deposits decreased $370 million during 2022, totaling $3.71 billion as of December 31, 2022. Local deposits declined $346 million and out-of-area deposits decreased $23.9 million. We had no out-of-area deposits as of December 31, 2022, compared to $23.9 million, or 0.6% of total deposits, as of December 31, 2021. FHLBI advances decreased $65.7 million during 2022, totaling $308 million as of December 31, 2022.

Noninterest-bearing checking accounts declined $73.2 million during 2022, in large part during the fourth quarter due primarily from commercial customers withdrawing funds for the payment of taxes and bonuses. Interest-bearing checking accounts increased $36.2 million, while savings deposits declined $12.7 million. Money market deposit accounts decreased $263 million during 2022, primarily reflecting a single customer’s anticipated withdrawal of funds that had been deposited in late 2021 from the sale of a business. Local time deposits decreased $33.3 million during 2022. The $23.9 million reduction in out-of-area time deposits during 2022 reflects maturities that were not replaced as the funds were no longer needed.

Total local deposits had increased an aggregate $1.50 billion during 2020 and 2021. Noninterest-bearing checking accounts grew $753 million during this time period, while interest-bearing checking accounts and money market deposit accounts were up $206 million and $531 million, respectively. The increases in these transactional deposit products largely reflected federal government stimulus programs, especially the PPP, as well as lower business investing and spending. Deposit growth associated with new commercial lending relationships was also notable. Savings deposits were up $125 million, primarily reflecting the impact of federal government stimulus programs and lower consumer investing and spending.

Securities sold under agreements to repurchase (“sweep accounts”) decreased $3.1 million during 2022, totaling $194 million as of December 31, 2022. The aggregate balance of this funding type can be subject to relatively large daily fluctuations given the nature of the customers utilizing this product and the sizable balances that many of the customers maintain. The average balance of sweep accounts equaled $200 million during 2022, with a high balance of $236 million and a low balance of $173 million. Our sweep account program entails transferring collected funds from certain business noninterest-bearing checking accounts to overnight interest-bearing repurchase agreements. Such repurchase agreements are not deposit accounts and are not afforded federal deposit insurance. All of our repurchase agreements are accounted for as secured borrowings.

FHLBI advances declined $65.7 million during 2022, totaling $308 million as of December 31, 2022. Advance maturities aggregating $94.0 million were not replaced as the funds were no longer needed, while advances totaling $28.3 million were obtained to match-fund fixed rate longer term commercial lending relationships. FHLBI advances are primarily used to assist in funding loan demand, as well as playing an integral role in our interest rate risk management program. FHLBI advances are collateralized by residential mortgage loans, first mortgage liens on multi-family residential property loans, first mortgage liens on certain commercial real estate property loans, and substantially all other assets of our bank under a blanket lien arrangement. Our borrowing line of credit at year-end 2022 totaled $1.03 billion, with remaining availability based on collateral of $713 million.

On December 15, 2021, we entered into Subordinated Note Purchase Agreements with certain institutional accredited investors pursuant to which we issued and sold $75.0 million in aggregate principal amount of its 3.25% fixed-to-floating rate subordinated notes ("Notes"). The Notes have a stated maturity of January 30, 2032, are redeemable by us at our option, in whole or in part, on or after January 30, 2027 on any interest payment date at a redemption price of 100% of the principal amount of the Notes being redeemed. The Notes are not subject to redemption at the option of the holder. The Notes will bear interest at a fixed rate of 3.25% per year until January 29, 2027. Commencing on January 30, 2027 and through the stated maturity date of January 30, 2032, the interest rate will reset quarterly at a variable rate equal to the then-current Three-Month Term SOFR plus 212 basis points. On December 15, 2021, we injected $70.0 million of the issuance proceeds to our bank as an increase to equity capital.

On January 14, 2022, we issued an additional $15.0 million of its Notes to certain institutional accredited investors, reflecting an expansion of the $75.0 million issuance completed on December 15, 2021. The additional $15.0 million issuance was completed on the same terms as the prior offering and under the existing indenture. On January 14, 2022, we injected $15.0 million of the issuance proceeds to our bank as an increase to equity capital.

Shareholders' equity declined $15.2 million during 2022, totaling $441 million as of December 31, 2022. Positively impacting shareholders' equity was net income of $61.1 million, while negatively affecting shareholders' equity were cash dividends on our common stock totaling $19.6 million. Activity relating to the issuance and sale of common stock through various stock-based compensation programs and our dividend reinvestment plan positively impacted shareholders' equity by a total of $4.7 million. Negatively impacting shareholders' equity during 2022 was a $61.6 million increase in the after-tax net unrealized loss on available for sale securities.

RESULTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 2022 and 2021

Summary

We recorded net income of $61.1 million, or $3.85 per basic and diluted share, for 2022, compared to net income of $59.0 million, or $3.69 per basic and diluted share, for 2021. Diluted earnings per share increased $0.16, or 4.3%, during 2022 compared to 2021.

The higher level of net income during 2022 compared to 2021 reflected improved net interest income and lower noninterest expense, which more than offset decreased noninterest income and an increased provision for credit losses. The increase in net interest income resulted from a higher net interest margin and earning asset growth. Overhead costs declined in 2022 primarily due to reduced contributions to The Mercantile Bank Foundation and compensation-related costs. The reduction in noninterest income during 2022 mainly reflected decreased mortgage banking income and interest rate swap income, which outweighed increases in treasury management fee income. The provision expense recorded during 2022 was necessitated by the net increase in required reserve levels stemming from changes to several environmental factors that largely reflected enhanced inherent risk within the commercial loan and residential mortgage loan portfolios, loan growth, and increased specific reserves for certain distressed loan relationships. A higher reserve for residential mortgage loans reflecting slower principal prepayment rates and the associated extended average life of the portfolio also impacted provision expense during 2022. A negative loan loss provision expense was recorded in 2021, primarily reflecting reduced allocations attributable to improvement in both current and forecasted economic conditions and a net loan recovery.

Net Interest Income

Net interest income, the difference between revenue generated from earning assets and the interest cost of funding those assets, is our primary source of earnings. Interest income (adjusted for tax-exempt income) and interest expense totaled $182 million and $23.6 million, respectively, during 2022, providing for net interest income of $158 million. During 2021, interest income and interest expense equaled $144 million and $19.4 million, respectively, providing for net interest income of $124 million. In comparing 2022 with 2021, interest income increased 26.7%, interest expense was up 21.4%, and net interest income increased 27.5%. The level of net interest income is primarily a function of asset size, as the weighted average interest rate received on earning assets is greater than the weighted average interest cost of funding sources; however, factors such as types and levels of assets and liabilities, the interest rate environment, interest rate risk, asset quality, liquidity, and customer behavior also impact net interest income as well as the net interest margin.

The $34.2 million increase in net interest income in 2022 compared to 2021 resulted from an improved net interest margin and a higher level of average earning assets. During 2022, the net interest margin equaled 3.33%, up from 2.76% during 2021 due to a higher yield on average earning assets, which more than offset an increase in the cost of funds. The increased yield on average earning assets mainly resulted from a higher yield on loans and a change in earning asset mix, reflecting a decrease in low-yielding interest-earning deposits. The increased yield on loans primarily resulted from higher interest rates on variable-rate commercial loans stemming from the FOMC significantly raising the targeted federal funds rate in an effort to curb elevated inflation levels. The FOMC increased the targeted federal funds rate by 425 basis points during the period of March 2022 through December 2022. As of December 31, 2022, approximately 65% of the commercial loan portfolio consisted of variable-rate loans. Higher yields on other interest-earning assets and securities, reflecting the increased interest rate environment, also contributed to the improved yield on earning assets. During 2022, earning assets averaged $4.77 billion, representing an increase of $256 million, or 5.7%, from the $4.51 billion average during 2021. Average loans increased $382 million, average interest-earning deposits were down $226 million, and average securities were up $99.9 million. The cost of funds increased from 0.43% in 2021 to 0.50% in 2022 mainly due to higher costs of non-time deposits and trust preferred securities, reflecting the increased interest rate environment, and the issuance of subordinated notes totaling $90 million in December of 2021 and January of 2022. Subordinated note issuance proceeds of $85.0 million were injected into Mercantile Bank as an increase to equity capital to support expected loan growth.

A significant volume of excess on-balance sheet liquidity, which initially surfaced in the second quarter of 2020 in large part due to government stimulus programs related to the Covid-19 environment, negatively impacted the yield on average earning assets by 24 basis points and 46 basis points during 2022 and 2021, respectively, and the net interest margin by 19 basis points and 39 basis points during the respective periods. The excess funds, consisting almost entirely of low-yielding deposits with the Federal Reserve Bank of Chicago, were mainly a product of local deposit growth and PPP loan forgiveness activities.

The following table depicts the average balance, interest earned and paid, and weighted average rate of our assets, liabilities and shareholders' equity during 2022, 2021, and 2020. The subsequent table also depicts the dollar amount of change in interest income and interest expense of interest-earning assets and interest-bearing liabilities, respectively, segregated between change due to volume and change due to rate. Tax-exempt securities interest income and yield for 2022, 2021, and 2020 have been computed on a tax equivalent basis using a marginal tax rate of 21.0%. Securities interest income was increased by $0.2 million in 2022, 2021, and 2020 for this non-GAAP, but industry standard, adjustment. These adjustments equated to increases in our net interest margin of less than one basis point during all three years.

(Dollars in thousands)	Years ended December 31,								
	2022			2021			2020		
	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate	Average Balance	Interest	Average Rate
Taxable securities	$ 486,093	$ 7,603	1.56%	$ 390,720	$ 5,127	1.31%	$ 236,097	$ 7,740	3.28%
Tax-exempt securities	127,272	2,974	2.34	122,748	2,626	2.14	106,935	2,538	2.37
Total securities	613,365	10,577	1.72	513,468	7,753	1.51	343,032	10,278	3.00
Loans	3,706,505	166,848	4.50	3,324,611	135,048	4.06	3,167,065	137,399	4.34
Interest-earning deposits	445,236	4,654	1.05	671,351	933	0.14	356,501	876	0.25
Total earning assets	4,765,106	182,079	3.82	4,509,430	143,734	3.19	3,866,598	148,553	3.84
Allowance for credit losses	(36,993)			(38,003)			(30,164)		
Cash and due from banks	75,213			69,084			58,345		
Other non-earning assets	251,466			260,623			238,789		
Total assets	$5,054,792			$4,801,134			$4,133,568		
Interest-bearing checking accounts	$ 518,357	$ 1,926	0.37%	$ 498,119	$ 1,469	0.29%	$ 392,053	$ 1,263	0.32%
Savings deposits	404,284	105	0.03	378,312	146	0.04	297,825	185	0.06
Money market accounts	888,047	4,071	0.46	756,715	1,617	0.21	542,967	1,968	0.36
Time deposits	385,338	3,935	1.02	472,925	5,882	1.24	590,421	11,568	1.96
Total interest-bearing deposits	2,196,026	10,037	0.46	2,106,071	9,114	0.43	1,823,266	14,984	0.82
Short-term borrowings	200,561	294	0.15	158,855	170	0.11	137,658	173	0.13
Federal Home Loan Bank advances	354,136	7,125	2.01	392,575	8,177	2.08	386,896	8,571	2.22
Other borrowings	137,737	6,139	4.46	52,984	1,971	3.72	49,792	2,339	4.70
Total interest-bearing liabilities	2,888,460	23,595	0.82	2,710,485	19,432	0.72	2,397,612	26,067	1.09
Checking accounts	1,694,857			1,620,480			1,291,542		
Other liabilities	37,617			19,998			16,909		
Total liabilities	4,620,934			4,350,963			3,706,063		
Average equity	433,858			450,171			427,505		
Total liabilities and equity	$5,054,792			$4,801,134			$4,133,568		
Net interest income		$158,484			$124,302			$ 122,486	
Rate spread			3.00%			2.47%			2.75%
Net interest margin			3.33%			2.76%			3.17%

	Years ended December 31,					
	2022 over 2021			2021 over 2020		
	Total	Volume	Rate	Total	Volume	Rate
Increase (decrease) in interest income						
Taxable securities	$ 2,716,000	$ 1,400,000	$ 1,316,000	$ (2,613,000)	$ 3,482,000	$ (6,095,000)
Tax exempt securities	108,000	97,000	11,000	88,000	353,000	(265,000)
Loans	31,800,000	16,377,000	15,423,000	(2,351,000)	6,644,000	(8,995,000)
Interest-earning deposit balances	3,721,000	(415,000)	4,136,000	57,000	548,000	(491,000)
Net change in tax-equivalent interest income	38,345,000	17,459,000	20,886,000	(4,819,000)	11,027,000	(15,846,000)
Increase (decrease) in interest expense						
Interest-bearing demand deposits	457,000	62,000	395,000	206,000	320,000	(114,000)
Savings deposits	(41,000)	9,000	(50,000)	(39,000)	42,000	(81,000)
Money market accounts	2,454,000	323,000	2,131,000	(351,000)	619,000	(970,000)
Time deposits	(1,947,000)	(990,000)	(957,000)	(5,686,000)	(2,006,000)	(3,680,000)
Short-term borrowings	124,000	51,000	73,000	(3,000)	25,000	(28,000)
Federal Home Loan Bank advances	(1,052,000)	(780,000)	(272,000)	(394,000)	124,000	(518,000)
Other borrowings	4,168,000	3,709,000	459,000	(368,000)	143,000	(511,000)
Net change in interest expense	4,163,000	2,384,000	1,779,000	(6,635,000)	(733,000)	(5,902,000)
Net change in tax-equivalent net interest income	$ 34,182,000	$15,075,000	$ 19,107,000	$ 1,816,000	$ 11,760,000	$ (9,944,000)

Interest income is primarily generated from the loan portfolio, and to a significantly lesser degree, from securities and other interest-earning assets. Interest income increased $38.3 million during 2022 from that earned in 2021, totaling $182 million in 2022 compared to $144 million in 2021. The increase in interest income is attributable to a higher yield on average earning assets and the positive impact of an increased level of average earning assets. During 2022 and 2021, earning assets had an average yield (tax equivalent-adjusted basis) of 3.82% and 3.19%, respectively. The higher yield on average earning assets mainly resulted from an increased yield on loans and a change in earning asset mix. The increased yield on loans primarily reflected higher interest rates on variable-rate commercial loans stemming from the previously mentioned FOMC rate hikes. On average, lower-yielding interest-earning deposits represented 9.3% of earning assets during 2022, down from 14.9% during 2021, while higher-yielding loans represented 77.8% of earning assets during 2022, up from 73.7% during 2021. Interest-earning deposits decreased $881 million during 2022 as excess overnight funds were used to fund loan growth, brokered deposit and FHLBI advance maturities, and securities purchases. In addition, a customer's withdrawal of a majority of funds that were deposited in late 2021 following the sale of a business, as well as other fund withdrawals by customers to make customary tax and bonus payments, contributed to the lower level of interest-earning deposits. Improved yields on other interest-earning assets and securities, reflecting the increased interest rate environment, also contributed to the higher yield on average earning assets.

Interest income generated from the loan portfolio increased $31.8 million in 2022 compared to the level earned in 2021. Growth in the loan portfolio during 2022 resulted in a $16.4 million increase in interest income, while an upturn in loan yield from 4.06% in 2021 to 4.50% in 2022 resulted in a $15.4 million increase in interest income. The improved yield on loans mainly resulted from a higher yield on commercial loans, which increased from 4.09% during 2021 to 4.72% during 2022 primarily due to the aforementioned FOMC rate increases. The increase in loan yield during 2022 was achieved despite a significant reduction in PPP net loan fee accretion, which totaled $1.0 million and $10.8 million in 2022 and 2021, respectively.

Interest income generated from the securities portfolio increased $2.8 million in 2022 compared to the level earned in 2021. Growth in the average balance of the securities portfolio during 2022 resulted in an increase in interest income of $1.5 million, while an increase in the yield on securities from 1.51% during 2021 to 1.72% during 2022 resulted in a $1.3 million increase in interest income. Interest income on interest-earning deposits increased $3.7 million in 2022 from the level earned in 2021; a higher yield on these balances resulted in an increase in interest income of $4.1 million, while a reduction in the average balance of these balances resulted in a decrease in interest income of $0.4 million.

Interest expense is generated from interest-bearing deposits and borrowed funds. Interest expense increased $4.2 million during 2022 from that expensed in 2021, totaling $23.6 million in 2022 compared to $19.4 million in 2021. Growth in the average balance of interest-bearing liabilities during 2022 resulted in an increase in interest expense of $2.4 million, while an increase in the cost of these liabilities resulted in a $1.8 million increase in interest expense. During 2022, interest-bearing liabilities averaged $2.89 billion, representing an increase of $178 million, or 6.6%, from the $2.71 billion average during 2021; average interest-bearing deposits and borrowings were up $90.0 million and $88.0 million, respectively. During 2022 and 2021, interest-bearing liabilities had a weighted average rate of 0.82% and 0.72%, respectively. The higher average cost of interest-bearing liabilities mainly resulted from increased costs of non-time deposit accounts and borrowings, which more than offset a decreased cost of time deposits.

The cost of interest-bearing non-time deposit accounts increased from 0.20% during 2021 to 0.34% during 2022, primarily reflecting higher interest rates paid on money market accounts; the higher interest rates mainly reflected the increased interest rate environment. The cost of borrowed funds increased from 1.71% during 2021 to 1.96% during 2022, primarily reflecting a higher cost of subordinated debentures and the issuance of subordinated notes. The cost of subordinated debentures was 5.89% during 2022, up from 3.80% during 2021, reflecting the increased interest rate environment. Subordinated notes totaling $90 million were issued in December of 2021 and January of 2022, with $85.0 million of the proceeds being injected into Mercantile Bank as an increase to equity capital to support expected loan growth. The cost of time deposits declined from 1.24% during 2021 to 1.02% during 2022 primarily due to lower rates paid on local time deposits.

A higher average rate paid on interest-bearing non-time deposits during 2022 resulted in a $2.5 million increase in interest expense, while $178 million of growth in the average balance of these deposits equated to a $0.4 million increase in interest expense. An $87.6 million decrease in the average balance of time deposits equated to a $1.0 million reduction in interest expense during 2022, while a lower average rate paid on time deposits also resulted in a $1.0 million decrease in interest expense. Interest expense related to short-term borrowings, which are comprised entirely of sweep accounts, increased slightly during 2022 due to a higher rate paid on, along with growth in the average balance of, these funds. A $38.4 million decline in the average balance of FHLBI advances during 2022 resulted in a $0.8 million reduction in interest expense, while a lower average rate paid on these borrowings resulted in a $0.3 million reduction in interest expense. An $84.8 million increase in the average balance of other borrowings, mainly reflecting the previously mentioned issuance of subordinated notes, during 2022 equated to a $3.7 million increase in interest expense, while an increased average rate paid on these borrowings resulted in a $0.5 million increase in interest expense.

Provision for Credit Losses

A provision for credit losses of $6.6 million was recorded during 2022, compared to a negative provision expense of $4.3 million during 2021. The provision expense recorded during 2022 primarily reflected the net increase in required reserve levels resulting from changes to several environmental factors that were implemented mainly in response to heightened inherent risk within the commercial loan and residential mortgage loan portfolios, loan growth, and increased specific reserves for certain distressed loan relationships. A higher reserve for residential mortgage loans stemming from slower principal prepayment rates and the associated extended average life of the portfolio also impacted provision expense during 2022. The negative provision expense recorded during 2021 primarily reflected diminished allocations attributable to improvement in both current and forecasted economic conditions and a net loan recovery, which more than offset required reserve allocations necessitated by loan growth.

During 2022, loan charge-offs totaled $0.3 million, while recoveries of prior period loan charge-offs equaled $1.0 million, providing for net loan recoveries of $0.7 million, or 0.02% of average total loans. During 2021, loan charge-offs totaled $1.0 million, while recoveries of prior period loan charge-offs equaled $2.7 million, providing for net loan recoveries of $1.7 million, or 0.05% of average total loans. The allowance for credit losses, as a percentage of total loans, was 1.1% and 1.0% as of December 31, 2022 and December 31, 2021, respectively.

Noninterest Income
Noninterest income during 2022 was $32.1 million, compared to $56.2 million during 2021. Noninterest income during 2022 included a $0.5 million bank owned life insurance death benefit claim, while noninterest income during 2021 included a $1.1 million gain on the sale of a branch facility, a $0.6 million recovery of loan collection costs, and $0.5 million in gains on the sales of former branch facilities. Excluding these transactions, noninterest income decreased $22.6 million in 2022 compared to 2021.

The lower level of noninterest income during 2022 primarily stemmed from decreased mortgage banking income, which more than offset growth in several key fee income sources, including service charges on accounts, credit and debit card income, and payroll servicing fees. Reduced interest rate swap income, reflecting lower transaction volume, contributed to the decreased level of noninterest income during 2022. Higher interest rates, lower refinancing activity, a reduced sold percentage, and a decreased gain on sale rate negatively impacted mortgage banking income during 2022. Sustained strength in purchase mortgage originations during 2022 partially mitigated the impact of these factors. The residential mortgage loan sold percentage declined from approximately 68% during 2021 to approximately 35% during 2022. The decreased sold percentage in large part reflects customers' preferences for adjustable-rate loans in the current interest rate environment and construction loans representing an increased percentage of overall loan production. In aggregate, service charges on accounts, credit and debit card income, and payroll servicing fees were up approximately 13% during 2022 compared to 2021.

Noninterest Expense
Noninterest expense totaled $108 million during 2022, compared to $111 million during 2021. Overhead costs during 2022 included $1.5 million in charitable contributions to The Mercantile Bank Foundation (the "Foundation") and a $0.3 million net loss on the sale of a former branch facility, while overhead costs during the prior year included $4.0 million in expenses and contributions associated with the formation and initial funding of the Foundation and $0.6 million in net losses on sales and write-downs of former branch facilities. Excluding these transactions, noninterest expense decreased nominally during 2022 compared to 2021.

Compensation-related costs, in large part reflecting higher residential mortgage loan deferred salary costs, reduced residential mortgage lender commissions and associated incentives, and lower stock-based compensation costs, declined in 2022 compared to 2021. The increased residential mortgage loan deferred salary costs reflected the outcome of an updated loan origination cost study and resulting higher allocated cost per loan, while the decreased residential mortgage lender commissions and associated incentives resulted from reduced loan production, in large part reflecting lower refinancing activity. Regular salary costs, primarily reflecting annual merit pay increases and market adjustments, and a bonus accrual were up in 2022. Data processing costs, mainly depicting higher transaction volume and software support costs, and other employee costs, consisting mainly of meals, training, travel, and mileage, also increased in 2022. The higher level of other employee costs primarily reflected the easing of Covid-19 pandemic-related restrictions.

Federal Income Tax Expense
During 2022, we recorded income before federal income tax of $75.8 million and a federal income tax expense of $14.7 million, compared to income before federal income tax of $73.7 million and a federal income tax expense of $14.7 million during 2021. The less than $0.1 million increase in federal income tax expense in 2022 compared to 2021 resulted from the slightly higher level of income before federal income tax. Our effective tax rate was 19.4% during 2022, compared to 19.9% during 2021. The aforementioned bank owned life insurance death benefit claim, substantially all of which was nontaxable, positively impacted the effective tax rate in 2022.

Future changes in tax laws could have a material effect on our business, cash flows, financial condition, results of operations, tax liability, and effective tax rate. On August 16, 2022, the Inflation Reduction Act of 2022 (the "IR Act") was signed into federal law. The IR Act provides for a new U.S. federal 1% excise tax on certain repurchases of stock by publicly traded U.S. domestic corporations and certain U.S. domestic subsidiaries of publicly traded foreign corporations occurring on or after January 1, 2023. The excise tax is imposed on the repurchasing corporation itself, not its shareholders from which shares are repurchased. The amount of the excise tax is generally 1% of the fair market value of the shares repurchased at the time of the repurchase. However, for purposes of calculating the excise tax, repurchasing corporations are permitted to net the fair market value of certain new stock issuances against the fair market value of stock repurchases during the same taxable year. In addition, certain exceptions apply to the excise tax, such as repurchases under $1 million.

Any redemption or other repurchase that occurs after December 31, 2022, in connection with a business combination, extension vote, or otherwise, may be subject to the excise tax. Whether and to what extent we would be subject to the excise tax in connection with a business combination, extension vote, or otherwise would depend on a number of factors, including: (i) the fair market value of the redemptions and repurchases in connection with the business combination, extension, or otherwise; (ii) the structure of a business combination; (iii) the nature and amount of any equity issuances in connection with a business combination (or otherwise issued not in connection with a business combination but issued within the same taxable year of a business combination); and (iv) the content of regulations and other guidance from the U.S. Department of the Treasury.

The IR Act also included a new 15% Corporate Alternative Minimum Tax ("CAMT") that acts as a new book minimum tax of at least 15% of consolidated GAAP pre-tax income for corporations with average book income in excess of $1 billion. Any increase in our effective tax rate will depend on a number of factors, including any offsets for general business credits or changes in book income following business combinations. The CAMT is effective for tax years beginning on or after January 1, 2023. Lastly, the IR Act also creates a number of potentially beneficial tax credits to incentivize investments in certain technologies and industries.

We are in the process of evaluating the potential impacts of the IR Act. While we do not believe the IR Act will have a material negative impact on our business or our financial performance, the effects of the measures are unknown at this time. Our analysis is ongoing and incomplete, and it is possible that the IR Act could ultimately have a material adverse effect on our tax liability. We continue to monitor the IR Act and related regulatory developments to evaluate their potential impact on our business, tax rate, and financial results.

CAPITAL RESOURCES

Shareholders' equity declined $15.2 million during 2022, totaling $441 million as of December 31, 2022. Positively impacting shareholders' equity was net income of $61.1 million, while negatively affecting shareholders' equity were cash dividends on our common stock totaling $19.6 million. Activity relating to the issuance and sale of common stock through various stock-based compensation programs and our dividend reinvestment plan positively impacted shareholders' equity by a total of $4.7 million. Negatively impacting shareholders' equity during 2022 was a $61.6 million increase in the after-tax net unrealized loss on available for sale securities.

We and our bank are subject to regulatory capital requirements administered by state and federal banking agencies. Failure to meet the various capital requirements can initiate regulatory action that could have a direct material effect on the financial statements. As of December 31, 2022, our bank's total risk-based capital ratio was 13.7%, compared to 13.6% at December 31, 2021. Our bank's total regulatory capital increased $66.9 million during 2022, primarily reflecting the net impact of net income totaling $70.2 million, a $15.0 million equity capital injection from us in association with the $15.0 million issuance of subordinated notes in January 2022, and cash dividends paid to us aggregating $26.0 million. Our bank's total risk-based capital ratio was also impacted by a $482 million increase in total risk-weighted assets, in large part reflecting growth in commercial loans and residential mortgage loans. As of December 31, 2022, our bank's total regulatory capital equaled $619 million, or approximately $166 million in excess of the amount necessary to attain the 10.0% minimum total risk-based capital ratio, which is among the requirements to be categorized as "well capitalized."

We maintain a stock repurchase program, which is discussed in Part II, Item 5 "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" in this Annual Report.

LIQUIDITY

Liquidity is measured by our ability to raise funds through deposits, borrowed funds, capital or cash flow from the repayment of loans and securities. These funds are used to fund loans, meet deposit withdrawals, maintain reserve requirements and operate our company. Liquidity is essential to our business. An inability to maintain sufficient funds through deposits, borrowings, the sale of assets, and other sources could have a material adverse effect on our liquidity. Our access to funding sources in amounts adequate to finance our activities could be impaired by factors that affect us specifically or the financial services industry in general. Liquidity is primarily achieved through local and out-of-area deposits and liquid assets such as securities available for sale, matured and called securities, federal funds sold, and interest-earning deposit balances. Asset and liability management is the process of managing the balance sheet to achieve a mix of earning assets and liabilities that maximizes profitability, while providing adequate liquidity.

To assist in providing needed funds, we have regularly obtained monies from wholesale funding sources. Wholesale funds, comprised of deposits from customers outside of our market areas and advances from the FHLBI, totaled $308 million, or 7.3% of combined deposits and borrowed funds as of December 31, 2022, compared to $398 million, or 8.5% of combined deposits and borrowed funds, as of December 31, 2021. We had no out-of-area deposits as of December 31, 2022, compared to $23.9 million as of December 31, 2021.

Sweep accounts decreased $3.1 million during 2022, totaling $194 million as of December 31, 2022. The aggregate balance of this funding type can be subject to relatively large daily fluctuations given the nature of the customers utilizing this product and the sizable balances that many of the customers maintain. The average balance of sweep accounts equaled $200 million during 2022, with a high balance of $236 million and a low balance of $173 million. Our sweep account program entails transferring collected funds from certain business noninterest-bearing checking accounts to overnight interest-bearing repurchase agreements. Such repurchase agreements are not deposit accounts and are not afforded federal deposit insurance. All of our repurchase agreements are accounted for as secured borrowings.

Information regarding our repurchase agreements as of December 31, 2022 and during 2022 is as follows:

Outstanding balance at December 31, 2022	$ 194,340,000
Weighted average interest rate at December 31, 2022	0.75%
Maximum daily balance twelve months ended December 31, 2022	$ 235,577,000
Average daily balance for twelve months ended December 31, 2022	$ 200,499,000
Weighted average interest rate for twelve months ended December 31, 2022	0.15%

FHLBI advances declined $65.7 million during 2022, totaling $308 million as of December 31, 2022. Advance maturities aggregating $94.0 million were not replaced as the funds were no longer needed, while advances totaling $28.3 million were obtained to match-fund fixed rate longer term commercial lending relationships. FHLBI advances are primarily used to assist in funding loan demand, as well as playing an integral role in our interest rate risk management program. FHLBI advances are collateralized by residential mortgage loans, first mortgage liens on multi-family residential property loans, first mortgage liens on certain commercial real estate property loans, and substantially all other assets of our bank under a blanket lien arrangement. Based on collateral, our aggregate borrowing capacity at year-end 2022 totaled $1.03 billion, with availability of $713 million.

We also have the ability to borrow up to $70.0 million on a daily basis through correspondent banks using established unsecured federal funds purchased lines of credit, with an average balance of less than $0.1 million during 2022. In contrast, our interest-earning deposit account at the Federal Reserve Bank of Chicago averaged $439 million during 2022. We have a line of credit through the Discount Window of the Federal Reserve Bank of Chicago. Based on pledged municipal bonds, we could have borrowed up to $27.2 million at December 31, 2022. We have not utilized this line of credit in over ten years, and we do not plan to access this line of credit in future periods.

The following table reflects, as of December 31, 2022, significant fixed and determinable contractual obligations to third parties by payment date, excluding accrued interest:

	One Year or Less	One to Three Years	Three to Five Years	Over Five Years	Total
Deposits without a stated maturity	$3,338,103,000	$ 0	$ 0	$ 0	$3,338,103,000
Certificates of deposit	188,887,000	90,487,000	95,334,000	0	374,708,000
Short-term borrowings	194,340,000	0	0	0	194,340,000
Federal Home Loan Bank advances	80,353,000	131,688,000	71,837,000	24,385,000	308,263,000
Subordinated debentures	0	0	0	48,958,000	48,958,000
Subordinated notes	0	0	0	88,628,000	88,628,000
Other borrowed money	0	0	0	1,106,000	1,106,000
Property leases	1,091,000	1,326,000	627,000	1,589,000	4,633,000

In addition to normal loan funding and deposit flow, we must maintain liquidity to meet the demands of certain unfunded loan commitments and standby letters of credit. At December 31, 2022, we had a total of $1.88 billion in unfunded loan commitments and $23.5 million in unfunded standby letters of credit. Of the total unfunded loan commitments, $1.56 billion were commitments available as lines of credit to be drawn at any time as customers' cash needs vary, and $330 million were for loan commitments generally expected to be accepted and become funded within the next 12 to 18 months. We regularly monitor fluctuations in loan balances and commitment levels, and include such data in our liquidity management.

The following table depicts our loan commitments at the end of the past three years:

	12/31/22	12/31/21	12/31/20
Commercial unused lines of credit	$ 1,283,703,000	$ 1,098,951,000	$ 1,019,496,000
Unused lines of credit secured by 1-4 family residential properties	71,972,000	64,313,000	59,396,000
Credit card unused lines of credit	123,687,000	92,146,000	72,495,000
Other consumer unused lines of credit	75,747,000	64,876,000	30,707,000
Commitments to make loans	329,646,000	212,476,000	227,558,000
Standby letters of credit	23,539,000	33,109,000	20,543,000
Total	$ 1,908,294,000	$ 1,565,871,000	$ 1,430,195,000

We monitor our liquidity position and funding strategies on an ongoing basis, but recognize that unexpected events, economic or market conditions, reductions in earnings performance, declining capital levels, or situations beyond our control could cause liquidity challenges. While we believe it is unlikely that a funding crisis of any significant degree is likely to materialize, we have developed a comprehensive contingency funding plan that provides a framework for meeting liquidity disruptions.

MARKET RISK ANALYSIS

Our primary market risk exposure is interest rate risk and, to a lesser extent, liquidity risk and inflation risk. All of our transactions are denominated in U.S. dollars with no specific foreign exchange exposure. We have only limited agricultural-related loan assets and therefore have no significant exposure to changes in commodity prices. Any impact that changes in foreign exchange rates and commodity prices would have on interest rates is assumed to be insignificant. Interest rate risk is the exposure of our financial condition to adverse movements in interest rates.

Inflation risk is the risk that the values of assets or income from investments will be worth less in the future as inflation decreases the value of money. Recently, there has been a pronounced rise in inflation. As a result, the FOMC has significantly increased interest rates and has indicated its intention to continue doing so in an effort to combat inflation. As inflation increases, the value of our investment securities, particularly those with fixed rates and longer maturities, declines. In addition, inflation increases salary and benefit costs, as well as the cost of goods and services we use in our business operations, such as electricity and other utilities, which increases our noninterest expenses. Furthermore, our customers are also affected by inflation and the rising costs of goods and services used in their households and businesses, which could have a negative impact on their ability to repay their loans with us.

We derive our income primarily from the excess of interest collected on interest-earning assets over the interest paid on interest-bearing liabilities. The rates of interest we earn on our assets and owe on our liabilities generally are established contractually for a period of time. Since market interest rates change over time, we are exposed to lower profitability if we cannot adapt to interest rate changes. Accepting interest rate risk can be an important source of profitability and shareholder value; however, excessive levels of interest rate risk could pose a significant threat to our earnings and capital base. Accordingly, effective risk management that maintains interest rate risk at prudent levels is essential to our safety and soundness.

Evaluating the exposure to changes in interest rates includes assessing both the adequacy of the process used to control interest rate risk and the quantitative level of exposure. Our interest rate risk management process seeks to ensure that appropriate policies, procedures, management information systems, and internal controls are in place to maintain interest rate risk at prudent levels with consistency and continuity. In evaluating the quantitative level of interest rate risk, we assess the existing and potential future effects of changes in interest rates on our financial condition, including capital adequacy, earnings, liquidity, and asset quality.

We use two interest rate risk measurement techniques. The first, which is commonly referred to as GAP analysis, measures the difference between the dollar amounts of interest-sensitive assets and liabilities that will be refinanced or repriced during a given time period. A significant repricing gap could result in a negative impact to the net interest margin during periods of changing market interest rates.

The following table depicts our GAP position as of December 31, 2022:

	Within Three Months	Three to Twelve Months	One to Five Years	After Five Years	Total
Assets:					
Commercial loans (1)	$1,993,191,000	$ 100,353,000	$ 903,670,000	$ 206,045,000	$3,203,259,000
Residential real estate loans	49,666,000	17,420,000	157,904,000	474,846,000	699,836,000
Consumer loans	3,079,000	418,000	9,299,000	728,000	13,524,000
Securities (2)	20,430,000	18,858,000	230,791,000	350,578,000	620,657,000
Interest-earning deposits	31,128,000	1,500,000	2,250,000	0	34,878,000
Mortgage loans held for sale	3,565,000	0	0	0	3,565,000
Allowance for credit losses	0	0	0	0	(42,246,000)
Other assets	0	0	0	0	339,146,000
Total assets	2,101,059,000	138,549,000	1,303,914,000	1,032,197,000	$4,872,619,000
Liabilities:					
Interest-bearing checking	575,028,000	0	0	0	575,028,000
Savings deposits	381,602,000	0	0	0	381,602,000
Money market accounts	776,723,000	0	0	0	776,723,000
Time deposits under $100,000	17,184,000	51,630,000	44,285,000	0	113,099,000
Time deposits $100,000 & over	40,538,000	79,535,000	141,536,000	0	261,609,000
Short-term borrowings	194,340,000	0	0	0	194,340,000
Federal Home Loan Bank advances	10,353,000	70,000,000	203,525,000	24,385,000	308,263,000
Other borrowed money	50,064,000	0	88,628,000	0	138,692,000
Noninterest-bearing checking	0	0	0	0	1,604,750,000
Other liabilities	0	0	0	0	77,105,000
Total liabilities	2,045,832,000	201,165,000	477,974,000	24,385,000	4,431,211,000
Shareholders' equity	0	0	0	0	441,408,000
Total liabilities & shareholders' equity	2,045,832,000	201,165,000	477,974,000	24,385,000	$4,872,619,000
Net asset (liability) GAP	$ 55,227,000	$ (62,616,000)	$ 825,940,000	$1,007,812,000	
Cumulative GAP	$ 55,227,000	$ (7,389,000)	$ 818,551,000	$1,826,363,000	
Percent of cumulative GAP to total assets	1.1%	(0.2%)	16.8%	37.5%	

(1) Floating rate loans that are currently at interest rate floors are treated as fixed rate loans and are reflected using maturity date and not repricing frequency.

(2) Mortgage-backed securities are categorized by expected maturities based upon prepayment trends as of December 31, 2022.

The second interest rate risk measurement used is commonly referred to as net interest income simulation analysis. We believe that this methodology provides a more accurate measurement of interest rate risk than the GAP analysis, and therefore, it serves as our primary interest rate risk measurement technique. The simulation model assesses the direction and magnitude of variations in net interest income resulting from potential changes in market interest rates.

Key assumptions in the model include prepayment speeds on various loan and investment assets; cash flows and maturities of interest-sensitive assets and liabilities; and changes in market conditions impacting loan and deposit volume and pricing. These assumptions are inherently uncertain and subject to fluctuation and revision in a dynamic environment; therefore, the model cannot precisely estimate net interest income or exactly predict the impact of higher or lower interest rates on net interest income. Actual results will differ from simulated results due to timing, magnitude, and frequency of interest rate changes and changes in market conditions and our strategies, among other factors.

We conducted multiple simulations as of December 31, 2022, in which it was assumed that changes in market interest rates occurred ranging from up 300 basis points to down 300 basis points in equal quarterly instalments over the next twelve months. The following table reflects the suggested dollar and percentage changes in net interest income over the next twelve months in comparison to the $185 million in net interest income projected using our balance sheet amounts and anticipated replacement rates as of December 31, 2022. The resulting estimates are generally within our policy parameters established to manage and monitor interest rate risk.

Interest Rate Scenario		Dollar Change In Net Interest Income	Percent Change In Net Interest Income
Interest rates down 300 basis points	$	(12,400,000)	(6.7%)
Interest rates down 200 basis points		(11,400,000)	(6.2)
Interest rates down 100 basis points		(4,900,000)	(2.6)
Interest rates up 100 basis points		5,400,000	2.9
Interest rates up 200 basis points		11,300,000	6.1
Interest rates up 300 basis points		17,100,000	9.3

In addition to changes in interest rates, the level of future net interest income is also dependent on a number of other variables, including: the growth, composition, and absolute levels of loans, deposits, and other earning assets and interest-bearing liabilities; level of nonperforming assets; economic and competitive conditions; potential changes in lending, investing, and deposit gathering strategies; client preferences; and other factors.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors
Mercantile Bank Corporation
Grand Rapids, Michigan

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Mercantile Bank Corporation (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income (loss), changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

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, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated March 3, 2023 expressed an unqualified opinion thereon.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for the recognition and measurement of credit losses as of January 1, 2022 due to the adoption of ASC Topic 326, Financial Instruments – Credit Losses. Our opinion is not modified with respect to this matter.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit 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 – General Reserve

As described in Notes 1 and 3 to the Company's consolidated financial statements, the Company has a gross loan balance of $3,916,619,000 and related allowance for credit losses balance of $42,246,000 at December 31, 2022. The allowance for credit losses consists of quantitative and qualitative components. The Company considers historical loss experience, current economic and business conditions, as well as reasonable and supportable forecasts to develop the quantitative component. This quantitative component is then adjusted for qualitative environmental factors that involve significant assumptions that require a high degree of management's judgment.

We identified management's selection of reasonable and supportable forecasts that represents market conditions in which the Company operates, as well as significant assumptions used in the determination of certain qualitative environmental factors of the allowance for credit losses as a critical audit matter. Management's selection of a reasonable and supportable forecast and assumptions related to certain qualitative environmental factors, which are used to adjust the quantitative historical losses (both upwards and downwards), are highly subjective and could have a significant impact on the allowance for credit losses. Auditing these complex judgments and assumptions involved especially challenging auditor judgment due to the nature and extent of audit evidence and effort required to address these matters, including the extent of specialized skill and knowledge needed.

The primary procedures we performed to address this critical audit matter included:

- Testing the design and operating effectiveness of internal controls over management's review of the reasonable and supportable forecasts. As well as their review of certain qualitative environmental factors.

- Utilizing personnel with specialized skill and knowledge to assist with evaluating the reliability of the reasonable and supportable forecasts used by management by comparing to other external forecast sources, including considerations of contradictory evidence, and evaluating the reasonableness of management's conclusions that the forecasts used represent geographic areas for which the Company services.

- Evaluating the reliability of the data and assumptions used by management to support their assessment of certain qualitative environmental factors by vouching to internal and external sources, including considerations of contradictory evidence.

- Evaluating the reasonableness of management's conclusion on the qualitative assessment and the resulting adjustment to the allowance.

/s/ BDO USA, LLP
BDO USA, LLP

We have served as the Company's auditor since 2006.

Grand Rapids, Michigan
March 3, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors
Mercantile Bank Corporation
Grand Rapids, Michigan

Opinion on Internal Control over Financial Reporting

We have audited Mercantile Bank Corporation's (the "Company's") internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

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, 2022 and 2021, the related consolidated statements of income, comprehensive income (loss), changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and our report dated March 3, 2023 expressed an unqualified opinion thereon.

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 Report by Mercantile Bank Corporation's Management 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 U.S. federal securities laws and applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting 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 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/ BDO USA, LLP
BDO USA, LLP
Grand Rapids, Michigan
March 3, 2023

REPORT BY MERCANTILE BANK CORPORATION'S MANAGEMENT
ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining an effective system of internal control over financial reporting that is designed to produce reliable financial statements presented in conformity with generally accepted accounting principles. There are inherent limitations in the effectiveness of any system of internal control. Accordingly, even an effective system of internal control can provide only reasonable assurance with respect to financial statement preparation.

Management assessed the Company's system of internal control over financial reporting that is designed to produce reliable financial statements presented in conformity with generally accepted accounting principles as of December 31, 2022. This assessment was based on criteria for effective internal control over financial reporting described in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management believes that, as of December 31, 2022, Mercantile Bank Corporation maintained an effective system of internal control over financial reporting that is designed to produce reliable financial statements presented in conformity with generally accepted accounting principles based on those criteria.

The Company's independent auditors have issued an audit report on the effectiveness of the Company's internal control over financial reporting as found on page F-31.

Mercantile Bank Corporation

/s/ Robert B. Kaminski, Jr.
Robert B. Kaminski, Jr.
President and Chief Executive Officer

/s/ Charles E. Christmas
Charles E. Christmas
Executive Vice President, Chief Financial Officer and Treasurer

MERCANTILE BANK CORPORATION
CONSOLIDATED BALANCE SHEETS
December 31, 2022 and 2021

	2022	2021
ASSETS		
Cash and due from banks	$ 61,894,000	$ 59,405,000
Interest-earning deposits	34,878,000	915,755,000
Total cash and cash equivalents	96,772,000	975,160,000
Securities available for sale	602,936,000	592,743,000
Federal Home Loan Bank stock	17,721,000	18,002,000
Mortgage loans held for sale	3,565,000	16,117,000
Loans	3,916,619,000	3,453,459,000
Allowance for credit losses	(42,246,000)	(35,363,000)
Loans, net	3,874,373,000	3,418,096,000
Premises and equipment, net	51,476,000	57,298,000
Bank owned life insurance	80,727,000	75,242,000
Goodwill	49,473,000	49,473,000
Core deposit intangible, net	583,000	1,351,000
Other assets	94,993,000	54,267,000
Total assets	$ 4,872,619,000	$ 5,257,749,000
LIABILITIES AND SHAREHOLDERS' EQUITY		
Deposits		
Noninterest-bearing	$ 1,604,750,000	$ 1,677,952,000
Interest-bearing	2,108,061,000	2,405,241,000
Total deposits	3,712,811,000	4,083,193,000
Securities sold under agreements to repurchase	194,340,000	197,463,000
Federal Home Loan Bank advances	308,263,000	374,000,000
Subordinated debentures	48,958,000	48,244,000
Subordinated notes	88,628,000	73,646,000
Accrued interest and other liabilities	78,211,000	24,644,000
Total liabilities	4,431,211,000	4,801,190,000
Commitments and contingent liabilities (Note 13)		
Shareholders' equity		
Preferred stock, no par value; 1,000,000 shares authorized; 0 shares outstanding at December 31, 2022 and December 31, 2021	0	0
Common stock, no par value; 40,000,000 shares authorized; 15,994,884 shares outstanding at December 31, 2022 and 15,839,944 shares outstanding at December 31, 2021	290,436,000	285,752,000
Retained earnings	216,313,000	174,536,000
Accumulated other comprehensive gain/(loss)	(65,341,000)	(3,729,000)
Total shareholders' equity	441,408,000	456,559,000
Total liabilities and shareholders' equity	$ 4,872,619,000	$ 5,257,749,000

See accompanying notes to consolidated financial statements.

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
Years ended December 31, 2022, 2021 and 2020

	2022	2021	2020
Interest income			
Loans, including fees	$ 166,848,000	$ 135,048,000	$ 137,399,000
Securities, taxable	7,603,000	5,127,000	7,740,000
Securities, tax-exempt	2,734,000	2,386,000	2,298,000
Other interest-earning assets	4,654,000	933,000	876,000
Total interest income	181,839,000	143,494,000	148,313,000
Interest expense			
Deposits	10,037,000	9,114,000	14,984,000
Short-term borrowings	294,000	170,000	173,000
Federal Home Loan Bank advances	7,125,000	8,177,000	8,571,000
Subordinated debentures and other borrowings	6,139,000	1,971,000	2,339,000
Total interest expense	23,595,000	19,432,000	26,067,000
Net interest income	158,244,000	124,062,000	122,246,000
Provision (benefit) for credit losses	6,550,000	(4,300,000)	14,050,000
Net interest income after provision for credit losses	151,694,000	128,362,000	108,196,000
Noninterest income			
Service charges on deposit and sweep accounts	5,952,000	5,078,000	4,578,000
Mortgage banking activities	8,664,000	29,959,000	29,346,000
Credit and debit card fees	8,216,000	7,516,000	5,973,000
Interest rate swap program fees	3,488,000	6,862,000	932,000
Payroll processing	2,178,000	1,815,000	1,745,000
Earnings on bank owned life insurance	1,678,000	1,164,000	1,214,000
Gain on sale of branch	0	1,058,000	0
Other income	1,901,000	2,768,000	1,384,000
Total noninterest income	32,077,000	56,220,000	45,172,000
Noninterest expense			
Salaries and benefits	65,124,000	66,447,000	59,799,000
Occupancy	8,362,000	8,088,000	7,950,000
Furniture and equipment rent, depreciation and maintenance	3,614,000	3,654,000	3,350,000
Data processing	12,359,000	11,104,000	10,440,000
Advertising	1,445,000	1,175,000	1,292,000
FDIC insurance costs	1,239,000	1,820,000	1,138,000
Charitable foundation contributions	1,514,000	4,020,000	0
Other expense	14,324,000	14,558,000	14,551,000
Total noninterest expenses	107,981,000	110,866,000	98,520,000
Income before federal income tax expense	75,790,000	73,716,000	54,848,000
Federal income tax expense	14,727,000	14,695,000	10,710,000
Net income	$ 61,063,000	$ 59,021,000	$ 44,138,000
Earnings per common share:			
Basic	$ 3.85	$ 3.69	$ 2.71
Diluted	$ 3.85	$ 3.69	$ 2.71

See accompanying notes to consolidated financial statements.

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
Years ended December 31, 2022, 2021 and 2020

	2022	2021	2020
Net income	$ 61,063,000	$ 59,021,000	$ 44,138,000
Other comprehensive income (loss):			
Unrealized holding gains (losses) on securities available for sale	(77,990,000)	(11,664,000)	2,268,000
Total other comprehensive income (loss)	(77,990,000)	(11,664,000)	2,268,000
Tax effect of unrealized holding gains (losses) on securities available for sale	16,378,000	2,449,000	(477,000)
Total tax effect of other comprehensive income (loss)	16,378,000	2,449,000	(477,000)
Other comprehensive income (loss), net of tax effect	(61,612,000)	(9,215,000)	1,791,000
Comprehensive income (loss)	**$ (549,000)**	**$ 49,806,000**	**$ 45,929,000**

See accompanying notes to consolidated financial statements.

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
Years ended December 31, 2022, 2021 and 2020

($ in thousands except per share amounts)	Preferred Stock	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income/(Loss)	Total Shareholders' Equity
Balances, January 1, 2020	$ 0	$ 305,035	$ 107,831	$ 3,695	$ 416,561
Employee stock purchase plan (2,264 shares)		49			49
Dividend reinvestment plan (35,479 shares)		814			814
Stock option exercises, net (753 shares)		3			3
Stock grants to directors for retainer fees (17,716 shares)		394			394
Stock-based compensation expense		2,325			2,325
Share repurchase program (236,393 shares)		(6,591)			(6,591)
Cash dividends ($1.12 per common share)			(17,930)		(17,930)
Net income for 2020			44,138		44,138
Change in net unrealized gain/(loss) on securities available for sale, net of tax effect				1,791	1,791
Balances, December 31, 2020	$ 0	$ 302,029	$ 134,039	$ 5,486	$ 441,554

See accompanying notes to consolidated financial statements.

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Continued)
Years ended December 31, 2022, 2021 and 2020

($ in thousands except per share amounts)	Preferred Stock	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income/(Loss)	Total Shareholders' Equity
Balances, January 1, 2021	$ 0	$ 302,029	$ 134,039	$ 5,486	$ 441,554
Employee stock purchase plan (1,481 shares)		48			48
Dividend reinvestment plan (27,562 shares)		877			877
Stock option exercises, net (2,000 shares)		50			50
Stock grants to directors for retainer fees (10,489 shares)		344			344
Stock-based compensation expense		3,784			3,784
Share repurchase program (683,191 shares)		(21,380)			(21,380)
Cash dividends ($1.18 per common share)			(18,524)		(18,524)
Net income for 2021			59,021		59,021
Change in net unrealized gain/(loss) on securities available for sale, net of tax effect				(9,215)	(9,215)
Balances, December 31, 2021	$ 0	$ 285,752	$ 174,536	$ (3,729)	$ 456,559

See accompanying notes to consolidated financial statements.

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Continued)
Years ended December 31, 2022, 2021 and 2020

($ in thousands except per share amounts)	Preferred Stock	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income/(Loss)	Total Shareholders' Equity
Balances, January 1, 2022	$ 0	$ 285,752	$ 174,536	$ (3,729)	$ 456,559
Adoption of ASU 2016-13			316		316
Employee stock purchase plan (1,388 shares)		45			45
Dividend reinvestment plan (25,941 shares)		867			867
Stock option exercises, net (1,355 shares)		36			36
Stock grants to directors for retainer fees (11,166 shares)		359			359
Stock-based compensation expense		3,377			3,377
Cash dividends ($1.26 per common share)			(19,602)		(19,602)
Net income for 2022			61,063		61,063
Change in net unrealized gain/(loss) on securities available for sale, net of tax effect				(61,612)	(61,612)
Balances, December 31, 2022	$ 0	$ 290,436	$ 216,313	$ (65,341)	$ 441,408

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years ended December 31, 2022, 2021 and 2020

	2022	2021	2020
Cash flows from operating activities			
Net income	$ 61,063,000	$ 59,021,000	$ 44,138,000
Adjustments to reconcile net income to net cash from operating activities:			
Depreciation and amortization	12,945,000	13,678,000	9,425,000
Accretion of acquired loans	0	(135,000)	(449,000)
Provision for credit losses	6,550,000	(4,300,000)	14,050,000
Deferred income tax expense (benefit)	(1,353,000)	2,020,000	(4,141,000)
Stock-based compensation expense	3,377,000	3,784,000	2,325,000
Stock grants to directors for retainer fee	359,000	344,000	394,000
Proceeds from sales of mortgage loans held for sale	237,779,000	686,418,000	677,634,000
Origination of mortgage loans held for sale	(217,030,000)	(649,245,000)	(665,992,000)
Net gain on sales of mortgage loans held for sale	(8,197,000)	(30,402,000)	(29,541,000)
Net gain from sales and valuation write-downs of foreclosed assets	(69,000)	(78,000)	(325,000)
Net (gain) loss from sale and write-downs on former bank premises	275,000	(140,000)	(27,000)
Net (gain) loss from sales and disposals of premises and equipment	(36,000)	246,000	1,514,000
Earnings on bank owned life insurance	(1,678,000)	(1,164,000)	(1,214,000)
Gain on sale of branch	0	(1,058,000)	0
Net (gain) loss on instruments designated at fair value and related derivatives	(45,000)	224,000	24,000
Net change in:			
Accrued interest receivable	(6,165,000)	1,528,000	(917,000)
Other assets	(437,000)	(12,655,000)	(9,907,000)
Accrued interest and other liabilities	32,524,000	(3,513,000)	886,000
Net cash from operating activities	119,862,000	64,573,000	37,877,000
Cash flows from investing activities			
Purchases of securities available for sale	(107,011,000)	(298,708,000)	(369,682,000)
Proceeds from maturities, calls and repayments of securities available for sale	17,984,000	80,432,000	321,164,000
Loan originations and payments, net	(462,427,000)	(267,899,000)	(341,461,000)
Proceeds from Federal Home Loan Bank stock redemption	281,000	0	0
Purchases of bank owned life insurance	(4,500,000)	(2,000,000)	(700,000)
Proceeds from bank owned life insurance death benefits claim	628,000	0	0
Net cash transferred in branch sale	0	(2,679,000)	0
Purchases of premises and equipment and lease activity	(3,017,000)	(5,602,000)	(8,989,000)
Proceeds from sales of former bank premises	2,994,000	753,000	162,000
Proceeds from sales of foreclosed assets	69,000	196,000	700,000
Net cash for investing activities	(554,999,000)	(495,507,000)	(398,806,000)
Cash flows from financing activities			
Net decrease in time deposits	(57,189,000)	(120,512,000)	(99,294,000)
Net (decrease) increase in all other deposits	(313,193,000)	806,796,000	820,463,000
Net (decrease) increase in securities sold under agreements to repurchase	(3,123,000)	79,098,000	15,690,000
Proceeds from Federal Home Loan Bank advances	28,263,000	0	60,000,000
Maturities of Federal Home Loan Bank advances	(94,000,000)	(20,000,000)	(20,000,000)
Net proceeds from subordinated notes issuance	14,645,000	73,635,000	0
Proceeds from stock option exercises, net of cashless exercises	36,000	50,000	3,000
Employee stock purchase plan	45,000	48,000	49,000
Dividend reinvestment plan	867,000	877,000	814,000
Repurchases of common stock	0	(21,380,000)	(6,591,000)
Payment of cash dividends to common shareholders	(19,602,000)	(18,524,000)	(17,930,000)
Net cash (for) from financing activities	(443,251,000)	780,088,000	753,204,000

See accompanying notes to consolidated financial statements.

MERCANTILE BANK CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
Years ended December 31, 2022, 2021 and 2020

	2022	2021	2020
Net change in cash and cash equivalents	(878,388,000)	349,154,000	392,275,000
Cash and cash equivalents at beginning of period	975,160,000	626,006,000	233,731,000
Cash and cash equivalents at end of period	$ 96,772,000	$ 975,160,000	$ 626,006,000
Supplemental disclosures of cash flows information			
Cash paid during the year for:			
Interest	$ 21,765,000	$ 20,352,000	$ 27,703,000
Federal income taxes	11,200,000	17,550,000	10,950,000
Noncash financing and investing activities:			
Transfers from loans to foreclosed assets	0	30,000	146,000
Transfers from bank premises to other real estate owned	0	0	613,000
Transfers from premises and equipment to other assets	2,847,000	0	0

See accompanying notes to consolidated financial statements.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation: The consolidated financial statements include the accounts of Mercantile Bank Corporation ("Mercantile") and its subsidiary, Mercantile Bank ("our bank"), and of Mercantile Insurance Center, Inc. ("our insurance company"), a subsidiary of our bank, after elimination of significant intercompany transactions and accounts.

Mercantile has five separate business trusts: Mercantile Bank Capital Trust I, Firstbank Capital Trust I, Firstbank Capital Trust II, Firstbank Capital Trust III and Firstbank Capital Trust IV ("our trusts"). Our trusts were formed to issue trust preferred securities. We issued subordinated debentures to our trusts in return for the proceeds raised from the issuance of the trust preferred securities. Our trusts are not consolidated, but instead we report the subordinated debentures issued to the trusts as liabilities.

Nature of Operations: Mercantile was incorporated on July 15, 1997 to establish and own the bank based in Grand Rapids, Michigan. Our bank began operations on December 15, 1997. We completed the merger of Firstbank Corporation ("Firstbank"), a Michigan corporation with approximately $1.5 billion in total assets and 46 branch locations, into Mercantile as of June 1, 2014.

Our bank is a community-based financial institution. Our bank's primary deposit products are checking, savings, and term certificate accounts, and its primary lending products are commercial loans, residential mortgage loans, and instalment loans. Substantially all loans are secured by specific items of collateral including business assets, real estate or consumer assets. Commercial loans are expected to be repaid from cash flow from operations of businesses. Real estate loans are secured by commercial or residential real estate. We have no material foreign loans or significant overdraft balances. Our bank's loan accounts and retail deposits are primarily with customers located in the communities in which we have bank office locations. As an alternative source of funds, our bank has also issued certificates of deposit to depositors outside of its primary market areas. Substantially all revenues are derived from banking products and services and investment securities. While we monitor the revenue streams of the various products and services offered, we manage our business on the basis of one operating segment, banking.

Our insurance company acquired an existing shelf insurance agency effective April 15, 2002. An Agency and Institution Agreement was entered into among our insurance company, our bank and Hub International for the purpose of providing programs of mass marketed personal lines of insurance. Insurance product offerings include private passenger automobile, homeowners, personal inland marine, boat owners, recreational vehicle, dwelling fire, umbrella policies, small business and life insurance products, all of which are provided by and written through companies that have appointed Hub International as their agent. To date, we have not provided the insurance products noted above and currently have no plans to do so.

We have evaluated subsequent events for potential recognition and/or disclosure through the date these financial statements were issued.

Use of Estimates: To prepare financial statements in conformity with accounting principles generally accepted in the United States of America, management makes estimates and assumptions based on available information. These estimates and assumptions affect the amounts reported in the financial statements and the disclosures provided, and actual results could differ. The allowance for credit losses and the fair values of financial instruments are particularly subject to change.

(Continued)

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Coronavirus Pandemic: Although virtually all related restrictions have been terminated, impacts remain across national and global economies due to the pandemic of coronavirus disease 2019 ("Covid-19") caused by severe acute respiratory syndrome coronavirus 2 (the "Coronavirus Pandemic"). Overall, The Coronavirus Pandemic has caused a sustained global economic slowdown of varying durations across different industries, and it is possible that it could still cause a global recession as a result of deteriorating economic and political conditions such as increased unemployment, decreased capital spending, declines in consumer confidence, and economic slowdowns. This uncertainty is heightened in certain geographic areas due to continued surges in Covid-19 cases, and governments at all levels continue to react to changes in circumstances, including vaccine hesitancy, booster shot efficacy, supply chain disruptions and inflationary pressures. For example, although many health and safety restrictions have been lifted and vaccine distribution has increased, certain adverse consequences of the Coronavirus Pandemic continue to impact the macroeconomic environment and may persist for some time, including labor shortages and disruptions of global supply chains, particularly in China and other parts of Asia. In addition, this uncertainty is further heightened by the possibility that new and highly infectious variants and subvariants of Covid-19 might arise which are more severe, more transmissible, and capable of evading vaccinations, booster shots and prior immunity.

The Coronavirus Pandemic has had a significant impact on our financial condition and operating results since its onset in March, 2020. Federal government stimulus programs resulted in a massive increase to the money supply, providing significant inflationary pressures that the Federal Reserve's Federal Open Market Committee ("FOMC") has been attempting to manage through substantial increases in the federal funds rate since March, 2022. In addition, we experienced significant growth in liquidity as federal government stimulus monies were deposited by program recipients, providing for sizable impacts to our operating performance as well as our capital and liquidity positions during 2022 and 2021.

The following section summarizes the primary Covid-19 related measures that directly impacted us and our customers.

- Paycheck Protection Program
  The Paycheck Protection Program ("PPP") reflected a substantial expansion of the Small Business Administration's 100% guaranteed 7(a) loan program. The CARES Act authorized up to $350 billion in loans to businesses with fewer than 500 employees, including non-profit organizations, tribal business concerns, and self-employed and individual contractors. The PPP provided 100% guaranteed loans to cover specific operating costs. PPP loans were eligible to be forgiven based upon certain criteria. In general, the amount of the loan that is forgivable is the sum of the payroll costs, interest payments on mortgages, rent, and utilities incurred or paid by the business during a prescribed period beginning on the loan origination date. Any remaining balance after forgiveness is maintained at the 100% guarantee for the duration of the loan. The interest rate on the loan is fixed at 1.00%, with the financial institution receiving a loan origination fee from the Small Business Administration. The loan origination fees, net of the direct origination costs, are accreted into interest income on loans using the level yield methodology. The program ended on August 8, 2020. We originated approximately 2,200 loans aggregating $554 million. As of December 31, 2022, we recorded forgiveness transactions on all but five loans aggregating $0.5 million. Net loan origination fees of less than $0.1 million were recorded during 2022.

  The Consolidated Appropriations Act, 2021 authorized an additional $284 billion in Second Draw PPP loans ("Second Draw"). This program ended on May 31, 2021. Under the Second Draw, we originated approximately 1,200 loans aggregating $209 million. As of December 31, 2022, we recorded forgiveness transactions on all but six loans aggregating $0.4 million. Net loan origination fees of $1.0 million were recorded during 2022.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

- Individual Economic Impact Payments
  The Internal Revenue Service made three rounds of Individual Economic Impact Payments via direct deposit or mailed checks. In general, and subject to adjusted gross income limitations, qualifying individuals received payments of $1,200 in April 2020, $600 in January 2021, and $1,400 in March 2021.

- Troubled Debt Restructuring Relief
  From March 1, 2020 through 60 days after the end of the National Emergency (or December 31, 2020 if earlier), a financial institution may elect to suspend GAAP principles and regulatory determinations with respect to loan modifications related to Covid-19 that would otherwise be categorized as troubled debt restructurings. Banking agencies must defer to the financial institution's election. The Consolidated Appropriations Act, 2021 extended the suspension date to January 1, 2022. We elected to suspend GAAP principles and regulatory determinations as permitted up to December 31, 2021.

- Current Expected Credit Loss Methodology Delay
  Financial institutions were not required to comply with the CECL methodology requirements from the enactment date of the CARES Act until the earlier of the end of the National Emergency or December 31, 2020. We elected to postpone CECL adoption as permitted. The Consolidated Appropriations Act, 2021 extended the adoption deferral date to January 1, 2022. We adopted the CECL methodology effective January 1, 2022.

We continue to monitor the situation, including cases of sickness within our workforce, and will take action to adjust office attendance policies as circumstances warrant in order to protect the health and safety of employees, contractors, and others who visit our offices. However, if the Coronavirus Pandemic worsens and shutdown orders are issued in the future, our ability to operate could be adversely impacted, depending on the language of such orders. The extent to which the Coronavirus Pandemic continues to impact us will depend on future developments, which are highly uncertain and cannot be predicted.

Cash and Cash Equivalents and Cash Flow Reporting: Cash and cash equivalents include cash on hand, demand deposits with other financial institutions, short-term investments and federal funds sold. Cash flows are reported net for customer loan and deposit transactions, interest-earning deposits invested with other financial institutions and short-term borrowings with maturities of 90 days or less.

Debt Securities: Debt securities classified as held to maturity are carried at amortized cost when management has the positive intent and ability to hold them to maturity. Debt securities available for sale consist of bonds which might be sold prior to maturity due to a number of factors, including changes in interest rates, prepayment risks, yield, availability of alternative investments or liquidity needs. Debt securities classified as available for sale are reported at their fair value. For available for sale debt securities in an unrealized loss position, we first assess whether we intend to sell, or if it is more likely than not that we will be required to sell the security before recovery of the amortized cost basis. If either of the criteria regarding intent or requirement to sell is met, the debt security's amortized cost basis is written down to fair value through income with the establishment of an allowance. For debt securities available for sale that do not meet the aforementioned criteria, we evaluate whether any decline in fair value is due to credit loss factors. In making this assessment, we consider any changes to the rating of the security by a rating agency and adverse conditions specifically related to the issuer of the security, among other factors. If this assessment indicates that a credit loss exists, the present value of cash flows expected to be collected from the security are compared to the amortized cost basis of the security. If the present value of the cash flows expected to be collected is less than the amortized cost basis, a credit loss exists and an allowance is recorded for the credit loss, limited by the amount that the fair value is less than the amortized cost basis. Any impairment that has not been recorded through an allowance is recognized in other comprehensive income.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Changes in the allowance under CECL are recorded as provisions for (or reversal of) credit loss expense. Losses are charged against the allowance when the collectability of an available for sale debt security is confirmed or when either of the criteria regarding intent or requirement to sell is met. At December 31, 2022, there was no allowance related to the available for sale debt securities portfolio.

Interest income includes amortization of purchase premiums and accretion of discounts. Premiums and discounts on securities are amortized or accreted on the level-yield method without anticipating prepayments, except for mortgage-backed securities where prepayments are anticipated. Gains and losses on sales are recorded on the trade date and determined using the specific identification method.

It is not practical to determine the fair value of FHLBI stock due to transferability restrictions; therefore, its fair value is estimated at carrying value.

Loans: Loans that we have the intent and ability to hold for the foreseeable future or until maturity or payoff are reported at the principal balance outstanding, net of deferred loan fees and costs. Interest income is accrued on the unpaid principal balance. Loan origination fees, net of certain direct origination costs, are deferred and recognized in interest income using the level-yield method without anticipating prepayments. Net unamortized deferred loan fees/(costs) amounted to ($1.0) million and $2.5 million, respectively, at December 31, 2022 and 2021.

Interest income on commercial loans and mortgage loans is discontinued at the time the loan is 90 days delinquent unless the loan is well-secured and in process of collection. Consumer and credit card loans are typically charged off no later than when they are 120 days past due. Past due status is based on the contractual terms of the loan. In all cases, loans are placed on nonaccrual or charged off at an earlier date if collection of principal and interest is considered doubtful.

All interest accrued but not received for loans placed on nonaccrual is reversed against interest income. Interest received on such loans is accounted for on the cash-basis or cost-recovery method, until qualifying for return to accrual. Loans are returned to accrual status when all the principal and interest amounts contractually due are brought current and future payments are reasonably assured.

Commercial Loan Participations: As part of our credit risk administration practices and to manage exposure limits, we engage in commercial loan participations with other financial institutions from time-to-time. In all instances, the commercial loans are participated at par with no loan yield adjustments; therefore, no gain or loss on sale, or servicing right, is recorded. We retain a large portion of the loan exposure and continue to service the lending relationship. Commercial loan participations aggregated $33.5 million and $24.2 million as of December 31, 2022 and 2021, respectively.

Loans Held for Sale: Mortgage loans originated and intended for sale in the secondary market are carried at the lower of aggregate cost or fair value, as determined by outstanding commitments from investors. Net unrealized losses, if any, are recorded as a valuation allowance and charged to earnings. Mortgage loans held for sale are generally sold with servicing rights retained. Gains and losses on sales of mortgage loans are based on the difference between the selling price and the carrying value of the related mortgage loan sold, which is reduced by the cost allocated to the servicing right. We generally lock in the sale price to the purchaser of the mortgage loan at the same time we make an interest rate commitment to the borrower.

Year-end mortgage loans held for sale, included in total loans in the Consolidated Balance Sheets, were as follows:

	2022	2021
Mortgage loans held for sale	$ 3,565,000	$ 16,117,000
Less: Allowance to adjust to lower of cost or market	0	0
Mortgage loans held for sale, net	$ 3,565,000	$ 16,117,000

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Mortgage Loan Derivatives: We enter into forward contracts and interest rate lock commitments in the ordinary course of business, which are accounted for as derivatives. The derivatives are not designated as hedges and are carried at fair value. The net gain or loss on derivatives is included in mortgage banking activities in the Consolidated Statements of Income. The balance of mortgage loan derivatives aggregated less than $0.1 million and $0.3 million at December 31, 2022 and 2021, respectively.

Mortgage Banking Activities: Mortgage loan servicing rights are recognized as assets based on the allocated value of retained servicing rights on mortgage loans sold. Mortgage loan servicing rights are carried at the lower of amortized cost or fair value and are expensed in proportion to, and over the period of, estimated net servicing revenues. Impairment is evaluated based on the fair value of the rights using groupings of the underlying mortgage loans as to interest rates. Any impairment of a grouping is reported as a valuation allowance.

Servicing fee income is recorded for fees earned for servicing mortgage loans. The fees are based on a contractual percentage of the outstanding principal or a fixed amount per loan and are recorded as income when earned. Amortization of mortgage loan servicing rights is netted against mortgage loan servicing income and recorded in mortgage banking activities in the Consolidated Statements of Income.

Troubled Debt Restructurings: A loan is accounted for as a troubled debt restructuring if we, for economic or legal reasons, grant a concession to a borrower considered to be experiencing financial difficulties that we would not otherwise consider. A troubled debt restructuring may involve the receipt of assets from the debtor in partial or full satisfaction of the loan, or a modification of terms such as a reduction of the stated interest rate or balance of the loan, a reduction of accrued interest, an extension of the maturity date or renewal of the loan at a stated interest rate lower than the current market rate for a new loan with similar risk, or some combination of these concessions. Troubled debt restructurings can be in either accrual or nonaccrual status. Nonaccrual troubled debt restructurings are included in nonperforming loans. Accruing troubled debt restructurings are generally excluded from nonperforming loans as it is considered probable that all contractual principal and interest due under the restructured terms will be collected.

The federal banking agencies issued an "*Interagency Statement on Loan Modifications and Reporting for Financial Institutions Working with Customers Affected by the Coronavirus"* on March 22, 2020, which was subsequently revised on April 7, 2020. This guidance encourages financial institutions to work prudently with borrowers that are or may be unable to meet their contractual obligations because of the effects of the Coronavirus Pandemic. Pursuant to the guidance, the federal banking agencies concluded, in consultation with FASB staff, that short-term modifications (e.g., six months) made on a good faith basis to borrowers who were current prior to any relief are not troubled debt restructurings. This guidance complements Section 4013 of the CARES Act, which specified that Coronavirus-related modifications made on loans that were current as of December 31, 2019 and that occur between March 1, 2020 and the earlier of 60 days after the date of termination of the National Emergency declared by President Trump on March 13, 2020 (the "National Emergency") or December 31, 2020, as applicable, are not troubled debt restructurings. As part of the Consolidated Appropriations Act that was enacted in late 2020, this guidance was extended to January 1, 2022.

Allowance for Credit Losses ("Allowance"): In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*. This ASU (as subsequently amended) significantly changed how entities measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The standard replaced the current "incurred loss" approach with an "expected loss" model. The new model, referred to as the CECL model, applies to financial assets subject to credit losses and measured at amortized cost, and certain off-balance sheet credit exposures. The standard also expanded the disclosure requirements regarding an entity's assumptions, models, and methods for estimating the allowance. In addition, entities need to disclose the amortized cost balance for each class of financial asset by credit quality indicator, disaggregated by the year of origination. This ASU was effective for interim and annual reporting periods beginning after December 15, 2019.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial institutions were not required to comply with the CECL methodology requirements from the enactment date of the CARES Act until the earlier of the end of the President's declaration of a National Emergency or December 31, 2020. The Consolidated Appropriations Act, 2021, that was enacted in December 2020, provided for a further extension of the required CECL adoption date to January 1, 2022. An economic forecast is a key component of the CECL methodology. As we continued to experience an unprecedented economic environment whereby a sizable portion of the economy had been significantly impacted by government-imposed activity limitations and similar reactions by businesses and individuals, substantial government stimulus was provided to businesses, individuals and state and local governments and financial institutions offered businesses and individuals payment relief options, economic forecasts were regularly revised with no economic forecast consensus. Given the high degree of uncertainty surrounding economic forecasting, we elected to postpone the adoption of CECL until January 1, 2022, and continued to use our incurred loan loss reserve model as permitted through December 31, 2021.

We adopted CECL effective January 1, 2022 using the modified retrospective method for all financial assets measured at amortized cost and off-balance sheet credit exposures. Results for reporting periods beginning after January 1, 2022 are presented under CECL while prior period amounts continue to be reported in accordance with the incurred loss accounting standards. The transition adjustment of the CECL adoption included a decrease in the allowance of $0.4 million, which included a $0.3 million increase to the retained earnings account to reflect the cumulative effect of adopting CECL on our Consolidated Balance Sheet, with the $0.1 million tax impact portion being recorded as part of the deferred tax asset in other assets on our Consolidated Balance Sheet.

Accrued interest receivable for loans is included in other assets on our Consolidated Balance Sheet. We elected not to measure an allowance for accrued interest receivable and instead elected to reverse interest income on loans that are placed on nonaccrual status, which is generally when the loan becomes 90 days past due, or earlier if we believe the collection of interest is doubtful. We believe this policy results in the timely reversal of uncollectible interest.

The allowance is a valuation account that is deducted from the loans' amortized cost basis to present the net amount expected to be collected on the loans. Loans are charged-off against the allowance when we believe the uncollectibility of a loan balance is confirmed.

The allowance is measured on a collective pool basis when similar risk characteristics exist. Loans with similar risk characteristics are grouped into homogenous segments, or pools, for analysis. Commercial loans are divided among five segments based primarily on collateral type, risk characteristics, and primary and secondary sources of repayment. These segments are then further stratified based on the commercial loan grade that is assigned using our standard loan grading paradigm. Retail loans are divided into one of two groups based on if the loan is secured by residential real estate or not.

Our loan portfolio segments as of December 31, 2022 were as follows:

- Commercial Loans
    - <u>Commercial and Industrial</u>: Risks to this loan category include industry concentration and the practical limitations associated with monitoring the condition of the collateral which often consists of inventory, accounts receivable, and other non-real estate assets. Equipment and inventory obsolescence can also pose a risk. Declines in general economic conditions and other events can cause cash flows to fall to levels insufficient to service debt.

    - <u>Owner Occupied Commercial Real Estate</u>: Risks to this loan category include industry concentration and the inability to monitor the condition of the collateral. Declines in general economic conditions and other events can cause cash flows to fall to levels insufficient to service debt. Also, declines in real estate values and lack of suitable alternative use for the properties are risks for loans in this category.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

    - Non-Owner Occupied Commercial Real Estate: Loans in this category are susceptible to declines in occupancy rates, business failure, and general economic conditions. Also, declines in real estate values and lack of suitable alternative use for the properties are risks for loans in this category.

    - Multi-Family and Residential Rental: Risks to this loan category include industry concentration and the inability to monitor the condition of the collateral. Loans in this category are susceptible to weakening general economic conditions and increases in unemployment rates, as well as market demand and supply of similar property and the resulting impact on occupancy rates, market rents, cash flow, and income-based real estate values. Also, the lack of a suitable alternative use for the properties is a risk for loans in this category.

    - Vacant Land, Land Development and Residential Construction: Risks common to commercial construction loans are cost overruns, changes in market demand for property, inadequate long-term financing arrangements, and declines in real estate values. Residential construction loans are susceptible to those same risks as well as those associated with residential mortgage loans. Changes in market demand for property could lead to longer marketing times resulting in higher carrying costs, declining values, and higher interest rates.

- Retail Loans
    - 1-4 Family Mortgages: Residential mortgage loans are susceptible to weakening general economic conditions and increases in unemployment rates and declining real estate values.

    - Other Consumer Loans: Risks common to these loans include regulatory risks, unemployment, and changes in local economic conditions as well as the inability to monitor collateral consisting of personal property.

The "remaining life methodology" is utilized for substantially all loan pools. This non-discounted cash flow approach projects an estimated future amortized cost basis based on current loan balance and repayment terms. Our historical loss rate is then applied to future loan balances at the instrument level based on remaining contractual life adjusted for amortization, prepayment and default to develop a baseline lifetime loss. The baseline lifetime loss is adjusted for changes in macroeconomic conditions over the reasonable and supportable forecast and reversion periods via a series of macroeconomic forecast inputs, such as gross domestic product, unemployment rates, interest rates, credit spreads, stock market volatility and property price indices, to quantify the impact of current and forecasted economic conditions on expected loan performance.

We use migration to determine historical loss rates for commercial loans given the comprehensive loan grading process employed by the bank for over two decades, while an open pool approach is best suited for retail loans given the smaller dollar size of the segments. A baseline loss rate is produced at each reporting date for each loan portfolio segment using bank-specific loan charge-off and recovery data over a defined historical look-back period. The look-back period represents the number of data periods that will be used to calculate a baseline loss rate for each loan portfolio segment. We determined that the look-back period commencing on January 1, 2011 through the current reporting date was reasonable and appropriate.

Reasonable and supportable economic forecasts have to be incorporated in determining expected credit losses. The forecast period represents the time frame from the current period end through the point in time that we can reasonably forecast and support entity and environmental factors that are expected to impact the performance of our loan portfolio. Ideally, the economic forecast period would encompass the contractual terms of all loans; however, the ability to produce a forecast that is considered reasonable and supportable becomes more difficult or may not be possible in later periods.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Subsequent to the end of the forecast period, we revert to historical loan data based on an ongoing evaluation of each economic forecast in relation to then current economic conditions as well as any developing loan loss activity and resulting historical data. As of December 31, 2022, we used a one-year reasonable and supportable economic forecast period, with a six-month straight-line reversion period for all loan segments.

We are not required to develop and use our own economic forecast model, and elected to utilize economic forecasts from third-party providers that analyze and develop forecasts of the economy for the entire United States at least quarterly. The economic forecasts used for our December 31, 2022 allowance calculation reflected a $0.9 million allowance balance reduction compared to the forecasts used for our January 1, 2022 allowance calculation. Our methodology does provide for a potential qualitative factor that can be used in the event of local or regional conditions that depart from the conditions and forecasts for the entire country.

During each reporting period, we also consider the need to adjust the historical loss rates as determined by our migration calculations to reflect the extent to which we expect current conditions and reasonable and supportable economic forecasts to differ from the conditions that existed for the period over which the migration-based historical loss information was determined. These qualitative adjustments may increase or decrease our estimate of expected future credit losses.

Traditional qualitative factors include:

- Changes in lending policies and procedures
- Changes in the nature and volume of the loan portfolio and in the terms of loans
- Changes in the experience, ability and depth of lending management and other relevant staff
- Changes in the volume and severity of past due loans, nonaccrual loans and adversely classified loans
- Changes in the quality of the loan review program
- Changes in the value of underlying collateral dependent loans
- Existence and effect of any concentrations of credit and any changes in such
- Effect of other factors such as competition and legal and regulatory requirements

The estimation of future credit losses should reflect consideration of all significant factors that affect the collectibility of the loan portfolio at each evaluation date. While our methodology considers both the historical loss rates as well as the traditional qualitative factors, there may be instances or situations where additional qualitative factors need to be considered. Effective January 1, 2022, we established a historical loss information factor to address the relatively low level of loan losses during the look-back period.

Expected credit losses are estimated over the contractual terms of the loans, adjusted for expected prepayments when appropriate. The contractual term generally excludes potential extensions, renewals and modifications.

We are also required to consider expected credit losses associated with loan commitments over the contractual period in which we are exposed to credit risk on the underlying commitments unless the obligation is unconditionally cancellable by us. Any allowance for off-balance sheet credit exposures is reported as an other liability on our Consolidated Balance Sheet and is increased or decreased via other noninterest expense on our Consolidated Statement of Income. The calculation includes consideration of the likelihood that funding will occur and forecasted credit losses on commitments expected to be funded over their estimated lives. The allowance is calculated using the same aggregate reserve rates calculated for the funded portion of loans at the portfolio level applied to the amount of commitments expected to be funded.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Transfers of Financial Assets: Transfers of financial assets are accounted for as sales when control over the assets has been surrendered. Control over transferred assets is deemed to be surrendered when: (1) the assets have been isolated from our bank and put presumptively beyond the reach of the transferor and its creditors, even in bankruptcy or other receivership, (2) the transferee obtains the right (free of conditions that constrain it from taking advantage of that right) to pledge or exchange the transferred assets, and (3) our bank does not maintain effective control over the transferred assets through an agreement to repurchase them before their maturity or the ability to unilaterally cause the holder to return specific assets. Our transfers of financial assets are generally limited to commercial loan participations sold and residential mortgage loans sold in the secondary market.

Premises and Equipment: Land is carried at cost. Premises and equipment are stated at cost less accumulated depreciation. Buildings and related components are depreciated using the straight-line method with useful lives ranging from 5 to 33 years. Furniture, fixtures and equipment are depreciated using the straight-line method with useful lives ranging from 3 to 7 years. Maintenance, repairs and minor alterations are charged to current operations as expenditures occur and major improvements are capitalized. Premises and equipment are reviewed for impairment when events indicate their carrying amount may not be recoverable based on future undiscounted cash flows. If impaired, the assets are recorded at the lower of carrying value or fair value.

Foreclosed Assets: Assets acquired through or in lieu of foreclosure are initially recorded at their estimated fair value net of estimated selling costs, establishing a new cost basis. If fair value subsequently declines, a valuation allowance is recorded through noninterest expense, as are collection and operating costs after acquisition. Foreclosed assets, included in other assets in the Consolidated Balance Sheets, totaled $0 as of December 31, 2022 and 2021.

Bank Owned Life Insurance: Our bank has purchased life insurance policies on certain key officers. Bank owned life insurance is recorded at its cash surrender value, or the amount that can be realized. Increases in the net cash surrender value of the policies, as well as insurance proceeds received, are recorded as noninterest income on the Consolidated Statements of Income and are not subject to income taxes.

Goodwill and Core Deposit Intangible: GAAP requires us to determine the fair value of all the assets and liabilities of an acquired entity, and record their fair value on the date of acquisition. We employ a variety of means in determination of the fair value, including the use of discounted cash flow analysis, market comparisons and projected future revenue streams. For certain items we concluded to have the appropriate expertise to determine the fair value, we may choose to use our own calculation of fair value. In other cases, where the fair value is not readily determined, consultation with outside parties is used to determine fair value. Once valuations have been determined, the net difference between the price paid for the acquired company and the fair value of the balance sheet is recorded as goodwill. Goodwill is assessed at least annually for impairment, with any such impairment recognized in the period identified. A more frequent assessment is performed if there are material changes in the market place or within the organizational structure. We conducted an annual test during 2022 using step zero, with no impairment identified.

The core deposit intangible that arose from the merger with Firstbank was initially measured at fair value and is being amortized into noninterest expense over a ten-year period using the sum-of-the-years-digits methodology.

Repurchase Agreements: Our bank sells certain securities under agreements to repurchase. The agreements are treated as collateralized financing transactions, with the obligations to repurchase the securities sold reflected as liabilities and the securities underlying the agreements remaining in assets in the Consolidated Balance Sheets.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial Instruments and Loan Commitments: Financial instruments include off-balance-sheet credit instruments, such as commitments to make loans and commercial letters of credit, issued to meet customer financing needs. The face amount for these items represents the exposure to loss, before considering customer collateral or ability to repay. Such financial instruments are recorded when they are funded. Instruments, such as standby letters of credit, that are considered financial guarantees are recorded at fair value. Reserves for unfunded commitments are recorded as an other liability on our Consolidated Balance Sheets.

Stock-Based Compensation: Compensation cost for equity-based awards is measured on the grant date based on the fair value of the award at that date, and is recognized over the requisite service period, net of estimated forfeitures. Fair value of stock option awards is estimated using a closed option valuation (Black-Scholes) model. Fair value of restricted stock awards is based upon the quoted market price of the common stock on the date of grant.

Revenue from Contracts with Customers: We record revenue from contracts with customers in accordance with Accounting Standards Codification Topic 606, "Revenue from Contracts with Customers" ("Topic 606"). Under Topic 606, we must identify the contract with a customer, identify the performance obligations in the contract, determine the transaction price, allocate the transaction price to the performance obligations in the contract, and recognize revenue when (or as) we satisfy a performance obligation. Significant revenue has not been recognized in the current reporting period that results from performance obligations satisfied in previous periods.

Our primary sources of revenue are derived from interest and dividends earned on loans, securities and other financial instruments that are not within the scope of Topic 606. We have evaluated the nature of our contracts with customers and determined that further disaggregation of revenue from contracts with customers into more granular categories beyond what is presented in the Consolidated Statements of Income was not necessary.

We generally satisfy our performance obligations on contracts with customers as services are rendered, and the transaction prices are typically fixed and charged either on a periodic basis (generally monthly) or based on activity. Because performance obligations are satisfied as services are rendered and the transaction prices are fixed, there is little judgment involved in applying Topic 606 that significantly affects the determination of the amount and timing of revenue from contracts with customers.

The following table depicts our sources of noninterest income presented in the Consolidated Statements of Income for the years ended December 31, 2022, 2021 and 2020 that are scoped within Topic 606:

	2022	2021	2020
Service charges on deposit and sweep accounts	$5,952,000	$5,078,000	$4,578,000
Credit and debit card fees	8,216,000	7,516,000	5,973,000
Payroll processing	2,178,000	1,815,000	1,745,000
Customer service fees	852,000	857,000	757,000

Service Charges on Deposit and Sweep Accounts: We earn fees from deposit and sweep customers for account maintenance, transaction-based and overdraft services. Account maintenance fees, which relate primarily to monthly maintenance, are earned over the course of the month reflecting the period over which we satisfy the performance obligation. Transaction-based fees, which includes services such as stop payment and returned item charges, are recognized at the time the transaction is executed as that is the point in time we fulfill the customer request. Service charges on deposit and sweep accounts are withdrawn from the customer account balance.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Credit and Debit Card Fees: We earn interchange income on our cardholder debit and credit card usage. Interchange income is primarily comprised of fees whenever our debit and credit cards are processed through card payment networks such as Visa. Interchange fees from cardholder transactions represent a percentage of the underlying transaction value and are recognized daily, concurrently with the transaction processing services provided to the cardholder.

Payroll Processing Fees: We earn fees from providing payroll processing services for our commercial clients. Fees are assessed for processing weekly or bi-weekly payroll files, reports and documents, as well as year-end tax-related files, reports and documents. Fees are recognized and collected as payroll processing services are completed for each payroll run and year-end processing activities.

Customer Service Fees: We earn fees by providing a variety of other services to our customers, such as wire transfers, check ordering, sales of cashier checks and money orders, and rentals of safe deposit boxes. Generally, fees are recognized and collected daily, concurrently with the point in time we fulfill the customer request. Safe deposit box rentals are on annual contracts, with fees generally earned at the time of the contract signing or renewal. Customer service fees are recorded as other noninterest income on our Consolidated Statements of Income.

Advertising Costs: Advertising costs are expensed as incurred.

Income Taxes: Income tax expense is the total of the current year income tax due or refundable, the change in deferred income tax assets and liabilities, and any adjustments related to unrecognized tax benefits. Deferred income tax assets and liabilities are recognized for the tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities, computed using enacted tax rates applicable to future years. A valuation allowance, if needed, reduces deferred income tax assets to the amount expected to be realized.

Fair Values of Financial Instruments: Fair values of financial instruments are estimated using relevant market information and other assumptions. Fair value estimates involve uncertainties and matters of significant judgment regarding interest rates, credit risk, prepayments and other factors, especially in the absence of broad markets for particular items. Changes in assumptions or in market conditions could significantly affect the estimates. The fair value estimates of existing on- and off-balance sheet financial instruments do not include the value of anticipated future business or the values of assets and liabilities not considered financial instruments.

Earnings Per Share: Basic earnings per share is based on the weighted average number of common shares and participating securities outstanding during the period. Diluted earnings per share include the dilutive effect of additional potential common shares issuable under our stock-based compensation plans using the treasury stock method. Our unvested stock awards, which contain non-forfeitable rights to dividends whether paid or unpaid (i.e., participating securities), are included in the number of shares outstanding for both basic and diluted earnings per share calculations. In the event of a net loss, our unvested stock awards are excluded from the calculations of both basic and diluted earnings per share.

Comprehensive Income: Comprehensive income consists of net income and other comprehensive income (loss). Other comprehensive income (loss) includes unrealized gains and losses on securities available for sale.

Derivatives: Derivative financial instruments are recognized as assets or liabilities at fair value. The accounting for changes in the fair value of derivatives depends on the use of the derivatives and whether the derivatives qualify for hedge accounting. Used as part of our asset and liability management to help manage interest rate risk, our derivatives have historically generally consisted of interest rate swap agreements that qualified for hedge accounting. We do not use derivatives for trading purposes.

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NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Changes in the fair value of derivatives that are designated, for accounting purposes, as a hedge of the variability of cash flows to be received on various assets and liabilities and are effective are reported in other comprehensive income. They are later reclassified into earnings in the same periods during which the hedged transaction affects earnings and are included in the line item in which the hedged cash flows are recorded. If hedge accounting does not apply, changes in the fair value of derivatives are recognized immediately in current earnings as interest income or expense. We had no derivative instruments designated as hedges as of December 31, 2022 and 2021.

Contingencies: Loss contingencies, including claims and legal actions arising in the ordinary course of business, are recorded as liabilities when the likelihood of loss is probable and an amount or range of loss can be reasonably estimated. We do not believe there are any such matters outstanding that would have a material effect on the financial statements

Newly Issued Not Yet Effective Standards: ASU No. 2022-02 *Financial Instruments – Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*. This ASU eliminates the accounting guidance for troubled debt restructurings ("TDRs") by creditors in Subtopic 310-40, Receivables – Troubled Debt Restructurings by Creditors, while adding disclosures for certain loan restructurings by creditors when a borrower is experiencing financial difficulty. This guidance requires an entity to determine whether the modification results in a new loan or a continuation of an existing loan. Additionally, the ASU requires disclosures of current period gross charge-offs by year of origination for financing receivables. This ASU is effective for fiscal years beginning after December 15, 2022. We do not believe the adoption of this ASU will have a material impact on our financial results. The required disclosures for gross charge-offs on our financial statements will be added upon adoption of this new standard.

NOTE 2 – SECURITIES

The amortized cost and fair value of available for sale securities and the related pre-tax gross unrealized gains and losses recognized in accumulated other comprehensive income (loss) were as follows at year-end 2022 and 2021:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
2022				
U.S. Government agency debt obligations	$453,836,000	$ 0	$(65,092,000)	$388,744,000
Mortgage-backed securities	38,002,000	19,000	(6,068,000)	31,953,000
Municipal general obligation bonds	163,041,000	450,000	(9,058,000)	154,433,000
Municipal revenue bonds	30,267,000	102,000	(3,063,000)	27,306,000
Other investments	500,000	0	0	500,000
	$685,646,000	$ 571,000	$(83,281,000)	$602,936,000
2021				
U.S. Government agency debt obligations	$398,874,000	$ 266,000	$ (8,769,000)	$390,371,000
Mortgage-backed securities	41,906,000	549,000	(652,000)	41,803,000
Municipal general obligation bonds	133,894,000	4,092,000	(392,000)	137,594,000
Municipal revenue bonds	22,289,000	331,000	(145,000)	22,475,000
Other investments	500,000	0	0	500,000
	$597,463,000	$ 5,238,000	$ (9,958,000)	$592,743,000

Securities with unrealized losses at year-end 2022 and 2021, aggregated by investment category and length of time that individual securities have been in a continuous loss position, are as follows:

	Less than 12 Months		12 Months or More		Total	
Description of Securities	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
2022						
U.S. Government agency debt obligations	$ 53,019,000	$ 5,713,000	$335,725,000	$59,379,000	$388,744,000	$65,092,000
Mortgage-backed securities	31,127,000	6,068,000	12,000	0	31,139,000	6,068,000
Municipal general obligation bonds	97,252,000	4,516,000	32,870,000	4,542,000	130,122,000	9,058,000
Municipal revenue bonds	12,532,000	1,141,000	10,609,000	1,922,000	23,141,000	3,063,000
Other investments	0	0	0	0	0	0
	$193,930,000	$17,438,000	$379,216,000	$65,843,000	$573,146,000	$83,281,000
2021						
U.S. Government agency debt obligations	$274,287,000	$ 5,274,000	$110,053,000	$ 3,495,000	$384,340,000	$ 8,769,000
Mortgage-backed securities	23,184,000	652,000	24,000	0	23,208,000	652,000
Municipal general obligation bonds	40,748,000	392,000	0	0	40,748,000	392,000
Municipal revenue bonds	12,843,000	137,000	414,000	8,000	13,257,000	145,000
Other investments	0	0	0	0	0	0
	$351,062,000	$ 6,455,000	$110,491,000	$ 3,503,000	$461,553,000	$ 9,958,000

NOTE 2 – SECURITIES (Continued)

We evaluate securities in an unrealized loss position at least quarterly. Consideration is given to the financial condition of the issuer, and the intent and ability we have to retain our investment in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value. For those debt securities whose fair value is less than their amortized cost basis, we also consider our intent to sell the security, whether it is more likely than not that we will be required to sell the security before recovery and if we do not expect to recover the entire amortized cost basis of the security. In analyzing an issuer's financial condition, we may consider whether the securities are issued by the federal government or its agencies, whether downgrades by bond rating agencies have occurred and the results of reviews of the issuer's financial condition.

At December 31, 2022, 732 debt securities with estimated fair values totaling $573 million had unrealized losses aggregating $83.3 million. At December 31, 2021, 333 debt securities with estimated fair values totaling $462 million had unrealized losses aggregating $10.0 million. At December 31, 2022, unrealized losses aggregating $71.2 million were attributable to bonds issued or guaranteed by agencies of the U.S. federal government, while unrealized losses totaling $12.1 million were associated with bonds issued by state-based municipalities. After considering the issuers of the bonds, and taking into account the fact that no municipal issuer had been subject to a credit rating downgrade by bond credit rating agencies, we determined that the unrealized losses were due to changing interest rate environments. As we do not intend to sell our debt securities before recovery of their cost basis and we believe it is more likely than not that we will not be required to sell our debt securities before recovery of the cost basis, no unrealized losses are deemed to be other-than-temporary.

The amortized cost and fair values of debt securities at December 31, 2022, by maturity, are shown in the following table. The contractual maturity is utilized for U.S. Government agency debt obligations and municipal bonds. Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. Securities not due at a single maturity date, primarily mortgage-backed securities, are shown separately. Weighted average yields are also reflected, with yields for municipal securities shown at their tax equivalent yield.

	Weighted Average Yield	Amortized Cost	Fair Value
Due in one year or less	0.76%	$ 21,278,000	$ 20,732,000
Due from one to five years	1.22	249,262,000	227,357,000
Due from five to ten years	1.88	318,700,000	271,652,000
Due after ten years	3.03	57,904,000	50,742,000
Mortgage-backed securities	2.10	38,002,000	31,953,000
Other investments	4.94	500,000	500,000
	1.72%	$ 685,646,000	$ 602,936,000

No securities were sold during the last three years.

Securities issued by the State of Michigan and all its political subdivisions had a combined amortized cost of $193 million and $155 million at December 31, 2022 and December 31, 2021, respectively, with estimated market values of $182 million and $158 million at the respective dates. We had no securities issued by all other states and their political subdivisions as of December 31, 2022. Securities issued by all other states and their political subdivisions had a combined amortized cost of $1.7 million with estimated market values of $1.7 million as of December 31, 2021. Total securities of any other specific issuer, other than the U.S. Government and its agencies and the State of Michigan and all its political subdivisions, did not exceed 10% of shareholders' equity.

The carrying value of U.S. Government agency debt obligations and mortgage-backed securities that are pledged to secure repurchase agreements was $194 million and $197 million at December 31, 2022 and 2021, respectively. Investments in FHLBI stock are restricted and may only be resold to, or redeemed by, the issuer.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES

Loans originated for investment are stated at their principal amount outstanding adjusted for partial charge-offs, the allowance, and net deferred loan fees and costs. Interest income on loans is accrued over the term of the loans primarily using the simple interest method based on the principal balance outstanding. Interest is not accrued on loans where collectability is uncertain. Accrued interest is included in other assets in the Consolidated Balance Sheets. Loan origination fees and certain direct costs incurred to extend credit are deferred and amortized over the term of the loan or loan commitment period as an adjustment to the related loan yield.

Year-end loans disaggregated by class of loan within the loan portfolio segments were as follows:

	December 31, 2022		December 31, 2021		Percent Increase
	Balance	%	Balance	%	(Decrease)
Commercial:					
Commercial and industrial (1)	$1,185,083,000	30.3%	$1,137,419,000	32.9%	4.2%
Vacant land, land development, and residential construction	61,873,000	1.6	43,239,000	1.3	43.1
Real estate – owner occupied	639,192,000	16.3	565,758,000	16.4	13.0
Real estate – non-owner occupied	1,033,734,000	26.4	1,027,415,000	29.7	0.6
Real estate – multi-family and residential rental	211,948,000	5.4	176,593,000	5.1	20.0
Total commercial	3,131,830,000	80.0	2,950,424,000	85.4	6.1
Retail:					
1-4 family mortgages	755,036,000	19.3	442,547,000	12.8	70.6
Other consumer loans (2)	29,753,000	0.7	60,488,000	1.8	(50.8)
Total retail	784,789,000	20.0	503,035,000	14.6	56.0
Total loans	$3,916,619,000	100.0%	$3,453,459,000	100.0%	13.4%

(1) For December 31, 2022, and December 31, 2021, includes $0.9 million and $40.1 million in loans originated under the Paycheck Protection Program, respectively.

(2) In conjunction with the adoption of the CECL methodology effective January 1, 2022, home equity lines of credit were reclassified to 1-4 family mortgage loans from other consumer loans. Home equity lines of credit totaled $37.4 million and $29.5 million as of December 31, 2022, and 2021, respectively.

Concentrations within the loan portfolio were as follows at year-end:

	2022		2021	
	Balance	Percentage of Loan Portfolio	Balance	Percentage of Loan Portfolio
Commercial real estate loans to lessors of non-residential buildings	$738,891,000	18.9%	$737,589,000	21.4%

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Year-end nonperforming loans were as follows:

	2022	2021
Loans past due 90 days or more still accruing interest	$ 0	$ 155,000
Nonaccrual loans	7,728,000	2,313,000
Total nonperforming loans	$ 7,728,000	$ 2,468,000

The recorded principal balance of nonperforming loans was as follows:

	December 31, 2022	December 31, 2021
Commercial:		
Commercial and industrial	$ 6,024,000	$ 663,000
Vacant land, land development, and residential construction	0	0
Real estate – owner occupied	248,000	0
Real estate – non-owner occupied	0	0
Real estate – multi-family and residential rental	0	0
Total commercial	6,272,000	663,000
Retail:		
1-4 family mortgages	1,456,000	1,686,000
Other consumer loans	0	119,000
Total retail	1,456,000	1,805,000
Total nonperforming loans	$ 7,728,000	$ 2,468,000

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

An age analysis of past due loans is as follows as of December 31, 2022:

	30 – 59 Days Past Due	60 – 89 Days Past Due	Greater Than 89 Days Past Due	Total Past Due	Current	Total Loans	Recorded Balance > 89 Days and Accruing
Commercial:							
Commercial and industrial	$ 0	$5,705,000	$ 249,000	$5,954,000	$1,179,129,000	$1,185,083,000	$ 0
Vacant land, land development, and residential construction	0	0	0	0	61,873,000	61,873,000	0
Real estate – owner occupied	0	248,000	0	248,000	638,944,000	639,192,000	0
Real estate – non-owner occupied	0	0	0	0	1,033,734,000	1,033,734,000	0
Real estate – multi-family and residential rental	0	0	0	0	211,948,000	211,948,000	0
Total commercial	0	5,953,000	249,000	6,202,000	3,125,628,000	3,131,830,000	0
Retail:							
1-4 family mortgages	1,334,000	88,000	116,000	1,538,000	753,498,000	755,036,000	0
Other consumer loans	15,000	1,000	0	16,000	29,737,000	29,753,000	0
Total retail	1,349,000	89,000	116,000	1,554,000	783,235,000	784,789,000	0
Total past due loans	$1,349,000	$6,042,000	$ 365,000	$7,756,000	$3,908,863,000	$3,916,619,000	$ 0

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

An age analysis of past due loans is as follows as of December 31, 2021:

	30 – 59 Days Past Due	60 – 89 Days Past Due	Greater Than 89 Days Past Due	Total Past Due	Current	Total Loans	Recorded Balance > 89 Days and Accruing
Commercial:							
Commercial and industrial	$ 14,000	$ 0	$ 193,000	$ 207,000	$1,137,212,000	$1,137,419,000	$ 155,000
Vacant land, land development, and residential construction	13,000	0	0	13,000	43,226,000	43,239,000	0
Real estate – owner occupied	0	0	0	0	565,758,000	565,758,000	0
Real estate – non-owner occupied	0	0	0	0	1,027,415,000	1,027,415,000	0
Real estate – multi-family and residential rental	0	0	0	0	176,593,000	176,593,000	0
Total commercial	27,000	0	193,000	220,000	2,950,204,000	2,950,424,000	155,000
Retail:							
Home equity and other	132,000	2,000	20,000	154,000	60,334,000	60,488,000	0
1- 4 family mortgages	1,265,000	241,000	82,000	1,588,000	440,959,000	442,547,000	0
Total retail	1,397,000	243,000	102,000	1,742,000	501,293,000	503,035,000	0
Total past due loans	$1,424,000	$ 243,000	$ 295,000	$1,962,000	$3,451,497,000	$3,453,459,000	$ 155,000

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Collateral dependent loans are loans for which the repayment is expected to be provided substantially through the operation or sale of the collateral and the borrower is experiencing financial difficulty. Identified problem loans, which exhibit characteristics (financial or otherwise) that could cause the loans to become nonperforming or require restructuring in the future, are included on an internal watch list. Senior management and the Board of Directors review this list regularly. Fair value estimates of collateral on distressed lending relationships, as well as on foreclosed and repossessed assets, are reviewed periodically. We also have a process in place to monitor whether value estimates at each quarter-end are reflective of current market conditions. Our credit policies establish criteria for obtaining appraisals and determining internal value estimates. We may also adjust outside and internal valuations based on identifiable trends within our markets, such as recent sales of similar properties or assets, listing prices and offers received. In addition, we may discount certain appraised and internal value estimates to address distressed market conditions. Under CECL for collateral dependent loans in instances where the borrower is experiencing financial difficulties, we adopted the practical expedient to measure the allowance based on the fair value of collateral. The allowance is calculated on an individual loan basis based on the shortfall between the fair value of the loan's collateral and the recorded principal balance. If the fair value of the collateral exceeds the recorded principal balance, no allowance is required. Collateral dependent loans, representing the entire amount of loans on nonaccrual, totaled $7.7 million as of December 31, 2022.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Nonaccrual loans as of December 31, 2022 were as follows:

	Recorded Principal Balance	Related Allowance
With no allowance recorded:		
Commercial:		
Commercial and industrial	$ 249,000	$ 0
Vacant land, land development and residential construction	0	0
Real estate – owner occupied	0	0
Real estate – non-owner occupied	0	0
Real estate – multi-family and residential rental	0	0
Total commercial	249,000	0
Retail:		
1-4 family mortgages	1,064,000	0
Other consumer loans	0	0
Total retail	1,064,000	0
Total with no allowance recorded	$ 1,313,000	$ 0
With an allowance recorded:		
Commercial:		
Commercial and industrial	$ 5,775,000	$ 2,051,000
Vacant land, land development and residential construction	0	0
Real estate – owner occupied	248,000	32,000
Real estate – non-owner occupied	0	0
Real estate – multi-family and residential rental	0	0
Total commercial	6,023,000	2,083,000
Retail:		
1-4 family mortgages	392,000	200,000
Other consumer loans	0	0
Total retail	392,000	200,000
Total with an allowance recorded	$ 6,415,000	$ 2,283,000
Total nonaccrual loans:		
Commercial	$ 6,272,000	$ 2,083,000
Retail	1,456,000	200,000
Total nonaccrual loans	$ 7,728,000	$ 2,283,000

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Impaired loans with no related allowance recorded were as follows as of December 31, 2021:

	Unpaid Contractual Principal Balance	Recorded Principal Balance	Related Allowance	Year-To-Date Average Recorded Principal Balance
With no related allowance recorded:				
Commercial:				
Commercial and industrial	$ 2,893,000	$ 2,818,000		$ 3,632,000
Vacant land, land development and residential construction	0	0		0
Real estate – owner occupied	9,674,000	9,674,000		12,634,000
Real estate – non-owner occupied	0	0		131,000
Real estate – multi-family and residential rental	91,000	91,000		37,000
Total commercial	12,658,000	12,583,000		16,434,000
Retail:				
Home equity and other	1,173,000	1,107,000		1,096,000
1-4 family mortgages	3,166,000	2,025,000		2,327,000
Total retail	4,339,000	3,132,000		3,423,000
Total with no related allowance recorded	$16,997,000	$15,715,000		$19,857,000

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Impaired loans with an allowance recorded and total impaired loans were as follows as of December 31, 2021:

	Unpaid Contractual Principal Balance	Recorded Principal Balance	Related Allowance	Year-To-Date Average Recorded Principal Balance
With an allowance recorded:				
Commercial:				
Commercial and industrial	$ 2,192,000	$ 2,192,000	$ 266,000	$ 1,732,000
Vacant land, land development and residential construction	0	0	0	0
Real estate – owner occupied	761,000	761,000	84,000	803,000
Real estate – non-owner occupied	146,000	146,000	4,000	154,000
Real estate – multi-family and residential rental	0	0	0	0
Total commercial	3,099,000	3,099,000	354,000	2,689,000
Retail:				
Home equity and other	160,000	140,000	123,000	214,000
1-4 family mortgages	412,000	412,000	69,000	537,000
Total retail	572,000	552,000	192,000	751,000
Total with an allowance recorded	$ 3,671,000	$ 3,651,000	$ 546,000	$ 3,440,000
Total impaired loans:				
Commercial	$ 15,757,000	$ 15,682,000	$ 354,000	$ 19,123,000
Retail	4,911,000	3,684,000	192,000	4,174,000
Total impaired loans	$ 20,668,000	$ 19,366,000	$ 546,000	$ 23,297,000

Impaired commercial loans for which no allocation of the allowance has been made in large part consist of performing troubled debt restructurings where the estimated collateral fair value exceeds the recorded principal balance, while impaired retail loans with no allowance allocation generally reflect situations whereby the recorded principal balances have been charged-down to estimated collateral fair value. Interest income recognized on accruing troubled debt restructurings totaled $1.5 million in 2021. Interest income recognized on nonaccrual loans totaled less than $0.1 million in 2021, reflecting the collection of interest at the time of principal pay-off. Lost interest income on nonaccrual loans totaled $0.1 million in 2021.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Credit Quality Indicators. We utilize a comprehensive grading system for our commercial loans. All commercial loans are graded on a ten grade rating system. The rating system utilizes standardized grade paradigms that analyze several critical factors such as cash flow, operating performance, financial condition, collateral, industry condition and management. All commercial loans are graded at inception and reviewed and, if appropriate, re-graded at various intervals thereafter. The risk assessment for retail loans is primarily based on the type of collateral.

Loans by credit quality indicators were as follows as of December 31, 2022:

Commercial credit exposure – credit risk profiled by internal credit risk grades:

	Commercial and Industrial	Commercial Vacant Land, Land Development, and Residential Construction	Commercial Real Estate - Owner Occupied	Commercial Real Estate - Non-Owner Occupied	Commercial Real Estate - Multi-Family and Residential Rental
Internal credit risk grade groupings:					
Grades 1 – 4 (1)	$ 719,583,000	$ 41,711,000	$ 406,341,000	$ 447,606,000	$ 118,385,000
Grades 5 – 7	450,405,000	20,057,000	229,766,000	573,728,000	93,514,000
Grades 8 – 9	15,095,000	105,000	3,085,000	12,400,000	49,000
Total commercial	$ 1,185,083,000	$ 61,873,000	$ 639,192,000	$ 1,033,734,000	$ 211,948,000

Retail credit exposure – credit risk profiled by collateral type:

	Retail 1-4 Family Mortgages	Retail Other Consumer Loans
Performing	$ 753,580,000	$ 29,753,000
Nonperforming	1,456,000	0
Total retail	$ 755,036,000	$ 29,753,000

(1) Included in Commercial and Industrial Loans Grades 1 – 4 are $0.9 million of loans originated under the Paycheck Protection Program.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Loans by credit quality indicators were as follows as of December 31, 2021:

Commercial credit exposure – credit risk profiled by internal credit risk grades:

	Commercial and Industrial	Commercial Vacant Land, Land Development, and Residential Construction	Commercial Real Estate - Owner Occupied	Commercial Real Estate - Non-Owner Occupied	Commercial Real Estate - Multi-Family and Residential Rental
Internal credit risk grade groupings:					
Grades 1 – 4 (1)	$ 729,224,000	$ 28,390,000	$ 346,082,000	$ 503,482,000	$ 119,473,000
Grades 5 – 7	398,378,000	14,730,000	208,060,000	511,280,000	56,968,000
Grades 8 – 9	9,817,000	119,000	11,616,000	12,653,000	152,000
Total commercial	$ 1,137,419,000	$ 43,239,000	$ 565,758,000	$ 1,027,415,000	$ 176,593,000

Retail credit exposure – credit risk profiled by collateral type:

	Retail Home Equity and Other	Retail 1-4 Family Mortgages
Performing	$ 60,369,000	$ 440,861,000
Nonperforming	119,000	1,686,000
Total retail	$ 60,488,000	$ 442,547,000

(1) Included in Commercial and Industrial Loans Grades 1 – 4 are $40.1 million of loans originated under the Paycheck Protection Program.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

All commercial loans are graded using the following criteria:

Grade 1. “Exceptional” Loans with this rating contain very little, if any, risk.

Grade 2. “Outstanding” Loans with this rating have excellent and stable sources of repayment and conform to bank policy and regulatory requirements.

Grade 3. “Very Good” Loans with this rating have strong sources of repayment and conform to bank policy and regulatory requirements. These are loans for which repayment risks are acceptable.

Grade 4. “Good” Loans with this rating have solid sources of repayment and conform to bank policy and regulatory requirements. These are loans for which repayment risks are modest.

Grade 5. “Acceptable” Loans with this rating exhibit acceptable sources of repayment and conform with most bank policies and all regulatory requirements. These are loans for which repayment risks are satisfactory.

Grade 6. “Monitor” Loans with this rating are considered to have emerging weaknesses which may include negative current cash flow, high leverage, or operating losses. Generally, if further deterioration is observed, these credits will be downgraded to the criticized asset report.

Grade 7. “Special Mention” Loans with this rating have potential weaknesses that deserve management’s close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the loan at some future date.

Grade 8. “Substandard” Loans with this rating are inadequately protected by current sound net worth, paying capacity of the obligor, or of the pledged collateral, if any. A Substandard loan normally has one or more well-defined weaknesses that jeopardize the repayment of the debt. They are characterized by the distinct possibility of loss if the deficiencies are not corrected.

Grade 9. “Doubtful” Loans with this rating exhibit all the weaknesses inherent in the Substandard classification and where collection or liquidation in full is highly questionable and improbable.

Grade 10. “Loss” Loans with this rating are considered uncollectable, and of such little value that continuance as an active asset is not warranted.

The primary risk elements with respect to commercial loans are the financial condition of the borrower, the sufficiency of collateral, and timeliness of scheduled payments. We have a policy of requesting and reviewing periodic financial statements from commercial loan customers and employ a disciplined and formalized review of the existence of collateral and its value. The primary risk element with respect to each residential real estate loan and consumer loan is the timeliness of scheduled payments; loans 90 days or more past due are considered nonperforming. We have a reporting system that monitors past due loans and have adopted policies to pursue creditors’ rights in order to preserve our collateral position.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

The following table reflects loan balances as of December 31, 2022 based on year of origination (dollars in thousands):

	2022	2021	2020	2019	2018	Prior	Term Total	Revolving Loans	Grand Total
Commercial:									
Commercial and Industrial:									
Grades 1 – 4	$ 115,494	$ 141,481	$ 43,961	$ 9,194	$ 3,230	$ 9,851	$ 323,211	$ 396,372	$ 719,583
Grades 5 – 7	151,783	47,030	31,697	8,870	569	93	240,042	210,363	450,405
Grades 8 – 9	3,784	249	0	0	48	29	4,110	10,985	15,095
Total	$ 271,061	$ 188,760	$ 75,658	$ 18,064	$ 3,847	$ 9,973	$ 567,363	$ 617,720	$ 1,185,083
Vacant Land, Land Development and Residential Construction:									
Grades 1 – 4	$ 31,756	$ 6,196	$ 3,428	$ 0	$ 0	$ 331	$ 41,711	$ 0	$ 41,711
Grades 5 – 7	10,270	8,760	351	50	0	626	20,057	0	20,057
Grades 8 – 9	0	0	0	0	14	91	105	0	105
Total	$ 42,026	$ 14,956	$ 3,779	$ 50	$ 14	$ 1,048	$ 61,873	$ 0	$ 61,873
Real Estate – Owner Occupied:									
Grades 1 – 4	$ 194,072	$ 113,528	$ 53,630	$ 19,670	$ 19,279	$ 6,162	$ 406,341	$ 0	$ 406,341
Grades 5 – 7	115,720	56,173	33,913	10,245	12,550	1,165	229,766	0	229,766
Grades 8 – 9	2,919	0	44	0	122	0	3,085	0	3,085
Total	$ 312,711	$ 169,701	$ 87,587	$ 29,915	$ 31,951	$ 7,327	$ 639,192	$ 0	$ 639,192
Real Estate – Non-Owner Occupied:									
Grades 1 – 4	$ 129,153	$ 163,035	$ 89,125	$ 44,196	$ 10,079	$ 12,018	$ 447,606	$ 0	$ 447,606
Grades 5 – 7	183,388	164,334	139,951	35,200	13,456	37,399	573,728	0	573,728
Grades 8 – 9	6,712	5,688	0	0	0	0	12,400	0	12,400
Total	$ 319,253	$ 333,057	$ 229,076	$ 79,396	$ 23,535	$ 49,417	$ 1,033,734	$ 0	$ 1,033,734
Real Estate – Multi-Family and Residential Rental:									
Grades 1 – 4	$ 31,470	$ 38,176	$ 36,348	$ 5,306	$ 3,082	$ 4,003	$ 118,385	$ 0	$ 118,385
Grades 5 – 7	48,847	25,786	12,879	3,162	2,557	283	93,514	0	93,514
Grades 8 – 9	0	0	0	0	0	49	49	0	49
Total	$ 80,317	$ 63,962	$ 49,227	$ 8,468	$ 5,639	$ 4,335	$ 211,948	$ 0	$ 211,948
Total Commercial	$ 1,025,368	$ 770,436	$ 445,327	$ 135,893	$ 64,986	$ 72,100	$ 2,514,110	$ 617,720	$ 3,131,830

(Continued)

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

	2022	2021	2020	2019	2018	Prior	Term Total	Revolving Loans	Grand Total
Retail:									
1-4 Family Mortgages:									
Performing	$ 313,611	$ 242,950	$ 91,936	$ 12,094	$ 14,297	$ 41,622	$ 716,510	$ 37,070	$ 753,580
Nonperforming	142	82	0	0	203	1,029	1,456	0	1,456
Total	$ 313,753	$ 243,032	$ 91,936	$ 12,094	$ 14,500	$ 42,651	$ 717,966	$ 37,070	$ 755,036
Other Consumer Loans:									
Performing	$ 4,349	$ 2,870	$ 1,040	$ 1,074	$ 395	$ 430	$ 10,158	$ 19,595	$ 29,753
Nonperforming	0	0	0	0	0	0	0	0	0
Total	$ 4,349	$ 2,870	$ 1,040	$ 1,074	$ 395	$ 430	$ 10,158	$ 19,595	$ 29,753
Total Retail	$ 318,102	$ 245,902	$ 92,976	$ 13,168	$ 14,895	$ 43,081	$ 728,124	$ 56,665	$ 784,789
Grand Total	$ 1,343,470	$ 1,016,338	$ 538,303	$ 149,061	$ 79,881	$ 115,181	$ 3,242,234	$ 674,385	$ 3,916,619

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

The allowance for credit losses for the year-ended December 31, 2022 is as follows (dollars in thousands):

	Commercial and industrial	Commercial vacant land, land development and residential construction	Commercial real estate – owner occupied	Commercial real estate – non-owner occupied	Commercial real estate – multi-family and residential rental	1-4 family mortgages	Other consumer loans	Unallocated	Total
Allowance for credit losses:									
Beginning balance	$ 10,782	$ 420	$ 6,045	$ 13,301	$ 1,695	$ 2,449	$ 626	$ 45	$35,363
Adoption of ASU 2016-13	(1,571)	(43)	(560)	(2,534)	(621)	5,395	(411)	(55)	(400)
Provision for credit losses	946	138	378	(603)	152	5,621	(111)	29	6,550
Charge-offs	(171)	(29)	(38)	0	0	(33)	(21)	0	(292)
Recoveries	217	4	89	0	43	595	77	0	1,025
Ending balance	$ 10,203	$ 490	$ 5,914	$ 10,164	$ 1,269	$ 14,027	$ 160	$ 19	$42,246

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

The allowance for loan losses and recorded investments in loans for the year-ended December 31, 2021 are as follows (dollars in thousands):

	Commercial and industrial	Commercial vacant land, land development and residential construction	Commercial real estate – owner occupied	Commercial real estate – non-owner occupied	Commercial real estate – multi-family and residential rental	Home equity and other	1 – 4 family mortgages	Unallocated	Total
Allowance for loan losses:									
Beginning balance	$ 9,424	$ 679	$ 8,246	$ 13,611	$ 1,819	$ 889	$ 3,240	$ 59	$ 37,967
Provision for loan losses	2,030	(618)	(3,308)	(310)	(150)	(301)	(1,629)	(14)	(4,300)
Charge-offs	(882)	(15)	(12)	0	0	(43)	(92)	0	(1,044)
Recoveries	210	374	1,119	0	26	81	930	0	2,740
Ending balance	$ 10,782	$ 420	$ 6,045	$ 13,301	$ 1,695	$ 626	$ 2,449	$ 45	$ 35,363
Ending balance: individually evaluated for impairment	$ 266	$ 0	$ 84	$ 0	$ 4	$ 123	$ 69	$ 0	$ 546
Ending balance: collectively evaluated for impairment	$ 10,516	$ 420	$ 5,961	$ 13,301	$ 1,691	$ 503	$ 2,380	$ 45	$ 34,817
Total loans (*):									
Ending balance	$ 1,097,309	$ 43,239	$ 565,758	$ 1,027,415	$ 176,593	$ 60,488	$ 442,547		$3,413,349
Ending balance: individually evaluated for impairment	$ 5,010	$ 0	$ 10,435	$ 146	$ 91	$ 1,247	$ 2,437		$ 19,366
Ending balance: collectively evaluated for impairment	$ 1,092,299	$ 43,239	$ 555,323	$ 1,027,269	$ 176,502	$ 59,241	$ 440,110		$3,393,983

(*) Excludes $40.1 million in loans originated under the Paycheck Protection Program.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

The allowance for loan losses and recorded investments in loans for the year-ended December 31, 2020 are as follows (dollars in thousands):

	Commercial and industrial	Commercial vacant land, land development and residential construction	Commercial real estate – owner occupied	Commercial real estate – non-owner occupied	Commercial real estate – multi-family and residential rental	Home equity and other	1 – 4 family mortgages	Unallocated	Total
Allowance for loan losses:									
Beginning balance	$ 6,659	$ 466	$ 6,291	$ 6,761	$ 893	$ 861	1,888	$ 70	$ 23,889
Provision for loan losses	2,921	289	1,881	6,837	907	58	1,168	(11)	14,050
Charge-offs	(247)	(113)	(235)	0	(18)	(96)	(129)	0	(838)
Recoveries	91	37	309	13	37	66	313	0	866
Ending balance	$ 9,424	$ 679	$ 8,246	$ 13,611	$ 1,819	$ 889	$ 3,240	$ 59	$ 37,967
Ending balance: individually evaluated for impairment	$ 53	$ 0	$ 77	$ 8	$ 0	$ 241	$ 172	$ 0	$ 551
Ending balance: collectively evaluated for impairment	$ 9,371	$ 679	$ 8,169	$ 13,603	$ 1,819	$ 648	$ 3,068	$ 59	$ 37,416
Total loans (*):									
Ending balance	$ 780,164	$ 55,055	$ 529,953	$ 917,436	$ 146,095	$ 61,620	$ 337,888		$2,828,211
Ending balance: individually evaluated for impairment	$ 6,585	$ 0	$ 15,327	$ 503	$ 0	$ 1,270	$ 3,273		$ 26,958
Ending balance: collectively evaluated for impairment	$ 773,579	$ 55,055	$ 514,626	$ 916,933	$ 146,095	$ 60,350	$ 334,615		$2,801,253

(*) Excludes $365 million in loans originated under the Paycheck Protection Program.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Loans modified as troubled debt restructurings generally reflect payment extensions and below market interest rates.

Loans modified as troubled debt restructurings during the year-ended December 31, 2022 were as follows:

	Number of Contracts	Pre-Modification Recorded Principal Balance	Post-Modification Recorded Principal Balance
Commercial:			
Commercial and industrial	3	$ 6,593,000	$ 6,593,000
Vacant land, land development and residential construction	0	0	0
Real estate – owner occupied	0	0	0
Real estate – non-owner occupied	0	0	0
Real estate – multi-family and residential rental	0	0	0
Total commercial	3	6,593,000	6,593,000
Retail:			
Home equity and other	0	0	0
1-4 family mortgages	7	758,000	757,000
Total retail	7	758,000	757,000
Total	10	$ 7,351,000	$ 7,350,000

Loans modified as troubled debt restructurings during the year-ended December 31, 2021 were as follows:

	Number of Contracts	Pre-Modification Recorded Principal Balance	Post-Modification Recorded Principal Balance
Commercial:			
Commercial and industrial	10	$ 3,017,000	$ 3,016,000
Vacant land, land development and residential construction	0	0	0
Real estate – owner occupied	1	692,000	692,000
Real estate – non-owner occupied	0	0	0
Real estate – multi-family and residential rental	1	93,000	93,000
Total commercial	12	3,802,000	3,801,000
Retail:			
Home equity and other	4	485,000	482,000
1-4 family mortgages	2	46,000	46,000
Total retail	6	531,000	528,000
Total	18	$ 4,333,000	$ 4,329,000

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

The following loans, modified as troubled debt restructurings within the previous twelve months, became over 30 days past due during the year-ended December 31, 2022 (amounts as of period end):

	Number of Contracts	Recorded Principal Balance
Commercial:		
Commercial and industrial	2	$ 5,665,000
Vacant land, land development and residential construction	0	0
Real estate – owner occupied	0	0
Real estate – non-owner occupied	0	0
Real estate – multi-family and residential rental	0	0
Total commercial	2	5,665,000
Retail:		
Home equity and other	0	0
1-4 family mortgages	0	0
Total retail	0	0
Total	2	$ 5,665,000

The following loans, modified as troubled debt restructurings within the previous twelve months, became over 30 days past due during the year-ended December 31, 2021 (amounts as of period end):

	Number of Contracts	Recorded Principal Balance
Commercial:		
Commercial and industrial	0	$ 0
Vacant land, land development and residential construction	0	0
Real estate – owner occupied	0	0
Real estate – non-owner occupied	0	0
Real estate – multi-family and residential rental	0	0
Total commercial	0	0
Retail:		
Home equity and other	0	0
1-4 family mortgages	0	0
Total retail	0	0
Total	0	$ 0

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Activity for loans categorized as troubled debt restructurings during the year-ended December 31, 2022 is as follows:

	Commercial and Industrial	Commercial Vacant Land, Land Development, and Residential Construction	Commercial Real Estate - Owner Occupied	Commercial Real Estate - Non-Owner Occupied	Commercial Real Estate - Multi-Family and Residential Rental
Commercial Loan Portfolio:					
Beginning Balance	$ 4,973,000	$ 0	$ 10,435,000	$ 146,000	$ 91,000
Charge-Offs	(95,000)	0	(39,000)	0	0
Payments	(772,000)	0	(9,683,000)	(16,000)	(91,000)
Transfers to ORE	0	0	0	0	0
Net Additions/Deletions	4,566,000	0	(669,000)	0	0
Ending Balance	$ 8,672,000	$ 0	$ 44,000	$ 130,000	$ 0

	Retail Home Equity and Other	Retail 1-4 Family Mortgages
Retail Loan Portfolio:		
Beginning Balance	$ 1,202,000	$ 627,000
Charge-Offs	0	0
Payments	(14,000)	(317,000)
Transfers to ORE	0	0
Net Additions/Deletions (1)	(1,187,000)	2,426,000
Ending Balance	$ 1,000	$ 2,736,000

(1) Includes $1.2 million in the transfer of home equity lines of credit from other consumer loans to 1-4 family mortgages in association with the adoption of the CECL methodology effective January 1, 2022.

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Activity for loans categorized as troubled debt restructurings during the year-ended December 31, 2021 is as follows:

	Commercial and Industrial	Commercial Vacant Land, Land Development, and Residential Construction	Commercial Real Estate - Owner Occupied	Commercial Real Estate - Non-Owner Occupied	Commercial Real Estate - Multi-Family and Residential Rental
Commercial Loan Portfolio:					
Beginning Balance	$ 6,414,000	$ 0	$ 14,797,000	$ 480,000	$ 0
Charge-Offs	(17,000)	0	0	0	0
Payments	(4,278,000)	0	(5,048,000)	(334,000)	(1,000)
Transfers to ORE	0	0	0	0	0
Net Additions/Deletions	2,854,000	0	686,000	0	92,000
Ending Balance	$ 4,973,000	$ 0	$ 10,435,000	$ 146,000	$ 91,000

	Retail Home Equity and Other	Retail 1-4 Family Mortgages
Retail Loan Portfolio:		
Beginning Balance	$ 1,146,000	$ 806,000
Charge-Offs	0	0
Payments	(426,000)	(224,000)
Transfers to ORE	0	0
Net Additions/Deletions	482,000	45,000
Ending Balance	$ 1,202,000	$ 627,000

NOTE 3 – LOANS AND ALLOWANCE FOR CREDIT LOSSES (Continued)

Activity for loans categorized as troubled debt restructurings during the year-ended December 31, 2020 is as follows:

	Commercial and Industrial	Commercial Vacant Land, Land Development, and Residential Construction	Commercial Real Estate - Owner Occupied	Commercial Real Estate - Non-Owner Occupied	Commercial Real Estate - Multi-Family and Residential Rental
Commercial Loan Portfolio:					
Beginning Balance	$ 8,587,000	$ 85,000	$ 1,145,000	$ 178,000	$ 7,000
Charge-Offs	0	0	0	0	0
Payments	(11,260,000)	(85,000)	(3,765,000)	(585,000)	(7,000)
Transfers to ORE	0	0	0	0	0
Net Additions/Deletions	9,087,000	0	17,417,000	887,000	0
Ending Balance	$ 6,414,000	$ 0	$ 14,797,000	$ 480,000	$ 0

	Retail Home Equity and Other	Retail 1-4 Family Mortgages
Retail Loan Portfolio:		
Beginning Balance	$ 1,415,000	$ 724,000
Charge-Offs	0	0
Payments	(881,000)	(68,000)
Transfers to ORE	0	0
Net Additions/Deletions	612,000	150,000
Ending Balance	$ 1,146,000	$ 806,000

NOTE 4 - PREMISES AND EQUIPMENT, NET

Year-end premises and equipment were as follows:

	2022	2021
Land and improvements	$ 13,532,000	$ 15,111,000
Buildings	53,865,000	56,168,000
Furniture and equipment	22,941,000	22,974,000
	90,338,000	94,253,000
Less: accumulated depreciation	38,862,000	36,955,000
Total premises and equipment	$ 51,476,000	$ 57,298,000

Depreciation expense totaled $6.0 million in 2022, $5.8 million in 2021, and $5.2 million in 2020.

NOTE 4 - PREMISES AND EQUIPMENT, NET (Continued)

We enter into facility leases in the normal course of business. As of December 31, 2022, we were under lease contracts for eleven of our branch facilities. The leases have maturity dates ranging from June, 2023 through December, 2029, with a weighted average life of 2.5 years as of December 31, 2022. All of our leases have multiple three- to five-year extensions; however, these were not factored in the lease maturities and weighted average lease term as it is not reasonably certain we will exercise the options.

Leases are classified as either operating or finance leases at the lease commencement date, with all of our current leases determined to be operating leases. Lease expense for operating leases is recognized on a straight-line basis over the lease term. Right-of-use assets represent our right to use an underlying asset for the lease term, while lease liabilities represent our obligation to make lease payments arising from the lease. Right-of-use assets and lease liabilities are recognized at the lease commencement date at the estimated present value of lease payments over the lease term. We use our incremental borrowing rate, on a collateralized basis, at lease commencement to calculate the present value of lease payments. The weighted average discount rate for leases was 5.47% as of December 31, 2022.

The right-of-use assets, included in premises and equipment, net on our Consolidated Balance Sheets, and the lease liabilities, included in other liabilities on our Consolidated Balance Sheets, totaled $3.5 million as of December 31, 2022, and totaled $2.9 million and $2.8 million as of December 31, 2021, respectively. As permitted by applicable accounting standards, we have elected not to recognize short-term leases with original terms of twelve months or less on our Consolidated Balance Sheet. Total operating lease expense associated with the leases aggregated $1.3 million, $1.2 million and $1.4 million in 2022, 2021 and 2020, respectively

Future lease payments were as follows as of December 31, 2022:

2023	$ 1,091,000
2024	883,000
2025	443,000
2026	339,000
2027	288,000
Thereafter	1,589,000
Total undiscounted lease payments	4,633,000
Less effect of discounting	(1,118,000)
Present value of future lease payments (lease liability)	3,515,000

NOTE 5 – MORTGAGE LOAN SERVICING

Mortgage loans serviced for others are not reported as assets on the Consolidated Balance Sheets. The year-end aggregate unpaid principal balances of mortgage loans serviced for others were as follows:

	2022	2021
Mortgage loan portfolios serviced for:		
Federal Home Loan Mortgage Corporation	$ 1,345,312,000	$ 1,320,550,000
Federal Home Loan Bank	30,831,000	23,505,000
Total mortgage loans serviced for others	$ 1,376,143,000	$ 1,344,055,000

Custodial escrow balances, which are reported as deposits on the Consolidated Balance Sheets, maintained in connection with serviced loans were $11.6 million and $12.1 million as of December 31, 2022 and December 31, 2021, respectively.

NOTE 5 – MORTGAGE LOAN SERVICING (Continued)

Activity for capitalized mortgage loan servicing rights, which are reported as other assets on the Consolidated Balance Sheets, during 2022 and 2021 was as follows:

	2022	2021
Balance at beginning of year	$ 12,248,000	$ 8,189,000
Additions	2,773,000	7,711,000
Amortized to expense	(3,184,000)	(3,652,000)
Balance at end of year	$ 11,837,000	$ 12,248,000

Mortgage servicing rights result from our mortgage loan origination activities. Late and ancillary fees, included as part of mortgage banking income and reported as noninterest income in the Consolidated Statements of Income, aggregated less than $0.1 million during 2022 and 2021.

Accounting for mortgage servicing rights is based on the class of mortgage servicing rights. We have identified four classes of mortgage servicing rights based on the initial term of the underlying mortgage loans: 10 years, 15 years, 20 years and 30 years. We distinguish between these classes based on the differing sensitivities to the change in value from changes in mortgage interest rates. Mortgage servicing rights are initially recorded at fair value, and then are accounted for using the amortization method. Netted against mortgage banking income, mortgage servicing rights amortization expense is reported as noninterest income in the Consolidated Statements of Income. Mortgage servicing rights amortization is determined by amortizing the mortgage servicing rights balance in proportion to, and over the period of the estimated future net servicing income, of the underlying mortgage loans.

Interest rate risk, prepayment risk and default risk are inherent in mortgage servicing rights valuation. Interest rate changes largely drive prepayment rates. Refinance activity generally increases as interest rates decline. A significant decrease in interest rates beyond expectation could cause a decline in the value of mortgage servicing rights. On the contrary, borrowers are less likely to refinance or prepay their mortgage loans if interest rates increase, which would extend the duration of the underlying mortgage loans and the associated mortgage servicing rights would likely rise. Because of these risks, discount rates and prepayment speeds are used to estimate the fair value of mortgage servicing rights.

We determined that no valuation allowance was necessary as of December 31, 2022 or December 31, 2021. The estimated fair value of mortgage servicing rights was $17.7 million and $15.4 million as of December 31, 2022 and December 31, 2021, respectively. The fair value of mortgage servicing rights is estimated using a valuation model that calculates the present value of estimated future net servicing cash flows, taking into consideration expected mortgage loan prepayment rates, discount rates, servicing costs and other economic factors, which are determined based on current market conditions. During 2022, fair value was determined using a discount rate of 11.25%, a weighted average constant prepayment rate of 6.6%, depending on the stratification of the specific right, and a weighted average delinquency rate of 0.28%. During 2021, fair value was determined using a discount rate of 8.0%, a weighted average constant prepayment rate of 7.4%, depending on the stratification of the specific right, and a weighted average delinquency rate of 0.25%.

The weighted average amortization period was 8.9 years and 8.5 years as of December 31, 2022 and December 31, 2021, respectively. Forecasted amortization as of December 31, 2022 is as follows:

2023	$ 2,366,000
2024	2,066,000
2025	1,772,000
2026	1,492,000
2027	1,236,000
Thereafter	2,905,000

NOTE 6 – CORE DEPOSIT INTANGIBLE ASSET, NET

The gross carrying amount of core deposit intangible assets, included in other assets on our Consolidated Balance Sheets, totaled $17.5 million as of December 31, 2022 and December 31, 2021. As of December 31, 2022, the accumulated amortization on core deposit intangible assets was $16.9 million, providing for a net carry balance of $0.6 million. As of December 31, 2021, the accumulated amortization on core deposit intangible assets was $16.1 million, providing for a net carry balance of $1.4 million.

The scheduled amortization expense on core deposit intangible assets in future periods is:

2023	$ 450,000
2024	133,000

NOTE 7 – DEPOSITS

Deposits at year-end are summarized as follows:

	December 31, 2022		December 31, 2021		Percent Increase
	Balance	%	Balance	%	(Decrease)
Noninterest-bearing checking	$ 1,604,750,000	43.2%	$ 1,677,952,000	41.1%	(4.4%)
Interest-bearing checking	575,028,000	15.5	538,838,000	13.2	6.7
Money market	776,723,000	20.9	1,040,176,000	25.5	(25.3)
Savings	381,602,000	10.3	394,330,000	9.7	(3.2)
Time, under $100,000	113,099,000	3.0	132,776,000	3.2	(14.8)
Time, $100,000 and over	261,609,000	7.1	275,208,000	6.7	(4.9)
Total local deposits	3,712,811,000	100.0	4,059,280,000	99.4	(8.5)
Out-of-area time, $100,000 and over	0	0.0	23,913,000	0.6	(100.0)
Total deposits	$ 3,712,811,000	100.0%	$ 4,083,193,000	100.0%	(9.1%)

Out-of-area time deposits consist of deposits obtained from depositors outside of our primary market areas exclusively through deposit brokers.

The following table depicts the maturity distribution for time deposits at year-end:

	2022	2021
In one year or less	$ 188,887,000	$ 260,501,000
In one to two years	68,434,000	78,024,000
In two to three years	22,053,000	34,595,000
In three to four years	30,761,000	7,863,000
In four to five years	64,573,000	50,914,000
Total certificates of deposit	$ 374,708,000	$ 431,897,000

NOTE 7 – DEPOSITS (Continued)

The following table depicts the maturity distribution for time deposits with balances of $100,000 or more at year-end:

	2022	2021
Up to three months	$ 40,538,000	$ 68,887,000
Three months to six months	25,141,000	53,077,000
Six months to twelve months	54,394,000	56,612,000
Over twelve months	141,536,000	120,545,000
Total certificates of deposit	$ 261,609,000	$ 299,121,000

Total time deposits of more than $250,000 totaled $187 million and $207 million at year-end 2022 and 2021, respectively.

Deposit overdrafts, which are reported as loans on the Consolidated Balance Sheets, totaled $0.9 million and $0.1 million as of December 31, 2022 and December 31, 2021, respectively.

NOTE 8 – SECURITIES SOLD UNDER AGREEMENTS TO REPURCHASE

Information regarding securities sold under agreements to repurchase at year-end is summarized below:

	2022	2021
Outstanding balance at year-end	$ 194,340,000	$ 197,463,000
Weighted average interest rate at year-end	0.75%	0.11%
Average daily balance during the year	$ 200,499,000	$ 158,855,000
Weighted average interest rate during the year	0.15%	0.11%
Maximum daily balance during the year	$ 235,577,000	$ 209,093,000

Securities sold under agreements to repurchase (“repurchase agreements”) generally have original maturities of less than one year. Repurchase agreements are treated as financings, and the obligations to repurchase securities sold are reflected as liabilities on our Consolidated Balance Sheets. Repurchase agreements are secured by securities with an aggregate fair value equal to the aggregate outstanding balance of the repurchase agreements. The securities, which are included in securities available for sale on our Consolidated Balance Sheets, are held in safekeeping by a correspondent bank. Repurchase agreements are offered principally to certain large deposit customers.

NOTE 9 - FEDERAL HOME LOAN BANK OF INDIANAPOLIS ADVANCES

Federal Home Loan Bank of Indianapolis (“FHLBI”) bullet advances totaled $280 million at December 31, 2022, and were expected to mature at varying dates from January 2023 through June 2027, with fixed rates of interest from 0.55% to 3.13% and averaging 1.84%. FHLBI bullet advances totaled $374 million at December 31, 2021, and were expected to mature at varying dates from January 2022 through June 2027, with fixed rates of interest from 0.55% to 3.18% and averaging 2.00%.

(Continued)

NOTE 9 - FEDERAL HOME LOAN BANK OF INDIANAPOLIS ADVANCES (Continued)

Maturities of FHLBI bullet advances as of December 31, 2022 were as follows:

2023	$ 80,000,000
2024	80,000,000
2025	50,000,000
2026	30,000,000
2027	40,000,000

FHLBI amortizing advances totaled $28.3 million as of December 31, 2022, with an average fixed rate of 2.52% and maturities in 2042. We had no FHLBI amortizing advances outstanding as of December 31, 2021. FHLBI amortizing advances are obtained periodically to assist in managing interest rate risk associated with certain longer-term fixed rate commercial loans, with annual principal payments that closely align with the scheduled amortization of the underlying commercial loans.

Scheduled principal payments on FHLBI amortizing advances as of December 31, 2022 were as follows:

2023	$ 353,000
2024	826,000
2025	862,000
2026	899,000
2027	938,000
Thereafter	24,385,000

Each advance is payable at its maturity date, and is subject to a prepayment fee if paid prior to the maturity date. The advances are collateralized by residential mortgage loans, first mortgage liens on multi-family residential property loans, first mortgage liens on commercial real estate property loans, and substantially all other assets of our bank under a blanket lien arrangement. Our borrowing line of credit as of December 31, 2022 totaled $1.03 billion, with remaining availability based on collateral of $713 million.

NOTE 10 - FEDERAL INCOME TAXES

The consolidated income tax expense is as follows:

	2022	2021	2020
Current expense	$ 16,080,000	$ 12,675,000	$ 14,945,000
Deferred expense	(1,353,000)	2,020,000	(4,141,000)
Change in valuation allowance	0	0	(94,000)
Tax expense	$ 14,727,000	$ 14,695,000	$ 10,710,000

NOTE 10 - FEDERAL INCOME TAXES (Continued)

A reconciliation of the differences between the federal income tax expense recorded and the amount computed by applying the federal statutory rate to income before income taxes is as follows:

	2022	2021	2020
Tax at statutory rate	$ 15,915,000	$ 15,481,000	$ 11,518,000
Increase (decrease) from			
Tax-exempt interest	(695,000)	(658,000)	(681,000)
Bank owned life insurance	(334,000)	(233,000)	(238,000)
Change in valuation allowance	0	0	(94,000)
Other	(159,000)	105,000	205,000
Tax expense	$ 14,727,000	$ 14,695,000	$ 10,710,000

The statutory tax rate was 21% for 2022, 2021 and 2020.

Significant components of deferred tax assets and liabilities, included in other assets on our Consolidated Balance Sheets, as of December 31, 2022 and 2021 are as follows:

	2022	2021
Deferred income tax assets		
Allowance for credit losses	$ 8,872,000	$ 7,426,000
Deferred compensation	232,000	259,000
Stock compensation	1,018,000	941,000
Nonaccrual loan interest income	136,000	159,000
Unrealized loss on securities	17,369,000	991,000
Lease liability	810,000	749,000
Deferred loan fees and costs	0	520,000
Other	494,000	595,000
Deferred tax asset	28,931,000	11,640,000
Deferred income tax liabilities		
Depreciation	697,000	1,168,000
Prepaid expenses	504,000	416,000
Core deposit intangible	120,000	276,000
Mortgage loan servicing rights	2,486,000	2,572,000
Deferred loan fees and costs	211,000	0
Right of use lease asset	810,000	749,000
Business combination adjustments	1,877,000	2,013,000
Other	326,000	193,000
Deferred tax liability	7,031,000	7,387,000
Total net deferred tax asset	$ 21,900,000	$ 4,253,000

A valuation allowance related to deferred tax assets is required when it is considered more likely than not that all or part of the benefits related to such assets will not be realized. We determined that no valuation allowance was required at year-end 2022 or 2021. We had no unrecognized tax benefits at any time during 2022 or 2021 and do not anticipate any significant increase in unrecognized tax benefits during 2023. Should the accrual of any interest or penalties relative to unrecognized tax benefits be necessary, it is our policy to record such accruals in our income tax accounts; no such accruals existed at any time during 2022 or 2021. Our U.S. federal income tax returns are no longer subject to examination for all years before 2019.

NOTE 11 – STOCK-BASED COMPENSATION

Stock-based compensation plans are used to provide directors and employees with an increased incentive to contribute to our long-term performance and growth, to align the interests of directors and employees with the interests of our shareholders through the opportunity for increased stock ownership and to attract and retain directors and employees. During 2015, stock option grants were provided to certain employees from the Stock Incentive Plan of 2006. Stock option grants were provided to certain employees during 2016 from the Stock Incentive Plan of 2016. During the years 2016 through 2019, restricted stock grants were provided to certain employees from the Stock Incentive Plan of 2016. During the years 2020 through 2022, restricted stock grants were provided to certain employees from the Stock Incentive Plan of 2020. Stock grants to directors as retainer payments during the years 2016 through 2019 were from the Stock Incentive Plan of 2016, while stock grants to directors as retainer payments during the years 2020 through 2022 were from the Stock Incentive Plan of 2020.

The Stock Incentive Plan of 2006 expired on January 18, 2016, and was effectively replaced with the Stock Incentive Plan of 2016 that was approved by shareholders in May, 2016. The Stock Incentive Plan of 2016 was effectively replaced with the Stock Incentive Plan of 2020 that was approved by shareholders in May, 2020.

Under the Stock Incentive Plan of 2006, the Stock Incentive Plan of 2016 and the Stock Incentive Plan of 2020, incentive awards may include, but are not limited to, stock options, restricted stock, stock appreciation rights and stock awards. Incentive awards that are stock options or stock appreciation rights are granted with an exercise price not less than the closing price of our common stock on the date of grant. Price, vesting and expiration date parameters are determined by Mercantile's Compensation Committee on a grant-by-grant basis. No payments are required from employees for restricted stock awards. The restricted stock awards granted during the years 2016 through 2022 fully vest after three years and, in the case of performance-based restricted stock issued to executive officers in 2018 through 2022, are subject to the attainment of pre-determined performance goals. The stock options granted during 2014, which were at 110% of the market price on the date of grant, fully vest after two years and expire after seven years. At year-end 2022, there were approximately 66,000 shares authorized for future incentive awards.

A summary of restricted stock activity from grants issued during the past three years is as follows:

	2022		2021		2020	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
Nonvested at beginning of year	353,691	$ 30.71	262,336	$ 29.42	262,260	$ 34.91
Granted	121,631	32.18	163,000	33.68	121,518	24.65
Vested	(94,010)	34.86	(59,772)	31.82	(85,445)	37.08
Forfeited	(6,541)	27.98	(11,873)	29.54	(35,997)	33.71
Nonvested at end of year	374,771	$ 30.49	353,691	$ 30.71	262,336	$ 29.42

NOTE 11 – STOCK-BASED COMPENSATION (Continued)

Of the restricted stock shares granted in 2022, 2021 and 2020, a total of 26,112 shares, 22,703 shares and 31,295 shares, respectively, are performance-based awards made to our Named Executive Officers at the target level and are subject to the attainment of pre-determined performance goals. Of the shares granted in 2022, a total of 11,350, 2,778 and 690 shares reflect increases in performance-based grants to our Named Executive Officers that were awarded in 2021, 2020 and 2019, respectively. Of the granted shares during 2021, a total of 11,454, 23,053 and 22,836 shares reflect increases in performance-based grants to our Named Executive Officers that were awarded in 2020, 2019 and 2018, respectively. Of the forfeited shares during 2020, a total of 13,709 shares and 14,681 shares reflect reductions in performance-based grants to our Named Executive Officers that were awarded in 2019 and 2018, respectively. These adjustments were based on an analysis of the pre-determined performance goals taking into account actual performance since the grant date and updated forecasts for the remainder of the three-year performance period.

A summary of stock option activity during the past three years is as follows:

	2022		2021		2020	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	7,700	$ 34.89	9,700	$ 32.83	10,700	$ 30.25
Granted	0	NA	0	NA	0	NA
Exercised	(2,700)	32.42	(2,000)	24.91	(1,000)	5.19
Forfeited or expired	0	NA	0	NA	0	NA
Outstanding at end of year	5,000	$ 36.22	7,700	$ 34.89	9,700	$ 32.83
Options exercisable at year-end	5,000	$ 36.22	7,700	$ 34.89	9,700	$ 32.83

The fair value of each stock option award is estimated on the date of grant using a closed option valuation (Black-Scholes) model that uses the assumptions noted in the table below. Expected volatilities are based on historical volatilities on our common stock. Historical data is used to estimate stock option expense and post-vesting termination behavior. The expected term of stock options granted is based on historical data and represents the period of time that stock options granted are expected to be outstanding, which takes into account that the stock options are not transferable. The risk-free interest rate for the expected term of the stock option is based on the U.S. Treasury yield curve in effect at the time of the stock option grant. No stock option grants were made during the past three years.

Options at year-end 2022 were as follows:

	Outstanding			Exercisable	
Range of Exercise Prices	Number	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$36.00 - $37.00	5,000	0.9	$ 36.22	5,000	$ 36.22
Outstanding at year end	5,000	0.9	$ 36.22	5,000	$ 36.22

NOTE 11– STOCK-BASED COMPENSATION (Continued)

Information related to options outstanding at year-end 2022, 2021 and 2020 is as follows:

	2022	2021	2020
Minimum exercise price	$ 36.22	$ 27.66	$ 22.15
Maximum exercise price	36.22	36.22	36.22
Average remaining option term (years)	0.9	1.7	2.4

Information related to stock option grants and exercises during 2022, 2021 and 2020 is as follows:

	2022	2021	2020
Aggregate intrinsic value of stock options exercised	$ 16,000	$ 13,000	$ 17,000
Cash received from stock option exercises	36,000	50,000	3,000
Tax benefit realized from stock option exercises	0	0	0
Weighted average per share fair value of stock options granted	NA	NA	NA

No stock option awards outstanding and exercisable at December 31, 2022 were in-the-money. Shares issued as a result of the exercise of stock option grants have been authorized and were previously unissued shares.

On May 23, 2019, we granted about 12,000 shares of common stock to our Corporate, Bank and Regional Advisory Boards of Directors for retainer payments for the period of June 1, 2019 through May 31, 2020. The associated $0.4 million cost was expensed on a straight-line basis over the respective twelve month period. On June 1, 2020, we granted about 16,000 shares of common stock to our Corporate, Bank and Regional Advisory Boards of Directors for retainer payments for the period of June 1, 2020 through May 31, 2021. The associated $0.3 million cost was expensed on a straight-line basis over the respective twelve month period. On August 27, 2020, we granted about 1,700 shares of common stock to newly appointed Corporate and Bank Board members for retainer payments for the period of September 1, 2020 through May 31, 2021. The associated cost of less than $0.1 million was expensed over the respective nine-month period. On May 27, 2021, we granted about 10,500 shares of common stock to our Corporate and Bank Boards of Directors for retainer payments for the period of June 1, 2021 through May 31, 2022. The associated $0.3 million cost was expensed on a straight-line basis over the respective twelve-month period. On May 26, 2022, we granted about 10,300 shares of our common stock to our Corporate and Bank Board of Directors for retainer payments for the period of June 1, 2022 through May 31, 2023. The associated $0.3 million cost is being expensed on a straight-line basis over the respective twelve-month period. On June 9, 2022, we granted about 600 shares of common stock to a newly appointed Bank Board member for retainer payments for the period of June 1, 2022 through May 31, 2023. The associated cost of less than $0.1 million is being expensed on a straight-line basis over the respective twelve-month period. On November 25, 2022, we granted about 300 shares of common stock to a newly appointed Bank Board member for retainer payments for the period of November 1, 2022 through May 31, 2023. The associated cost of less than $0.1 million is being expensed on a straight-line basis over the respective seven-month period.

Stock-based compensation, reported as noninterest expense in the Consolidated Statements of Income, totaled $3.4 million, $3.8 million and $2.3 million in 2022, 2021 and 2020, respectively.

NOTE 12 – RELATED PARTIES

Certain directors and executive officers of our bank, including their immediate families and companies in which they are principal owners, were loan customers of our bank. At year-end 2022 and 2021, our bank had $116 million and $104 million in loan commitments to directors and executive officers, of which $92.7 million and $87.7 million were outstanding at year-end 2022 and 2021, respectively, as reflected in the following table.

	2022	2021
Beginning balance	$ 87,672,000	$ 108,042,000
New loans	10,619,000	2,542,000
Repayments	(5,631,000)	(22,912,000)
Ending balance	$ 92,660,000	$ 87,672,000

Related party deposits and repurchase agreements totaled $21.5 million and $18.4 million at year-end 2022 and 2021, respectively.

NOTE 13 – COMMITMENTS AND OFF-BALANCE-SHEET RISK

We are a party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of our customers. These financial instruments include commitments to extend credit and standby letters of credit. Loan commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Standby letters of credit are conditional commitments issued by our bank to guarantee the performance of a customer to a third party. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements.

These instruments involve, to varying degrees, elements of credit risk in excess of the amount recognized, if any, in the balance sheet. Our maximum exposure to loan loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit and standby letters of credit is represented by the contractual notional amount of those instruments. We use the same credit policies in making commitments and conditional obligations as we do for on-balance sheet instruments. Collateral, such as accounts receivable, securities, inventory, and property and equipment, is generally obtained based on management's credit assessment of the borrower.

We are required to consider expected credit losses associated with loan commitments over the contractual period in which we are exposed to credit risk on the underlying commitments unless the obligation is unconditionally cancellable by us. Any allowance for off-balance sheet credit exposures is reported as an other liability on our Consolidated Balance Sheet and is increased or decreased via other noninterest expense on our Consolidated Statement of Income. The calculation includes consideration of the likelihood that funding will occur and forecasted credit losses on commitments expected to be funded over their estimated lives. The allowance is calculated using the same aggregate reserve rates calculated for the funded portion of loans at the portfolio level applied to the amount of commitments expected to be funded.

For commercial lines of credit, retail lines of credit and credit card average outstanding balances, we determined allowance requirements by calculating the difference between the average percent outstanding of the funded commitments over the past several years to actual percent outstanding as of December 31, 2022 and applying the respective expected loss allocation factors to the difference as this difference represents the average of unfunded commitments we expect to eventually be drawn upon. The calculated allowance aggregated $0.1 million as of December 31, 2022. We do not reserve for residential mortgage construction loans, as the loans are for one year or less and draws are governed by the receipt and satisfactory review of contractor and subcontractor sworn statements, lien waivers and title insurance company endorsements. Letters of credit are rarely drawn.

NOTE 13 – COMMITMENTS AND OFF-BALANCE-SHEET RISK (Continued)

At year-end 2022 and 2021, the rates on existing off-balance sheet instruments were substantially equivalent to current market rates, considering the underlying credit standing of the counterparties.

Our maximum exposure to credit losses for loan commitments and standby letters of credit outstanding at year-end was as follows:

	2022	2021
Commercial unused lines of credit	$ 1,283,703,000	$ 1,098,951,000
Unused lines of credit secured by 1 – 4 family residential properties	71,972,000	64,313,000
Credit card unused lines of credit	123,687,000	92,146,000
Other consumer unused lines of credit	75,747,000	64,876,000
Commitments to make loans	329,646,000	212,476,000
Standby letters of credit	23,539,000	33,109,000
Total commitments	$ 1,908,294,000	$ 1,565,871,000

Commitments to make commercial loans generally reflect our binding obligations to existing and prospective customers to extend credit, including line of credit facilities secured by accounts receivable and inventory, and term debt secured by either real estate or equipment.

In most instances, commercial line of credit facilities have a term ranging from 12 to 24 months with a floating rate tied to the Wall Street Journal Prime Rate, 30-Day Libor Rate or 30-Day SOFR. Commercial term debt secured by real estate are generally at a floating rate tied to the Wall Street Journal Prime Rate, 30-Day Libor Rate or 30-Day SOFR. Since the fourth quarter of 2020, a fixed rate option for commercial term debt loans secured by real estate is generally not offered for loans over $2.5 million; instead, customers are offered participation in our back-to-back interest rate swap program to achieve a desired fixed rate. For loans under $2.5 million, we offer a rate primarily equal to the commensurate cost of funds using FHLBI advance rates as a proxy and a credit spread as indicated by the credit rating we assign. Commercial term debt secured by real estate generally balloon within five years, with payments based on amortizations ranging from 10 to 25 years. Commercial term debt secured by non-real estate collateral is generally at a floating rate tied to the Wall Street Journal Prime Rate, 30-Day Libor Rate or 30-Day SOFR, or a fixed rate primarily equal to the commensurate cost of funds using FHLBI advance rates as a proxy and a credit spread as indicated by the credit rating we assign, and generally mature and fully amortize within three to seven years. Effective January 1, 2022, we replaced the 30-Day Libor Rate with 30-Day SOFR for all new and renewing floating rate commercial loans and commitments. Commercial loans tied to the 30-Day Libor Rate outstanding on June 30, 2023 will convert to an equivalent fallback SOFR Rate. As of December 31, 2022, outstanding balances on loans tied to the 30-Day Libor Rate aggregated $368 million.

The following standby letters of credit are considered financial guarantees under current accounting guidance. These instruments are carried at fair value as an other liability on our Consolidated Balance Sheets. Standby letters of credit are generally cross collateralized with the borrowers' other loans with us, and are included in our borrower collateral analyses.

	2022		2021	
	Contract Amount	Carrying Value	Contract Amount	Carrying Value
Standby letters of credit	$ 23,539,000	$ 108,000	$ 33,109,000	$ 212,000

NOTE 14 – BENEFIT PLANS

We have a 401(k) benefit plan that covers substantially all of our employees. The percent of our matching contributions to the 401(k) benefit plan is determined annually by the Board of Directors. The matching contribution has been 5.00% since April 1, 2018. Matching contributions, if made, are immediately vested. Our 2022, 2021 and 2020 matching 401(k) contributions charged to expense were $2.2 million, $2.1 million and $1.9 million, respectively.

We have a deferred compensation plan in which all persons serving on the Board of Directors may defer all or portions of their annual retainer and meeting fees, with distributions to be paid upon termination of service as a director or specific dates selected by the director. We also have a non-qualified deferred compensation program in which selected officers may defer all or portions of salary and bonus payments. The deferred amounts, totaling $1.1 million and $1.2 million as of December 31, 2022 and 2021, respectively, are categorized as other liabilities in the Consolidated Balance Sheets, and are paid interest at a rate equal to the Wall Street Journal Prime Rate. Interest expense was less than $0.1 million during 2022 and 2021, and $0.1 million during 2020.

The Mercantile Bank Corporation Employee Stock Purchase Plan of 2014 is a non-compensatory plan intended to encourage full- and part-time employees of Mercantile and its subsidiaries to promote our best interests and to align employees' interests with the interests of our shareholders by permitting employees to purchase shares of our common stock through regular payroll deductions. Shares are purchased on the last business day of each calendar quarter at a price equal to the consolidated closing bid price of our common stock reported on The Nasdaq Stock Market. A total of 250,000 shares of common stock may be issued under the existing plan; however, the number of shares may be adjusted to reflect any stock dividends and other changes in our capitalization. The number of shares issued totaled 1,388 and 1,481 in 2022 and 2021, respectively. As of December 31, 2022, there were approximately 235,900 shares available under our current plan.

NOTE 15 – DERIVATIVES AND HEDGING ACTIVITIES

We are exposed to certain risks arising from both business operations and economic conditions. We principally manage the exposure to a wide variety of operational risks through core business activities. Economic risks, including interest rate, liquidity and credit risk, are primarily administered via the amount, sources and duration of assets and liabilities. Derivative financial instruments may also be used to assist in managing economic risks.

Derivatives not designated as hedges are not speculative and result from a service provided to certain commercial loan borrowers. We execute interest rate swaps with commercial banking customers desiring longer-term fixed rate loans, while simultaneously entering into interest rate swaps with correspondent banks to offset the impact of the interest rate swaps with the commercial banking customers. The net result is the desired floating rate loans and a minimization of the risk exposure of the interest rate swap 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 commercial banking customer interest rate swaps and the offsetting interest rate swaps with the correspondent banks are recognized directly to earnings. Fees paid to us by the correspondent banks are recognized as noninterest income on our Consolidated Statements of Income on the settlement date.

NOTE 15 – DERIVATIVES AND HEDGING ACTIVITIES (Continued)

The fair values of derivative instruments as of December 31, 2022, are reflected in the following table.

	Notional Amount	Balance Sheet Location	Fair Value
Derivative Assets			
Interest rate swaps	$ 401,572,000	Other Assets	$ 25,697,000
Derivative Liabilities			
Interest rate swaps	401,572,000	Other Liabilities	25,900,000

The effect of interest rate swaps that are not designated as hedging instruments resulted in income of less than $0.1 million during the year-ended December 31, 2022 that was recorded in other noninterest expense on our Consolidated Statements of Income. The fair value of interest rate swaps in a liability position, which includes accrued interest, was $25.9 million as of December 31, 2022. We have master netting arrangements with our correspondent banks that allow us to net receivables and payables. The netting agreement also allows us to net related cash collateral received and transferred up to the fair value exposure amount. We have elected to not offset these transactions on the Consolidated Balance Sheets. As of December 31, 2022, the gross amount of derivative assets subject to master netting agreements presented on the Consolidated Balance Sheets was $25.3 million, while cash collateral reflecting cash requirements from our counterparties to us totaled $25.2 million, and the net amount of derivative assets not offset in the Consolidated Balance Sheets was $0.1 million. As of December 31, 2022, the gross amount of derivative liabilities subject to master netting agreements presented on the Consolidated Balance Sheets was $0.4 million, while cash collateral reflecting cash requirements from us to our counterparties totaled $0.4 million, and the net amount of derivative liabilities not offset on the Consolidated Balance Sheets was $0. Cash collateral amounts, which are based on daily fair value calculations, are adjusted daily if fair value changes exceed an aggregate of $250,000. Interest rate swaps entered into with commercial loan customers had notional amounts aggregating $402 million as of December 31, 2022. Associated credit exposure is generally mitigated by securing the interest rates swaps with the underlying collateral of the loan instruments.

The fair values of derivative instruments as of December 31, 2021, are reflected in the following table.

	Notional Amount	Balance Sheet Location	Fair Value
Derivative Assets			
Interest rate swaps	$ 279,419,000	Other Assets	$ 4,609,000
Derivative Liabilities			
Interest rate swaps	279,419,000	Other Liabilities	4,857,000

NOTE 15 – DERIVATIVES AND HEDGING ACTIVITIES (Continued)

The effect of interest rate swaps that are not designated as hedging instruments resulted in expense of $0.2 million during the year-ended December 31, 2021 recognized in other noninterest expense on our Consolidated Statements of Income. The fair value of interest rate swaps in a liability position, which includes accrued interest, was $4.9 million as of December 31, 2021. As of December 31, 2021, the gross amount of derivative assets subject to master netting agreements presented on the Consolidated Balance Sheets was $0.8 million, while cash collateral reflecting cash requirements from our counterparties to us totaled $0.7 million, and the net amount of derivative assets not offset in the Consolidated Balance Sheets was $0.1 million. As of December 31, 2021, the gross amount of derivative liabilities subject to master netting agreements presented on the Consolidated Balance Sheets was $4.1 million, while cash collateral reflecting cash requirements from us to our counterparties totaled $4.3 million, and the net amount of derivative liabilities not offset on the Consolidated Balance Sheets was $0.2 million. Interest rate swaps entered into with commercial loan customers had notional amounts aggregating $279 million as of December 31, 2021. Associated credit exposure is generally mitigated by securing the interest rates swaps with the underlying collateral of the loan instruments.

NOTE 16 – FAIR VALUES OF FINANCIAL INSTRUMENTS

Carrying amount, estimated fair value and level within the fair value hierarchy of financial instruments were as follows at year-end (dollars in thousands):

	Level in Fair Value Hierarchy	2022 Carrying Amount	2022 Fair Value	2021 Carrying Amount	2021 Fair Value
Financial assets					
Cash and cash equivalents	Level 1	$ 96,772	$ 96,772	$ 975,160	$ 975,160
Securities available for sale	(1)	602,936	602,936	592,743	592,743
Federal Home Loan Bank stock	(2)	17,721	17,721	18,002	18,002
Loans, net	Level 3	3,874,373	3,800,042	3,418,096	3,498,345
Mortgage loans held for sale	Level 2	3,565	3,643	16,117	16,707
Mortgage servicing rights	Level 3	11,837	17,727	12,248	15,445
Accrued interest receivable	Level 2	15,476	15,476	9,311	9,311
Interest rate swaps	Level 2	25,697	25,697	4,609	4,609
Financial liabilities					
Deposits	Level 2	3,712,811	3,379,403	4,083,193	4,028,249
Securities sold under agreements to repurchase	Level 2	194,340	194,340	197,463	197,463
Federal Home Loan Bank advances	Level 2	308,263	292,044	374,000	384,927
Subordinated debentures	Level 2	48,958	49,531	48,244	48,284
Subordinated notes	Level 2	88,628	75,024	73,646	73,646
Accrued interest payable	Level 2	3,223	3,223	1,393	1,393
Interest rate swaps	Level 2	25,900	25,900	4,857	4,857

(1) See Note 17 for a description of the fair value hierarchy as well as a disclosure of levels for classes of financial assets and liabilities.
(2) It is not practical to determine the fair value of FHLBI stock due to transferability restrictions; therefore, fair value is estimated at carrying amount.

NOTE 16 – FAIR VALUES OF FINANCIAL INSTRUMENTS (Continued)

Carrying amount is the estimated fair value for cash and cash equivalents, FHLBI stock, accrued interest receivable and payable, noninterest-bearing checking accounts and securities sold under agreements to repurchase. Security fair values are based on market prices or dealer quotes, and if no such information is available, on the rate and term of the security and information about the issuer. Fair value for loans is based on an exit price model as required by ASU 2016-01, taking into account inputs such as discounted cash flows, probability of default and loss given default assumptions. Fair value for deposit accounts other than noninterest-bearing checking accounts is based on discounted cash flows using current market rates applied to the estimated life. The fair value of mortgage servicing rights is estimated using a valuation model that calculates the present value of estimated future net servicing cash flows, taking into consideration expected mortgage loan prepayment rates, discount rates, servicing costs and other economic factors, which are determined based on current market conditions. The fair values of subordinated debentures, subordinated notes, and FHLBI advances are based on current rates for similar financing. The fair values of interest rate swaps are based on discounted cash flows using forecasted yield curves, along with insignificant unobservable inputs, such as borrower credit spreads. The fair value of other off-balance sheet items is estimated to be nominal.

NOTE 17 – FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability, or in the absence of a principal market, the most advantageous market for the asset or liability. The price of the principal (or most advantageous) market used to measure the fair value of the asset or liability is not adjusted for transaction costs. An orderly transaction is a transaction that assumes exposure to the market for a period prior to the measurement date to allow for marketing activities that are usual and customary for transactions involving such assets and liabilities; it is not a forced transaction. Market participants are buyers and sellers in the principal market that are (i) independent, (ii) knowledgeable, (iii) able to transact and (iv) willing to transact.

We are required to use valuation techniques that are consistent with the market approach, the income approach and/or the cost approach. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets and liabilities. The income approach uses valuation techniques to convert future amounts, such as cash flows or earnings, to a single present amount on a discounted basis. The cost approach is based on the amount that currently would be required to replace the service capacity of an asset (replacement cost). Valuation techniques should be consistently applied. Inputs to valuation techniques refer to the assumptions that market participants would use in pricing the asset or liability. Inputs may be observable, meaning those that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from independent sources, or unobservable, meaning those that reflect our own estimates about the assumptions market participants would use in pricing the asset or liability based on the best information available in the circumstances. In that regard, we utilize a fair value hierarchy for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

Level 1: Quoted prices (unadjusted) for identical assets or liabilities in active markets that we have the ability to access as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; or other inputs that are observable or can be derived from or corroborated by observable market data by correlation or other means.

NOTE 17 – FAIR VALUE MEASUREMENTS (Continued)

Level 3: Significant unobservable inputs that reflect our own estimates about the assumptions that market participants would use in pricing an asset or liability.

The following is a description of our valuation methodologies used to measure and disclose the fair values of our financial assets and liabilities on a recurring or nonrecurring basis:

Securities available for sale. Securities available for sale are recorded at fair value on a recurring basis. Fair value measurement is based on quoted prices, if available. If quoted prices are not available, fair values are measured using independent pricing models. Level 2 securities include U.S. Government agency debt obligations, mortgage-backed securities issued or guaranteed by U.S. Government agencies, and municipal general obligation and revenue bonds. Level 3 securities include bonds issued by certain relatively small municipalities located within our markets that have very limited marketability due to their size and lack of ratings from a recognized rating service. We carry these bonds at historical cost, which we believe approximates fair value, unless our periodic financial analysis or other information that becomes known to us necessitates an impairment. There was no such impairment as of December 31, 2022 or 2021. We have no Level 1 securities available for sale.

Derivatives. We measure fair value utilizing models that use primarily market observable inputs, such as forecasted yield curves. Insignificant unobservable inputs, such as borrower credit spreads, are also utilized.

Mortgage loans held for sale. Mortgage loans originated and intended for sale in the secondary market are carried at the lower of aggregate cost or market, as determined by outstanding commitments from investors, and are measured on a nonrecurring basis. Fair value is based on independent quoted market prices, where applicable, or the prices for other mortgage whole loans with similar characteristics. As of December 31, 2022 and 2021, we determined the fair value of our mortgage loans held for sale to be $3.6 million and $16.7 million, respectively.

Loans. We do not record loans at fair value on a recurring basis. However, from time to time, we record nonrecurring fair value adjustments to collateral dependent loans to reflect partial write-downs or specific reserves that are based on the observable market price or current estimated value of the collateral. These loans are reported in the nonrecurring table below at initial recognition of significant borrower distress and on an ongoing basis until recovery or charge-off. The fair values of distressed loans are determined using either the sales comparison approach or income approach; respective unobservable inputs for the approaches consist of adjustments for differences between comparable sales and the utilization of appropriate capitalization rates.

Foreclosed assets. At time of foreclosure or repossession, foreclosed and repossessed assets are adjusted to fair value less costs to sell upon transfer of the loans to foreclosed and repossessed assets, establishing a new cost basis. We subsequently adjust estimated fair value of foreclosed assets on a nonrecurring basis to reflect write-downs based on revised fair value estimates. The fair values of parcels of other real estate owned are determined using either the sales comparison approach or income approach; respective unobservable inputs for the approaches consist of adjustments for differences between comparable sales and the utilization of appropriate capitalization rates.

NOTE 17 – FAIR VALUE MEASUREMENTS (Continued)

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2022 are as follows:

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Available for sale securities				
U.S. Government agency debt obligations	$388,744,000	$ 0	$388,744,000	$ 0
Mortgage-backed securities	31,953,000	0	31,953,000	0
Municipal general obligation bonds	154,433,000	0	153,855,000	578,000
Municipal revenue bonds	27,306,000	0	27,306,000	0
Other investments	500,000	0	500,000	0
Interest rate swaps	25,697,000	0	25,697,000	0
Total assets	$628,633,000	$ 0	$628,055,000	$ 578,000
Interest rate swaps	25,900,000	0	25,900,000	0
Total liabilities	$ 25,900,000	$ 0	$ 25,900,000	$ 0

There were no sales, purchases or transfers in or out of Level 3 during 2022. The $0.1 million reduction in Level 3 municipal general obligation bonds during 2022 reflects the scheduled maturities of such bonds.

The balances of assets and liabilities measured at fair value on a recurring basis as of December 31, 2021 are as follows:

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Available for sale securities				
U.S. Government agency debt obligations	$390,371,000	$ 0	$390,371,000	$ 0
Mortgage-backed securities	41,803,000	0	41,803,000	0
Municipal general obligation bonds	137,594,000	0	136,917,000	677,000
Municipal revenue bonds	22,475,000	0	22,475,000	0
Other investments	500,000	0	500,000	0
Interest rate swaps	4,609,000	0	4,609,000	0
Total assets	$597,352,000	$ 0	$596,675,000	$ 677,000
Interest rate swaps	4,857,000	0	4,857,000	0
Total liabilities	$ 4,857,000	$ 0	$ 4,857,000	$ 0

NOTE 17 – FAIR VALUE MEASUREMENTS (Continued)

There were no sales, purchases or transfers in or out of Level 3 during 2021. The less than $0.1 million reduction in Level 3 municipal general obligation bonds during 2021 reflects the scheduled maturities of such bonds.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

The balances of assets and liabilities measured at fair value on a nonrecurring basis as of December 31, 2022 are as follows:

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Collateral dependent loans	$ 5,290,000	$ 0	$ 0	$ 5,290,000
Foreclosed assets	0	0	0	0
Total	$ 5,290,000	$ 0	$ 0	$ 5,290,000

The balances of assets and liabilities measured at fair value on a nonrecurring basis as of December 31, 2021 are as follows:

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Impaired loans	$ 3,807,000	$ 0	$ 0	$ 3,807,000
Foreclosed assets	0	0	0	0
Total	$ 3,807,000	$ 0	$ 0	$ 3,807,000

The carrying values are based on the estimated value of the property or other assets. Fair value estimates of collateral on impaired loans and foreclosed assets are reviewed periodically. Our credit policies establish criteria for obtaining appraisals and determining internal value estimates. We may also adjust outside appraisals and internal evaluations based on identifiable trends within our markets, such as sales of similar properties or assets, listing prices and offers received. In addition, we may discount certain appraised and internal value estimates to address current distressed market conditions. For real estate dependent loans and foreclosed assets, we assign a discount factor range of 25% to 35%, providing for a weighted average discount factor of 25.2%, for commercial-related properties, and a discount factor range of 25% to 50%, providing for a weighted average discount factor of 32.9%, for residential-related properties. In a vast majority of cases, we assign a 10% discount factor for estimated selling costs.

NOTE 18 – EARNINGS PER SHARE

Basic earnings per share is based on the weighted average number of common shares and participating securities outstanding during the period. Diluted earnings per share include the dilutive effect of additional potential common shares issuable under our stock-based compensation plans and are determined using the treasury stock method. Our unvested restricted shares, which contain non-forfeitable rights to dividends whether paid or accrued (i.e., participating securities), are included in the number of shares outstanding for both basic and diluted earnings per share calculations. In the event of a net loss, our unvested restricted shares are excluded from the calculation of both basic and diluted earnings per share. Stock options for approximately 5,000, 7,000 and 9,000 shares of common stock were antidilutive and were not included in determining dilutive earnings per share in 2022, 2021 and 2020, respectively.

The factors used in the earnings per share computation follow:

	2022	2021	2020
Basic			
Net income attributable to common shares	$ 61,063,000	$ 59,021,000	$ 44,138,000
Weighted average common shares outstanding	15,859,889	15,986,857	16,268,689
Basic earnings per common share	$ 3.85	$ 3.69	$ 2.71
Diluted			
Net income attributable to common shares	$ 61,063,000	$ 59,021,000	$ 44,138,000
Weighted average common shares outstanding for basic earnings per common share	15,859,889	15,986,857	16,268,689
Add: Dilutive effects of share-based awards	12	446	630
Average shares and dilutive potential common shares	15,859,901	15,987,303	16,269,319
Diluted earnings per common share	$ 3.85	$ 3.69	$ 2.71

NOTE 19 – VARIABLE INTEREST ENTITIES

Variable interest entities are entities that either have a total equity investment that is insufficient to permit the entity to finance its activities without additional subordinated financial support or whose equity investors lack the characteristics of a controlling financial interest (i.e., ability to make significant decisions, through voting rights, right to receive the expected residual returns of the entity, and obligations to absorb the expected losses of the entity). Variable interest entities can be structured as corporations, trusts, partnerships, or other legal entities. We have relationships with certain variable interest entities related to the issuance of trust preferred securities.

We have five business trusts that are wholly-owned subsidiaries of Mercantile, four of which were assumed by Mercantile in conjunction with the Firstbank merger. A fair value discount of $15.0 million was recorded at the time of the merger, which is being amortized at $0.7 million annually over the following 21.5 years. Each of the trusts was solely formed to issue preferred securities that were sold in private sales. Through a small common stock investment, we own 100% of the voting equity shares of each trust. The proceeds from the preferred securities and common stock sales were used by the trusts to purchase Floating Rate Notes issued by Mercantile. The rates of interest, interest payment dates, call features and maturity dates of each Floating Rate Note are identical to its respective Preferred Securities. The net proceeds from the issuance of the Floating Rate Notes were used for a variety of purposes, including contributions to our bank as capital to provide support for asset growth and the funding of stock repurchase programs and certain acquisitions.

NOTE 19 – VARIABLE INTEREST ENTITIES (Continued)

The assets, liabilities, operations and cash flows of each trust are solely related to the issuance, administration and repayment of the preferred securities held by third-party investors. We fully and unconditionally guarantee the obligations of each trust and are obligated to redeem the junior subordinated debentures upon maturity. We do not consolidate the trusts as we are not the primary beneficiary of these entities because our wholly-owned and indirect wholly-owned statutory subsidiaries do not have the power to direct the activities of the variable interest entity that most significantly impact the variable interest entity's economic performance and do not have an obligation to absorb losses or the right to receive benefits that could potentially be significant to the variable interest entity. As such, we do not have a controlling financial interest in the variable interest entities.

The only significant assets of our trusts are the Floating Rate Notes, and the only significant liabilities of our trusts are the Preferred Securities. The Floating Rate Notes are categorized on our Consolidated Balance Sheets as subordinated debentures and the interest expense is recorded on our Consolidated Statements of Income under interest expense on other borrowings.

On January 26, 2016, we closed on a repurchase of trust preferred securities that were auctioned as part of a pooled collateralized debt obligation ("Fund"). The Fund owned $11.0 million of the $32.0 million in trust preferred securities that had been issued by Mercantile Bank Capital Trust I. The $11.0 million in trust preferred securities was retired upon the repurchase, resulting in a commensurate reduction in the related Floating Rate Junior Subordinate Note, leaving $21.0 million outstanding.

The following table depicts our five business trusts as of December 31, 2022:

Trust Name	Preferred Securities Outstanding	Interest Rate	Maturity Date
Mercantile Bank Capital Trust I	$21,000,000	3 Month Libor + 218 bps	September 16, 2034
Firstbank Capital Trust I	$10,000,000	3 Month Libor + 199 bps	October 18, 2034
Firstbank Capital Trust II	$10,000,000	3 Month Libor + 127 bps	April 7, 2036
Firstbank Capital Trust III	$7,500,000	3 Month Libor + 135 bps	July 30, 2037
Firstbank Capital Trust IV	$7,500,000	3 Month Libor + 135 bps	July 30, 2037

The following table summarizes quantitative information about our involvement in unconsolidated variable interest entities as of December 31, 2022 and December 31, 2021:

	Aggregate Assets	Aggregate Liabilities	Risk of Loss
Trust preferred securities	$ 58,100,000	$ 56,000,000	$ 2,100,000

NOTE 20 – SUBORDINATED NOTES

On December 15, 2021, we entered into Subordinated Note Purchase Agreements with certain institutional accredited investors pursuant to which we issued and sold $75.0 million in aggregate principal amount of its 3.25% fixed-to-floating rate subordinated notes ("Notes"). The Notes have a stated maturity of January 30, 2032, and are redeemable by us at our option, in whole or in part, on or after January 30, 2027 on any interest payment date at a redemption of price of 100% of the principal amount of the Notes being redeemed. The Notes are not subject to redemption at the option of the holder. The Notes will bear interest at a fixed rate of 3.25% per year until January 29, 2027. Commencing on January 30, 2027 and through the stated maturity date of January 30, 2032, the interest rate will resent quarterly at a variable rate equal to the then-current Three-Month Term SOFR plus 212 basis points. On December 15, 2021, we injected $70.0 million of the issuance proceeds to our bank as an increase to equity capital.

On January 14, 2022, we issued an additional $15.0 million of its Notes to certain institutional accredited investors, reflecting an expansion of the $75.0 million issuance completed on December 15, 2021. The additional $15.0 million issuance was completed on the same terms as the prior offering and under the existing indenture. On January 14, 2022, we injected $15.0 million of the issuance proceeds to our bank as an increase to equity capital.

NOTE 21 - REGULATORY MATTERS

We are subject to regulatory capital requirements administered by federal banking agencies. Capital adequacy guidelines and prompt corrective action regulations involve quantitative measures of assets, liabilities, and certain off-balance sheet items calculated under regulatory accounting practices. Capital amounts and classifications are also subject to qualitative judgments by regulators about components, risk weightings, and other factors, and the regulators can lower classifications in certain cases. Failure to meet various capital requirements can initiate regulatory action that could have a direct material effect on the financial statements.

The prompt corrective action regulations provide five classifications, including well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized, although these terms are not used to represent overall financial condition. If an institution is not well capitalized, regulatory approval is required to accept brokered deposits. Subject to limited exceptions, no institution may make a capital distribution if, after making the distribution, it would be undercapitalized. If an institution is undercapitalized, it is subject to close monitoring by its principal federal regulator, its asset growth and expansion are restricted, and plans for capital restoration are required. In addition, further specific types of restrictions may be imposed on the institution at the discretion of the federal regulator. At year-end 2022 and 2021, our bank was in the well capitalized category under the regulatory framework for prompt corrective action. There are no conditions or events since December 31, 2022 that we believe have changed our bank's categorization.

NOTE 21 - REGULATORY MATTERS (Continued)

Our actual capital levels (dollars in thousands) and minimum required levels at year-end 2022 and 2021 were:

	Actual		Minimum Required for Capital Adequacy Purposes		Minimum Required to be Well Capitalized Under Prompt Corrective Action Regulations	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
2022						
Total capital (to risk weighted assets)						
Consolidated	$ 634,729	14.0%	$ 362,675	8.0%	$ NA	NA
Bank	618,709	13.7	362,490	8.0	453,112	10.0%
Tier 1 capital (to risk weighted assets)						
Consolidated	503,855	11.1	272,007	6.0	NA	NA
Bank	576,463	12.7	271,868	6.0	362,490	8.0
Common equity (to risk weighted assets)						
Consolidated	456,970	10.1	204,005	4.5	NA	NA
Bank	576,463	12.7	203,901	4.5	294,523	6.5
Tier 1 capital (to average assets)						
Consolidated	503,855	10.1	199,647	4.0	NA	NA
Bank	576,463	11.6	199,563	4.0	249,453	5.0
2021						
Total capital (to risk weighted assets)						
Consolidated	$ 565,143	14.0%	$ 324,101	8.0%	$ NA	NA
Bank	551,760	13.6	323,928	8.0	404,910	10.0%
Tier 1 capital (to risk weighted assets)						
Consolidated	456,133	11.3	243,076	6.0	NA	NA
Bank	516,397	12.8	242,946	6.0	323,928	8.0
Common equity (to risk weighted assets)						
Consolidated	409,963	10.1	182,307	4.5	NA	NA
Bank	516,397	12.8	182,210	4.5	263,192	6.5
Tier 1 capital (to average assets)						
Consolidated	456,133	9.2	198,574	4.0	NA	NA
Bank	516,397	10.4	198,510	4.0	248,137	5.0

NOTE 21 – REGULATORY MATTERS (Continued)

Under the final BASEL III capital rules that became effective on January 1, 2015, there is a requirement for a common equity Tier 1 capital conservation buffer of 2.5% of risk-weighted assets which is in addition to the other minimum risk-based capital standards in the rule. Institutions that do not meet this required capital buffer will become subject to progressively more stringent limitations on the percentage of earnings that can be paid out in cash dividends or used for stock repurchases and on the payment of discretionary bonuses to senior executive management. The capital buffer requirement was phased in over three years beginning in 2016. The capital buffer requirement raised the minimum required common equity Tier 1 capital ratio to 7.0%, the Tier 1 capital ratio to 8.5% and the total capital ratio to 10.5% on a fully phased-in basis on January 1, 2019. We believe that, as of December 31, 2022, our bank meets all capital adequacy requirements under the BASEL III capital rules on a fully phased-in basis.

Federal and state banking laws and regulations place certain restrictions on the amount of dividends our bank can transfer to Mercantile and on the capital levels that must be maintained. At year-end 2022, under the most restrictive of these regulations, our bank could distribute $140 million to Mercantile as dividends without prior regulatory approval. Our and our bank's ability to pay cash and stock dividends is subject to limitations under various laws and regulations and to prudent and sound banking practices. On January 13, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.31 per share that was paid on March 16, 2022 to shareholders of record as of March 4, 2022. On April 14, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.31 per share that was paid on June 15, 2022 to shareholders of record as of June 3, 2022. On July 14, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.32 per share that was paid on September 14, 2022 to shareholders of record as of September 2, 2022. On October 13, 2022, our Board of Directors declared a cash dividend on our common stock in the amount of $0.32 per share that was paid on December 14, 2022 to shareholders of record as of December 2, 2022.

As of December 31, 2022, we had the ability to repurchase up to $6.8 million in common stock shares from time to time in open market transactions at prevailing market prices or by other means in accordance with applicable regulations as part of a $20.0 million common stock repurchase program announced in May 2021. No shares were repurchased during 2022. Historically, stock repurchases have been funded from cash dividends paid to us from our bank. Additional repurchases may be made in future periods under the authorized plan or a new plan, which would also likely be funded from cash dividends paid to us from our bank. The actual timing, number and value of shares repurchased will be determined by us in our discretion and will depend on a number of factors, including the stock price, capital position, financial performance, general market and economic conditions, alternative uses of capital and applicable legal requirements.

Our consolidated capital levels as of December 31, 2022 and 2021 include $46.9 million and $46.2 million, respectively, of trust preferred securities. Under applicable Federal Reserve guidelines, the trust preferred securities constitute a restricted core capital element. The guidelines provide that the aggregate amount of restricted core capital elements that may be included in Tier 1 capital must not exceed 25% of the sum of all core capital elements, including restricted core capital elements, net of goodwill less any associated deferred tax liability. Our ability to include the trust preferred securities in Tier 1 capital in accordance with the guidelines is not affected by the provision of the Dodd-Frank Act generally restricting such treatment, because (i) the trust preferred securities were issued before May 19, 2010, and (ii) our total consolidated assets as of December 31, 2009 were less than $15.0 billion. At December 31, 2022 and 2021, all $46.9 million and $46.2 million, respectively, of the trust preferred securities were included as Tier 1 capital of Mercantile.

NOTE 22 – MERCANTILE BANK CORPORATION (PARENT COMPANY ONLY) CONDENSED FINANCIAL STATEMENTS

CONDENSED BALANCE SHEETS

	2022	2021
ASSETS		
Cash and cash equivalents	$ 18,633,000	$ 14,570,000
Investment in bank subsidiary	543,599,000	545,691,000
Other assets	19,786,000	19,576,000
Total assets	$ 582,018,000	$ 579,837,000
LIABILITIES AND SHAREHOLDERS' EQUITY		
Liabilities	$ 3,024,000	$ 1,388,000
Subordinated debentures	48,958,000	48,244,000
Subordinated notes	88,628,000	73,646,000
Shareholders' equity	441,408,000	456,559,000
Total liabilities and shareholders' equity	$ 582,018,000	$ 579,837,000

CONDENSED STATEMENTS OF INCOME

	2022	2021	2020
Income			
Interest and dividends from subsidiaries	$ 26,056,000	$ 39,058,000	$ 32,588,000
Total income	26,056,000	39,058,000	32,588,000
Expenses			
Interest expense	6,104,000	1,934,000	2,268,000
Other operating expenses	5,645,000	5,831,000	4,441,000
Total expenses	11,749,000	7,765,000	6,709,000
Income before income tax benefit and equity in undistributed net income of subsidiary	14,307,000	31,293,000	25,879,000
Federal income tax benefit	(2,535,000)	(1,653,000)	(1,173,000)
Equity in undistributed net income of subsidiary	44,221,000	26,075,000	17,086,000
Net income	$ 61,063,000	$ 59,021,000	$ 44,138,000
Comprehensive income (loss)	$ (549,000)	$ 49,806,000	$ 45,929,000

(Continued)

NOTE 22 – MERCANTILE BANK CORPORATION (PARENT COMPANY ONLY) CONDENSED FINANCIAL STATEMENTS (Continued)

CONDENSED STATEMENTS OF CASH FLOWS

	2022	2021	2020
Cash flows from operating activities			
Net income	$ 61,063,000	$ 59,021,000	$ 44,138,000
Adjustments to reconcile net income to net cash from operating activities:			
Equity in undistributed net income of subsidiary	(44,221,000)	(26,075,000)	(17,086,000)
Stock-based compensation expense	3,377,000	3,784,000	2,325,000
Stock grants to directors for retainer fees	359,000	344,000	394,000
Change in other assets	858,000	49,000	(227,000)
Change in other liabilities	1,636,000	(5,000)	812,000
Net cash from operating activities	23,072,000	37,118,000	30,356,000
Cash flows from investing activities			
Net capital investment into subsidiaries	(15,000,000)	(70,000,000)	0
Net cash for investing activities	(15,000,000)	(70,000,000)	0
Cash flows from financing activities			
Stock option exercises, net of cashless exercises	36,000	50,000	3,000
Employee stock purchase plan	45,000	48,000	49,000
Dividend reinvestment plan	867,000	877,000	814,000
Net proceeds from subordinated notes issuance	14,645,000	73,635,000	0
Repurchase of common shares	0	(21,380,000)	(6,591,000)
Cash dividends on common stock	(19,602,000)	(18,524,000)	(17,930,000)
Net cash (for) from financing activities	(4,009,000)	34,706,000	(23,655,000)
Net change in cash and cash equivalents	4,063,000	1,824,000	6,701,000
Cash and cash equivalents at beginning of period	14,570,000	12,746,000	6,045,000
Cash and cash equivalents at end of period	$ 18,633,000	$ 14,570,000	$ 12,746,000

NOTE 23 – SUBSEQUENT EVENTS

On January 12, 2023, our Board of Directors declared a cash dividend on our common stock in the amount of $0.33 per share that will be paid on March 15, 2023 to shareholders of record as of March 3, 2023.

EXHIBIT INDEX

EXHIBIT NO.	EXHIBIT DESCRIPTION
3.1	Our Articles of Incorporation are incorporated by reference to exhibit 3.1 of our Form 10-Q for the quarter ended June 30, 2009
3.2	Our Amended and Restated By-laws dated as of February 26, 2015 are incorporated by reference to exhibit 3.1 to our Current Report on Form 8-K filed February 26, 2015
4.1	Instruments defining the Rights of Security Holders – reference is made to Exhibits 3.1 and 3.2. In accordance with Regulation S-K Item 601(b)(4), Mercantile Bank Corporation is not filing copies of instruments defining the rights of holders of long-term debt because none of those instruments authorizes debt in excess of 10% of the total assets of Mercantile Bank Corporation and its subsidiaries on a consolidated basis. Mercantile Bank Corporation hereby agrees to furnish a copy of any such instrument to the Securities and Exchange Commission upon request.
4.2	Subordinated indenture, dated December 15, 2021, by and between Mercantile Bank Corporation and Wilmington Trust, National Association, as trustee, incorporated by reference to our Current Report on Form 8-K filed December 17, 2021
4.3	First Supplemental Indenture to Subordinated indenture, dated December 15, 2021, by and between Mercantile Bank Corporation and Wilmington Trust, National Association, as trustee, incorporated by reference to our Current Report on Form 8-K filed December 17, 2021
4.4	Form of 3.25% Fixed-to-Floating Rate Subordinated Note due 2032, incorporated by reference to our Current Report on Form 8-K filed December 17, 2021
4.5	Form of Subordinated Note Purchase Agreement dated December 15, 2021, by and among Mercantile Bank Corporation and the Purchasers, incorporated by reference to our Current Report on Form 8-K filed December 17, 2021
4.6	Form of Registration Rights Agreement dated December 15, 2021, by and among Mercantile Bank Corporation and the Purchasers, incorporated by reference to our Current Report on Form 8-K filed December 17, 2021
10.1	Form of Mercantile Bank Split Dollar Agreement that has been entered into between our bank and each of Robert B. Kaminski, Jr., Charles E. Christmas, and certain other officers of our bank is incorporated by reference to exhibit 10.33 of our Form 10-K for the year ended December 31, 2005*
10.2	Form of Notice of Grant of Incentive Stock Option and Stock Option Agreement for incentive stock options granted after 2006 under our Stock Incentive Plan of 2006 is incorporated by reference to exhibit 10.41 of our Form 10-K for the year ended December 31, 2007*
10.3	Mercantile Bank Corporation Employee Stock Purchase Plan of 2014 is incorporated by reference to exhibit 4(b) of our Registration Statement on Form S-8 that became effective on June 27, 2014
10.4	Form of Restricted Stock Award Agreement, incorporated by reference to exhibit 10.1 of our Form 8-K filed November 18, 2016*
10.5	Form of Stock Option Agreement, incorporated by reference to exhibit 10.2 of our Form 8-K filed November 18, 2016*
10.6	Amended and Restated Employment Agreement of Robert B. Kaminski, Jr. dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.1 of our Form 8-K filed December 3, 2018*

EXHIBIT NO.	EXHIBIT DESCRIPTION
10.7	Amended and Restated Employment Agreement of Charles E. Christmas dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.2 of our Form 8-K filed December 3, 2018*
10.8	Amended and Restated Employment Agreement of Raymond E. Reitsma dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.3 of our Form 8-K filed December 3, 2018*
10.9	Amended and Restated Employment Agreement of Robert T. Worthington dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.4 of our Form 8-K filed December 3, 2018*
10.10	Amended and Restated Employment Agreement of Lonna L. Wiersma dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.5 of our Form 8-K filed December 3, 2018*
10.11	Amended and Restated Change in Control Agreement of Robert B. Kaminski, Jr. dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.6 of our Form 8-K filed December 3, 2018*
10.12	Amended and Restated Change in Control Agreement of Charles E. Christmas dated November 29, 2018, effective December 31, 2018, incorporated by reference to exhibit 10.7 of our Form 8-K filed December 3, 2018*
10.13	Form of Performance Based Restricted Stock Award Agreement, incorporated by reference to exhibit 10.8 of our Form 8-K filed December 3, 2018*
10.14	2019 Mercantile Executive Officer Bonus Plan, incorporated by reference to exhibit 10.1 of our Form 8-K filed May 24, 2019*
10.15	Mercantile Bank Corporation Stock Incentive Plan of 2020, incorporated by reference to Appendix A to Mercantile's Definitive Proxy Statement on Schedule 14A filed April 9, 2020*
10.16	Form of Performance-Based Restricted Stock Award Agreement, in connection with the Mercantile Bank Corporation Stock Incentive Plan of 2020, incorporated by reference to exhibit 10.17 of our Form 10-K for the year ended December 31, 2020*
10.17	2020 Mercantile Executive Officer Bonus Plan, incorporated by reference to exhibit 10.1 of our Form 8-K filed November 19, 2020*
10.18	2021 Mercantile Executive Officer Bonus Plan, incorporated by reference to exhibit 10.1 of our Form 8-K filed July 15, 2021*
10.19	2022 Mercantile Executive Officer Bonus Plan, incorporated by reference to exhibit 10.1 of our Form 8-K filed July 14, 2022*
10.20	Director Fee Summary*
21	Subsidiaries of the company
23	Consent of BDO USA, LLP
31	Rule 13a-14(a) Certifications
32.1	Section 1350 Chief Executive Officer Certification

EXHIBIT NO.	EXHIBIT DESCRIPTION
32.2	Section 1350 Chief Financial Officer Certification
101	The following information from Mercantile's Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Changes in Shareholders' Equity, (v) the Consolidated Statements of Cash Flows, and (vi) the Notes to Consolidated Financial Statements
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on March 3, 2023.

MERCANTILE BANK CORPORATION

/s/ Robert B. Kaminski, Jr.
Robert B. Kaminski, Jr.
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 3, 2023.

/s/ David M. Cassard
David M. Cassard, Director

/s/ Michael S. Davenport
Michael S. Davenport, Director

/s/ Michelle L. Eldridge
Michelle L. Eldridge, Director

/s/ Jeff A. Gardner
Jeff A. Gardner, Director

/s/ Robert B. Kaminski, Jr.
Robert B. Kaminski, Jr.
Director, President and Chief Executive Officer
(principal executive officer)

/s/ Michael H. Price
Michael H. Price, Chairman of the Board

/s/ David B. Ramaker
David B. Ramaker, Director

/s/ Charles E. Christmas
Charles E. Christmas, Executive Vice President,
Chief Financial Officer and Treasurer
(principal financial and accounting officer)

MERCANTILE BANK CORPORATION

INFO

Annual Meeting
Mercantile Bank Corporation's
Annual Meeting of Shareholders
will be held virtually.
Thursday, May 25, 2023 at 9:00 am EDT

Corporation Headquarters
310 Leonard Street NW
Grand Rapids, MI 49504
616.406.3000 or 800.453.8700

Legal Counsel
Dickinson Wright, PLLC
500 Woodward Avenue, Suite 4000
Detroit, MI 48226
www.dickinson-wright.com

Investor Relations
Lambert
47 Commerce Avenue SW
Grand Rapids, MI 49503
www.lambert.com

Common Stock Listing
NASDAQ Global Select Market
Symbol: MBWM

Stock Registrar and Transfer Agent
Computershare Investor Services
P.O. Box 43006
Providence, RI 02940-3006
Shareholder Inquiries 800.733.5001
www.computershare.com/investor

SEC Form 10-K
Copies of the Corporation's Annual Report on Form 10-K, as filed with the Securities and Exchange Commission, are available to shareholders without charge upon written request.

Please mail your request to:

Charles E. Christmas
Mercantile Bank Corporation
310 Leonard Street NW
Grand Rapids, MI 49504

Mercantile®
Bank Corporation

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