

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2023

or

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

For the transition period from _____ to _____.

Commission file number 001-36613



Middlefield Banc Corp.

(Exact Name of Registrant as Specified in its Charter)

Ohio	34-1585111
State or Other Jurisdiction of Incorporation or Organization	I.R.S. Employer Identification No.
15985 East High Street, Middlefield, Ohio	44062-0035
Address of Principal Executive Offices	Zip Code
440 - 632-1666	
Registrant's Telephone Number, Including Area Code	

Securities Registered Pursuant To Section 12(b) Of The Act:

Title of Each Class	MBCN	Name of Each Exchange on Which Registered
Common Stock, Without Par Value	Trading Symbol	The NASDAQ Stock Market, LLC (NASDAQ Capital Market)

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

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

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

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

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

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

Large accelerated filer ☐
Non-accelerated filer ☒

Accelerated filer ☐
Smaller reporting company ☒
Emerging growth company ☐

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

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

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

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

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

The aggregate market value on June 30, 2023 of common stock held by non-affiliates of the registrant was approximately \$ 215.2 million, based on the closing price of \$27.51 per share of common stock as reported on the NASDAQ Capital Market. As of March 28, 2024, there were 8,069,144 shares of common stock issued and outstanding.

Documents Incorporated by Reference Portions of the registrant's definitive proxy statement for the 2024 Annual Meeting of Shareholders are incorporated by reference in Part III of this report. Portions of the Annual Report to Shareholders for the year ended December 31, 2023 are incorporated by reference into Part I and Part II of this report.

**MIDDLEFIELD BANC CORP.
YEAR ENDED DECEMBER 31, 2023
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SIGNATURES

Part I

Item 1 — Business

Forward-looking Statements This document contains forward-looking statements (as defined in the Private Securities Litigation Reform Act of 1995) about the Company and its subsidiaries. The information incorporated in this document by reference, future filings by the Company on Form 10-Q and Form 8-K, and future oral and written statements by the Company and its management may also contain forward-looking statements. Forward-looking statements include statements about anticipated operating and financial performance, such as loan originations, operating efficiencies, loan sales, charge-offs and loan loss provisions, growth opportunities, interest rates, and deposit growth. Words such as “may,” “could,” “should,” “would,” “believe,” “anticipate,” “estimate,” “expect,” “intend,” “project,” “plan,” and similar expressions are intended to identify these forward-looking statements.

Forward-looking statements are subject to many assumptions, risks, and uncertainties. Several factors could cause actual results to differ materially from those indicated by the forward-looking statements. These include the factors we discuss immediately below, those addressed under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” other factors discussed elsewhere in this document or identified in our filings with the Securities and Exchange Commission (the “SEC”), and those presented elsewhere by our management from time to time. Many of the risks and uncertainties are beyond our control. The following factors could cause our operating and financial performance to differ materially from the plans, objectives, assumptions, expectations, estimates, and intentions expressed in forward-looking statements:

- the strength of the United States economy in general and the strength of the local economies in which we conduct our operations; general economic conditions, either nationally or regionally, may be less favorable than we expect, resulting in a deterioration in the credit quality of our loans, among other things
- the effects of, and changes in, trade, monetary and fiscal policies and laws, including interest rate policies of the Federal Reserve Board
- credit losses as a result of declining real estate values, increasing interest rates, increasing unemployment, changes in payment behavior or other factors
- changes in the amount of our loan portfolio collateralized by real estate and weaknesses in the real estate market
- increased cybersecurity risk, including potential business disruptions or financial losses
- changes in accounting standards, rules and interpretations and the related impact on our financial statements, including the effects from our adoption of the current expected credit losses (“CECL”) model on January 1, 2023
- inflation, interest rate, market, and monetary fluctuations
- the development and acceptance of new products and services of the Company and subsidiaries and the perceived overall value of these products and services by customers, including the features, pricing, and quality compared to competitors’ products and services
- the willingness of customers to substitute our products and services for those of competitors
- the impact of changes in financial services laws and regulations (including laws concerning taxes, banking, securities, and insurance)
- changes in consumer spending and saving habits
- the potential effects of events beyond our control that may have a destabilizing effect on financial markets and the economy, such as epidemics and pandemics, war or terrorist activities, disruptions in our customers’ supply chains, disruptions in transportation, essential utility outages or trade disputes and related tariffs
- the concentration of large deposits from certain customers, who have balances above current FDIC insurance limits;
- the effects of recent developments and events in the financial services industry, including the large-scale deposit withdrawals over a short period of time at Silicon Valley Bank, Signature Bank and First Republic Bank that resulted in failure of those institutions.
- other risks and uncertainties detailed in this Annual Report on Form 10-K and, from time to time, in our other filings with the Securities and Exchange Commission (“SEC”)

Forward-looking statements are based on our beliefs, plans, objectives, goals, assumptions, expectations, estimates, and intentions as of the date the statements are made. Investors should exercise caution because the Company cannot give any assurance that its beliefs, plans, objectives, goals, assumptions, expectations, estimates, and intentions will be realized. The Company disclaims any obligation to update or revise any forward-looking statements based on the occurrence of future events, the receipt of new information, or otherwise.

Middlefield Banc Corp. Incorporated in 1988 under the Ohio General Corporation Law, Middlefield Banc Corp. (“Company”) is a bank holding company registered under the Bank Holding Company Act of 1956. The Company’s subsidiaries are:

1. The Middlefield Banking Company (“MBC”, or the “Bank”), an Ohio-chartered commercial bank that began operations in 1901. MBC engages in a general commercial banking business in northeastern, central, and western Ohio. MBC’s principal executive office is located at 15985 East High Street, Middlefield, Ohio 44062-0035, and the telephone number is (440) 632-1666.
2. EMORECO Inc., an Ohio asset resolution corporation headquartered in Middlefield, Ohio. EMORECO exists to resolve and dispose of troubled assets. EMORECO’s principal executive office is located at 15985 East High Street, Middlefield, Ohio 44062-0035.

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The Company makes available free of charge on its internet website, www.middlefieldbank.bank, the Company's 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 (the "Exchange Act") as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC and state the address of that site (<https://www.sec.gov/>).

The Middlefield Banking Company MBC was chartered under Ohio law in 1901. MBC offers customers a broad range of banking services, including checking, savings, negotiable order of withdrawal ("NOW") accounts, money market accounts, time deposits, commercial loans, real estate loans, a variety of consumer loans, safe deposit facilities, and travelers' checks. MBC offers online banking and bill payment services to individuals and online cash management services to business customers through its website at www.middlefieldbank.bank.

On December 1, 2022, the Company completed its merger with Liberty Bancshares, Inc. ("Liberty"), pursuant to a previously announced definitive merger agreement. Under the terms of the merger agreement, Liberty shareholders received 2.752 shares of the Company's common stock in exchange for each share of Liberty common stock they owned immediately before the merger. The Company issued 2,561,513 shares of its common stock in the merger and the aggregate merger consideration was approximately \$73.3 million. Upon closing, Liberty's bank subsidiary was merged into MBC, and Liberty's six full-service bank offices, in Ada and Kenton in Hardin County, in Bellefontaine and Bellefontaine South in Logan County, in Marysville in Union County, and in Westerville in Franklin County, became offices of MBC.

Engaged in general commercial banking in northeastern, central, and western Ohio, MBC offers these services principally to small and medium-sized businesses, professionals, small business owners, and retail customers. MBC has developed a marketing program to attract and retain consumer accounts and to match banking services and facilities with the needs of customers.

MBC's loan products include operational and working capital loans, loans to finance capital purchases, term business loans, residential construction loans, selected guaranteed or subsidized loan programs for small businesses, professional loans, residential and mortgage loans, agricultural loans, and consumer installment loans to make home improvements and to purchase automobiles, boats, and other personal expenditures.

On March 13, 2019, MBC established a wholly-owned subsidiary named Middlefield Investments, Inc. (MI), headquartered in Middlefield, Ohio. This operating subsidiary exists to hold and manage an investment portfolio. At December 31, 2023, MI's assets consist of a cash account, investments, and related accrued interest accounts. MI may only hold and manage investments and may not engage in any other activity without prior approval of the Ohio Division of Financial Institutions. In the first quarter of 2022, MBC established a wholly-owned subsidiary named MB Insurance Services (MIS). This operating subsidiary exists to offer retail and business customers a variety of insurance services, including home, renters, automobile, pet, identity theft, travel, and professional liability insurance. At December 31, 2023, MIS's assets consist of a cash account, a prepaid asset, and an accounts receivable. As a result of the bank merger, Middlefield Banc Corp. acquired a 100% ownership interest in LBSI Insurance, LLC ("LBSI"), a wholly-owned financial subsidiary of Liberty National Bank. All significant intercompany items have been eliminated between MBC and these subsidiaries.

EMORECO Organized in 2009 as an Ohio corporation under the name EMORECO, Inc. and wholly owned by the Company, the purpose of the asset resolution subsidiary is to maintain, manage, and dispose of nonperforming loans and other real estate owned ("OREO") acquired by the subsidiary bank as the result of borrower default on real estate-secured loans. On December 31, 2023, EMORECO's assets consist of one cash account. According to federal law governing bank holding companies, real estate must be disposed of within two years of acquisition, although limited extensions may be granted by the Federal Reserve Bank. A holding company subsidiary has limited real estate investment powers. EMORECO may only manage and maintain property and may not improve or develop property without the advance approval of the Federal Reserve Bank.

Market Area

MBC's footprint across twelve counties is home to 4.06 million people – roughly more than one third of Ohio's population – and 41.44% of Ohio's gross domestic product ("GDP"). MBC's product offering is geared toward traditional banking business delivered to both consumers and businesses located in the Columbus metro area, Northeast Ohio, and Western Ohio. MBC's current strategy is aimed at using a strong deposit relationship in the more rural markets of Northeast Ohio and Western Ohio to fund loan growth and build scale in the metro markets of Cleveland/Akron and Columbus.

MBC's eleven Northeast Ohio branches are located in Ashtabula, Cuyahoga, Geauga, Portage, Summit, and Trumbull counties. Our four Western Ohio branches are located in Hardin and Logan counties. Our six Central Ohio branches are located in Delaware, Franklin, Madison, and Union counties. We have a loan production office in Mentor located in Lake County. Lake County is contiguous to Ashtabula, Cuyahoga, and Geauga counties in our Northeast Ohio market. The most recent FDIC market share data available from June 30, 2023 shows we had a deposit market share of approximately 19.37% in Geauga County, which represented the second largest market share in Geauga County, 3.03% in Ashtabula County, 0.07% in Cuyahoga County, 0.32% in Delaware County, 0.10% in Franklin County, 37.28% in Hardin County, which represented the largest market share in Hardin County, 9.37% in Logan County, which represented the third largest market share in Logan County, 2.04% in Madison County, 4.90% in Portage County, 0.55% in Summit County, 1.76% in Trumbull County, and 1.88% in Union County. According to the most recent information available from the U.S. Department of Commerce Bureau of Economic Analysis, nine of these twelve counties are ranked in the top half of Ohio counties measured by per capita personal income by county for 2019 through 2022.



The economy of MBC's Northeast Ohio market is centered around manufacturing and agriculture and includes a large Amish population. MBC's headquarters, main banking office, and three additional branches are located in Geauga County. Geauga County is the center of the 4th largest Amish population in the world. With a 2022 per capita personal income of \$83,249, Geauga County is ranked second highest among Ohio's 88 counties.

MBC's market area in Northeast Ohio benefits from the area's proximity to Cleveland in Cuyahoga County. Cuyahoga County is Ohio's second most populous county and boasts the second largest economy in Ohio measured by GDP. Cuyahoga County's 2022 GDP of nearly \$104.2 billion is greater than the total GDP of 13 states and ranks 33rd of 3,108 counties nationally. In analysis of county-level GDP data from the U.S. Bureau of Economic Analysis, the Cleveland State University College of Urban Affairs analyzed per capita gross domestic product for the Cleveland metro area (an area covering Cuyahoga, Geauga, Lake, Lorain and Medina Counties) compared to 14 large metro areas including the seven fastest-growing of the large metro areas nationally from 2001 through 2022. Cuyahoga County ranked 88th for annual GDP growth per capita from 2000 to 2018, ahead of the home counties of cities experiencing greater population growth such as Charlotte, Indianapolis, and Phoenix. In that same time period from 2000 to 2018, Cuyahoga County ranked 474th out of the 500 largest counties in the U.S. for population change. Cleveland anchors the Cleveland Metropolitan Area, the 33rd-largest in the U.S. at 2.18 million, as well as the larger Cleveland-Akron-Canton Combined Statistical Area, the most populous statistical area in Ohio and the 17th-largest in the United States with a population of 3.63 million in 2020.

MBC's market area in Central Ohio benefits from the area's proximity to Columbus in Franklin County. Franklin County is Ohio's most populous county and has the largest GDP of Ohio's 88 counties. Columbus is the state capital, the largest city in Ohio, and the 14th largest city in the U.S. The Columbus metro area has experienced strong population growth in the last decade. According to the U.S. Census Bureau, Columbus saw the eleventh largest numeric population increase between July 1, 2017 and July 1, 2018 in the U.S. – making Columbus the only city in the Midwest on the top 15 list. The employment growth rate for the Columbus metro area has been greater than Ohio's employment growth rate, responsible for 1 in every 3 new jobs in Ohio. Since 2015, construction has been the fastest-growing sector in the Columbus metro area. Per capita personal income in the Columbus metro area continues to be above the statewide level for Ohio. According to the 2020 U.S. Census, the Columbus metro area accounts for 18% of Ohio's population and experienced the largest percentage increase of Midwest metro areas with a population of one million people since the 2010 U.S. Census. From 2000 to 2020, the Columbus metro area saw a 25% increase in population relative to Ohio's 3% increase in the same time period. Among the ten counties that comprise the Columbus metro area are the four Central Ohio counties where MBC has branches (Delaware, Franklin, Madison, and Union counties). Among the 51 metropolitan areas that the U.S. Census Bureau estimated to have more than one million people in 2020, Columbus ranked 17th in population growth since 2010. The population in the ten-county area centered around Franklin County increased by more than 230,000 to reach an estimated 2,138,946 in 2020, an increase of 12.2% over 10 years. Among all 263 metropolitan statistical areas the Census Bureau tracks, Columbus ranked 59th in population growth from 2010 to 2020 and 94th since 2019 (+0.63%). The larger Columbus-Marion-Zanesville Combined Statistical Area had a population of over 2.54 million people in 2020, up from 2.3 million in 2010, the first census to include combined statistical areas.

Based on the most recent data available for 2022, Delaware County had the highest per capita personal income at \$88,871 among Ohio's 88 counties. Union County, which is contiguous to Delaware County, had the 13th fastest-growing housing market in the U.S. according to the U.S. Census Bureau's data on the nation's 100 fastest growing counties with 5,000 or more housing units from July 1, 2018 to July 1, 2019. From 2018 to 2019, the number of housing units in Union County jumped 4%, in part due to growth in Dublin, Plain City and Jerome Township, as well as Honda's facilities in Marysville. From July 1, 2020 to July 1, 2021, Union County remains in the top 100 fastest-growing counties with 5,000 or more housing units as the 37th fastest-growing housing market in the U.S. Union County is the only Ohio county among the nation's 100 fastest-growing counties with 5,000 or more housing units.

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The following table summarizes unemployment percentage rates in the Ohio counties where we operate retail banking centers, Ohio, and the US average on a comparative basis as of December 31, 2022, and December 31, 2023.

	Dec-2022 Unemployment %	Dec-2023 Unemployment %	2023-2022 % Change
Ohio County			
Ashtabula County	4.3	3.8	-0.5
Cuyahoga County	3.6	3.2	-0.4
Delaware County	2.6	2.4	-0.2
Franklin County	3.1	2.7	-0.4
Geauga County	2.9	2.7	-0.2
Hardin County	3.3	3.2	-0.1
Logan County	3.2	2.9	-0.3
Madison County	2.9	2.7	-0.2
Portage County	3.7	3.2	-0.5
Summit county	3.9	3.3	-0.6
Trumbull County	4.7	4.0	-0.7
Union County	2.6	2.6	0.0
12 County Average	3.4	3.1	-0.3
Ohio	4.2	3.4	-0.8
United States	3.5	3.7	0.2

Ohio Department of Job and Family Services Bureau of Labor Market Information non-seasonally adjusted unemployment rates as of December 2022 and December 2023. The December 2023 unemployment rate is classified as preliminary as of January 19, 2024.

The average unemployment rate of MBC's twelve-county market area trends below the state of Ohio's unemployment rate. As of December 2023, the bank's market area average unemployment rate is less than the national average, and the State of Ohio also has an unemployment rate that is lower than the national average. Ashtabula and Trumbull are the only counties in MBC's market area with unemployment rates above the national average as of December 2023. With a 0.7% decrease on a twelve-month basis, Trumbull County experienced the most significant change in the unemployment rate from December 2022 to December 2023.

MBC is not dependent upon any one significant customer or specific industry. Business is not seasonal to any material degree.

Lending — *Loan Portfolio Composition and Activity*. The Bank makes residential and commercial mortgages, home equity lines of credit, secured and unsecured consumer installment, commercial and industrial, and real estate construction loans for owner-occupied, non-owner occupied, multifamily, and income-producing properties. The Bank's Credit Policy aspires to a loan composition mix consisting of approximately 25% to 50% consumer-purpose transactions, including residential real estate loans, home equity loans, and other consumer loans. The Policy is also designed to provide for 55% to 70% of total loans as business-purpose commercial loans and business and consumer credit card accounts of up to 5% of total loans.

Lending Limit Although Ohio law imposes no material restrictions on the types of loans the Bank may make, real estate-based lending has historically been the Bank's primary focus. For prudential reasons, we avoid lending on the security of real estate located outside our market area. Ohio law does restrict the amount of loans an Ohio-chartered bank may make, generally limiting credit to any single borrower to less than 15% of capital. An additional margin of 10% of capital is allowed for loans fully secured by readily marketable collateral. This 15% legal lending limit has not been a material restriction on lending. We can accommodate loan volumes exceeding the legal lending limit by selling loan participations to other banks. As of December 31, 2023, MBC's 15%-of-capital limit on loans to a single borrower was approximately \$30.9 million.

The Bank offers specialized loans for business and commercial customers, including equipment and inventory financing, real estate construction loans, agricultural loans, and Small Business Administration loans for qualified businesses. A portion of the Bank's commercial loans is designated as real estate loans for regulatory reporting purposes because they are secured by mortgages on real property. Loans of that type may be made for purposes of financing commercial activities, such as accounts receivable, equipment purchases, and leasing. These loans are still secured by real estate to provide the Bank with an extra security measure. Although these loans might be secured in whole or in part by real estate, they are treated in the discussions to follow as commercial and industrial loans. The Bank's consumer installment loans include secured and unsecured loans to individual borrowers for various purposes, including personal, home improvements, revolving credit lines, autos, boats, and recreational vehicles.

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The following table presents maturity information for the loan portfolio. The table does not include prepayments or scheduled principal repayments. All loans are shown as maturing based on contractual maturities.

	Due in one year or less	Due after one years through five years	Due after five years through fifteen years	Due after fifteen years	Total
(Dollars in thousands)					
Commercial real estate:					
Owner occupied	\$ 8,100	\$ 27,945	\$ 75,531	\$ 71,969	\$ 183,545
Non-owner occupied	34,289	100,478	183,975	82,838	401,580
Multifamily	737	5,394	55,013	21,362	82,506
Residential real estate	910	5,575	52,922	269,447	328,854
Commercial and industrial	20,863	72,699	72,669	55,277	221,508
Home equity lines of credit	2,253	1,275	29,932	94,358	127,818
Construction and Other	24,124	46,454	26,576	27,951	125,105
Consumer installment	140	2,815	397	3,862	7,214
	<u>\$ 91,416</u>	<u>\$ 262,635</u>	<u>\$ 497,015</u>	<u>\$ 627,064</u>	<u>\$ 1,478,130</u>

Loans due on demand and overdrafts are included in the amount due in one year or less. The Company has no loans without a stated schedule of repayment or a stated maturity. Accrued interest of \$5.5 million is presented in "Accrued interest receivable and other assets" on the Consolidated Balance Sheets and is excluded from the table.

The following table shows the dollar amount of all loans due after December 31, 2024 that have predetermined interest rates and the dollar amount of all loans due after December 31, 2024 that have floating or adjustable rates.

	Fixed Rate	Adjustable Rate	Total
(Dollars in thousands)			
Commercial real estate:			
Owner occupied	\$ 40,831	\$ 134,614	\$ 175,445
Non-owner occupied	113,656	253,635	367,291
Multifamily	6,064	75,705	81,769
Residential real estate	122,315	205,629	327,944
Commercial and industrial	110,828	89,817	200,645
Home equity lines of credit	60	125,505	125,565
Construction and Other	31,594	69,387	100,981
Consumer installment	3,211	3,863	7,074
	<u>\$ 428,559</u>	<u>\$ 958,155</u>	<u>\$ 1,386,714</u>

Residential Real Estate Loans A significant portion of the Bank's lending consists of origination of residential loans secured by 1-4 family real estate located in Ashtabula, Cuyahoga, Delaware, Franklin, Geauga, Madison, Portage, Summit, and Trumbull counties. Residential real estate loans approximated \$328.9 million or 22.2% of the Bank's total loan portfolio on December 31, 2023.

The Bank makes loans of up to 80% of the value of the real estate and improvements securing a loan ("LTV" ratio) on 1-4 family real estate. The Bank generally does not lend in excess of the lower of 80% of the appraised value or sales price of the property. The Bank offers residential real estate loans with terms of up to 30 years.

Approximately 63.0% of the residential mortgage loan portfolio due after a year has an adjustable rate and is secured by 1-4 family real estate on December 31, 2023. The Bank originates variable-rate and fixed-rate, single-family mortgage loans. Generally, fixed-rate mortgage loans are underwritten according to the Federal Home Loan Mortgage Corporation ("Freddie Mac") guidelines. In some instances, these loans are sold to the agency. Upon the sale to Freddie Mac, the servicing rights are retained and are done so in furtherance of the Bank's goal of better matching the maturities and interest rate sensitivity of its assets and liabilities. The Bank generally retains responsibility for collecting and remitting loan payments, inspecting the properties, making certain insurance and tax payments on behalf of borrowers, and otherwise servicing the loans it sells, and receives a fee for performing these services. Sales of loans also provide funds for additional lending and other purposes.

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On December 31, 2023, residential real estate loans of approximately \$1.2 million were non-accruing, representing 0.4% of the residential real estate loan portfolio. On December 31, 2022, residential real estate loans of approximately \$1.4 million were non-accruing, representing 0.5% of the residential real estate loan portfolio.

Home Equity Lines of Credit Home equity lines of credit comprise variable-rate home equity lines of credit as well as closed-end home equity installment loans. The Bank's home equity credit policy generally allows for a loan of up to 89% of the combined loan-to-value ratio (CLTV) when we have the first lien or the HELOC is in the first position, less the principal balance of the outstanding first mortgage loan. The policy also allows a maximum 80% CLTV for a HELOC, where we do not have the first lien position. The Bank's home equity loans generally have terms of 20 years. The credit performance of most of the home equity lines of credit portfolio where we hold the first lien position is superior to the portion of the portfolio where we have the second lien position but do not hold the first lien. Lien position information is generally determined at the time of origination and monitored ongoing for risk management purposes.

On December 31, 2023, the Bank had approximately \$127.8 million in its home equity lines of credit portfolio, representing 8.6% of total loans. On December 31, 2023, home equity lines of credit of approximately \$856,000 were non-accruing and represented 0.7% of the home equity lines of credit portfolio. On December 31, 2022, the Bank had approximately \$128.1 million in its home equity lines of credit portfolio, representing 9.5% of total loans. On December 31, 2022, home equity lines of credit of approximately \$191,000 were non-accruing and represented 0.1% of the home equity lines of credit portfolio.

Commercial and Commercial Real Estate Loans

The Bank's commercial and commercial real estate loan services include:

- accounts receivable, inventory and working capital loans
- renewable operating lines of credit
- loans to finance capital equipment
- term business loans
- demand lines of credit
- short-term notes
- selected guaranteed or subsidized loan programs for small businesses
- loans to professionals
- commercial real estate loans
- agricultural loans

Commercial real estate loans include commercial properties occupied by the proprietor of the business conducted on the premises, non-owner occupied business properties, multifamily residential properties, income-producing properties, and agricultural properties and businesses that support these sectors. The primary risks of commercial real estate loans are loss of income of the owner or lessee of the property and the inability of the market to sustain rent levels. Although commercial loans generally bear more risk than single-family residential mortgage loans, they tend to be higher-yielding, have shorter terms, and provide for interest-rate adjustments. Accordingly, commercial loans enhance a lender's interest rate risk management and, in management's opinion, promote more rapid asset and income growth than a loan portfolio composed strictly of residential real estate mortgage loans.

Although a risk of nonpayment exists for all loans, certain specific risks are associated with various kinds of loans. One of the primary risks associated with commercial loans is the possibility that the commercial borrower will not generate cash flow sufficient to repay the loan. The Bank's Credit Policy provides that commercial loan applications must be supported by documentation indicating cash flow sufficient for the borrower to service the proposed loan. Financial statements or tax returns for at least three years must be submitted, and annual reviews are required for business purpose relationships of \$750,000 or more. Ongoing financial information is generally required for any commercial relationship where the exposure is \$250,000 or more.

The fair value of commercial loan collateral must exceed the Bank's exposure. For this purpose, fair value is determined by independent appraisal or the loan officer's estimate, employing guidelines established by the Credit Policy. Loans not secured by real estate generally have terms of five years or fewer unless guaranteed by the U.S. Small Business Administration or other governmental agencies, and term loans secured by collateral having a useful life exceeding five years may have longer terms. The Bank's Credit Policy allows for terms of up to 20 years for loans secured by commercial real estate and one year for business lines of credit. The maximum LTV ratio for commercial real estate loans is 80% of the appraised value or cost, whichever is less.

Real estate is commonly a material component of collateral for the Bank's loans, including commercial loans. Although the expected source of repayment is generally the operations of the borrower's business or personal income, real estate collateral provides an additional security measure. Risks associated with loans secured by real estate include fluctuating land values, changing local economic conditions, changes in tax policies, and a concentration of loans within a limited geographic area.

On December 31, 2023, commercial and commercial real estate loans totaled \$889.1 million, or 60.2% of the Bank's total loan portfolio, which include \$426,000 in Paycheck Protection Program ("PPP") loans. On December 31, 2023, commercial and commercial real estate loans of approximately \$8.7 million were non-accruing and represented 0.98% of the commercial and commercial real estate loan portfolios. On December 31, 2022, commercial and commercial real estate loans totaled \$826.2 million, or 61.1% of the Bank's total loan portfolio, which include \$748,000 in PPP loans. On December 31, 2022, commercial and commercial real estate loans of approximately \$255,000 were non-accruing and represented 0.03% of the commercial and commercial real estate loan portfolios.

Construction and Other

The Bank originates several different types of loans that it categorizes as construction loans, including:

- residential construction loans to borrowers who will occupy the premises upon completion of construction,
- residential construction loans to builders,
- commercial construction loans, and
- real estate acquisition and development loans.

Because of the complex nature of construction lending, these loans are generally recognized as having a higher degree of risk than other forms of real estate lending. The Bank's fixed-rate and adjustable-rate construction loans do not provide for the same interest rate terms on the construction loan and on the permanent mortgage loan that follows the completion of the construction phase of the loan. It is typical for the Bank to make residential construction loans without an existing written commitment for permanent financing. The Bank's Credit Policy provides that the Bank may make construction loans with terms for up to one year, with a maximum LTV ratio for residential construction of 80%. The Bank also offers residential construction-to-permanent loans with a twelve-month construction period followed by 30 years of permanent financing.

On December 31, 2023, real estate construction loans totaled \$125.1 million, or 8.5% of the Bank's total loan portfolio. There were no loans in the construction and other portfolio that were 90 days delinquent or non-accruing on that date. On December 31, 2022, real estate construction and other loans totaled \$94.2 million, or 7.0% of the Bank's total loan portfolio. On December 31, 2022, real estate construction loans of approximately \$68,000 were non-accruing and represented 0.1% of the real estate construction loan portfolio.

Consumer Installment Loans The Bank's consumer installment loans include secured and unsecured loans to individual borrowers for various purposes, including personal, home improvement, revolving credit lines, automobiles, boats, and recreational vehicles. The Bank does not currently do any indirect lending. Unsecured consumer loans carry significantly higher interest rates than secured loans. The Bank maintains strict credit guidelines when considering consumer loan applications.

According to the Bank's Credit Policy, consumer loans secured by collateral other than real estate generally may have terms of up to five years, and unsecured consumer loans may have terms up to three years. Real estate security is typically required for consumer loans having terms exceeding five years.

On December 31, 2023, the Bank had approximately \$7.2 million in its consumer installment loan portfolio, representing 0.5% of total loans. On December 31, 2023, consumer installment loans of approximately \$160,000 were non-accruing and represented 2.2% of the consumer installment loan portfolio. On December 31, 2022, the Bank had approximately \$8.1 million in its consumer installment loan portfolio, representing 0.6% of total loans. On December 31, 2022, consumer installment loans of approximately \$166,000 were non-accruing and represented 2.0% of the consumer installment loan portfolio.

Loan Solicitation and Processing Loan originations are developed from several sources, including continuing business with depositors, other borrowers, real estate builders, solicitations by Bank personnel, and walk-in customers.

When a loan request is made, the Bank reviews the application, credit bureau reports, property appraisals or evaluations, financial information, verifications of income, and other documentation concerning the borrower's creditworthiness, as applicable to each loan type. The Bank's underwriting guidelines are set by senior management and approved by the Board of Directors. The Credit Policy specifies each officer's loan approval authority. Loans exceeding an individual officer's approval authority are submitted to an Officer's Loan Committee, which can approve loans up to \$6,000,000. The Board of Directors' Loan Committee acts as approval authority for exposures over \$6,000,000 and up to \$10,000,000. Loans exceeding \$10,000,000 require approval from the entire Board of Directors.

Income from Lending Activities The Bank earns interest and fee income from its lending activities. Net of origination costs, loan origination fees are amortized over the life of a loan. The Bank also receives loan fees related to existing loans, including late charges. Income from loan origination and commitment fees varies with the volume and type of loans and commitments made and with competitive and economic conditions. Note 1 to the Consolidated Financial Statements discusses how loan fees and income are recognized for financial reporting purposes.

Mortgage Banking Activity The Bank originates residential loans secured by first-lien mortgages on one-to-four family residential properties located within its market area for either portfolio or sale into the secondary market. During the year ended December 31, 2023, the Bank recorded gains of \$97,000 on the sale of \$5.6 million in loans receivable originated for sale. During the year ended December 31, 2022, the Bank recorded gains of \$24,000 on the sale of \$1.6 million in loans receivable originated for sale. These loans were sold on a servicing-retained basis to Freddie Mac.

In addition to income recognized on the sale of loans, the Bank receives fees for servicing loans that it has sold. Income from these activities will vary from period to period with the volume and type of loans originated and sold, which depends on prevailing mortgage interest rates and their effect on the demand for loans in the Bank's market area.

Nonperforming Loans Late charges on residential mortgages and consumer loans are assessed if a payment is not received by the due date plus a grace period. When an advanced stage of delinquency appears on a single-family loan and repayment cannot be expected within a reasonable time, or a repayment agreement is not entered into, required notice of foreclosure or repossession proceedings may be prepared by the Bank's attorney and delivered to the borrower so that foreclosure proceedings may be initiated promptly, if necessary. The Bank also collects late charges on commercial loans.

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When the Bank acquires real estate through foreclosure, voluntary deed, or similar means, it is classified as OREO until it is sold. When a property is acquired in this manner, it is recorded at the lower of cost (the unpaid principal balance at the date of acquisition) or fair value, less anticipated cost to sell. If fair value, less cost to sell, is less than the carrying value of the loan, then the carrying value is reduced through the allowance for credit losses ("ACL") immediately before recording the real estate as OREO. Any subsequent write-down is charged to expense. All costs incurred from the date of acquisition to maintain the property are expensed. OREO is appraised during the foreclosure process, before the acquisition, when possible. Subsequent to the initial appraisal, OREO is appraised at least annually. Losses are recognized for the amount by which the book value of the real estate exceeds the estimated fair value of the property, less anticipated cost to sell.

The Bank undertakes a regular review of the loan portfolio to assess its risks, particularly the risks associated with the commercial loan portfolio.

Classified Assets FDIC regulations governing classification of assets require nonmember commercial banks — including the Bank — to classify their own assets and to establish appropriate allowances for credit losses, subject to FDIC review. The regulations are designed to encourage management to evaluate assets on a case-by-case basis, discouraging automatic classifications. Under this classification system, problem assets of insured institutions are classified as "substandard," "doubtful," or "loss." An asset is considered "substandard" if it is inadequately protected by the current net worth and paying capacity of the obligor or the collateral pledged, if any. Substandard assets include those characterized by the distinct possibility that the insured institution will sustain some loss if the deficiencies are not corrected. Assets classified as "doubtful" have all the weaknesses inherent in those classified substandard, with the added characteristic that the weaknesses make the collection of principal in full — based on currently existing facts, conditions, and values — highly questionable and improbable. Assets classified as "loss" are those considered uncollectible and of such little value that their continuance as assets without the establishment of a specific loss reserve is not warranted. Assets that do not expose the Bank to risk sufficient to warrant classification in one of the above categories but that possess some potential weakness are required to be designated "special mention" by management.

When an FDIC-insured institution classifies assets as either "substandard" or "doubtful," it may establish allowances for credit losses in an amount deemed prudent by management. When an insured institution classifies assets as "loss," it is required either to establish an allowance for credit losses equal to 100% of that portion of the assets so classified or to charge off that amount. An Ohio nonmember bank's determination about the classification of its assets and the amount of its allowances is subject to review by the FDIC and the Ohio Division of Financial Institutions (the "ODFI"), which may order the establishment of additional loss allowances. Management also employs an independent third party to semi-annually review and validate the internal loan review process and loan classifications.

Investment Securities Investment securities provide a return on residual funds after lending activities. Investments may be in corporate securities, U.S. Government and agency obligations, state and local government obligations, government-guaranteed mortgage-backed securities, or subordinated debt of other financial institutions. The Bank generally does not invest in securities rated less than investment grade by a nationally recognized statistical rating organization. Ohio law prescribes the kinds of investments an Ohio-chartered bank may make. Permitted investments include local, state, and federal government securities, mortgage-backed securities, and securities of federal government agencies. An Ohio-chartered bank also may invest up to 10% of its assets in corporate debt and equity securities or a higher percentage in certain circumstances. Ohio law also limits to 15% of capital the amount an Ohio-chartered bank may invest in the securities of any one issuer, other than local, state, and federal government and federal government agency issuers and mortgage-backed securities issuers. These provisions have not been a material constraint upon the Bank's investment activities.

All securities-related activity is reported to the Bank's Board of Directors. General changes in investment strategy are required to be reviewed and approved by the Board of Directors. Senior management can purchase and sell securities per the Bank's stated investment policy.

Management determines the appropriate classification of securities at the time of purchase. At this time, the Bank has no securities classified as held to maturity. Securities to be held for indefinite periods and not intended to be held to maturity or on a long-term basis are classified as available for sale. Available for sale securities are reflected on the Consolidated Balance Sheet at their fair value.

The contractual maturity and average yield of investment securities are as follows:

	December 31, 2023										
	One year or less		More than one to five years		More than five to ten years		More than ten years		Total investment securities		
	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Fair value
(Dollar amounts in thousands)											
Subordinated debt	\$ -	-	\$ -	-	\$ 34,300	4.98%	\$ -	-	\$ 34,300	4.98%	\$ 31,919
Obligations of states and political subdivisions:											
Tax-exempt*	560	3.29%	910	4.34%	18,695	3.11%	129,716	2.50%	149,881	2.59%	132,542
Mortgage-backed securities in government-sponsored entities	7	2.74%	1,206	2.27%	1,820	2.59%	3,932	2.84%	6,965	2.68%	6,318
Total	\$ 567	3.28%	\$ 2,116	3.16%	\$ 54,815	4.26%	\$ 133,648	2.51%	\$ 191,146	3.03%	\$ 170,779

* Tax-equivalent yield calculated using a 21% tax rate

Expected maturities of investment securities could differ from contractual maturities because the borrower, or issuer, could have the right to call or prepay obligations with or without call or prepayment penalties.

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Yields on tax-exempt securities (tax-exempt for federal income tax purposes) are shown on a fully tax-equivalent basis. The average yield is determined based on the current book price and projected yield of each investment category, assuming the yield to call or maturity.

As of December 31, 2023, the Bank held 90,024 shares of \$100 par value Federal Home Loan Bank ("FHLB") of Cincinnati stock, which is a restricted security. FHLB stock represents an equity interest in the FHLB, but it does not have a readily determinable market value. The stock can be sold at its par value only to the FHLB or to another member institution. Member institutions must maintain a minimum stock investment in the FHLB based on total assets, total mortgages, and total mortgage-backed securities. The Bank's minimum investment in FHLB stock on December 31, 2023, was \$9.0 million.

Sources of Funds—Deposit accounts are a significant source of funds for the Bank. At December 31, 2023 and 2022, our deposits totaled \$1.43 billion and \$1.40 billion, respectively. The Bank offers many deposit products to attract commercial and consumer checking and savings customers, including standard and money market savings accounts, NOW accounts, a variety of fixed-maturity, fixed-rate certificates with maturities ranging from 3 to 60 months, and brokered deposits. These accounts earn interest at rates established by management based on liquidity, competitive market factors, and management's desire to increase certain types or maturities. The Bank also provides travelers' checks, official checks, money orders, ATM services, and IRA accounts.

Liquidity is a measure of the ability and ease with which bank assets may be converted to meet financial obligations such as deposits or other funding sources. Banks are required to implement liquidity risk management frameworks that ensure they maintain sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events. The level and speed of deposit outflows contributing to the failures of Silicon Valley Bank, Signature Bank and First Republic Bank in the first half of 2023 were unprecedented. These events underscore the importance of liquidity risk management and contingency funding planning by insured depository institutions like the Bank.

The primary role of liquidity risk management is to: (i) prospectively assess the need for funds to meet financial obligations, and (ii) ensure the availability of cash or collateral to fulfill those needs at the appropriate time by coordinating the various sources of funds available to the institution under normal and stressed conditions. We review our liquidity risk management policies in light of regulatory requirements and industry developments.

The following table shows on a consolidated basis the amount of uninsured time deposits as of December 31, 2023, including certificates of deposit, by the time remaining until maturity.

(Dollar amounts in thousands)	Amount	Percent of Total
Within three months	\$ 16,835	14.32%
Beyond three but within six months	38,403	32.66%
Beyond six but within twelve months	59,625	50.71%
Beyond one year	2,717	2.32%
Total	<u>\$ 117,580</u>	<u>100.00%</u>

The Bank participates in the IntraFi® ICS and CDARS reciprocal deposit network, which enables depositors to receive FDIC insurance coverage on deposits otherwise exceeding the maximum insurable amount. We consider these reciprocal deposits to be in-market deposits as distinguished from traditional out-of-market brokered deposits. Time deposits as of December 31, 2023 and 2022, included \$28.6 million and \$39.1 million, respectively, of reciprocal deposits. Included in total deposits as of December 31, 2023 and 2022, were \$88.8 million and \$50.4 million, respectively, of reciprocal interest-bearing checking.

Borrowings, deposits, and repayment of loan principal are the Bank's primary sources of funds for lending activities and other general business purposes. However, when the supply of funds cannot satisfy the demand for loans or general business purposes, the Bank can obtain funds from the FHLB of Cincinnati. Interest and principal are payable monthly, and the line of credit is secured by a pledge collateral agreement on certain investments and loan balances. On December 31, 2023, MBC had \$163.0 million in FHLB borrowings outstanding. On December 31, 2022, MBC had \$65.0 million in FHLB borrowings outstanding. The Bank also has access to credit through the Federal Reserve Bank of Cleveland and other funding sources.

Competition

The banking and financial services industry is highly competitive. We compete with many financial institutions within our markets, including local, regional, and national commercial banks and credit unions. We also compete with brokerage firms, consumer finance companies, mutual funds, securities firms, insurance companies, fintech companies, and other financial intermediaries for some of our products and services. Some of our competitors are not currently subject to the regulatory restrictions and the level of regulatory supervision applicable to us.

Interest rates on loans and deposits, as well as prices on fee-based services, are typically significant competitive factors within the banking and financial services industry. Many of our competitors are much larger, have more significant resources than we do, and compete aggressively. These competitors attempt to gain market share through their financial product mix, pricing strategies, and banking center locations.

Other important standard competitive factors in our industry and markets include office locations and hours, quality of customer service, community reputation, continuity of personnel and services, capacity and willingness to extend credit, online capabilities, and ability to offer sophisticated banking products and services. While we seek to remain competitive concerning fees charged, interest rates, and pricing, we believe that the Bank's commitment to personal service, innovation, and involvement in the communities that the Bank serves, are factors that contribute to the Bank's competitive advantage and will enable us to compete successfully within our markets and enhance our ability to attract and retain customers.

Personnel and Human Capital Resources

We encourage and support the growth and development of our employees and, wherever possible, seek to fill positions by promotion and transfer from within the organization. Continual learning and career development are advanced through ongoing performance and development conversations with employees, internally developed training programs, customized corporate training engagements, and educational reimbursement programs. Reimbursement is available to employees enrolled in a pre-approved degree or certification programs at accredited institutions that teach skills or knowledge relevant to our business, in compliance with Section 127 of the Internal Revenue Code, and for seminars, conferences, and other training events employees attend in connection with their job responsibilities.

The safety, health, and wellness of our employees are a top priority. On an ongoing basis, we further promote the health and wellness of our employees by strongly encouraging work-life balance, offering flexible work schedules, keeping the employee portion of health care premiums to a minimum, and sponsoring various wellness programs.

Employee retention helps us operate efficiently and achieve one of our business objectives, which is being a low-cost provider. We believe our commitment to living out our core values, actively prioritizing concern for our employees' well-being, supporting our employees' career goals, offering competitive wages, and providing valuable fringe benefits aids in the retention of our top-performing employees.

As of December 31, 2023, the Bank had 256 full-time equivalent employees. None of the employees are represented by a collective bargaining group.

Supervision and Regulation

The following discussion of bank supervision and regulation is qualified in its entirety by reference to the statutory and regulatory provisions discussed. Changes in applicable law or in the policies of various regulatory authorities could materially affect the business and prospects of the Company.

The Company is a bank holding company within the meaning of the Bank Holding Company Act of 1956. The Company is subject to regulation, supervision, and examination by the Board of Governors of the Federal Reserve System, acting primarily through the Federal Reserve Bank of Cleveland. The Company must file annual reports and other information with the Federal Reserve. The bank subsidiary is an Ohio-chartered commercial bank. As a state-chartered, nonmember bank, the bank is primarily regulated by the FDIC and the ODFI.

The Company and the Bank are subject to federal and Ohio banking laws. These federal and state laws are intended to protect depositors, not stockholders. Federal and state laws applicable to holding companies and their financial institution subsidiaries regulate the range of permissible business activities, investments, reserves against deposits, capital levels, lending activities and practices, the nature and amount of collateral for loans, establishment of branches, mergers, dividends, and a variety of other important matters. The Bank is subject to detailed, complex, and sometimes overlapping federal and state statutes and regulations affecting routine banking operations. These statutes and regulations include but are not limited to state usury and consumer credit laws, the Truth in Lending Act and Regulation Z, the Equal Credit Opportunity Act and Regulation B, the Fair Credit Reporting Act, the Truth in Savings Act, and the Community Reinvestment Act. Regulation D, promulgated by the FRB, imposes reserve requirements on all depository institutions, including the Bank, which maintain transaction accounts or nonpersonal time deposits. In March 2020, due to a change in its approach to monetary policy due to the COVID-19 pandemic, the FRB implemented a final rule to amend Regulation D requirements and reduce the reserve requirement ratio to zero. The FRB has indicated that it has no plans to re-impose reserve requirements but may do so in the future if conditions warrant.

The Federal Reserve Board and the FDIC have extensive authority to prevent and remedy unsafe and unsound practices and violations of applicable laws and regulations by institutions and holding companies. The agencies may assess civil money penalties, issue cease-and-desist or removal orders, seek injunctions, and publicly disclose those actions. In addition, the Ohio Division of Financial Institutions possesses enforcement powers to address violations of Ohio banking law by Ohio-chartered banks.

Regulation of Bank Holding Companies - Bank and Bank Holding Company Acquisition. The Bank Holding Company Act and the Federal Reserve Board's Regulation Y require advance approval of the Federal Reserve to acquire "control" of a bank holding company. In evaluating a company's proposed acquisition of control of a bank or bank holding company, the Federal Reserve takes into consideration such factors as the financial condition and future prospects of the applicant, its subsidiaries, any banks related to the applicant through common ownership or management, and the bank or banks to be acquired, the competence, experience, and integrity of the officers, directors, and principal shareholders of the applicant, its subsidiaries, and the banks and bank holding companies concerned, the convenience and needs of the community and the competitive effects of the acquisition.

Under the Bank Holding Company Act, a company proposing to acquire direct or indirect control of a bank or bank holding company must apply for the Federal Reserve's prior approval. A company acquires such direct or indirect control of a bank or bank holding company by acquiring ownership, control, or power to vote twenty five percent or more of the outstanding shares of any class of voting securities of the bank or bank holding company; by controlling in any manner the election of a majority of the directors of the bank or bank holding company; or by exercising the power to exercise, directly or indirectly, a controlling influence over the management or policies of the bank or bank holding company. In January 2020, the Federal Reserve substantially revised its control regulations. Under the revised regulations, if a company acquires less than twenty five percent of the voting securities of a bank or bank holding company, the Federal Reserve provides the following four-tiered approach to determining control based upon a company's ownership percentage in the voting stock of a bank or holding company: (1) less than 5% stock ownership; (2) 5%-9.99% stock ownership; (3) 10%-14.99% stock ownership; and (4) 15%-24.99% stock ownership. In determining whether a company acquires control of a bank or bank holding company in each of the four tiers, the Federal Reserve takes into account substantive activities, including management agreements, director service, business relationships, business terms, officer and employee interlocks, and limiting contractual right. Additionally, the Federal Reserve will presume that control exists if a company owns one-third or more of the total equity of a bank or bank holding company.

The Change in Bank Control Act and the Federal Reserve's Regulation Y require any person, acting directly or indirectly, or through or in concert with one or more persons, to provide advance notice to the Federal Reserve before acquiring control of a bank or bank holding company. Control is conclusively presumed to exist if an individual or company acquires 25% or more of a class of voting securities of the bank or bank holding company. If the holding company has securities registered under Section 12 of the Securities Exchange Act of 1934, as the Company does, or if no other person owns a greater percentage of the class of voting securities, control is presumed to exist if a person acquires 10% or more, but less than 25%, of any class of voting securities. Approval of the ODFI is also necessary to acquire control of an Ohio-chartered bank.

Nonbanking Activities With some exceptions, the Bank Holding Company Act generally prohibits a bank holding company from acquiring or retaining direct or indirect ownership or control of more than 5% of the voting shares of any company that is not a bank or bank holding company or from engaging directly or indirectly in activities other than those of banking, managing or controlling banks, or providing services for its subsidiaries. The principal exceptions to these prohibitions involve nonbank activities that, by statute or by Federal Reserve Board regulation or order, are held to be closely related to the business of banking or of managing or controlling banks. In making its determination that a particular activity is closely associated with the business of banking, the Federal Reserve considers whether the performance of the actions by a bank holding company can be expected to produce benefits to the public — such as greater convenience, increased competition, or gains in efficiency in resources — that will outweigh the risks of possible adverse effects such as decreased or unfair competition, conflicts of interest, or unsound banking practices. Some of the activities determined by Federal Reserve Board regulation to be closely related to the business of banking are: making or servicing loans or leases; engaging in insurance and discount brokerage activities; owning thrift institutions; performing data processing services; acting as a fiduciary or investment or financial advisor; and making investments in corporations or projects designed primarily to promote community welfare.

Financial Holding Companies On November 12, 1999, the Gramm-Leach-Bliley Act became law, repealing much of the 1933 Glass-Steagall Act's separation of the commercial and investment banking industries. The Gramm-Leach-Bliley Act expands the range of nonbanking activities in which a bank holding company may engage while preserving existing authority for bank holding companies to engage in activities closely related to banking. The legislation creates a new category of holding company called a "financial holding company." Financial holding companies may engage in any activity that is:

- financial in nature or incidental to that financial activity, or
- complementary to a financial activity and that does not pose a substantial risk to the safety and soundness of depository institutions or the financial system generally.

Activities that are financial include:

- acting as principal, agent, or broker for insurance,
- underwriting, dealing in, or making a market in securities, and
- providing financial and investment advice.

The Federal Reserve Board and the Secretary of the Treasury have the authority to decide whether other activities are also financial or incidental to financial activity, taking into account, among others, changes in technology, changes in the banking marketplace, and competition for banking services. The Company is engaged solely in activities that were permissible for a bank holding company before the enactment of the Gramm-Leach-Bliley Act. Federal Reserve Board rules require that all depository institution subsidiaries of a financial holding company be and remain well-capitalized and well-managed. If all depository institution subsidiaries of a financial holding company do not remain well-capitalized and well-managed, the financial holding company must enter into an agreement acceptable to the Federal Reserve Board, undertaking to comply with all capital and management requirements within 180 days. In the meantime, the financial holding company may not use its expanded authority to engage in nonbanking activities without Federal Reserve Board approval, and the Federal Reserve may impose other limitations on the holding company's or affiliates' activities. If a financial holding company fails to restore the well-capitalized and well-managed status of a depository institution subsidiary, the Federal Reserve may order divestiture of the subsidiary.

The Company has not elected to be a financial holding company

Holding Company Capital and Source of Strength The Federal Reserve considers the adequacy of a bank holding company's capital on essentially the same risk-adjusted basis as capital adequacy is determined by the FDIC at the bank subsidiary level.

The Federal Reserve has issued regulations under the Bank Holding Company Act requiring a bank holding company to serve as a source of financial and managerial strength to its subsidiary bank. It is the policy of the Federal Reserve that, pursuant to this requirement, a bank holding company should stand ready to use its resources to provide adequate capital funds to its subsidiary bank during periods of financial stress or adversity. Under this requirement, we are expected to commit resources to support our Bank, including when we may not be in a financial position to provide such help.

Our Company is a legal entity separate and distinct from its bank subsidiary. As a bank holding company, we are subject to certain restrictions on our ability to pay dividends under applicable banking laws and regulations. Federal bank regulators are authorized to determine, under certain circumstances relating to the financial condition of a bank holding company or a bank, that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. Federal Reserve policy provides that a bank holding company should not pay dividends unless (1) the bank holding company's net income over the last four quarters (net of dividends paid) is sufficient to fund the dividends fully, (2) the prospective rate of earnings retention appears consistent with the capital needs, asset quality, and overall financial condition of the bank holding company and its subsidiaries and (3) the bank holding company will continue to meet minimum required capital adequacy ratios. The policy also provides that a bank holding company should inform the Federal Reserve reasonably in advance of declaring or paying a dividend that exceeds earnings for the period for which the dividend is being paid or that could result in a material adverse change to the bank holding company's capital structure. Bank holding companies also are required to consult with the Federal Reserve before materially increasing dividends. The Federal Reserve could prohibit or limit the payment of dividends by a bank holding company if it determines that payment of the dividend would constitute an unsafe or unsound practice.

Since all of our income comes from dividends from our Bank, which is also the primary source of our liquidity, our ability to pay dividends and repurchase shares depends upon our receipt of dividends from our Bank.

Capital — Risk-Based Capital Requirements The Federal Reserve Board and the FDIC employ similar risk-based capital guidelines in their examination and regulation of bank holding companies and financial institutions. If capital falls below the minimum levels established by the guidelines, the bank holding company or bank may be denied approval to acquire or establish additional banks or nonbank businesses or to open new facilities. Failure to satisfy capital guidelines could subject a banking institution to a variety of restrictions or enforcement actions by federal bank regulatory authorities, including the termination of deposit insurance by the FDIC and a prohibition on the acceptance of brokered deposits.

A bank's capital hedges its risk exposure, absorbing losses that can be predicted as well as losses that cannot be predicted. According to the Federal Financial Institutions Examination Council's explanation of the capital component of the Uniform Financial Institutions Rating System, commonly known as the "CAMELS" rating system, a rating system employed by the Federal bank regulatory agencies, a financial institution must "maintain capital commensurate with the nature and extent of risks to the institution and the ability of management to identify, measure, monitor, and control these risks. The effect of credit, market, and other risks on the institution's financial condition should be considered when evaluating the adequacy of capital."

Under regulations promulgated by the federal bank regulators, U.S. banking organizations are subject to comprehensive capital standards that require the maintenance of common equity Tier 1 capital, Tier 1 capital, and total capital to risk-weighted assets of at least 4.5%, 6% and 8%, respectively, and a leverage ratio of at least 4% Tier 1 capital. Common equity Tier 1 capital is generally defined as common stockholders' equity and retained earnings. Tier 1 capital is generally defined as common equity Tier 1 and Additional Tier 1 capital. Additional Tier 1 capital generally includes certain noncumulative perpetual preferred stock and related surplus and minority interests in equity accounts of consolidated subsidiaries. Total capital includes Tier 1 capital (common equity Tier 1 capital plus Additional Tier 1 capital) and Tier 2 capital. Tier 2 capital is composed of capital instruments and related surplus meeting specified requirements. It may include cumulative preferred stock and long-term, perpetual preferred stock, mandatory convertible securities, intermediate preferred stock, and subordinated debt. Also included in Tier 2 capital is the allowance for credit losses limited to a maximum of 1.25% of risk-weighted assets and, for institutions that have exercised an opt-out election regarding the treatment of Accumulated Other Comprehensive Income ("AOCI"), up to 45% of net unrealized gains on available-for-sale equity securities with readily determinable fair market values. Institutions that have not exercised the AOCI opt-out have AOCI incorporated into common equity Tier 1 capital (including unrealized gains and losses on available-for-sale securities). During the first quarter of 2015, the Company exercised the opt-out election regarding the treatment of AOCI. Calculation of all types of regulatory capital is subject to deductions and adjustments specified in the regulations.

In determining the amount of risk-weighted assets for purposes of calculating risk-based capital ratios, a bank's assets, including certain off-balance sheet assets (e.g., recourse obligations, direct credit substitutes, residual interests), are multiplied by a risk-weight factor assigned by the regulations based on perceived risks inherent in the type of asset. Higher capital levels are required for asset categories believed to present more significant risk. For example, a risk weight of 0% is assigned to cash and U.S. government securities, a risk weight of 50% is generally assigned to prudently underwritten first-lien one-to-four family residential mortgages, a risk weight of 100% is assigned to commercial and consumer loans, and a risk weight of 150% is assigned to particular past-due loans and high volatility commercial real estate loans.

In addition to establishing the minimum regulatory capital requirements, the regulations limit capital distributions and certain discretionary bonus payments to management if the institution does not hold a "capital conservation buffer", consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets above the amount necessary to meet its minimum risk-based capital requirements. At December 31, 2023, the Bank exceeded the regulatory requirement for the "capital conservation buffer."

The FDIC also employs a market risk component in calculating capital requirements for nonmember banks. The market risk component could require additional capital for general or specific market risk of trading portfolios of debt and equity securities and other investments or assets. The FDIC's evaluation of an institution's capital adequacy takes into account a variety of other factors as well, including interest rate risks to which the institution is subject, the level and quality of an institution's earnings, loan and investment portfolio characteristics and risks, risks arising from the conduct of nontraditional activities, and a variety of other factors.

Accordingly, the FDIC's final supervisory judgment concerning an institution's capital adequacy could differ significantly from the conclusions that might be derived from the absolute level of an institution's risk-based capital ratios. Therefore, institutions generally are expected to maintain risk-based capital ratios that exceed the minimum ratios discussed above. This is particularly true for institutions contemplating significant expansion plans and institutions that are subject to high or excessive levels of risk. Moreover, although the FDIC does not impose explicit capital requirements on holding companies of institutions regulated by the FDIC, the FDIC can take into account the degree of leverage and risks at the holding company level. If the FDIC determines that the holding company (or another affiliate of the institution regulated by the FDIC) has an excessive degree of leverage or is subject to undue risks, the FDIC may require the subsidiary institution(s) to maintain additional capital or the FDIC may impose limitations on the subsidiary institution's ability to support its weaker affiliates or holding company.

Prompt Corrective Action. To resolve the problems of undercapitalized financial institutions and to prevent a recurrence of the banking crisis of the 1980s and early 1990s, the Federal Deposit Insurance Corporation Improvement Act of 1991 established a system known as "prompt corrective action." Under the prompt corrective action provisions and implementing regulations, every institution is classified into one of five categories, depending on its total capital ratio, its Tier 1 capital ratio, its common equity Tier 1 risk-based capital ratio, its leverage ratio, and subjective factors. The categories are "well-capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized," and "critically undercapitalized." To be considered well-capitalized for purposes of the prompt corrective action rules, a bank must maintain total risk-based capital of 10.0% or greater, Tier 1 risk-based capital of 8.0% or greater, common equity Tier 1 capital of 6.5% or greater, and leverage capital of 5.0% or greater. An institution with a capital level that might qualify for well-capitalized or adequately capitalized status may nevertheless be treated as though it were in the next lower capital category if its primary federal banking supervisory authority determines an unsafe or unsound condition or practice warrants that treatment.

A financial institution's capital classification can significantly affect its operations under the prompt corrective action rules. For example, an institution that is not well-capitalized generally is prohibited from accepting brokered deposits and offering interest rates on deposits higher than the prevailing rate in its market without advance regulatory approval, which can harm the bank's liquidity. An insured depository institution is subject to additional restrictions at each successively lower capital category. Undercapitalized institutions are required to take specified actions to increase their capital or otherwise decrease the risks to the federal deposit insurance fund. A bank holding company must guarantee that a subsidiary bank that adopts a capital restoration plan will satisfy its plan obligations. Any capital loans made by a bank holding company to a subsidiary bank are subordinated to the claims of depositors in the bank and certain other indebtedness of the subsidiary bank. If bankruptcy of a bank holding company occurs, any commitment by the bank holding company to a federal banking regulatory agency to maintain the capital of a subsidiary bank would be assumed by the bankruptcy trustee and would be entitled to priority of payment. Bank regulatory agencies generally must appoint a receiver or conservator shortly after an institution becomes critically undercapitalized. For a complete discussion of the Company and the Bank's actual capital amounts and ratios, refer to Note 19 - Regulatory Capital of the "Notes to Consolidated Financial Statements" of this Annual Report.

Limits on Dividends and Other Payments The Company's ability to obtain funds for the payment of dividends and for other cash requirements depends on the amount of dividends that may be paid to it by the bank. Ohio bank law and FDIC policy are consistent, providing that banks generally may rely solely on current earnings to pay dividends. Under Ohio Revised Code section 1107.15(B), a dividend may be declared from surplus, meaning additional paid-in capital, with the approval of (x) the Ohio Superintendent of Financial Institutions and (y) the holders of two-thirds of the bank's outstanding shares. Superintendent approval is also necessary to pay a dividend if the total of all cash dividends in a year exceeds the sum of (x) net income for the year and (y) retained net income for the two preceding years. Relying on 12 U.S.C. 1818(b), the FDIC may restrict a bank's ability to pay a dividend if the FDIC has reasonable cause to believe that the dividend would constitute an unsafe and unsound practice. The FDIC's capital maintenance requirements and prompt corrective action rules may also affect a bank's ability to pay dividends. A bank may not pay a dividend if the bank is undercapitalized or if payment would cause the bank to become undercapitalized.

A 1985 policy statement of the Federal Reserve Board declares that a bank holding company should not pay cash dividends on common stock unless the organization's net income for the past year is sufficient to fund the dividends fully and the prospective rate of earnings retention appears consistent with the organization's capital needs, asset quality, and overall financial condition.

Sarbanes-Oxley Act of 2002 The goals of the Sarbanes-Oxley Act enacted in 2002 are to increase corporate responsibility, provide for enhanced penalties for accounting and auditing improprieties at publicly traded companies, and protect investors by improving the accuracy and reliability of corporate disclosures made under the securities laws. The changes are intended to allow shareholders to monitor the performance of companies and directors more easily and efficiently.

The Sarbanes-Oxley Act generally applies to all companies that file periodic reports with the SEC under the Exchange Act. The Act has an impact on a wide variety of corporate governance and disclosure issues, including the composition of audit committees, certification of financial statements by the chief executive officer and the chief financial officer, forfeiture of bonuses and profits made by directors and senior officers in the 12 months covered by restated financial statements, a prohibition on insider trading during pension plan black-out periods, disclosure of off-balance-sheet transactions, a prohibition on personal loans to directors and officers (excluding FDIC-insured financial institutions), expedited filing requirements for stock transaction reports by officers and directors, the formation of a public accounting oversight board, auditor independence, and various increased criminal penalties for violations of securities laws.

Deposit Insurance The Deposit Insurance Fund of the FDIC insures deposits at insured depository institutions such as the Bank. Deposit accounts in the Bank are insured by the FDIC generally up to a maximum of \$250,000 based upon the ownership rights and capacities in which deposit accounts are maintained at the Bank. Banks' premium for deposit insurance is based upon a risk classification system established by the FDIC.

Effective July 1, 2016, the FDIC changed the way banks are assessed for deposit insurance. The FDIC has eliminated the risk categories for "small banks", such as the Bank, that have been FDIC insured for at least five years and have less than \$10 billion in total assets, and assessments are now based on financial measures and supervisory ratings derived from statistical modeling estimating the probability of failure within three years. In conjunction with the Deposit Insurance Fund reserve ratio achieving 1.15%, the assessment range (inclusive of possible adjustments) for established small banks with CAMELS 1 or 2 ratings has been reduced to 1.5 to 16 basis points and the maximum assessment rate for established small banks with CAMELS 3 through 4 ratings is 40 basis points.

The FDIC has the authority to increase insurance assessments. Effective January 1, 2023, FDIC deposit insurance assessment rates increased two basis points. The FDIC rule aims to return the deposit insurance fund to its statutory minimum of 1.35%. Any significant increases would have an adverse effect on the operating expenses and results of operations of the Bank. Management cannot predict what assessment rates will be in the future.

Interstate Banking and Branching Section 613 of the Dodd Frank Act ("DFA") amends the interstate branching provisions of the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994. The expanded *de novo* branching authority of the DFA authorizes a state or national bank to open a *de novo* branch in another state if the law of the state where the branch is to be located would permit a state bank chartered by that state to open the branch. Section 607 of the DFA also increases the approval threshold for interstate bank acquisitions, providing that a bank holding company must be well-capitalized and well managed as a condition to approval of an interstate bank acquisition, rather than being merely adequately capitalized and adequately managed, and that an acquiring bank must be and remain well-capitalized and well managed as a condition to approval of an interstate bank merger.

Transactions with Affiliates Transactions between an insured bank, such as the Bank, and any of its affiliates are governed by Sections 23A and 23B of the Federal Reserve Act and implementing regulations. These statutes are intended to protect banks from abuse in financial transactions with affiliates, preventing FDIC-insured deposits from being diverted to support the activities of unregulated entities engaged in nonbanking businesses. An affiliate of a bank includes any company or entity that controls or is under common control with the bank. Generally, section 23A and section 23B of the Federal Reserve Act:

- limit the extent to which a bank or its subsidiaries may lend to or engage in various other kinds of transactions with any one affiliate to an amount equal to 10% of the institution's capital and surplus, limiting the aggregate of covered transactions with all affiliates to 20% of capital and surplus,
- impose restrictions on investments by a subsidiary bank in the stock or securities of its holding company,
- require that affiliate transactions be on terms substantially the same, or at least as favorable to the institution or subsidiary, as those provided to a non-affiliate, and
- impose strict collateral requirements on loans or extensions or credit by a bank to an affiliate

The Bank's authority to extend credit to insiders — meaning executive officers, directors and greater than 10% stockholders — or to entities those persons control, is subject to section 22(g) and section 22(h) of the Federal Reserve Act and the Federal Reserve's Regulation O. Among other things, these laws require insider loans to be made on terms substantially similar to those offered to unaffiliated individuals, place limits on the amount of loans a bank may make to insiders based in part on the bank's capital position and require that specified approval procedures be followed. Loans to an individual insider may not exceed the legal limit on loans to any one borrower, which in general terms is 15% of capital but can be higher in some circumstances. In addition, the aggregate of all loans to all insiders may not exceed the Bank's unimpaired capital and surplus. Insider loans exceeding the greater of 5% of capital or \$25,000 must be approved in advance by a majority of the board of directors, with any "interested" director not participating in the voting. Lastly, loans to executive officers are subject to special limitations. Executive officers may borrow in unlimited amounts to finance their children's education or to finance the purchase or improvement of their residence, and they may borrow no more than \$100,000 for most other purposes. Loans to executive officers exceeding \$100,000 may be allowed if the loan is fully secured by government securities or a segregated deposit account. A violation of these restrictions could result in the assessment of substantial civil monetary penalties, the imposition of a cease-and-desist order or other regulatory sanctions.

Banking agency guidance for commercial real estate lending In December 2006 the FDIC and other Federal banking agencies issued final guidance on sound risk management practices for concentrations in commercial real estate lending, including acquisition and development lending, construction lending, and other land loans, which experience has shown can be particularly high-risk lending.

The commercial real estate risk management guidance does not impose rigid limits on commercial real estate lending but does create a much sharper supervisory focus on the risk management practices of banks with concentrations in commercial real estate lending. According to the guidance, an institution that has experienced rapid growth in commercial real estate lending, has notable exposure to a specific type of commercial real estate, or is approaching or exceeds the following supervisory criteria may be identified for further supervisory analysis of the level and nature of its commercial real estate concentration risk:

- total reported loans for construction, land development, and other land represent 100% or more of the institution's total capital, or
- total commercial real estate loans represent 300% or more of the institution's total capital and the outstanding balance of the institution's commercial real estate loan portfolio has increased by 50% or more during the prior 36 months.

These measures are intended merely to enable the banking agencies to identify institutions that could have an excessive commercial real estate lending concentration, potentially requiring close supervision to ensure that the institutions have sound risk management practices in place. Conversely, these measures do not imply that banks are authorized by the December 2006 guidance to accumulate a commercial real estate lending concentration up to the 100% and 300% thresholds.

Community Reinvestment Act (CRA) Under the Community Reinvestment Act of 1977 and implementing regulations of the banking agencies, a financial institution has a continuing and affirmative obligation — consistent with safe and sound operations — to address the credit needs of its entire community, including low- and moderate-income neighborhoods. The CRA does not establish specific lending requirements or programs for financial institutions, nor does it limit an institution's discretion to develop the types of products and services it believes are best suited to its particular community. The CRA requires that bank regulatory agencies conduct regular CRA examinations and provide written evaluations of institutions' CRA performance. The CRA also requires that an institution's CRA performance rating be made public. CRA performance evaluations are based on a four-tiered rating system: Outstanding, Satisfactory, Needs to Improve and Substantial Noncompliance.

Although CRA examinations occur on a regular basis, CRA performance evaluations have been used principally in the evaluation of regulatory applications submitted by an institution. CRA performance evaluations are considered in evaluating applications for such things as mergers, acquisitions, and applications to open branches.

MBC's CRA performance evaluation dated December 12, 2023 states that MBC's CRA rating is "Satisfactory."

On October 24, 2023, the federal banking agencies, including the FDIC, issued a final rule designed to strengthen and modernize regulations implementing the CRA. The changes are designed to encourage banks to expand access to credit, investment and banking services in low- and moderate-income communities, adapt to changes in the banking industry including mobile and internet banking, provide greater clarity and consistency in the application of the CRA regulations and tailor CRA evaluations and data collection to bank size and type. Under the final rule, banks with assets of at least \$600 million as of December 31 in both of the prior two calendar years and less than \$2 billion as of December 31 in either of the prior two calendar years will be an "intermediate bank," and banks with assets of at least \$2 billion as of December 31 in both of the prior two calendar years will be a "large bank." Banks classified as large banks will be subject to significant changes in their CRA compliance efforts. Intermediate banks are subject to more moderate changes to their CRA compliance program. Small banks are expected to see no changes to their CRA compliance activities unless they voluntarily opt in to some of the new requirements.

The agencies will evaluate large banks under four performance tests: the Retail Lending Test, the Retail Services and Products Test, the Community Development Financing Test, and the Community Development Services Test. The agencies will evaluate intermediate banks under the Retail Lending Test and either the current community development test, referred to in the final rule as the Intermediate Bank Community Development Test, or, at the bank's option, the Community Development Financing Test. The applicability date for the majority of the provisions in the final rule is January 1, 2026, and additional data collection and reporting requirements will be applicable on January 1, 2027. Until the January 1, 2026 compliance date, the current CRA regulations continue to apply.

The changes to the CRA regulations will make it more challenging and costly for the Bank to receive a rating of at least "satisfactory" on its CRA exam.

Federal Home Loan Bank The FHLB serves as a credit source for its members. As a member of the FHLB of Cincinnati, MBC is required to maintain an investment in the capital stock of the FHLB of Cincinnati in an amount calculated by reference to the FHLB member bank's amount of loans, and or "advances," from the FHLB.

Each FHLB is required to establish standards of community investment or service that its members must maintain for continued access to long-term advances from the FHLB. The criteria consider a member's performance under the CRA and its record of lending to first-time home buyers.

Cybersecurity and Data Protection Recent statements by federal regulators regarding cybersecurity indicate 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 client credentials, including security measures to reliably authenticate clients accessing internet-based services of the financial institution. Financial institution management is also 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 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. If the Bank fails to observe regulatory guidance regarding appropriate cybersecurity safeguards, we could be subject to various regulatory sanctions, including financial penalties.

The Bank dedicates significant resources to securing its systems and to protecting non-public personal information and other confidential information. These include resources dedicated to intrusion prevention such as firewalls, endpoint protection and behavior analysis tools, among others. The Bank also dedicates resources toward vulnerability identification through the performance of vulnerability scans and penetration tests, among other methods. We also require employees with access to information systems to undertake data protection and cybersecurity training and compliance programs. Compliance with cybersecurity training is tracked and reported to management, and the Audit Committee of the Board. In addition, the Bank conducts quarterly employee phishing tests and provides those results to the Bank's executives. The Bank has processes in place for assessing, identifying, and managing material risks from potential cybersecurity incidents, including vulnerability identifications, intrusion prevention, encryption, endpoint protection, behavior analysis, mitigation and the processes and protocols set forth in the Bank's incident response plan. The Bank also employs systems and processes designed to oversee and identify cybersecurity threats associated with third-party vendors, including a risk assessment and rigorous evaluation of each vendor that may access, process or store highly sensitive or proprietary data or that is systematically integrated with the Bank's systems or network. In addition to our in-house cybersecurity capabilities, we engage assessors, consultants, auditors, and other third parties to assist with assessing, identifying, mitigating and managing cybersecurity risks. See Item 1C. Cybersecurity for additional details regarding cybersecurity and data protection.

In the ordinary course of business, the Bank relies on electronic communications and information systems to conduct its operations and to store sensitive data. The Bank employs an in-depth, layered, defensive approach that incorporates security processes and technology to manage and maintain cybersecurity controls. The Bank employs a variety of preventative and detective tools to monitor, block, and provide alerts regarding suspicious activity, as well as to report on any suspected advanced persistent threats. Notwithstanding the strength of the Bank's defensive measures, the threat from cyber-attacks is severe, attacks are sophisticated and increasing in volume, and attackers respond rapidly to changes in defensive measures.

Anti-money laundering and anti-terrorism legislation The Bank Secrecy Act of 1970 requires financial institutions to maintain records and report transactions to prevent the financial institutions from being used to hide money derived from criminal activity and tax evasion. The Bank Secrecy Act establishes (a) record-keeping requirements to assist government enforcement agencies with tracing financial transactions and flow of funds, (b) reporting requirements for Suspicious Activity Reports and Currency Transaction Reports to assist government enforcement agencies with detecting patterns of criminal activity, (c) enforcement provisions authorizing criminal and civil penalties for illegal activities and violations of the Bank Secrecy Act and its implementing regulations, and (d) safe harbor provisions that protect financial institutions from civil liability for their cooperative efforts.

The Treasury's Office of Foreign Asset Control administers and enforces economic and trade sanctions against targeted foreign countries, entities, and individuals based on U.S. foreign policy and national security goals. As a result, financial institutions must scrutinize transactions to ensure that they do not represent obligations of or ownership interests in entities owned or controlled by sanctioned targets.

Signed into law on October 26, 2001, the USA PATRIOT Act of 2001 is omnibus legislation enhancing the powers of domestic law enforcement organizations to resist the international terrorist threat to United States security. Title III of the legislation, the International Money Laundering Abatement and Financial Anti-Terrorism Act of 2001, most directly affects the financial services industry, enhancing the Federal government's ability to fight money laundering through monitoring of currency transactions and suspicious financial activities. The USA PATRIOT Act has significant implications for depository institutions and other businesses involved in the transfer of money:

- a financial institution must establish due diligence policies, procedures, and controls reasonably designed to detect and report money laundering through correspondent accounts and private banking accounts,
- no bank may establish, maintain, administer, or manage a correspondent account in the United States for a foreign shell bank,
- financial institutions must abide by Treasury Department regulations encouraging financial institutions, their regulatory authorities, and law enforcement authorities to share information about individuals, entities, and organizations engaged in or suspected of engaging in terrorist acts or money laundering activities, and
- financial institutions must follow Treasury Department regulations setting forth minimum standards regarding customer identification. These regulations require financial institutions to implement reasonable procedures for verifying the identity of any person seeking to open an account, maintain records of the information used to verify the person's identity, and consult lists of known or suspected terrorists and terrorist organizations provided to the financial institution by government agencies. Every financial institution must establish anti-money laundering programs, including the development of internal policies and procedures, designation of a compliance officer, employee training, and an independent audit function.

Consumer protection laws and regulations. The Middlefield Banking Company is subject to regular examination by the FDIC to ensure compliance with statutes and regulations applicable to the bank's business, including consumer protection statutes and implementing regulations, some of which are discussed below. Violations of any of these laws may result in fines, reimbursements, and other related penalties.

Equal Credit Opportunity Act. The Equal Credit Opportunity Act generally prohibits discrimination in any credit transaction, whether for consumer or business purposes, on the basis of race, color, religion, national origin, sex, marital status, age (except in limited circumstances), receipt of income from public assistance programs, or good faith exercise of any rights under the Consumer Credit Protection Act.

Truth in Lending Act. The Truth in Lending Act is designed to ensure that credit terms are disclosed in a meaningful way so that consumers may compare credit terms more readily and knowledgeably. As a result of the Truth in Lending Act, all creditors must use the same credit terminology to express rates and payments, including the annual percentage rate, the finance charge, the amount financed, the total of payments and the payment schedule, among other things.

Fair Housing Act. The Fair Housing Act makes it unlawful for a residential mortgage lender to discriminate against any person because of race, color, religion, national origin, sex, handicap, or familial status. A number of lending practices have been held by the courts to be illegal under the Fair Housing Act, including some practices that are not specifically mentioned in the Fair Housing Act.

Home Mortgage Disclosure Act. The Home Mortgage Disclosure Act arose out of public concern over credit shortages in certain urban neighborhoods. The Home Mortgage Disclosure Act requires financial institutions to collect data that enable regulatory agencies to determine whether the financial institutions are serving the housing credit needs of the neighborhoods and communities in which they are located. The Home Mortgage Disclosure Act also requires the collection and disclosure of data about applicant and borrower characteristics as a way to identify possible discriminatory lending patterns. The vast amount of information that financial institutions collect and disclose concerning applicants and borrowers receives attention not only from state and Federal banking supervisory authorities but also from community-oriented organizations and the general public.

Real Estate Settlement Procedures Act. The Real Estate Settlement Procedures Act requires that lenders provide borrowers with disclosures regarding the nature and cost of real estate settlements. The Real Estate Settlement Procedures Act also prohibits abusive practices that increase borrowers' costs, such as kickbacks and fee splitting without providing settlement services.

Privacy. Under the Gramm-Leach-Bliley Act, all financial institutions are required to establish policies and procedures to restrict the sharing of non-public customer data with non-affiliated parties and to protect customer data from unauthorized access. In addition, the Fair Credit Reporting Act of 1971 includes many provisions concerning national credit reporting standards and permits consumers to opt out of information sharing for marketing purposes among affiliated companies.

In November, 2021, the FDIC, the OCC and the Federal Reserve Board issued a final rule requiring banking organizations that experience a computer-security incident to notify a bank's primary federal bank regulator. Compliance with the rule began May 1, 2022. A computer-security incident occurs when there is a violation or imminent threat of a violation to banking security policies and procedures, or when actual or potential harm to the confidentiality, integrity, or availability of an information system or the information occurs. The affected bank must notify its respective federal regulator of the computer-security incident as soon as possible and no later than 36 hours after the bank determines a computer-security incident has occurred. These notifications are intended to promote early awareness of threats to banking organizations and will help banks react to those threats before they manifest into bigger incidents. This rule also requires bank service providers to notify their customers of a computer-security incident.

State Banking Regulation As an Ohio-chartered bank, The Middlefield Banking Company is subject to regular examination by the ODFI. State banking regulation affects the internal organization of the bank as well as its savings, lending, investment, and other activities. State banking regulation may contain limitations on an institution's activities that are in addition to limitations imposed under federal banking law. The ODFI may initiate supervisory measures or formal enforcement actions, and if the grounds provided by law exist, it may take possession and control of an Ohio-chartered bank.

Monetary Policy The earnings of financial institutions are affected by the policies of regulatory authorities, including monetary policy of the Federal Reserve Board. An important function of the Federal Reserve System is regulation of aggregate national credit and money supply. The Federal Reserve Board accomplishes these goals with measures such as open market transactions in securities, establishment of the discount rate on bank borrowings, and changes in reserve requirements against bank deposits. These methods are used in varying combinations to influence overall growth and distribution of financial institutions' loans, investments and deposits, and they also affect interest rates charged on loans or paid on deposits. Monetary policy is influenced by many factors, including inflation, unemployment, short-term and long-term changes in the international trade balance, and fiscal policies of the United States government. Federal Reserve Board monetary policy has had a significant effect on the operating results of financial institutions in the past, and it can be expected to influence operating results in the future.

Item 1A — Risk Factors

Risks Related to the Company's Business

The Company does not have the financial and other resources that larger competitors have; this could affect its ability to compete for large commercial loan originations and its ability to offer products and services competitors provide to customers. The northeastern Ohio and central Ohio markets in which the Company operates have high concentrations of financial institutions. Many of the financial institutions operating in our markets are branches of significantly larger institutions headquartered in Cleveland or in Columbus, with significantly greater financial resources and higher lending limits. In addition, many of these institutions offer services that the Company does not or cannot provide. For example, the larger competitors' greater resources offer advantages such as the ability to price services at lower, more attractive levels, and the ability to provide larger credit facilities. The Company accommodates loan volumes in excess of its lending limits from time to time through the sale of loan participations to other banks.

The business of banking is changing rapidly with changes in technology, which poses financial and technological challenges to small and mid-sized institutions. With frequent introductions of new technology-driven products and services, the banking industry is undergoing rapid technological changes. In addition to enhancing customer service, the effective use of technology increases efficiency and enables financial institutions to reduce costs. Financial institutions' success is increasingly dependent upon use of technology to provide products and services that satisfy customer demands and to create additional operating efficiencies. Many of the Company's competitors have substantially greater resources to invest in technological improvements, which could enable them to perform various banking functions at lower costs than the Company, or to provide products and services that the Company is not able to economically provide. The Company cannot assure you that we will be able to develop and implement new technology-driven products or services or that the Company will be successful in marketing these products or services to customers. Because of the demand for technology-driven products, banks increasingly rely on unaffiliated vendors to provide data processing services and other core banking functions. The use of technology-related products, services, delivery channels, and processes exposes banks to various risks, particularly transaction, strategic, reputation, and compliance risk. The Company cannot assure you that we will be able to successfully manage the risks associated with our dependence on technology.

Success in the banking industry requires disciplined management of lending risks. There are many risks in the business of lending, including risks associated with the duration over which loans may be repaid, risks resulting from changes in economic conditions, risks inherent in dealing with individual borrowers, and risks resulting from changes in the value of loan collateral. We attempt to mitigate this risk by a thorough review of the creditworthiness of loan customers. Nevertheless, there is risk that our credit evaluations will prove to be inaccurate due to changed circumstances or otherwise.

Our allowance for credit losses may prove to be insufficient to absorb the expected losses in our loan portfolio. Lending money is a substantial part of our business. However, every loan we make carries a risk of nonpayment. This risk is affected by, among other things: the cash flow of the borrower and/or the project being financed; in the case of a collateralized loan, the changes and uncertainties as to the future value of the collateral; the credit history of a particular borrower; changes in economic and industry conditions; and the duration of the loan. The preparation of consolidated financial statements in conformity with GAAP requires management to make significant estimates that affect the financial statements. One of our most critical estimates is the level of the allowance for credit losses. In addition, bank regulatory agencies periodically review the allowance for credit losses and may require an increase in the provision for possible credit losses or the recognition of further loan charge-offs, based on judgments different than those of management. Any increases in the allowance for credit losses will result in a decrease in net income and, possibly, capital, and may have a material adverse effect on the Company's financial condition and results of operations.

Our financial instruments expose us to certain market and credit risks and may increase the volatility of earnings and AOCI. We hold certain financial instruments measured at fair value. For those financial instruments measured at fair value, we are required to recognize the changes in the fair value of such instruments in earnings or accumulated other comprehensive income ("AOCI") each quarter. Therefore, any increases or decreases in the fair value of these financial instruments have a corresponding impact on reported earnings or AOCI. Fair value can be affected by a variety of factors, many of which are beyond our control, including our credit position, interest rate volatility, capital markets volatility, and other economic factors. Accordingly, we are subject to mark-to-market risk, and the application of fair value accounting may cause our earnings and AOCI to be more volatile than would be suggested by our underlying performance.

Material breaches in security of bank systems may have a significant effect on the Company's business. Financial institutions are under continuous threat of loss due to cyber-attacks, especially as we continue to expand customer capabilities to utilize internet and other remote channels to transact business. A material breach of our systems may result from actions by our employees, vendors, third-party administrators, or unknown third parties or through cyber-attacks and can occur whether the applications are in our or third party data centers or cloud-based software services.

The most significant cyber-attack risks that we face are e-fraud, denial of service, and loss of sensitive customer data. Loss from e-fraud occurs when cybercriminals breach and extract funds directly from customers or our accounts. Loss can occur as a result of negative customer experience in the event of a successful denial of service attack that disrupts availability of our on-line banking services. The breach of sensitive customer data, such as account numbers and social security numbers, could present significant operational, reputational, legal and regulatory costs to us. We collect, process and store sensitive consumer data by utilizing computer systems and telecommunications networks operated by both banks and third-party service providers. We have security, backup and recovery systems in place, as well as a business continuity plan to ensure systems will not be inoperable. We also have security to prevent unauthorized access to the system. In addition, we require third-party service providers to maintain similar controls. However, we cannot be certain that these measures will be successful. A security breach in the system and loss of confidential information could result in losing customers' confidence and thus the loss of their business as well as additional significant costs for credit monitoring activities.

We face indirect technology, cybersecurity, and operational risks relating to the customers, and other third parties with whom we do business or upon whom we rely to facilitate or enable our business activities, including, for example, financial counterparties, regulators, and providers of critical infrastructure such as internet access and electrical power. As a result of increasing consolidation, interdependence, and complexity of financial entities and technology systems, a technology failure, cyber-attack, or other information or security breach that significantly degrades, deletes, or compromises the systems or data of one or more financial entities could have a material impact on counterparties or other market participants, including us. This consolidation, interconnectivity, and complexity increases the risk of operational failure. Any third-party technology failure, cyber-attack, or other information or security breach, termination, or constraint could, among other things, adversely affect our ability to effect transactions, service our customers, manage our exposure to risk, or expand our business.

The Company may be exposed not only to a systems failure or cyber-attack that may be experienced by a vendor or market infrastructure with which the Company is directly connected, but also to a systems breakdown or cyber-attack involving another party to which such a vendor or infrastructure is connected. The Company increasingly faces the risk of operational failure or cyber-attacks with respect to the systems of those parties. Security breaches affecting the Company's customers, employees, agents, or suppliers, or systems breakdowns or failures, security breaches or human error or misconduct affecting other external parties, may require the Company to take steps to protect the integrity of its own operational systems or to safeguard confidential information, including restricting the access of customers to their accounts. These actions can increase the Company's operational costs and potentially diminish customer satisfaction and confidence in the Company.

Furthermore, the widespread and expanding interconnectivity among financial institutions, clearing banks, payment processors, financial technology companies, securities exchanges, clearing houses and other financial market infrastructures increases the risk that the disruption of an operational system involving one institution or entity, including due to a cyber-attack, may cause industry-wide operational disruptions that could materially affect the Company's ability to conduct business. In addition, the risks associated with the disruption of an operational system of a third party could be exacerbated to the extent that the services provided by that system are used by a significant number or proportion of market participants.

The ineffectiveness, failure or other disruption of operational systems upon which the Company depends, including due to a systems malfunction, cyber incident or other systems failure, could result in unfavorable ripple effects in the financial markets and for the Company and its customers.

The cyber-attack could have adverse impacts on our business. As previously disclosed, we sustained a cyber-attack in April 2023 that resulted in a temporary disruption to the computer systems of The Middlefield Banking Company. A cybersecurity firm investigated the nature and scope of the incident, evaluated our systems, and confirmed that nonpublic information relating to current and former employees, customers and others was obtained from our systems. While the information varies by individual, some of the types of information that may have been obtained include name, Social Security number, driver's license information, date of birth, financial account information, medical information, passport number, payment card information, and username and password. We are presently defending a class action lawsuit related to the misappropriated data. Whether or not such data was misused, the perception that the nonpublic information could be used in a harmful manner or that not enough was done to protect the information from cyber-attacks could cause harm to our reputation and result in the loss of business from current or future customers, which could have an adverse effect on our business, results of operations, and financial condition. While the incident is not expected to have a material impact on the Company's business, the cyber-attack the Bank experienced in April 2023 increases the risk associated with any future cybersecurity incidents, particularly the risk of damage to the Company's reputation.

We have implemented enhanced security measures to safeguard our systems and data, and we intend to continue implementing additional measures in the future. However, our measures may not be sufficient to maintain the confidentiality, security, or availability of the data we collect, store, and use to operate our business. Security measures implemented by our service providers or their service providers also may not be sufficient. Efforts to hack or circumvent security measures, efforts to gain unauthorized access to, exploit or disrupt the operation or integrity of our data or systems, failures of systems or software to operate as designed or intended, viruses, "ransomware" or other malware, "supply chain" attacks, "phishing" or other types of business communications compromises, operator error, or inadvertent releases of data may in the future impact our information systems and records or those of our service providers. Security measures, no matter how well designed or implemented, may only mitigate and not fully eliminate risks, and security events, when detected by security tools or third parties, may not always be immediately understood or acted upon. Any additional significant theft of, unauthorized access to, compromise or loss of, loss of access to, or fraudulent use of our systems or data could result in legal, regulatory and other consequences, including remedial and other expenses, fines, or litigation. These risks could have a material adverse effect on our business, results of operations, or financial condition as well as harm to our reputation.

The Company remains subject to risks and uncertainties due to the incident, including litigation, changes in customer behavior, and additional regulatory scrutiny. Although we maintain cybersecurity insurance coverage insuring against costs resulting from cyber-attacks (including the April 2023 attack), potential disputes with insurers about the availability of insurance coverage could occur. Further, should we experience future cyber incidents, or should industry trends drive rate increases resulting from growth in volume and significance of cyber incidents broadly, we may incur higher costs for cybersecurity insurance coverage. The risks relating to future breaches in our, or our vendors', data security infrastructure, including in connection with cyber incidents, could have a material adverse effect on our business, results of operations or financial condition or may result in operational impairments and financial losses, as well as significant harm to our reputation.

A material disruption in the operation of our business functions, facilities, and systems or third party service providers' facilities and systems could have a significant negative impact on our operations. Our necessary dependence upon automated systems to record and process transaction volumes poses the risk that technical system flaws or employee errors, tampering or manipulation of those systems will result in losses and may be difficult to detect. We may also be subject to disruptions of the operating systems arising from events that are beyond our control (for example, computer viruses, cyber-attacks, or electrical or telecommunications outages). We are further exposed to the risk that third party service providers may be unable to fulfill their contractual obligations (or will be subject to the same risk of fraud, operational errors, or external events). A disruption in our operations occurred in April 2023 as a result of a cyber-attack. Please refer to the immediately preceding risk factor for information on this incident. These disruptions may interfere with our ability to service our customers and could result in a financial loss or liability as well as negatively impact our reputation.

The increasing complexity of the Company's operations presents varied risks that could affect its earnings and financial condition. The Company processes a large volume of transactions on a daily basis and is exposed to numerous types of risks related to internal processes, people and systems. These risks include, but are not limited to, the risk of fraud by persons inside or outside the Company, the execution of unauthorized transactions by employees, errors relating to transaction processing and systems, breaches of data security and our internal control system and compliance with a complex array of consumer and safety and soundness regulations. We could also experience additional loss as a result of potential legal actions that could arise as a result of operational deficiencies or as a result of noncompliance with applicable laws and regulations.

The Company has established and maintains a system of internal controls that provides management with information on a timely basis and allows for the monitoring of compliance with operational standards. These systems have been designed to manage operational risks at an appropriate, cost-effective level. Procedures exist that are designed to ensure that policies relating to conduct, ethics, and business practices are followed. Losses from operational risks may still occur, however, including losses from the effects of operational errors.

A lack of liquidity could impair our ability to fund operations and adversely impact our business, financial condition and results of operations. Liquidity is essential to our business. We rely on our ability to generate deposits and effectively manage the repayment and maturity schedules of our loans and investment securities, respectively, to ensure that we have adequate liquidity to fund our operations. An inability to raise funds through deposits, borrowings, sales of our investment securities, sales of loans or other sources could have a substantial negative effect on our liquidity and our ability to continue our growth strategy.

Our most important source of funds is deposits. As of December 31, 2023, approximately \$690.9 million, or 48.4%, of our total deposits were negotiable order of withdrawal, or NOW, savings, and money market accounts. Historically our savings, money market deposit and NOW accounts have been stable sources of funds. However, these deposits are subject to potentially dramatic fluctuations in availability or price due to certain factors that may be outside of our control, such as a loss of confidence by customers in us or the banking sector generally, customer perceptions of our financial health and general reputation, increasing competitive pressures from other financial services firms for consumer or corporate customer deposits, changes in interest rates, and returns on other investment classes, any of which could result in significant outflows of deposits within short periods of time or significant changes in pricing necessary to maintain current customer deposits or attract additional deposits, increasing our funding costs and reducing our net interest income and net income.

Additional liquidity is provided by our ability to borrow from the FHLB of Cincinnati, and the Federal Reserve Bank of Cleveland. We also may borrow funds from third-party lenders, such as other financial institutions. Our access to funding sources in amounts adequate to finance or capitalize our activities, or on terms that are acceptable to us, could be impaired by factors that affect us directly or the financial services industry or economy in general, such as disruptions in the financial markets or negative views and expectations about the prospects for the financial services industry. Our access to funding sources could also be affected by one or more adverse regulatory actions against us.

We rely extensively on models in managing many aspects of our business, and these models may be inaccurate or misinterpreted. We rely extensively on models in managing many aspects of our business, including liquidity and capital planning, credit and other risk management, pricing, and reserving. The models may prove in practice to be less predictive than we expect. The errors or inaccuracies in our models may be material, and could lead us to make wrong or sub-optimal decisions in managing our business, and this could have a material adverse effect on our business, financial condition, or results of operations.

We are dependent on our management team and key employees, and if we are not able to attract and retain them, our business operations could be materially adversely affected. Our success depends, in large part, on our management team and key employees. During 2023, we experienced a transition in the chief financial officer position. We have a new chief executive officer since January 1, 2024. Our management team has significant industry experience. Our future success also depends on our continuing ability to attract, develop, motivate and retain key employees. Qualified individuals are in high demand, and we may incur significant costs to attract and retain them. Because the market for qualified individuals is highly competitive, we may not be able to attract and retain qualified officers or candidates. The loss of any of our management team or our key employees could materially adversely affect our ability to execute our business strategy, and we may not be able to find adequate replacements on a timely basis, or at all. We cannot ensure that we will be able to retain the services of any members of our management team or other key employees. Failure to attract and retain a qualified management team and qualified key employees could have a material adverse effect on our business, financial condition and results of operations. The Company has non-competition agreements with senior officers and key personnel.

Our operations could be interrupted if our third-party service providers experience difficulty, terminate their services, or fail to comply with banking regulations. We depend to a significant extent on a number of relationships with third-party service providers. Specifically, we receive core systems processing, essential web hosting and other internet systems, deposit processing and other processing services from third-party service providers. If these third-party service providers experience difficulties or terminate their services and we are unable to transition to other service providers in an orderly manner, our operations could be interrupted. If an interruption were to continue for a significant period of time, our business, financial condition, and results of operations could be adversely affected, perhaps materially. Even if we are able to replace them, it may be at a higher cost to us, which could adversely affect our business, financial condition, and results of operations.

We have a continuing need for technological change, and we may not have the resources to effectively implement new technology or we may experience operational challenges when implementing new technology. The financial services industry is undergoing rapid 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 upon 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 to create additional efficiencies in our operations as we continue to grow and expand our market area. We may experience operational challenges as we implement these new technology enhancements, or seek to implement them across all of our offices and business units, which could result in us not fully realizing the anticipated benefits from such new technology or require us to incur significant costs to remedy any such challenges in a timely manner.

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 to raise additional capital in the future 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, if needed, will depend on, among other things, conditions in the capital markets at that time, which are outside of our control, and our financial condition. Economic conditions and the loss of confidence in financial institutions may increase our cost of funding and limit access to certain customary sources of capital, including inter-bank borrowings, repurchase agreements and borrowings from the discount window of the Federal Reserve.

We cannot give assurance that such capital will be available on acceptable terms or at all. Any occurrence that may limit our access to the capital markets, such as a decline in the confidence of debt purchasers, depositors of counterparties participating in the capital markets, or a downgrade of the Company's debt ratings, may adversely affect our capital costs and our ability to raise capital and, in turn, our liquidity. Moreover, 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.

The value of our goodwill and core deposit intangible assets may decline in the future. As of December 31, 2023, we had \$43.0 million of goodwill and core deposit intangible assets. A significant decline in our expected future cash flows, a significant adverse change in the business climate, slower growth rates, or a significant and sustained decline in the price of the Company's common stock may necessitate taking charges in the future related to the impairment of our goodwill and core deposit intangible assets. If we were to conclude that a future write-down of goodwill and core deposit intangible assets is necessary, we would record the appropriate charge, which could have a material adverse effect on our business, financial condition, and results of operations.

Risks Relating to Economic and Market Conditions

Our business may be adversely affected by conditions in the financial markets and economic conditions generally. As economic conditions relating to the COVID-19 pandemic have improved, the Federal Reserve has shifted its focus to limiting inflationary and other potentially adverse effects of the extensive pandemic-related government stimulus, which signals the potential for a continued period of economic uncertainty even though the pandemic has subsided. In addition, there are continuing concerns related to, among other things, the level of U.S. government debt and fiscal actions that may be taken to address that debt, a potential resurgence of economic and political tensions with China and the Russian invasion of Ukraine, all of which may have a destabilizing effect on financial markets and economic activity. Economic pressure on consumers and overall economic uncertainty may result in changes in consumer and business spending, borrowing and savings habits. These economic conditions or other negative developments in the domestic or international credit markets or economies may significantly affect the markets in which we do business, the value of our loans and investments, and our ongoing operations, costs and profitability.

As the result of the related adverse local and national economic consequences, we could be subject to any of the following risks, any of which could have a material, adverse effect on our business, financial condition, liquidity, and results of operations:

- declines in demand for loans and other banking services and products, as well as a decline in the credit quality of our loan portfolio;
- decreases in office occupancy following the COVID-19 pandemic could negatively impact the future cash flows and market values of the affected properties that leads to an increased provision for credit losses and adversely affect our operating results and financial condition;
- collateral for loans, especially real estate, may decline in value, which could cause loan losses to increase;
- the net worth and liquidity of loan guarantors may decline, impairing their ability to honor commitments to us;
- a material decrease in net income or a net loss over several quarters could result in a decrease in the rate of our quarterly cash dividend;
- cyber security risks are increased as the result of an increase in the number of employees working remotely; and
- Federal Deposit Insurance Corporation premiums may increase if the agency experiences additional resolution costs for bank failures.

Any one or a combination of the factors identified above could negatively impact our business, financial condition and results of operations and prospects.

The Company operates in a highly competitive industry and market area. The Company faces significant competition both in making loans and in attracting deposits. Competition is based on interest rates and other credit and service charges, the quality of services rendered, the convenience of banking facilities, the range and type of products offered and, in the case of loans to larger commercial borrowers, lending limits, among other factors. Competition for loans comes principally from commercial banks, savings banks, savings and loan associations, credit unions, mortgage banking companies, insurance companies, and other financial service companies. The Company's most direct competition for deposits has historically come from commercial banks, savings banks, and savings and loan associations. Technology has also lowered barriers to entry and made it possible for non-banks to offer products and services traditionally provided by banks, such as automatic transfer and automatic payment systems. The wide acceptance of Internet-based commerce has resulted in a number of alternative payment processing systems and lending platforms in which banks play only minor roles. Customers can now maintain funds in prepaid debit cards or digital currencies, and pay bills and transfer funds directly without the direct assistance of banks. Our profitability depends upon our continued ability to successfully compete in our market areas. Larger competitors may be able to achieve economies of scale and, as a result, offer a broader range of products and services. The Company's ability to compete successfully depends on a number of factors, including, among other things:

- the ability to develop, maintain, and build long-term customer relationships based on top quality service, high ethical standards, and safe, sound assets;
- the ability to expand the Company's market position;
- the scope, relevance, and pricing of products and services offered to meet customer needs and demands;
- the rate at which the Company introduces new products and services relative to its competitors;
- customer satisfaction with the Company's level of service; and
- industry and general economic trends

Failure to perform in any of these areas could significantly weaken the Company's competitive position, which could adversely affect growth and profitability.

Changing interest rates have a direct and immediate impact on financial institutions. The interest rate risk that exists for most or all financial institutions arises out of interest rates that increase more than anticipated or that increase more quickly than expected. If interest rates change more abruptly than we have simulated or if the increase is greater than we have simulated, this could have an adverse effect on our net interest income and equity value. The risk of nonpayment of loans — or credit risk — is not the only lending risk. Lenders are subject also to interest rate risk. Fluctuating rates of interest prevailing in the market affect a bank's net interest income, which is the difference between interest earned from loans and investments, on one hand, and interest paid on deposits and borrowings, on the other. Changes in the general level of interest rates can affect our net interest income by affecting the difference between the weighted-average yield earned on our interest-earning assets and the weighted-average rate paid on our interest-bearing liabilities, or interest rate spread, and the average life of our interest-earning assets and interest-bearing liabilities. Changes in interest rates also can affect (i) our ability to originate loans, (ii) the value of our interest-earning assets, and our ability to realize gains from the sale of such assets, (iii) our ability to obtain and retain deposits in competition with other available investment alternatives, and (iv) the ability of our borrowers to repay adjustable or variable rate loans. Interest rates are highly sensitive to many factors, including governmental monetary policies, domestic and international economic and political conditions, and other factors beyond our control. Although the Company believes that the estimated maturities of our interest-earning assets currently are well balanced in relation to the estimated maturities of our interest-bearing liabilities (which involves various estimates as to how changes in the general level of interest rates will impact these assets and liabilities), there can be no assurance that our profitability would not be adversely affected during any period of changes in interest rates.

A prolonged economic downturn in our market area would adversely affect our loan portfolio and our growth prospects . Our lending market area is concentrated in northeastern, central, and western Ohio, particularly Ashtabula, Cuyahoga, Delaware, Franklin, Geauga, Hardin, Logan, Madison, Portage, Summit, Trumbull, and Union Counties. A significant percentage of our loan portfolio is secured by real estate collateral, primarily residential mortgage loans. Commercial and industrial loans to small and medium-sized businesses also represent a significant percentage of our loan portfolio. The asset quality of our loan portfolio is largely dependent upon the area's economy and real estate markets. A prolonged economic downturn would likely lead to deterioration of the credit quality of our loan portfolio and reduce our level of customer deposits, which in turn would hurt our business. Borrowers may be less likely to repay their loans as scheduled or at all. Moreover, the value of real estate or other collateral that may secure our loans could be adversely affected. Unlike many larger institutions, we are not able to spread the risks of unfavorable local economic conditions across a large number of diversified economies and geographic locations. A prolonged economic downturn could, therefore, result in losses that could materially and adversely affect our business.

Inflation could negatively impact our business and profitability. Volatility and uncertainty related to inflation and the effects of inflation, which may lead to increased costs for businesses and consumers and potentially contribute to poor business and economic conditions generally, may also enhance or contribute to some of the risks discussed herein. For example, higher inflation, or volatility and uncertainty related to inflation, could reduce demand for the Company's products, adversely affect the creditworthiness of the Company's borrowers or result in lower values for the Company's investment securities and other interest-earning assets. Although inflation in 2023 was reduced compared to 2022, inflationary pressures remain elevated. Future inflation metrics are uncertain for 2024 and onward.

Risks Associated with the Company's Common Stock

The Company may issue additional shares of its common stock in the future, which could dilute a shareholder's ownership of common stock. The Company's articles of incorporation authorize its Board of Directors, without shareholder approval, to, among other things, issue additional shares of common stock. The issuance of any additional shares of common stock could be dilutive to a shareholder's ownership of Company common stock. To the extent that the Company issues options or warrants to purchase common stock in the future and the options or warrants are exercised, the Company's shareholders may experience further dilution. Holders of shares of Company common stock have no preemptive rights that entitle holders to purchase their pro rata share of any offering of shares and, therefore, shareholders may not be permitted to invest in future issuances of Company common stock.

If an entity holds as little as a 5% interest in our outstanding securities, that entity could, under certain circumstances, be subject to regulation as a "bank holding company." Any entity, including a "group" composed of natural persons, owning or controlling with the power to vote 25% or more of our outstanding securities, or 5% or more if the holder otherwise exercises a "controlling influence" over us, may be subject to regulation as a "bank holding company" in accordance with the Bank Holding Company Act of 1956. In addition, any bank holding company or foreign bank with a U.S. presence may be required to obtain the approval of the Federal Reserve Board under the Bank Holding Company Act to acquire or retain 5% or more of our outstanding securities. Becoming a bank holding company imposes statutory and regulatory restrictions and obligations, such as providing managerial and financial strength for its bank subsidiaries. Regulation as a bank holding company could require the holder to divest all or a portion of the holder's investment in our securities or those nonbanking investments that may be deemed impermissible or incompatible with bank holding company status, such as a material investment in a company unrelated to banking.

Anti-takeover provisions could delay or prevent an acquisition or change in control by a third party. Provisions of the Ohio General Corporation Law, our Amended and Restated Articles of Incorporation, and our Code of Regulations, including a staggered board and supermajority voting requirements, could make it more difficult for a third party to acquire control of us or could have the effect of discouraging a third party from attempting to acquire control of us.

Risks Related to the Legal and Regulatory Environment

The banking industry is heavily regulated; the compliance burden to the industry is considerable; the principal beneficiary of federal and state regulation is the public at large and depositors, not stockholders. The Company and its subsidiaries are and will remain subject to extensive state and federal government supervision and regulation. Supervision and regulation affect many aspects of the banking business, including permissible activities, lending, investments, payment of dividends, the geographic locations in which our services can be offered, and numerous other matters. State and federal supervision and regulation are intended principally to protect depositors, the public, and the deposit insurance fund administered by the FDIC. Protection of stockholders is not a goal of banking regulation.

The burdens of federal and state banking regulation place banks in general at a competitive disadvantage compared to less regulated competitors. Applicable statutes, regulations, agency and court interpretations, and agency enforcement policies have undergone significant changes, and could change significantly again. Compliance with regulations can be difficult and costly, and changes to regulations often impose additional compliance costs. Federal and state banking agencies also require banks and bank holding companies to maintain adequate capital. Failure to maintain adequate capital or to comply with applicable laws, regulations, and supervisory agreements could subject a bank or bank holding company to federal or state enforcement actions, including termination of deposit insurance, imposition of fines and civil penalties, and, in the most severe cases, appointment of a conservator or receiver for a depository institution. Changes in applicable laws and regulatory policies could adversely affect the banking industry generally or the Company in particular. The Company gives you no assurance that we will be able to adapt successfully to industry changes caused by governmental actions.

Recent negative developments affecting the banking industry, and resulting media coverage, have eroded customer confidence in the banking system. The closures of Silicon Valley Bank and Signature Bank in March 2023 and First Republic Bank in May 2023, and concerns about similar future events, have generated significant market volatility among publicly traded bank holding companies. These market developments have negatively impacted customer confidence in the safety and soundness of banks. While the Department of the Treasury, the Federal Reserve, and the FDIC took action to ensure that depositors of these failed banks had access to their deposits, including uninsured deposit accounts, there is no guarantee that bank runs similar to the ones that occurred in 2023 will not occur in the future and, if they were to occur, they may have a material and adverse impact on customer and investor confidence in banks negatively impacting the Company's liquidity, capital, results of operations and stock price.

Regulatory examination scrutiny or new regulatory requirements arising from the recent events in the banking industry could increase the Company's expenses and affect the Company's operations. The Company anticipates increased regulatory scrutiny – in the course of routine examinations and otherwise designed to address the recent negative developments in the banking industry, all of which may increase the Company's costs of doing business and reduce its profitability. Among other things, there may be an increased focus by both regulators and investors on the on-balance sheet liquidity of and funding sources for financial institutions, the composition of their deposits and the level of uninsured deposits, the amount of accumulated other comprehensive loss, capital levels, and interest rate risk management.

Environmental liability associated with commercial lending could have a material adverse effect on our business, financial condition or results of operations. A significant portion of our loan portfolio is secured by real property. During the ordinary course of business, we may foreclose on and take title to properties securing certain loans. In doing so, there is a risk that hazardous or toxic substances could be found on these properties. If hazardous or toxic substances are found, we may be liable for remediation costs, as well as for personal injury and property damage. In addition, we own and operate certain properties that may be subject to similar environmental liability risks.

Environmental laws may require us to incur substantial expenses and may materially reduce the affected property's value or limit our ability to use or sell the affected property. In addition, future laws or more stringent interpretations or enforcement policies with respect to existing laws may increase our exposure to environmental liability. Although we have policies and procedures requiring the performance of an environmental site assessment before initiating any foreclosure action on real property, these assessments may not be sufficient to detect all potential environmental hazards. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our business, financial condition, or results of operations.

The Current Expected Credit Loss accounting standard could add volatility to our allowance for credit losses and may have a material adverse effect on our financial condition and results of operations. Effective January 1, 2023, we adopted the Financial Accounting Standard Board (the "FASB") Account Standards Update 2016-13, *Financial Instruments – Credit Losses* (Topic 325); *Measurement of Credit Losses on Financial Instruments*, commonly referred to as "CECL". CECL changed the allowance for credit losses methodology from an incurred loss impairment methodology to an expected loss methodology, which is more dependent on future economic forecasts, assumptions and models than previous accounting standards and could result in increases in, and add volatility to, our allowance for credit losses and future provisions for credit losses. These forecasts, assumptions and models are inherently uncertain and are based upon management's reasonable judgment in light of information currently available.

Regulatory requirements affecting our loans secured by commercial real estate could limit our ability to leverage our capital and adversely affect our growth and profitability. Rising commercial real estate lending concentrations may expose institutions like the Bank to unanticipated earnings and capital volatility in the event of adverse changes in the commercial real estate market. In addition, institutions that are exposed to significant commercial real estate concentration risk may be subject to increased regulatory scrutiny. The federal banking agencies have issued guidance for institutions that are deemed to have concentrations in commercial real estate lending. Pursuant to the supervisory criteria contained in the guidance for identifying institutions with a potential commercial real estate concentration risk, institutions that have (i) total reported loans for construction, land development, and other land which represent 100% or more of an institution's total risk-based capital; or (ii) total commercial real estate loans representing 300% or more of the institution's total risk-based capital and the outstanding balance of the institution's commercial real estate loan portfolio has increased 50% or more during the prior 36 months are encouraged to identify and monitor credit concentrations and enhance risk management systems. At December 31, 2023, non-owner occupied commercial real estate loans (including construction, land, and land development loans) represent 294.5% of total risk-based capital. Construction, land, and land development loans represent 63.4% of total risk-based capital as of December 31, 2023. Management has extensive experience in commercial real estate lending. Management has implemented and continues to maintain heightened risk management procedures and strong underwriting criteria with respect to its commercial real estate portfolio. Loan monitoring practices include but are not limited to periodic stress testing analysis to evaluate changes to cash flows, interest rate increases, and declines in net operating income. Nevertheless, we may be required to maintain higher levels of capital as a result of our commercial real estate concentrations, which could require us to obtain additional capital, and may adversely affect shareholder returns. The Company has an extensive capital planning policy, which includes pro forma projections including stress testing within which the Board of Directors has established internal minimum targets for regulatory capital ratios that are in excess of well-capitalized ratios.

We face a risk of noncompliance and enforcement action with the Bank Secrecy Act and other anti-money laundering statutes and regulations. The Bank Secrecy Act of 1970, the Uniting and Strengthening America by Providing Appropriate Tools to Intercept and Obstruct Terrorism Act of 2001, or the USA Patriot Act or Patriot Act, and other laws and regulations require financial institutions, among other duties, to institute and maintain an effective anti-money laundering program and to file reports such as suspicious activity reports and currency transaction reports. We are required to comply with these and other anti-money laundering requirements. Our federal and state banking regulators, the Financial Crimes Enforcement Network, or FinCEN, and other government agencies are authorized to impose significant civil money penalties for violations of anti-money laundering requirements. We are also subject to increased scrutiny of compliance with the regulations issued and enforced by the Office of Foreign Assets Control, or OFAC. If our program is deemed deficient, we could be subject to liability, including fines, civil money penalties and other regulatory actions, which may include restrictions on our business operations and our ability to pay dividends, restrictions on mergers and acquisitions activity, restrictions on expansion, and restrictions on entering new business lines. Failure to maintain and implement adequate programs to combat money laundering and terrorist financing could also have significant reputational consequences for us. Any of these circumstances could have a material adverse effect on our business, financial condition or results of operations.

Government regulation could restrict our ability to pay cash dividends. Dividends from the Bank are the only significant source of cash for the Company. Statutory and regulatory limits could prevent the Bank from paying dividends or transferring funds to the Company. The Company cannot assure you that subsidiary Bank profitability will continue to allow dividends to the Company, and the Company therefore cannot assure you that the Company will be able to continue paying regular, quarterly cash dividends.

General Risk Factors

Climate change, natural disasters, acts of war or terrorism, the impact of pandemics or epidemics, and other external events could significantly impact our business. Natural disasters, including severe weather events of increasing strength and frequency due to climate change, acts of war or terrorism, and other adverse external events could have a significant impact on our ability to conduct business or upon third parties who perform operational services for us or our customers. Such events could affect the stability of our deposit base, impair the ability of borrowers to repay outstanding loans, impair the value of collateral securing loans, cause significant property damage, result in lost revenue or cause us to incur additional expenses.

Aggressive actions by hostile governments or groups, including armed conflict or intensified cyber-attacks, could expand in unpredictable ways by drawing in other countries or escalating into full-scale war with potentially catastrophic consequences, particularly if one or more of the combatants possess nuclear weapons. Depending on the scope of the conflict, the hostilities could result in:

- worldwide economic disruption
- heightened volatility in financial markets
- severe declines in asset values, accompanied by widespread selloffs of investments
- diminished consumer, business and investor confidence
- events arising from local or larger-scale civil or political unrest, any outbreak or escalation of hostilities, or terrorist acts.

The Company could also experience more numerous and aggressive cyber-attacks launched by or under the sponsorship of one or more of the adversaries in such a conflict.

Litigation could adversely affect our results of operations, profitability and cash flows . From time to time, we have been and may be involved in various legal proceedings and claims arising in our ordinary course of business. Other than a lawsuit filed on January 8, 2024 relating to the disclosure of customers' personally identifiable information as a result of the April 2023 cyber-attack, we are not a party to any material legal proceeding. Litigation may result in a diversion of management's attention and resources, significant costs, including monetary damages and legal fees, and injunctive relief, and may contribute to current and future stock price volatility. No assurance can be made that future litigation will not result in material financial exposure or reputational harm, which could have a material adverse effect upon our results of operations, profitability or cash flows.

Item 1B — Unresolved Staff Comments

Not applicable.

Item 1C — Cybersecurity

Risk Management and Strategy

We have developed a comprehensive Information Security Program ("ISP") that was designed as the guiding policy to establish standards designed to protect the confidentiality of nonpublic, sensitive personal and business information, protect against potential threats to the security or integrity of such information, and protect against unauthorized access to or use of such information. The ISP applies to all Company employees, contractors, consultants, and third-party vendors as well as all technology owned and operated by the Bank. The scope of the ISP covers customer data as well as the Company's strategic and proprietary information. The Board of Directors approves the ISP annually. Additionally, the Information Technology Steering Committee ("ITSC") must approve significant modifications to the ISP prior to review and approval by the Board of Directors. The Chief Information Officer ("CIO") is responsible for the implementation and maintenance of the ISP.

Key elements of our ISP include:

- Identification of sources and types of technology threats
- Tools and processes to manage technology security, such as change control approval, employing a Unified Threat Management System, and usage of anti-virus and anti-spam hardware
- Ongoing security assessments conducted by third-party vendors, such as vulnerability assessments and penetration testing, and mitigation of any findings
- Continuous firewall monitoring provided by a third-party vendor
- Information security training for employees provided by a third-party vendor
- Annual security audits of third-party vendors

Our Information Security Governance Plan ("InfoSec") is a component of the ISP and provides for strategic oversight of critical aspects of the Bank's information security. The objective of InfoSec is to provide a framework for decision-making and accountability for information security issues to ensure that the ISP is actively monitored and information security permeates through all areas and initiatives across the organization.

Security assessments are an ongoing activity within the Bank, and the Security Assessment Policy identifies security assessment requirements and those individuals accountable for ensuring the assessments comply with the requirements. All assessment activities must be approved by the Chief Risk Officer. The coverage of assessments includes, but is not limited to, physical security assessment, information technology general controls audit, vulnerability assessment, penetration testing, and social engineering testing. Results are shared with the ITSC, executive management and the Board of Directors.

There is an established Incident Response Program ("IRP") that provides a framework for us to respond quickly, decisively, and appropriately to limit the impact of an adverse event, such as a cybersecurity incident, on customers and information resources. Procedures have been developed that outline the necessary steps should an incident occur, such as incident identification, classification, and escalation. We use a Cybersecurity Assessment Tool to assess our cybersecurity preparedness on a periodic basis. A Cybersecurity Incident Response Team, which is part of our general Incident Response Team, will take the appropriate actions as outlined in the IRP in the event a cybersecurity situation occurs.

We do not believe that risks from cybersecurity threats, including the previously disclosed cyber-attack that occurred in April 2023, have materially impacted or are reasonably likely to materially impact our overall business strategy, results of operations, or financial condition. We maintain cybersecurity insurance to cover the costs resulting from cyber-attacks; however, the policy may not cover all losses from cybersecurity incidents. Refer to the discussion on the April 2023 incident in Note 23 of our financial statements and the discussion of cybersecurity risk in Part I, Item 1A, "Risk Factors".

Governance

Board of Directors

The Board of Directors, in coordination with the Audit Committee, oversees the Company's management of cybersecurity risk. The Board receives monthly reports from the CIO, focusing on cybersecurity and information technology updates. The reports include key insights regarding our security risk score, areas of focus, and metrics from our third-party provider regarding security investigations and incidents as well as the results of training and phishing simulations. The Audit Committee receives periodic updates on information security risk and maturity of our ISP. The Audit Committee also receives reports with the results of security assessments conducted by third-parties.

Management

Under the leadership of the CIO, the Information Technology Steering Committee ("ITSC") serves to improve the effectiveness of information technology at the Bank and ensure alignment with the Bank's strategic business plan and statement of risk appetite. Composition of the ITSC will consist of senior management from the business areas. Meetings occur at least bi-annually. The ITSC is tasked with reviewing the Bank's technology, information security, business continuity, digital initiatives, vendor management, and data management strategic direction and providing feedback to management.

The Information Security Governance Council ("ISGC") acts on the behalf of and to assist the Board of Directors and executive management in fulfilling its oversight responsibilities regarding the Bank's information security programs and risks. The ISGC is comprised of members from Risk, Information Technology, and other strategic areas within the Bank, including the CIO, and meets at least quarterly. The responsibilities of the ISGC include providing strategic oversight and implementation guidance for the ISP, aligning cybersecurity and business objectives, monitoring and reporting on cybersecurity and information security incidents, and promoting a strong culture around information security.

As stated above, the CIO is a member of the ISGC, chairs the ITSC, and reports to the Chief Strategy and Innovation Officer. The CIO has over 40 years of business experience in information technology and cybersecurity. We outsource the position of Chief Information Security Officer ("CISO") to a third-party vendor that specializes in partnering with organizations to enhance cybersecurity management.

Item 2 — Properties

The Bank's principal executive offices are located at 15985 East High Street, Middlefield, Ohio 44062.

As of the date of this Annual Report on Form 10-K, MBC has 21 banking centers, 1 loan production office, and one administrative office as listed below:

- branch offices in Middlefield (two offices), Chardon, and Newbury in Geauga County;
- an administrative office in Middlefield in Geauga County;
- branch offices in Garrettsville and Mantua in Portage County;
- a branch office in Orwell in Ashtabula County;
- a branch office in Cortland in Trumbull County;
- branch offices in Dublin and Westerville in Franklin County;
- a loan production office in Mentor in Lake County;
- branch offices in Sunbury and Powell in Delaware County;
- branch offices in Beachwood and Solon in Cuyahoga County;
- a branch office in Twinsburg in Summit County;
- a branch office in Plain City in Madison County;
- branch offices in Ada and Kenton in Hardin County;
- branch offices in Bellefontaine (two offices) in Logan County;
- a branch office in Marysville in Union County.

On December 31, 2023, the net book value of the Bank's investment in premises and equipment totaled \$21.3 million.

Item 3 — Legal Proceedings

See the information in Note 23, which we incorporate here by reference.

From time to time, the Company and the subsidiary bank are involved in various other legal proceedings that are incidental to its business. In the opinion of management, no other current legal proceedings are material to the Company's financial condition or the subsidiary bank, 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**

Details of repurchases of Company common stock during the fourth quarter of 2023 are included in the following table:

2023 period

In thousands, except per share data	Total shares purchased	Average price paid per share	Total shares purchased as part of a publicly announced program (a)	Maximum number of shares that may yet be purchased under the program
October 1-31	-	\$ -	-	293,910
November 1-30	-	-	-	293,910
December 1-31	-	-	-	293,910
Total	-	\$ -	-	

Our common stock is traded on the NASDAQ Capital Market under the symbol "MBCN." At the close of business on December 31, 2023, there were approximately 1,173 shareholders of record. Our cash dividend payout policy is reviewed regularly by management and the Board of Directors. Our Board of Directors has consistently declared cash dividends on our common stock. Any dividends declared and paid in the future would depend upon several factors, including capital requirements, our financial condition and results of operations, tax considerations, statutory and regulatory limitations, and general economic conditions. No assurance can be given that any dividends will be paid or that, if paid, will not be reduced or eliminated in future periods. Our future payment of dividends may depend, in part, upon receipts of dividends from the Bank, which are restricted by banking regulations.

Information relating to the market for Middlefield's common equity and related shareholder matters appears under "Return on Equity and Assets" and "Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters" in the Company's 2023 Annual Report to Shareholders and is incorporated herein by reference.

Item 6 — [Reserved]

Not applicable.

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

The above-captioned information appears under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's 2023 Annual Report to Shareholders and is incorporated herein by reference.

Item 7A — Quantitative and Qualitative Disclosures about Market Risk

Not applicable.

Item 8 — Financial Statements and Supplementary Data

The Consolidated Financial Statements of the Company and its subsidiaries, together with the report thereon by S.R. Snodgrass, P.C. (PCAOB: 000 74) appear in the Company's 2023 Annual Report to Shareholders and are incorporated herein by reference.



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Middlefield Banc Corp.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Middlefield Banc Corp. and subsidiaries (the "Company") as of December 31, 2023 and 2022; the related consolidated statements of income, comprehensive income (loss), changes in stockholders' equity, and cash flows for the years then ended; and the related notes to the consolidated financial statements (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with auditing standards generally accepted in the United States of America, the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control – Integrated Framework, issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report dated March 28, 2024, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting. .

Change in Accounting Principle

As discussed in Note 1 to the financial statements, the Company changed its method of accounting for credit losses effective January 1, 2023, due to the adoption of Accounting Standards Codification (ASC) Topic 326, Financial Instruments – Credit Losses.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent, with respect to the Company, in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.



Basis of Opinion (Continued)

We conducted our audits in accordance with the standards of the PCAOB and in accordance with the auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Allowance for Credit Losses on Loans (ACL)

Description of the Matter

The Company's loan portfolio totaled \$1.5 billion as of December 31, 2023, and the associated allowance for credit losses on loans was \$21.7 million. As discussed in Notes 1 and 6 to the consolidated financial statements, the allowance for credit losses (ACL) related to loans is a contra-asset valuation account, calculated in accordance with ASC 326, that is deducted from the amortized cost basis of loans to present the net amount expected to be collected. The amount of the ACL represents management's best estimate of current expected credit losses on these financial instruments considering all relevant available information, from internal and external sources, relevant to assessing exposure to credit loss over the contractual term of the instruments.

The Company's methodology for estimating the allowance for credit losses on loans includes quantitative and qualitative components of the calculation. For pooled loans, the Company utilizes a discounted cash flow ("DCF") methodology to estimate credit losses over the expected life of loan. The DCF methodology combines probability of default, the loss given default, and prepayment speed assumptions to estimate a reserve for each loan. The quantitative loss rates are adjusted by current and forecasted macroeconomic assumptions and return to the mean after the forecasted periods. The sum of all the loan level reserves are aggregated for each portfolio segment and a loss factor is derived. These quantitative loss factors are also supplemented by certain qualitative risk factors reflecting management's view of how losses may vary from those represented by quantitative loss rates. Qualitative loss factors are applied to each portfolio segment with the amounts determined by correlation of credit stress to the maximum loss factor. Changes in these assumptions could have a material effect on the Company's financial results.

We identified auditing ACL on pooled loans as a critical audit matter because the methodology to determine the estimate of credit losses significantly changed upon adoption of ASC 326, including the application of new accounting policies, the use of subjective judgments for both the quantitative and qualitative calculations and overall changes made to the loss estimation models. Performing audit procedures to evaluate the implementation and subsequent application of ASC 326 for loans involved a high degree of auditor judgment and required significant effort.



Allowance for Credit Losses on Loans (ACL) (Continued)

How We Addressed the Matter in Our Audit

The primary procedures we performed related to this critical audit matter (CAM) included:

- Testing the design, implementation, and operating effectiveness of internal controls over the adoption and calculation of the allowance for credit losses, including the qualitative factor adjustments.
- Evaluated the reasonableness of selected loss drivers utilized and loss driver forecasts for loan pools
- Testing the completeness and accuracy of the significant data points that management uses in their evaluation of the qualitative adjustments.
- Testing the anchoring calculation that management completes to properly align the magnitude of the adjustments with the Company's historical loss data.
- Evaluating the directional consistency and reasonableness of management's conclusions regarding basis points applied (whether positive or negative) based on the trends identified in the underlying data.
- Testing the mathematical accuracy of the application of the qualitative adjustments to the loan segments within the ACL calculation.

Measurement Period Adjustment – Loan Valuation

Description of the Matter

During 2022, the Company completed the acquisition of Liberty Bancshares, Inc. as disclosed in Note 21 to the consolidated financial statements. The transaction was accounted for by applying the acquisition method. Subsequent to December 31, 2022, the Company utilized the measurement period to post an adjustment of \$4.6 million to goodwill for updated information regarding the fair value of loans acquired.

Auditing the Company's accounting for the acquisition of Liberty Bancshares, Inc. was complex due to the significant estimation required by management to determine the fair value of the loans acquired of \$307 million. The Company determined the fair value of the acquired loans by estimating the principal and interest cash flows expected to be collected on the loans and discounting those cash flows at a market rate of interest. The significant estimation was primarily due to the judgment involved in determining the discount rate used to discount the expected cash flows for acquired loans to establish the acquisition-date fair value of the loans.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls over the Company's accounting for the measurement period adjustment. Our tests included testing controls over the completeness and accuracy of the data and the estimation process supporting the fair value of loans acquired. We also tested management's discount rate used in the valuation model.

To test the estimated fair value of the loans acquired, we performed audit procedures that included, among others, evaluating the Company's valuation methodology, evaluating the discount rate used by the Company's valuation specialist, and evaluating the completeness and accuracy of the underlying data.

We have served as the Company's auditor since 1986.

/s/ S. R. Snodgrass, P.C

Cranberry Township, Pennsylvania
March 28, 2024

MIDDLEFIELD BANC CORP.
CONSOLIDATED BALANCE SHEET
(Dollar amounts in thousands)

	December 31, 2023	December 31, 2022
ASSETS		
Cash and due from banks	\$ 56,397	\$ 51,404
Federal funds sold	4,439	2,405
Cash and cash equivalents	60,836	53,809
Investment securities available for sale, at fair value	170,779	164,967
Other investments	955	915
Loans:		
Commercial real estate:		
Owner occupied	183,545	191,748
Non-owner occupied	401,580	380,580
Multifamily	82,506	58,251
Residential real estate	328,854	296,308
Commercial and industrial	221,508	195,602
Home equity lines of credit	127,818	128,065
Construction and other	125,105	94,199
Consumer installment	7,214	8,119
Total loans	1,478,130	1,352,872
Less: allowance for credit losses	21,693	14,438
Net loans	1,456,437	1,338,434
Premises and equipment, net	21,339	21,961
Goodwill	36,356	31,735
Core deposit intangibles	6,642	7,701
Bank-owned life insurance	34,349	33,811
Other real estate owned	-	5,821
Accrued interest receivable and other assets	35,190	28,528
TOTAL ASSETS	\$ 1,822,883	\$ 1,687,682
LIABILITIES		
Deposits:		
Noninterest-bearing demand	\$ 401,384	\$ 503,907
Interest-bearing demand	205,582	164,677
Money market	274,682	187,498
Savings	210,639	307,917
Time	334,315	238,020
Total deposits	1,426,602	1,402,019
Federal Home Loan Bank advances	163,000	65,000
Other borrowings	11,862	12,059
Accrued interest payable and other liabilities	15,738	10,913
TOTAL LIABILITIES	1,617,202	1,489,991
STOCKHOLDERS' EQUITY		
Common stock, no par value; 25,000,000 shares authorized, 9,930,704 and 9,916,466 shares issued; 8,095,252 and 8,245,235 shares outstanding	161,388	161,029
Retained earnings	100,237	94,154
Accumulated other comprehensive loss	(16,090)	(22,144)
Treasury stock, at cost; 1,835,452 and 1,671,231 shares	(39,854)	(35,348)
TOTAL STOCKHOLDERS' EQUITY	205,681	197,691
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 1,822,883	\$ 1,687,682

See accompanying notes to the consolidated financial statements.

MIDDLEFIELD BANC CORP.
CONSOLIDATED INCOME STATEMENT
(Dollar amounts in thousands, except per share data)

	Year Ended December 31,	
	2023	2022
INTEREST AND DIVIDEND INCOME		
Interest and fees on loans	\$ 81,963	\$ 48,513
Interest-earning deposits in other institutions	1,289	472
Federal funds sold	771	219
Investment securities:		
Taxable interest	1,893	1,811
Tax-exempt interest	3,914	3,707
Dividends on stock	471	184
Total interest and dividend income	<u>90,301</u>	<u>54,906</u>
INTEREST EXPENSE		
Deposits	18,995	4,018
Short-term borrowings	5,386	307
Other borrowings	717	404
Total interest expense	<u>25,098</u>	<u>4,729</u>
NET INTEREST INCOME	<u>65,203</u>	<u>50,177</u>
Provision for credit losses	<u>3,002</u>	<u>-</u>
NET INTEREST INCOME AFTER PROVISION FOR CREDIT LOSSES	<u>62,201</u>	<u>50,177</u>
NONINTEREST INCOME		
Service charges on deposit accounts	3,878	3,850
Loss on equity securities	(161)	(173)
Loss on other real estate owned	(170)	-
Earnings on bank-owned life insurance	823	459
Gain on sale of loans	97	24
Revenue from investment services	743	674
Gross rental income	421	951
Other income	<u>1,060</u>	<u>961</u>
Total noninterest income	<u>6,691</u>	<u>6,746</u>
NONINTEREST EXPENSE		
Salaries and employee benefits	24,511	17,548
Occupancy expense	2,566	2,033
Equipment expense	1,241	1,074
Data processing and information technology costs	4,764	3,701
Ohio state franchise tax	1,578	1,157
Federal deposit insurance expense	861	329
Professional fees	2,293	1,500
Other real estate owned writedowns	-	1,200
Advertising expense	1,477	1,033
Software amortization expense	95	143
Core deposit intangible amortization	1,059	372
Gross other real estate owned expenses	510	707
Merger-related costs	473	2,382
Other expense	<u>6,709</u>	<u>4,851</u>
Total noninterest expense	<u>48,137</u>	<u>38,030</u>
Income before income taxes	<u>20,755</u>	<u>18,893</u>
Income taxes	<u>3,387</u>	<u>3,220</u>
NET INCOME	<u>\$ 17,368</u>	<u>\$ 15,673</u>
EARNINGS PER SHARE		
Basic	\$ 2.14	\$ 2.60
Diluted	\$ 2.14	\$ 2.59

See accompanying notes to the consolidated financial statements.

MIDDLEFIELD BANC CORP.
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (LOSS)
(Dollar amounts in thousands)

	Year Ended December 31,	
	2023	2022
Net income	\$ 17,368	\$ 15,673
Other comprehensive income (loss):		
Unrealized holding gain (loss) on securities available for sale	7,664	(32,413)
Tax effect	(1,610)	6,807
Total other comprehensive income (loss):	6,054	(25,606)
Comprehensive income (loss):	<u>\$ 23,422</u>	<u>\$ (9,933)</u>

See accompanying notes to the consolidated financial statements.

MIDDLEFIELD BANC CORP.
CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
(Dollar amounts in thousands)

	Common Stock		Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Treasury Stock	Total Stockholders' Equity
	Shares	Amount				
Balance, December 31, 2021	7,330,548	\$ 87,131	\$ 83,971	\$ 3,462	\$ (29,229)	\$ 145,335
Net income			15,673			15,673
Other comprehensive loss				(25,606)		(25,606)
Common stock issued in business combination	2,561,513	73,265				73,265
Stock-based compensation, net	24,405	633				633
Treasury shares acquired (229,420 shares)					(6,119)	(6,119)
Cash dividends (\$0.81 per share)			(5,490)			(5,490)
Balance, December 31, 2022	9,916,466	\$ 161,029	\$ 94,154	\$ (22,144)	\$ (35,348)	\$ 197,691
Net income			17,368			17,368
Other comprehensive income				6,054		6,054
Cumulative impact of ASC 326 adoption (CECL)			(4,421)			(4,421)
Authorization of additional common shares		(37)				(37)
Common stock issued in business combination	-	-				-
Stock-based compensation, net	14,238	396				396
Treasury shares acquired (164,221 shares)					(4,506)	(4,506)
Cash dividends (\$0.85 per share)			(6,864)			(6,864)
Balance, December 31, 2023	9,930,704	\$ 161,388	\$ 100,237	\$ (16,090)	\$ (39,854)	\$ 205,681

See accompanying notes to the consolidated financial statements.

MIDDLEFIELD BANC CORP.
CONSOLIDATED STATEMENT OF CASH FLOWS
(Dollar amounts in thousands)

	For the Year Ended December 31,	
	2023	2022
OPERATING ACTIVITIES		
Net income	\$ 17,368	\$ 15,673
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	3,002	-
Loss on equity securities	161	173
Software amortization expense	95	143
Amortization of premium and discount on investment securities, net	593	624
Amortization of core deposit intangibles	1,059	372
Depreciation, amortization, and accretion, net	(108)	(373)
Stock-based compensation, net	374	307
Origination of loans held for sale	5,736	(1,350)
Proceeds from sale of loans held for sale	(5,639)	1,641
Gain on sale of loans held for sale	(97)	(24)
Earnings on bank-owned life insurance	(823)	(459)
Deferred income tax (benefit)	(705)	(324)
Losses on other real estate owned	170	1,200
(Increase) in accrued interest receivable	(1,183)	(209)
Increase in accrued interest payable	2,348	395
Other, net	5	498
Net cash provided by operating activities	22,356	18,287
INVESTING ACTIVITIES		
Investment securities available for sale:		
Proceeds from repayments and maturities	3,259	4,235
Proceeds from sale of securities	-	57,887
Purchases	(2,000)	(32,290)
Purchase of other investments	(200)	-
Increase in loans, net	(129,220)	(55,864)
Proceeds from the sale of other real estate owned	5,651	-
Proceeds from bank-owned life insurance	289	-
Purchase of premises and equipment	(1,096)	(884)
Proceeds from the disposal of premises and equipment	-	165
Purchase of restricted stock	(7,462)	(1,448)
Redemption of restricted stock	4,237	1,183
Acquisition, net of cash paid	-	18,406
Net cash used in investing activities	(126,542)	(8,610)
FINANCING ACTIVITIES		
Net increase (decrease) in deposits	24,780	(128,522)
Net increase in short-term borrowings	98,000	65,000
Repayment of other borrowings	(197)	(231)
Repurchase of common shares	(4,506)	(6,119)
Cash dividends	(6,864)	(5,490)
Net cash provided by (used in) financing activities	111,213	(75,362)
Increase (decrease) in cash and cash equivalents	7,027	(65,685)
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	53,809	119,494
CASH AND CASH EQUIVALENTS AT END OF PERIOD	\$ 60,836	\$ 53,809
SUPPLEMENTAL INFORMATION		
Cash paid during the year for:		
Interest on deposits and borrowings	\$ 22,750	\$ 4,334
Income taxes	1,565	3,579
Noncash investing transactions:		
Transfers from loans held for sale to loans held for investment	\$ -	\$ (784)
Transfers from loans to other real estate owned	-	29
Increase in finance lease assets included in premises and equipment	-	611
Purchased loan fair value adjustment	4,621	-
Noncash financing transactions:		
Decrease in finance lease liabilities included in other borrowings	\$ -	\$ (611)

See accompanying notes to the consolidated financial statements.

**MIDDLEFIELD BANC CORP.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Basis of Presentation

The consolidated financial statements of Middlefield Banc Corp. ("Company") include its bank subsidiary, The Middlefield Banking Company ("MBC" or "Bank"), and a nonbank asset resolution subsidiary EMORECO, Inc. The consolidated financial statements also include the accounts of MBC's subsidiaries, Middlefield Investments, Inc. ("MI") and MB Insurance Services ("MIS"). All significant inter-company items have been eliminated.

On March 13, 2019, MBC established MI as an operating subsidiary to hold and manage an investment portfolio. On December 31, 2023, MI's assets consist of a cash account, investments, and related accrued interest accounts. MI may only hold and manage investments and may not engage in any other activity without prior approval of the Ohio Division of Financial Institutions. In the first quarter of 2022, MBC established MIS as an operating subsidiary to offer retail and business customers various insurance services, including home, renters, automobile, pet, identity theft, travel, and professional liability insurance. On December 31, 2023, MIS assets consist of a cash account, a prepaid asset, and an accounts receivable. As a result of the bank merger of Liberty National Bank and MBC on December 1, 2022, Middlefield Banc Corp. acquired a 100 % ownership interest in LBSI Insurance, LLC ("LBSI"), a wholly owned financial subsidiary of Liberty National Bank. LBSI did not operate after the merger, and its existence ended January 19, 2024. All significant intercompany items have been eliminated between MBC and these subsidiaries.

On December 1, 2022, the Company completed its merger with Liberty Bancshares, Inc. ("Liberty"), pursuant to a previously announced definitive merger agreement. Under the terms of the merger agreement, Liberty shareholders received 2.752 shares of the Company's common stock in exchange for each share of Liberty common stock they owned immediately before the merger. The Company issued 2,561,513 shares of its common stock in the merger, and the aggregate merger consideration was approximately \$ 73.3 million. Upon closing, Liberty's bank subsidiary was merged into MBC, and Liberty's six full-service bank offices, in Ada and Kenton in Hardin County, Bellefontaine North and Bellefontaine South in Logan County, Marysville in Union County, and Westerville in Franklin County, became offices of MBC.

Estimates

In preparing the financial statements, management is required to make estimates and assumptions that affect the reported amounts and liabilities as of the balance sheet date and revenues and expenses for the period. Actual results could differ from those estimates.

The Company's significant accounting policies involve the more significant judgments and assumptions used in the preparation of the consolidated financial statements as of December 31, 2023. However, the Company has identified critical accounting policies, and an understanding of these policies is necessary to understand the Company's financial statements. These policies relate to determining the adequacy of the allowance for credit losses for the investment securities held for sale, loan portfolios, and unfunded commitments.

Cash and Cash Equivalents

The Company has defined cash and cash equivalents as those amounts included in the Consolidated Balance Sheet captions as "Cash and due from banks" and "Federal funds sold" with original maturities of less than 90 days.

Investments

Management determines the appropriate classification of investment securities at the time of purchase and re-evaluates such designation as of each balance sheet date.

Investment securities classified as available for sale are those securities that the Bank intends to hold for an indefinite period of time but not necessarily to maturity. Securities available for sale are carried at fair value. Any decision to sell a security classified as available for sale would be based on various factors, including significant movements in interest rates, changes in the maturity mix of the Bank's assets and liabilities, liquidity needs, regulatory capital considerations, and other similar factors. Unrealized gains or losses are reported as increases or decreases in other comprehensive income (loss), net of the deferred tax effect. Realized gains or losses, determined on the basis of the cost of the specific securities sold, are included in earnings. Premiums and discounts are recognized in interest income using the interest method over the terms of the securities.

Investment securities classified as held to maturity are those securities the Bank has both the intent and ability to hold to maturity regardless of changes in market conditions, liquidity needs, or changes in general economic conditions. These securities are carried at cost, adjusted for the amortization of premium and accretion of discount, and computed by a method that approximates the interest method over the terms of the securities. As of December 31, 2023, the Company did not hold any held-to-maturity securities.

Equity securities, which are included in other investments on the Consolidated Balance Sheet, are measured at fair value with changes in fair value recognized in net income.

Allowance for Credit Losses – Investment Securities Available for Sale

The Bank adopted ASU No. 2016-13, *Financial Instruments - Credit Losses - Topic (326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), effective January 1, 2023. Financial statement amounts related to investment securities recorded as of December 31, 2023 are presented in accordance with the accounting policies described in the following sections.

The Bank measures expected credit losses on available for sale investment securities when the Bank intends to sell, or when it is more likely than not that it will be required to sell, the security before recovery of its amortized cost basis. If either of the criteria regarding intent or requirement to sell is met, the security's amortized cost basis is written down to fair value through income. For available for sale investment securities that do not meet the aforementioned criteria, the Bank evaluates whether the decline in fair value has resulted from credit losses or other factors. In making this assessment, the Bank considers the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and adverse conditions specifically related to the security, among other factors. If this evaluation indicates that a credit loss exists, the present value of cash flows expected to be collected from the security are compared to the amortized cost basis of the security. If the present value of cash flows expected to be collected is less than the amortized cost basis, a credit loss exists, and an allowance for credit losses is recorded for the credit loss, equal to the amount that the fair value is less than the amortized cost basis. Economic forecast data is used to calculate the present value of expected cash flows. The Bank obtains its forecast data through a subscription to a widely recognized and relied-upon company that publishes various forecast scenarios. Management evaluates the various scenarios to determine a reasonable and supportable scenario and uses a single scenario in the model. Any impairment that has not been recorded through an allowance for credit losses is recognized in other comprehensive income.

The allowance for credit losses is included within investment securities available for sale on the Consolidated Balance Sheet. Changes in the allowance for credit losses are recorded within the provision for credit losses on the Consolidated Statement of Income. Losses are charged against the allowance when the Bank believes the collectability of an available for sale security is in jeopardy or when either of the criteria regarding intent or requirement to sell is met.

Accrued interest receivable on available for sale investment securities totaled \$ 1.6 million on December 31, 2023, and is included within accrued interest receivable and other assets on the Consolidated Balance Sheet. This amount is excluded from the estimate of expected credit losses. Available for sale investment securities are typically classified as nonaccrual when the contractual payment of principal or interest has become 90 days past due or management has serious doubts about the further collectability of principal or interest. When available for sale investment securities are placed on nonaccrual status, unpaid interest credited to income is reversed.

Credit Losses on Investment Securities – Prior to adopting ASU 2016-13

The following sections were carried forward from the Annual Report on Form 10-K for the year ended December 31, 2022.

Investment securities are classified at the time of purchase, based on management's intention and ability, as securities held to maturity or securities available for sale. Debt securities acquired with the intent and ability to hold to maturity are stated at cost, adjusted for amortization of premium and accretion of discount, computed using a level yield method, and recognized as interest income adjustments. Certain other debt securities have been classified as available for sale to serve principally as a source of liquidity. Unrealized holding gains and losses for available for sale securities are reported as a separate component of stockholders' equity, net of tax until realized. Realized security gains and losses are computed using the specific identification method. Interest and dividends on investment securities are recognized as income when earned. For 2022, this category includes common stocks of public companies that the Company has the positive intent and ability to hold for an indeterminate amount of time. Such securities are reported at fair value, with unrealized holding gains and losses included in earnings.

Securities are evaluated quarterly and more frequently when economic or market conditions warrant such an evaluation to determine whether a decline in their value is other-than-temporary. For debt securities, management considers whether the present value of cash flows expected to be collected is less than the security's amortized cost basis (the difference defined as the credit loss), the magnitude and duration of the decline, the reasons underlying the decline and the Bank's intent to sell the security or whether it is more likely than not that the Bank would be required to sell the security before its anticipated recovery in market value, to determine whether the loss in value is other-than-temporary. Once a decline in value is determined to be other-than-temporary, if the Bank does not intend to sell the security, and it is more likely than not that it will not be required to sell the security, before recovery of the security's amortized cost basis, the charge to earnings is limited to the amount of credit loss. Any remaining difference between fair value and amortized cost (the difference defined as the noncredit portion) is recognized in other comprehensive income, net of applicable taxes. Otherwise, the difference between fair value and the amortized cost is charged to earnings.

Loans

Loans that management has the intent and ability to hold for the foreseeable future or until maturity or payoff are stated at their outstanding unpaid principal balances, net of unearned income, which includes net deferred loan fees and costs and unamortized premiums and discounts. Accrued interest receivable is included within accrued interest receivable and other assets on the Consolidated Balance Sheet. Interest income is accrued on the unpaid principal balance. Loan origination fees, net of certain direct origination costs, are deferred and recognized as an adjustment of the related loans' yield (interest income). The Bank amortizes these amounts over the contractual life of the loan. Premiums and discounts on purchased loans are amortized as adjustments to interest income using the effective yield method. Interest income is primarily recognized on an accrual basis according to formulas in written contracts, such as loan agreements.

The loan portfolio is segmented into commercial and consumer loans. Commercial loans consist of the following classes: commercial construction, commercial and industrial loans, and commercial real estate loans. Consumer loans consist of the following classes: residential real estate loans, home equity loans, and consumer loans.

For all classes of loans, the accrual of interest is discontinued when the contractual payment of principal or interest has become 90 days past due or management has serious doubts about further collectability of principal or interest, even though the loan is currently performing. A loan may remain on accrual status if it is in the process of collection and is either guaranteed or well secured. When a loan is placed on nonaccrual status, unpaid interest credited to income in the current year is reversed and unpaid interest accrued in prior years is charged against the allowance for credit losses. Interest received on nonaccrual loans generally is either applied against the principal or reported as interest income on a cash basis, according to management's judgment as to the collectability of principal. Generally, loans are restored to accrual status when the obligation is brought current, has performed in accordance with the contractual terms for a reasonable period of time, and the ultimate collectability of the total contractual principal and interest is no longer in doubt. The past-due status of all classes of loans is determined based on contractual due dates for loan payments.

Allowance for Credit Losses ("ACL") – Loans

The Bank adopted ASU 2016-13, effective January 1, 2023. Financial statement amounts related to loans recorded as of December 31, 2023 are presented in accordance with the accounting policies described in the following sections. The guidance applies an expected-loss methodology, recognizing current expected credit losses for the remaining life of the asset at the time of origination or acquisition.

The allowance for credit losses ("ACL") is a valuation reserve established and maintained by charges against income and is deducted from the amortized cost basis of loans to present the net amount expected to be collected on the loans. Loans, or portions thereof, are charged off against the ACL when they are deemed uncollectible. Expected recoveries do not exceed the aggregate of amounts previously charged-off and expected to be charged-off.

The ACL is an estimate of expected credit losses, measured over the contractual life of a loan, that considers our historical loss experience, current conditions, and forecasts of future economic conditions. Determination of an appropriate ACL is inherently subjective and may have significant changes from period to period.

Management uses a discounted cash flow ("DCF") model to calculate the present value of the expected cash flows for pools of loans that share similar risk characteristics and compares the results of this calculation to the amortized cost basis to determine its ACL balance.

The contractual term used in projecting the cash flows of a loan is based on the maturity date of a loan and is adjusted for prepayment or curtailment assumptions, which may shorten that contractual time period. Options to extend are considered by management in determining the contractual term.

The key inputs to the DCF model are (1) probability of default, (2) loss given default, (3) prepayment and curtailment rates, (4) reasonable and supportable economic forecasts, (5) forecast reversion period, (6) expected recoveries on charged off loans, and (7) discount rate.

Probability of Default ("PD")

In order to incorporate economic factors into forecasting within the DCF model, management elected to use the Loss Driver method to generate the PD rate inputs. The Loss Driver method analyzes how one or more economic factors change the default rate using statistical regression analysis. Management selected economic factors that have strong correlations to historical default rates.

Loss Given Default ("LGD")

Management elected to use the Frye Jacobs parameter for determining the LGD input, which is an estimation technique that derives an LGD input from segment-specific risk curves that correlate LGD with PD.

Prepayment and Curtailment Rates

Prepayment Rates: Loan-level transaction data is used to calculate semi-annual prepayment rates. These semi-annual rates are annualized, and the average of the annualized rates is used in the DCF calculation for fixed payments or term loans. Rates are calculated for each pool.

Curtailment Rates: Loan-level transaction data is used to calculate annual curtailment rates using available historical loan-level data. The average of the historical rates is used in the DCF model for interest-only payment or line-of-credit type loans. Rates are calculated for each pool.

Reasonable and Supportable Forecasts

The forecast data used in the DCF model is obtained via a subscription to a widely recognized and relied-upon company that publishes various forecast scenarios. Management evaluates the various scenarios to determine a reasonable and supportable scenario.

Forecast Reversion Period

Management uses forecasts to predict how economic factors will perform and has determined to use a four-quarter forecast period as well as an eight-quarter straight-line reversion period to historical averages (also commonly referred to as the mean reversion period).

Expected Recoveries on Charged-off Loans

Management performs an analysis to estimate recoveries that could be reasonably expected based on historical experience in order to account for expected recoveries on loans that have already been fully charged off and are not included in the ACL calculation.

Discount Rate

The effective interest rate of the underlying loans of the Company serves as the discount rate applied to the expected periodic cash flows. Management adjusts the effective interest rate used to discount expected cash flows to incorporate expected prepayments.

Individual Evaluation

Management evaluates individual instruments for expected credit losses when those instruments do not share similar risk characteristics with instruments evaluated using a collective (pooled) basis. These instruments will not be included in the collective analyses. The individual analysis will establish a specific reserve for instruments in scope.

The allowance for credit losses is measured on a collective (pool) basis when similar risk characteristics exist. The Company's loan portfolio is segmented to a level that allows management to monitor risk and performance. The portfolio is segmented into Commercial Real Estate ("CRE"), which is further segmented into Owner Occupied ("CRE OO"), Non-owner Occupied ("CRE NOO"), and Multifamily Residential, Residential Real Estate ("RRE"), Commercial and Industrial ("C&I"), Home Equity Lines of Credit ("HELOC"), Construction and Other ("Construction"), and Consumer Installment Loans. The CRE loan segments consist of loans made to finance the activities of CRE owners and operators and certain agricultural loans. The RRE and HELOC loan segments consist of loans made to finance the activities of residential homeowners. The C&I loan segment consists of loans made to finance the activities of commercial customers and certain agricultural loans. The consumer loan segment consists primarily of installment loans and overdraft lines of credit connected with customer deposit accounts.

Historical credit loss experience is the basis for the estimation of expected credit losses. We apply historical loss rates to pools of loans with similar risk characteristics. After consideration of the historic loss calculation, management applies qualitative adjustments to reflect the current conditions and reasonable and supportable forecasts not already reflected in the historical loss information at the balance sheet date. The qualitative adjustments for current conditions are based upon national and local economic trends and conditions, levels of and trends in delinquency rates and nonaccrual loans, trends in volumes and terms of loans, effects of changes in lending policies, experience, ability, and depth of lending staff, the value of underlying collateral, concentrations of credit from a loan type, industry, and/or geographic standpoint. These modified historical loss rates are multiplied by the outstanding principal balance of each loan to calculate a required reserve.

The Bank has elected to exclude accrued interest receivable from the measurement of its ACL. When a loan is placed on nonaccrual status, any outstanding accrued interest is reversed against interest income.

The ACL calculation for individual loans begins with the use of normal credit review procedures to identify whether a loan no longer shares similar risk characteristics with other pooled loans and should, therefore, be individually assessed. Beginning in the third quarter of 2023, the Bank automatically considers all non-accrual loans greater than \$ 250,000 for individual analysis. Additional identification of loans to be individually evaluated is accomplished through the Bank's normal loan review, criticized asset review, and portfolio management processes. The Bank previously evaluated all commercial loans greater than \$ 150,000 for individual analysis that met the following criteria: 1) when it is determined that foreclosure is probable, 2) substandard, doubtful, and nonperforming loans when repayment is expected to be provided substantially through the operation or sale of the collateral, and 3) when it is determined by management that a loan does not share similar risk characteristics with other loans. Specific reserves are established based on the following three acceptable methods for measuring the ACL: 1) the present value of expected future cash flows discounted at the loan's original effective interest rate, 2) the loan's observable market price, or 3) the fair value of the collateral when the loan is collateral dependent. Management considers a financial asset as collateral dependent when the debtor is experiencing financial difficulty and repayment is expected to be provided substantially through the sale or operation of the collateral, based on management's assessment as of the reporting date. Measurement of the expected credit losses on collateral-dependent loans is based on the fair value of the collateral, less any costs to sell. A specific reserve is established or a charge-off is taken if the fair value of the loan is less than the loan balance. Large groups of smaller-balance homogeneous loans are collectively evaluated for impairment. Accordingly, the Bank does not separately identify individual residential real estate loans, home equity loans, and consumer loans for impairment disclosures.

Allowance for Loan Losses ("ALL") – Prior to adopting ASU 2016-13

The Bank adopted ASU No. 2016-13 effective January 1, 2023. Prior to the adoption of ASU 2016-13, the Bank calculated the ALL using an incurred loan loss methodology in accordance with ASC 310, *Receivables*. Financial statement amounts related to the ALL recorded as of December 31, 2022, are presented in accordance with the accounting policies described in the following section.

The allowance for loan losses represents the amount that management estimates are adequate to provide for probable loan losses inherent in the loan portfolio. The allowance method is used in providing for loan losses. Accordingly, all loan losses are charged to the allowance, and all recoveries are credited to it. The allowance for loan losses is established through a provision for loan losses charged to operations. The provision is based on management's periodic evaluation of the adequacy of the allowance for loan losses, which encompasses the overall risk characteristics of the various portfolio segments, experience with losses, the impact of economic conditions on borrowers, and other relevant factors. The estimates used in determining the adequacy of the allowance for loan losses, including the amounts and timing of future cash flows expected on impaired loans, are particularly susceptible to a significant change in the near term.

The allowance consists of specific, general, and unallocated components. The specific component relates to loans that are classified as impaired. For loans that are classified as impaired, an allowance is established when the discounted cash flows (or collateral value or observable market price) of the impaired loan is lower than the carrying value of that loan. The general component covers pools of loans by loan class including commercial loans not considered impaired, as well as smaller balance homogeneous loans, such as residential real estate, home equity, and other consumer loans. Management has identified several additional qualitative factors to supplement the historical charge-off factor. These factors likely cause estimated credit losses associated with the existing loan pools to differ from historical loss experience. The additional factors that are evaluated quarterly and updated using information obtained from internal, regulatory, and governmental sources are:

- national and local economic trends and conditions;
- levels of and trends in delinquency rates and nonaccrual loans;
- trends in volumes and terms of loans;
- effects of changes in lending policies;
- experience, ability, and depth of lending staff;
- value of underlying collateral;
- and concentrations of credit from a loan type, industry, and/or geographic standpoint.

A majority of the Bank's loan assets are loans to business owners of many types. The Bank makes commercial loans for real estate development and other business purposes required by the customer base.

The Bank's credit policies determine advance rates against the different forms of collateral that can be pledged against commercial loans. Typically, the majority of loans will be limited to a percentage of their underlying collateral values such as real estate values, equipment, eligible accounts receivable, and inventory. Individual loan advance rates may be higher or lower depending upon the financial strength of the borrower and/or terms of the loan. The assets financed through commercial loans are used within the business for its ongoing operation. Repayment of these kinds of loans generally comes from the cash flow of the business or the ongoing conversions of assets. Commercial real estate loans include long-term loans financing commercial properties. Repayment of this kind of loan is dependent upon either the ongoing cash flow of the borrowing entity or the resale of or lease of the subject property. Commercial real estate loans typically require a loan-to-value ratio of not greater than 80 percent and vary in terms.

Residential mortgages and home equity loans are secured by the borrower's residential real estate in either a first or second-lien position. Residential mortgages and home equity loans have varying loan rates depending on the financial condition of the borrower and the loan-to-value ratio. Residential mortgages have amortizations up to 30 years and home equity loans have maturities up to 20 years.

Consumer loans include installment loans, car loans, and overdraft lines of credit. The majority of these loans are unsecured.

A loan is considered impaired when it is probable the borrower will not repay the loan according to the original contractual terms of the loan agreement. Loans that experience insignificant payment delays, which are defined as 89 days or less, generally are not classified as impaired. A loan is not impaired during a period of delay in payment if the Company expects to collect all amounts due, including interest accrued, at the contractual interest rate for the period of delay. All loans identified as impaired are evaluated independently by management. The Company estimates credit losses on impaired loans based on the present value of expected cash flows or the fair value of the underlying collateral if the loan repayment is expected to come from the sale or operation of such collateral. Impaired loans, or portions thereof, are charged off when a realized loss has occurred. An allowance for loan and lease losses is maintained for estimated losses until such time. Cash receipts on impaired loans are applied first to accrued interest receivable unless otherwise required by the loan terms, except when an impaired loan is also a nonaccrual loan, in which case the portion of the payment related to interest is used to reduce principal.

The Bank originates commercial and residential construction loans to developers and builders and, in some cases, to other commercial borrowers for approved construction projects. These loans are typically structured on a non-revolving basis and the draw of funds is dependent on successfully completed and verified progress of the project. These loans are generally secured by the real estate to be developed and may also be secured by additional real estate to mitigate the risk. Sources of repayment for these types of loans may be from conversion to permanent loans extended by the Bank, sales of developed property, or permanent financing obtained elsewhere. These loans are closely monitored by on-site inspections and are considered to have higher risks than other real estate loans because their ultimate collateral value and repayment are sensitive to various factors affecting the successful completion of the project.

For commercial loans secured by real estate, estimated fair values are determined primarily through third-party appraisals. When a real estate-secured loan becomes impaired, a decision is made regarding whether an updated certified appraisal of the real estate is necessary. This decision is based on various considerations, including the age of the most recent appraisal, the loan-to-value ratio based on the original appraisal, and the condition of the property. Appraised values are discounted to arrive at the estimated selling price of the collateral, which is considered to be the estimated fair value. The discounts also include estimated costs to sell the property.

For commercial and industrial loans secured by non-real estate collateral, such as accounts receivable, inventory, and equipment, estimated fair values are determined based on the borrower's financial statements, inventory reports, accounts receivable agings, equipment appraisals, or invoices. Indications of value from these sources are generally discounted based on the age of the financial information or the quality of the assets.

Mortgage loans secured by one-to-four family properties and all consumer loans are large groups of smaller-balance homogeneous loans and are measured for impairment collectively. Management determines the significance of payment delays on a case-by-case basis, considering all circumstances concerning the loan, the creditworthiness and payment history of the borrower, the length of the payment delay, and the amount of shortfall concerning the principal and interest owed.

Large groups of smaller-balance homogeneous loans are collectively evaluated for impairment. Accordingly, the Bank does not separately identify individual residential real estate loans, home equity loans, and consumer loans for impairment disclosures, unless such loans are the subject of a troubled debt restructuring agreement or unless such loans are in the process of foreclosure or are being evaluated for foreclosure.

Loans whose terms are modified are classified as troubled debt restructurings if the Bank grants such borrowers concessions and it is deemed that those borrowers are experiencing financial difficulty. Concessions granted under a troubled debt restructuring generally involve a temporary reduction in interest rate or an extension of a loan's stated maturity date. Nonaccrual troubled debt restructurings are restored to accrual status if principal and interest payments, under the modified terms, are current for six consecutive months after modification. Loans classified as troubled debt restructurings are designated as impaired.

The allowance calculation methodology includes further segregation of loan classes into risk rating categories. The borrower's overall financial condition, repayment sources, guarantors, and value of collateral, if appropriate, are evaluated annually for commercial loans or when credit deficiencies arise, such as delinquent loan payments, for commercial and consumer loans. Credit quality risk ratings include regulatory classifications of special mention, substandard, doubtful, and loss. Loans classified as special mention have potential weaknesses that deserve management's close attention. If uncorrected, the potential weaknesses may result in the deterioration of the repayment prospects. Loans classified as substandard have well-defined weaknesses that jeopardize the liquidation of the debt. They include loans that are inadequately protected by the current sound net worth and paying capacity of the obligor or of the collateral pledged, if any. Loans classified as Doubtful contain all of the weaknesses of a Substandard loan with the added characteristic that the weaknesses are so pronounced that the collection or liquidation in full of both principal and interest is highly questionable or improbable. Loans classified as a loss are considered uncollectible and are charged to the allowance for loan losses. Loans not classified are rated pass.

In addition, federal regulatory agencies, as an integral part of their examination process, periodically review the Bank's allowance for loan losses and may require the Bank to recognize additions to the allowance based on their judgments about information available to them at the time of their examination, which may not be currently available to management.

Allowance for Credit Losses on Off-Balance Sheet Credit Exposures

The Bank adopted ASU No. 2016-13 effective January 1, 2023. The Bank estimates expected credit losses over the contractual period in which the Bank is exposed to credit risk via a contractual obligation to extend credit unless that obligation is unconditionally cancellable by the Bank. The allowance for credit losses on off-balance sheet credit exposures is included in accrued interest payable and other liabilities on the balance sheet and adjusted through provision for credit losses. The estimate includes consideration of the likelihood that funding will occur and an estimate of expected credit losses on commitments expected to be funded over its estimated life, consistent with the estimation process on the loan portfolio.

Restricted Stock

Common stock of the FHLB represents ownership in an institution that is wholly owned by other financial institutions. This equity security is accounted for at cost and classified with accrued interest and other assets in the Consolidated Balance Sheet. The FHLB of Cincinnati has reported profits for 2023 and 2022, remains in compliance with regulatory capital and liquidity requirements, and continues to pay dividends on the stock and make redemptions at the par value. Considering these factors, management concluded that the stock was not impaired on December 31, 2023, or 2022.

Mortgage Banking Activities

The Bank sells mortgage loans on a servicing retained basis. Servicing rights are initially recorded at fair value, with the Consolidated Income Statement effect recorded in gains on sales of loans. The Bank measures servicing assets using the amortization method. Loan servicing rights are amortized in proportion to and throughout estimated net future servicing revenue. The expected period of the estimated net servicing income is partly based on the expected prepayment of the underlying mortgages. The unamortized balance of mortgage servicing rights is included in accrued interest and other assets on the Consolidated Balance Sheet.

Servicing fee income is recorded for fees earned for servicing loans. The fees are based on a contractual percentage of outstanding principal and are recorded as income when earned. The amortization of mortgage servicing rights is netted against loan servicing fee income. Late fees and ancillary fees related to loan servicing are not material. The Bank is servicing loans for others in the amount of \$ 210.3 million and \$ 94.8 million on December 31, 2023, and 2022, respectively.

Premises and Equipment

Land is carried at cost. Premises and equipment are stated at cost net of accumulated depreciation. Depreciation is computed on the straight-line method over the assets' estimated useful lives, which range from three to 20 years for furniture, fixtures, and equipment and 3 to 40 years for buildings and leasehold improvements. Expenditures for maintenance and repairs are charged against income as incurred. Costs of significant additions and improvements are capitalized.

Leases

The Company has operating and financing leases for several branch locations and office space. Generally, the underlying lease agreements do not contain any material residual value guarantees or material restrictive covenants. The Company may also lease specific office equipment under operating leases. Many of our leases include both lease (e.g., minimum rent payments) and non-lease components (e.g., common-area or other maintenance costs). The Company accounts for each element separately based on the standalone price of each component. Operating and financing leases with lease terms of less than one year are excluded from our right-of-use assets and lease liabilities. Operating and financing lease expense are recognized in "Occupancy expense" and Equipment expense in the Consolidated Income Statement on a straight-line basis over the lease term.

Most leases include one or more options to renew. The exercise of lease renewal options is typically at the sole discretion of management. It is based on whether the extension options are reasonably certain to be exercised after giving proper consideration to all facts and circumstances of the lease. If management determines that the Company is reasonably sure to exercise the extension option(s), the additional term is included in the calculation of the right-of-use asset and a lease liability.

As most of our leases do not provide an implicit rate, we use the fully collateralized FHLB borrowing rate commensurate with the lease terms based on the information available at the lease commencement date in determining the present value of the lease payments.

Business Combinations

Business combinations are accounted for under the acquisition method of accounting. Acquired assets, including separately identifiable intangible assets, and assumed liabilities are recorded at their acquisition-date fair values. The excess of the cost of acquisition over the fair values is recognized as goodwill. During the measurement period, which cannot exceed one year from the acquisition date, changes to estimated fair values are recognized as an adjustment to goodwill. Certain transaction costs are expensed as incurred.

Goodwill

Goodwill represents the amount by which the cost of net assets acquired in a business combination exceeds their fair value. Goodwill is not amortized and is tested for impairment, at least annually as of October 1, or when indicators of impairment exist. We have elected to perform qualitative assessment for testing the impairment of goodwill. If we elect to bypass this qualitative assessment or conclude as a result of the qualitative assessment that it is more likely than not that the fair value is less than its carrying value, a quantitative impairment test will be performed. If the fair value is less than carrying value, an impairment charge is recorded for the difference.

Intangible Assets

Intangible assets include core deposit intangibles, which measure the value of consumer demand and savings deposits acquired in business combinations accounted for as purchases. The core deposit intangibles are amortized over their expected useful lives, commonly ten years, on a straight-line basis. The recoverability of the carrying value of intangible assets is evaluated on an ongoing basis, and permanent declines in value, if any, are charged to expense.

Bank-Owned Life Insurance ("BOLI")

The Company owns insurance on the lives of a specific group of key employees. The policies were purchased to help offset the increase in the costs of various fringe benefit plans, including healthcare. The cash surrender value of these policies is included as an asset on the Consolidated Balance Sheet, and any increases in the cash surrender value are recorded as noninterest income on the Consolidated Statement of Income. In the event of the death of an insured individual under these policies, the Company would receive a death benefit, which would be recorded as tax-free noninterest income.

Other Real Estate Owned ("OREO")

Real estate properties acquired through foreclosure are initially recorded at fair value at the foreclosure date, establishing a new cost basis. After foreclosure, the real estate is carried at the lower of cost or fair value less estimated cost to sell. Revenue and expenses from operations of the properties, gains or losses on sales, and additions to the valuation allowance are included in operating results. At December 31, 2023 and 2022, the Company reported \$ 228,000 and \$ 68,000 , respectively, in residential real estate loans in the process of foreclosure.

Fair Value

Fair value is defined as the price to sell an asset or transfer a liability in an orderly transaction between market participants in the principal market. It represents an exit price at the measurement date. Valuation inputs can be observable or unobservable. All inputs, whether observable or unobservable, are ranked in accordance with a prescribed fair value hierarchy that gives the highest ranking to quoted prices in active markets for identification assets or liabilities (Level 1) and the lowest ranking to unobservable inputs (Level 3). Fair values for Level 2 assets and liabilities are based on a combination of one or more of the following factors: (1) quoted market prices for similar assets or liabilities, (2) observable inputs, such as interest rates or yield curves, or (3) inputs derived principally from or corroborated by observable market data. The level in the fair value hierarchy assigned to a fair value measurement is based on the lowest level input that is significant to the measurement. Assets and liabilities may transfer between levels based on the observable and unobservable inputs used at the valuation date.

Assets and liabilities are recorded at fair value on a recurring or nonrecurring basis. Nonrecurring fair value adjustments are typically recorded with the application of lower of cost or fair value accounting or impairment.

Income Taxes

The Company and its subsidiaries file a consolidated federal income tax return. Deferred tax assets and liabilities are reflected at currently enacted income tax rates applicable to the period in which the deferred tax assets or liabilities are expected to be realized or settled. As changes in tax laws or rates are enacted, deferred tax assets and liabilities are adjusted through the provision for income taxes.

Fee-based Services Revenue Recognition

Refer to Note 2 - Revenue Recognition.

Stock-Based Compensation

The Company accounts for stock-based compensation based on the grant date fair value of all share-based payment awards expected to vest, including employee share options to be recognized as employee compensation expense over the requisite service period. Compensation cost is recognized for restricted stock issued to employees based on the fair value of these awards at the grant date. The market price of the Company's common shares at the grant date is used to estimate the fair value of restricted stock and stock awards. Stock-based compensation cost is recognized over the required service period, generally defined as the vesting period, and is recorded in "Salaries and employee benefits" expense. (See Note 16-Employee Benefits). The Company's restricted stock plan allows for a portion of the value to be received in cash by the participant upon vesting. Therefore, the Company records the expense as a liability until the shares vest and the split of the payment between shares and cash can be determined. The Company also measures the fair value of the liability each reporting period and adjusts accordingly.

Advertising Costs

Advertising costs are expensed as incurred.

Treasury Stock

When shares recognized as equity are repurchased, the amount of the consideration paid, which includes directly attributable costs, is recognized as a deduction from equity. Repurchased shares are classified as treasury shares and are presented in the treasury share reserve. The reserve for the Company's treasury shares comprises the cost of the Company's shares held by the Company.

Earnings Per Share

The Company provides a dual presentation of basic and diluted earnings per share. Basic earnings per share is calculated utilizing net income as reported in the numerator and average shares outstanding in the denominator. The computation of diluted earnings per share differs in that the dilutive effects of any stock options, warrants, and convertible securities are adjusted in the denominator. Earnings and dividends per share are restated for all stock splits and stock dividends through the date of issuance of the financial statements.

Reclassification of Comparative Amounts

Certain comparative amounts for prior years have been reclassified to conform to current-year presentations. Such reclassifications did not affect net income or retained earnings.

Accounting Pronouncements Adopted in 2023

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, *Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments*, which changes the impairment model for most financial assets. This standard, along with several other subsequent codification updates, replaces the incurred loss impairment methodology in the current GAAP with a methodology that reflects expected credit losses that are expected to occur over the remaining life of a financial asset and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The amendments in this update require a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The new current expected credit losses model ("CECL") applies to the allowance for loan losses, available for sale and held-to-maturity debt securities, purchased financial assets with credit deterioration, and certain off-balance sheet credit exposures. On January 1, 2023, the Bank adopted ASU 2016-13. Upon adoption, the reserve for credit losses on loans increased by \$ 5.4 million, and the reserve for credit losses for unfunded commitments increased by \$ 622,000. This resulted in an after-tax retained earnings adjustment of \$ 4.4 million.

The Bank adopted this guidance, and subsequent related updates, using the modified retrospective approach for all financial assets measured at amortized cost, including loans, investment securities available for sale and unfunded commitments.

The Bank adopted the provisions of *Financial Instruments - Credit Losses (Topic 326)* ("ASC 326") related to financial assets purchased with credit deterioration ("PCD") that were previously classified as purchased credit impaired ("PCI") and accounted for under ASC 310-30, *Loans and Debt Securities Acquired with Deteriorated Credit Quality*, using the prospective transition approach. In accordance with the standard, management did not reassess whether PCI assets met the criteria of PCD assets as of the date of adoption. On January 1, 2023, the amortized cost basis of the PCD assets was adjusted to reflect the addition of \$ 121,000 for the ACL.

The Bank adopted the provisions of ASC 326 related to the presentation of other-than-temporary impairment on available for sale debt securities prior to January 1, 2023 using the prospective transition approach. No such charges had been recorded on the securities held by the Bank as of the date of adoption.

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The following table illustrates the pre-tax impact of the adoption of this ASU:

	January 1, 2023		
	Allowance for Credit Losses		
	Pre-adoption	Adoption Impact	As Reported
ACL on loans			
Commercial real estate:			
Owner occupied	\$ 2,203	\$ 811	\$ 3,014
Non-owner occupied	5,597	(1,206)	4,391
Multifamily	662	591	1,253
Residential real estate	2,047	2,744	4,791
Commercial and industrial	1,483	2,320	3,803
Home equity lines of credit	1,753	(1,031)	722
Construction and other	609	956	1,565
Consumer installment	84	197	281
Total	\$ 14,438	\$ 5,382	\$ 19,820
ACL on unfunded commitments	\$ -	\$ 622	\$ 622

See Note 7 - Loans and Related Allowance for Credit Losses for ALLL disclosures for historical periods prior to the adoption of ASU 2016-13 and the CECL disclosures for periods after ASU 2016-13 was adopted.

In March 2022, the FASB issued ASU 2022-02, *Financial Instruments - Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures* (ASU 2022-02). The amendments eliminate the accounting guidance for troubled debt restructurings ("TDRs") by creditors that have adopted CECL and enhance the disclosure requirements for modifications of receivables made to borrowers experiencing financial difficulty. In addition, the amendments require disclosure of current period gross write-offs by year of origination for financing receivables in the existing vintage disclosures. This ASU became effective on January 1, 2023 for the Company. The adoption of this ASU resulted in updated disclosures within our financial statements but otherwise did not have a material impact on the Company's financial statements. See Note 7 - Loans and Related Allowance for Credit Losses for TDR disclosures for historical periods prior to the adoption of ASU 2022-02 and the modification disclosures and vintage disclosures for periods after ASU 2022-02 was adopted.

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*. To simplify the subsequent measurement of goodwill, the FASB eliminated Step 2 from the goodwill impairment test. Under Step 2, an entity had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Instead, under the amendments in this ASU, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. All other goodwill impairment guidance remained unchanged. The ASU became effective on January 1, 2023 for the Bank. This ASU did not have a material impact on the Company's financial statements.

On March 15, 2022, President Biden signed into law the "Adjustable Interest Rate (LIBOR) Act," as part of the Consolidated Appropriations Act, 2022, which provides for a statutory transition to a replacement rate selected by the Federal Reserve based on the SOFR for contracts referencing LIBOR that contain no fallback provisions or ineffective fallback provisions, unless a replacement rate is selected by a determining person as outlined in the statute. On December 16, 2022, the Federal Reserve adopted a final rule implementing the Adjustable Interest Rate (LIBOR) Act by identifying benchmark rates based on SOFR that will replace LIBOR in certain financial contracts effective February 27, 2023. As of December 31, 2023, the Bank has transitioned substantially all of its financial instruments to an alternative benchmark rate.

Recent Accounting Pronouncements

In March 2023, the FASB issued ASU 2023-02, *Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method*. The amendments allow entities to elect to account for qualifying tax equity investments using the proportional amortization method, regardless of the program giving rise to the related tax credits. This method of accounting had been available only for qualifying investments in qualified affordable housing projects. The guidance also requires certain disclosures regarding an entity's tax equity investments. The amendments in this ASU are effective for all entities for fiscal years beginning after December 15, 2023. This ASU is not expected to have a significant impact on the Bank's financial statements.

In January 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, March 2020, to provide temporary optional expedients and exceptions to the U.S. GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as the Secured Overnight Financing Rate (SOFR). Entities can elect not to apply certain modification accounting requirements to contracts affected by what the guidance calls "reference rate reform" if certain criteria are met. An entity that makes this election would not have to remeasure the contracts at the modification date or reassess a previous accounting determination. Also, entities can elect various optional expedients that would allow them to continue applying hedge accounting for hedging relationships affected by reference rate reform if certain criteria are met, and can make a one-time election to sell and/or reclassify held-to-maturity debt securities that reference an interest rate affected by reference rate reform. ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848* Issued December 2022, which was issued in December 2022, extended the period of time entities can utilize the reference rate reform relief guidance under ASU 2020-04 from December 31, 2022 to December 31, 2024. The ASUs are not expected to have a significant impact on the Bank's financial statements.

In June 2022, the FASB issued ASU 2022-03, Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions. The amendment clarifies that a contractual restriction on the sale of an equity security is not considered part of the unit account of the equity security and is not considered in measuring its fair value. The ASU clarifies that an entity cannot, as a separate unit of account, recognize and measure a contractual sale restriction. The ASU also requires certain disclosures for equity securities subject to contractual sale restrictions. The amendments in this ASU are effective for all entities for fiscal years beginning after December 15, 2024. This ASU is not expected to have a significant impact on the Company's financial statements.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures. The ASU requires enhanced disclosures about significant segment expenses for public entities reporting segment information under ASC Topic 280. The amendments include required disclosure of significant segment expenses regularly reviewed by the chief operating decision maker, description of the composition of other segment items, and title and position of the chief operating decision maker. Additionally, the ASU requires public entities to provide all annual disclosures under Topic 280 in interim periods. The ASU also requires that public entities with a single reportable segment provide all the disclosures required by this amendment and existing disclosure requirements in Topic 820. The amendments in this ASU are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. The Company has a single reportable segment. We are currently reviewing the impact that the ASU will have on the Company's financial statements.

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures. The amendments require entities to disclose specific categories in the rate reconciliation and provide additional information for material reconciling items. The ASU also requires the disclosure of income taxes paid disaggregated by jurisdiction. The amendments in this ASU are effective for public business entities for annual periods beginning after December 15, 2024. This ASU is not expected to have a significant impact on the Bank's financial statements.

2. REVENUE RECOGNITION

Following ASC Topic 606, *Revenue from Contracts with Customers (Topic 606)*, management determined that the primary sources of revenue, which emanate from interest income on loans and investments, along with noninterest revenue resulting from equity security gains (losses), gains on the sale of loans, rental income, and BOLI income, are not within the scope of ASC 606. For the twelve months ended December 31, 2023, these revenue sources cumulatively comprise 94.1 % of the total revenue of the Company.

The main types of noninterest income within the scope of the standard are as follows:

Service charges on deposit accounts – The Company has contracts with its deposit customers whereby fees are charged if the account balance falls below predetermined levels defined as compensating balances. These agreements can be canceled at any time by either the Company or the deposit customer. Revenue from these transactions is recognized monthly as the Company has an unconditional right to the fee consideration. The Company also has transaction fees related to specific customer requests or activities that include overdraft fees, online banking fees, and other transaction fees. All of these fees are attributable to specific performance obligations of the Company where the revenue is recognized at a defined point in time, which is the completion of the requested service/transaction.

Revenue from investment services – The Company earns investment services revenue through its referral agreement with LPL Financial. The performance obligation to investment management customers is satisfied over time, and therefore, revenue is recognized over time. The Company generally receives trailing investment services revenue in arrears and recognizes the revenue when the monthly statement with referral revenue is received.

Miscellaneous fee income – Fees earned on other services, such as ATM surcharge fees, money order fees, and check fees, are recognized at the time of the event or the applicable billing cycle.

The following table depicts the disaggregation of revenue derived from contracts with customers to depict the nature, amount, timing, and uncertainty of revenue and cash flows:

Noninterest Income (Dollar amounts in thousands)	For the Year Ended December 31,	
	2023	2022
Service charges on deposit accounts:		
Overdraft fees	\$ 995	\$ 905
ATM banking fees	1,928	1,489
Service charges and other fees	955	1,456
Loss on equity securities ^(a)	(161)	(173)
Loss on sale of other real estate owned ^(a)	(170)	-
Earnings on bank-owned life insurance ^(a)	823	459
Gain on sale of loans ^(a)	97	24
Revenue from investment services	743	674
Miscellaneous fee income	380	299
Gross rental income ^(a)	421	951
Other income	680	662
Total noninterest income	<u>\$ 6,691</u>	<u>\$ 6,746</u>

(a) Not within scope of ASC 606

3. EARNINGS PER SHARE

The Company provides a dual presentation of basic and diluted earnings per share. Basic earnings per share is calculated by dividing net income by the average shares outstanding. Diluted earnings per share adds the dilutive effects of restricted stock to average shares outstanding.

The following table sets forth the composition of the weighted-average common shares (denominator) used in the basic and diluted earnings per share computation for the year ended December 31:

	2023	2022
Weighted-average common shares outstanding	9,925,689	7,551,769
Average treasury stock shares	(1,822,459)	(1,524,678)
Weighted-average common shares and common stock equivalents used to calculate basic earnings per share	8,103,230	6,027,091
Additional common stock equivalents (stock options and restricted stock) used to calculate diluted earnings per share	22,783	17,291
Weighted-average common shares and common stock equivalents used to calculate diluted earnings per share	8,126,013	6,044,382

Outstanding on December 31, 2023, were 78,573 shares of restricted stock, 55,790 shares of which were anti-dilutive.

Outstanding on December 31, 2022, were 63,646 shares of restricted stock, 46,355 shares of which were anti-dilutive.

When shares recognized as equity are repurchased, the amount of the consideration paid, which includes directly attributable costs, is recognized as a deduction from equity. Repurchased shares are classified as treasury shares and are presented in the treasury share reserve. The reserve for the Company's treasury shares comprises the cost of the Company's shares held by the Company. As of December 31, 2023, the Company held 1,835,452 of the Company's shares, which is an increase of 164,221 from the 1,671,231 shares held as of December 31, 2022.

4. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following table presents the changes in accumulated other comprehensive income (loss) ("AOCI") by component, net of tax:

(Dollars in thousands)	Unrealized (losses)/gains on securities available- for-sale(a)
Balance as of December 31, 2022	\$ (22,144)
Other comprehensive income	6,054
Balance at December 31, 2023	\$ (16,090)

(Dollars in thousands)	Unrealized (losses)/gains on securities available- for-sale(a)
Balance as of December 31, 2021	\$ 3,462
Other comprehensive loss	(25,606)
Balance as of December 31, 2022	\$ (22,144)

(a) All amounts are net of tax.

There were no other reclassifications of amounts from AOCI for the years ended December 31, 2023, and 2022.

5. 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 the principal or most advantageous market for an asset or liability in an orderly transaction between market participants at the measurement date. GAAP establishes a fair value hierarchy that prioritizes the use of inputs used in valuation methodologies into the following levels:

- Level I: Quoted prices are available in active markets for identical assets or liabilities as of the reported date.
- Level II: Pricing inputs are other than the quoted prices in active markets, which are either directly or indirectly observable as of the reported date. The nature of these assets and liabilities includes items for which quoted prices are available but traded less frequently and items that are valued using other financial instruments, the parameters of which can be directly observed.
- Level III: Assets and liabilities that have little to no pricing observability as of the reported date. These items do not have two-way markets and are measured using management's best estimate of fair value, where the inputs into the determination of fair value require significant management judgment or estimation.

This hierarchy requires the use of observable market data when available.

The following tables present the assets measured at fair value on a recurring basis on the Consolidated Balance Sheet by level within the fair value hierarchy. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

(Dollar amounts in thousands)	December 31, 2023			
	Level I	Level II	Level III	Total
Assets measured on a recurring basis:				
Subordinated debt	\$ -	\$ 23,118	\$ 8,801	\$ 31,919
Obligations of states and political subdivisions	-	132,542	-	132,542
Mortgage-backed securities in government-sponsored entities	-	6,318	-	6,318
Total investment securities available for sale	-	161,978	8,801	170,779
Equity securities	814	-	-	814
Total	\$ 814	\$ 161,978	\$ 8,801	\$ 171,593

(Dollar amounts in thousands)	December 31, 2022			
	Level I	Level II	Level III	Total
Assets measured on a recurring basis:				
Subordinated debt	\$ -	\$ 21,427	\$ 8,737	\$ 30,164
Obligations of states and political subdivisions	-	127,334	-	127,334
Mortgage-backed securities in government-sponsored entities	-	7,469	-	7,469
Total investment securities available for sale	-	156,230	8,737	164,967
Equity securities	915	-	-	915
Total	\$ 915	\$ 156,230	\$ 8,737	\$ 165,882

Investment Securities Available for Sale - An independent pricing service provides the Company fair values determined by pricing models using a market approach that considers observable market data, such as interest rate volatilities, benchmarked yield curve, credit spreads and prices from market makers and live trading systems (Level II). Level III securities are assets whose fair value cannot be determined by using observable measures. The inputs to the valuation methodology of these securities are unobservable and significant to the fair value measurement. Currently, this category includes certain subordinated debt investments that are valued based on the discounted cash flow approach assuming a yield curve of similarly structured instruments.

While the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of specific financial instruments could result in a different estimate of fair value at the reporting date. Management uses its best judgment in estimating the fair value of the Company's financial instruments; however, there are inherent weaknesses in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates herein are not necessarily indicative of the amounts the Company could have realized in a sales transaction on the dates indicated. The estimated fair value amounts have been measured as of their respective period-ends and have not been re-evaluated or updated for purposes of these financial statements subsequent to those respective dates. As such, the estimated fair values of these financial instruments following the respective reporting dates may be different from the amounts reported at each period-end.

Equity Securities - Equity securities that are traded on a national securities exchange are valued at their last reported sales price as of the measurement date. Equity securities traded in the over-the-counter ("OTC") markets and listed securities for which no sale was reported on that date are generally valued at their last reported "bid" price if held long, and last reported "ask" price if sold short. To the extent equity securities are actively traded and valuation adjustments are not applied, they are categorized in Level I of the fair value hierarchy.

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The following table presents the fair value reconciliation of Level III assets measured at fair value on a recurring basis.

(Dollar amounts in thousands)	Subordinated debt	
	2023	2022
Beginning of year	\$ 8,737	\$ 12,200
Purchases, sales, settlements:		
Purchases	1,000	500
Transfers out of Level III (1)	(1,000)	(3,750)
Net change in unrealized loss on investment securities available-for-sale	64	(213)
End of year	<u>\$ 8,801</u>	<u>\$ 8,737</u>

(1) Transfers between hierarchy levels are based on the availability of sufficient observable inputs to meet Level II versus Level III criteria. The level designation of each financial instrument is reassessed at the end of each period.

The following table presents the assets measured at fair value on a non-recurring basis on the Consolidated Balance Sheet by level within the fair value hierarchy.

(Dollar amounts in thousands)	Level I	December 31, 2023		Total
		Level II	Level III	
Assets measured on a non-recurring basis:				
Collateral-dependent loans	\$ -	\$ -	\$ 3,361	\$ 3,361

(Dollar amounts in thousands)	Level I	December 31, 2022		Total
		Level II	Level III	
Assets measured on a non-recurring basis:				
Collateral-dependent loans	\$ -	\$ -	\$ 1,143	\$ 1,143
Other real estate owned	-	-	5,792	5,792

Collateral-Dependent Loans – The Company has measured impairment on collateral-dependent individually analyzed loans generally based on the fair value of the loan's collateral. Fair value is generally determined based on independent third-party appraisals of the properties. In some cases, management may adjust the appraised value due to the age of the appraisal, changes in market conditions, or observable deterioration of the property since the appraisal was completed. Additionally, management makes estimates about expected costs to sell the property, which are also included in the net realizable value. If the fair value of the collateral-dependent loan is less than the carrying amount of the loan, a specific reserve for the loan is made in the allowance for credit losses, or a charge-off is taken to reduce the loan to the fair value of the collateral (less estimated selling costs), and the loan is included in the above table as a Level III measurement in the period in which the adjustment is recorded. If the fair value of the collateral exceeds the carrying amount of the loan, then the loan is not included in the above table as it is not currently being carried at its fair value. The fair values in the preceding tables include selling costs of \$ 843,000 and \$ 688,000 on December 31, 2023, and 2022, respectively.

Other Real Estate Owned ("OREO") – OREO is carried at the lower of cost or fair value, which is measured at the date of foreclosure. The fair value of OREO is based on the appraised value of the property, which is generally unadjusted by management and is based on comparable sales for similar properties in the same geographic region as the subject property and is included in the above table as a Level II measurement. In some cases, management may adjust the appraised value due to the age of the appraisal, changes in market conditions, or observable deterioration of the property since the appraisal was completed. In these cases, the fair value of OREO is categorized in the above table as a Level III measurement since these adjustments are considered to be unobservable inputs. Income and expenses from operations and further declines in the fair value of the collateral after foreclosure are included in net expenses from OREO.

The following table presents additional quantitative information about assets measured at fair value on a non-recurring basis and for which the Company uses Level III inputs to determine fair value:

(Dollar amounts in thousands)	Quantitative Information about Level III Fair Value Measurements			
	Fair Value Estimate	Valuation Techniques	Unobservable Input	Range (Weighted Average)
December 31, 2023				
Collateral-dependent loans	\$ 3,361	Appraisal of collateral (1)	Appraisal adjustments (2)	20.1%

(Dollar amounts in thousands)	Quantitative Information about Level III Fair Value Measurements			
	Fair Value Estimate	Valuation Techniques	Unobservable Input	Range (Weighted Average)
December 31, 2022				
Collateral-dependent loans	\$ 1,143	Appraisal of collateral (1)	Appraisal adjustments (2)	12.0%
Other real estate owned	\$ 5,792	Appraisal of collateral (1)	Appraisal adjustments (2)	8.4%

(1) Fair value is generally determined through independent appraisals of the underlying collateral, which generally include various level III inputs that are not identifiable, less any associated allowance.

(2) Appraisals may be adjusted by management for qualitative factors such as economic conditions and estimated liquidation expenses. The range and weighted average of liquidation expenses and other appraisal adjustments are presented as a percent of the appraisal.

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The estimated fair value of the Company's financial instruments not recorded at fair value on a recurring basis is as follows:

December 31, 2023					
	Carrying Value	Level I	Level II	Level III	Total Fair Value
(Dollar amounts in thousands)					
Financial assets:					
Net loans	\$ 1,456,437	\$ -	\$ -	\$ 1,370,657	\$ 1,370,657
Mortgage servicing rights	1,636			2,781	2,781
Financial liabilities:					
Non-maturing deposits	\$ 1,092,287	\$ 1,092,287	\$ -	\$ -	\$ 1,092,287
Time deposits	334,315	-	-	331,638	331,638
Other borrowings	11,862	-	-	11,862	11,862
December 31, 2022					
	Carrying Value	Level I	Level II	Level III	Total Fair Value
(Dollar amounts in thousands)					
Financial assets:					
Net loans	\$ 1,338,434	\$ -	\$ -	\$ 1,298,814	\$ 1,298,814
Mortgage servicing rights	2,072	-	-	2,473	2,473
Financial liabilities:					
Non-maturing deposits	\$ 1,163,999	\$ 1,163,999	\$ -	\$ -	\$ 1,163,999
Time deposits	238,020	-	-	231,218	231,218
Other borrowings	12,059	-	-	12,059	12,059

Included within other borrowings is an \$ 8.2 million note payable, which matures in December 2037. These borrowings were used to form a special purpose entity to issue \$ 8.0 million of floating rate, obligated mandatorily redeemable securities. The rate adjusts quarterly, equal to SOFR plus 1.67 %. The borrowing is a floating rate instrument, and any difference between the cost and fair value is insignificant.

In addition to the financial instruments included in the above tables, cash and cash equivalents, bank-owned life insurance, Federal Home Loan Bank (the "FHLB") stock, other investments, accrued interest receivable, Federal Home Loan Bank advances, finance lease liabilities, and accrued interest payable, are carried at cost, which approximates the fair value of the instruments.

6. INVESTMENT AND EQUITY SECURITIES

The amortized cost and fair values of investment securities available for sale are as follows:

December 31, 2023				
(Dollar amounts in thousands)	Amortized Cost (a)	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Subordinated debt	\$ 34,300	\$ 70	\$ (2,451)	\$ 31,919
Obligations of states and political subdivisions:				
Tax-exempt	149,881	153	(17,492)	132,542
Mortgage-backed securities in government-sponsored entities	6,965	-	(647)	6,318
Total	\$ 191,146	\$ 223	\$ (20,590)	\$ 170,779

(a) Amortized cost excludes accrued interest receivable. Refer to Note 10 - Accrued Interest Receivable and Other Assets for additional information

	December 31, 2022			
	Amortized Cost (a)	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
(Dollar amounts in thousands)				
Subordinated debt	\$ 32,300	\$ 3	\$ (2,139)	\$ 30,164
Obligations of states and political subdivisions:				
Taxable	500	-	-	500
Tax-exempt	151,896	49	(25,111)	126,834
Mortgage-backed securities in government-sponsored entities	8,302	-	(833)	7,469
Total	<u>\$ 192,998</u>	<u>\$ 52</u>	<u>\$ (28,083)</u>	<u>\$ 164,967</u>

(a) Amortized cost excludes accrued interest receivable. Refer to Note 10 - Accrued Interest Receivable and Other Assets for additional information

The amortized cost and fair value of investment securities at December 31, 2023, by contractual maturity, are shown below. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

(Dollar amounts in thousands)	Amortized Cost	Fair Value
Due in one year or less	\$ 567	\$ 567
Due after one year through five years	2,116	2,048
Due after five years through ten years	54,815	52,045
Due after ten years	133,648	116,119
Total	<u>\$ 191,146</u>	<u>\$ 170,779</u>

There were no investment securities sold during the years ended December 31, 2023. The Company sold the entire \$ 57.9 million investment portfolio acquired in the Liberty Bancshares merger in 2022. These securities were sold at their acquired fair value, and therefore, there were no realized gains or losses recognized during the year ended December 31, 2023.

Investment securities with an approximate carrying value of \$ 118.8 million and \$ 89.9 million on December 31, 2023, and 2022, respectively, were pledged to secure deposits and for other purposes as required by law.

The following table shows the Company's gross unrealized losses and fair value, aggregated by investment category and length of time that the individual securities have been in a continuous unrealized loss position.

	December 31, 2023					
	Less than Twelve Months		Twelve Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
(Dollar amounts in thousands)						
Subordinated debt	\$ 994	\$ (6)	\$ 29,356	\$ (2,445)	\$ 30,350	\$ (2,451)
Obligations of states and political subdivisions:						
Tax-exempt	1,386	(10)	106,078	(17,482)	107,464	(17,492)
Mortgage-backed securities in government-sponsored entities	195	(1)	6,122	(646)	6,317	(647)
Total	<u>\$ 2,575</u>	<u>\$ (17)</u>	<u>\$ 141,556</u>	<u>\$ (20,573)</u>	<u>\$ 144,131</u>	<u>\$ (20,590)</u>

	December 31, 2022					
	Less than Twelve Months		Twelve Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
(Dollar amounts in thousands)						
Subordinated debt	\$ 12,638	\$ (1,129)	\$ 8,790	\$ (1,010)	\$ 21,428	\$ (2,139)
Obligations of states and political subdivisions:						
Tax-exempt	75,343	(10,488)	41,138	(14,623)	116,481	(25,111)
Mortgage-backed securities in government-sponsored entities	6,153	(480)	1,316	(353)	7,469	(833)
Total	<u>\$ 94,134</u>	<u>\$ (12,097)</u>	<u>\$ 51,244</u>	<u>\$ (15,986)</u>	<u>\$ 145,378</u>	<u>\$ (28,083)</u>

Every quarter, the Company evaluates investment securities with unrealized losses to determine if the decline in fair value has resulted from credit losses or other factors. There were 9 securities in an unrealized loss position for less than twelve months and 167 securities in an unrealized loss position for twelve months or greater on December 31, 2023. Unrealized losses on investment securities available for sale have not been recognized into income because we do not intend to sell and it is more likely than not that we will not be required to sell any of the securities in an unrealized loss position before recovery of their amortized cost. The unrealized losses on investment securities were attributable to changes in interest rates and not related to the credit quality of these issuers. As of December 31, 2023, no ACL was required on investment securities available for sale. Prior to the adoption of ASU 2016-13, there were no available for sale investment securities with an unrealized loss that suffered other than temporary (OTTI) during the year ended December 31, 2022.

Other investments, which primarily represents equity securities, totaled \$ 955 and \$ 915 at December 31, 2023 and 2022, respectively. The Company recognized a net loss on other investments of \$ 161,000 and \$ 173,000 for the years ended December 31, 2023 and 2022., respectively. No other investments were sold during these periods.

7. LOANS AND RELATED ALLOWANCE FOR CREDIT LOSSES

The following table summarizes the loan portfolio by primary segment and class of financial receivable (in thousands) (a)(b):

	December 31, 2023	December 31, 2022
Commercial real estate:		
Owner occupied	\$ 183,545	\$ 191,748
Non-owner occupied	401,580	380,580
Multifamily	82,506	58,251
Residential real estate	328,854	296,308
Commercial and industrial	221,508	195,602
Home equity lines of credit	127,818	128,065
Construction and Other	125,105	94,199
Consumer installment	7,214	8,119
Total loans	1,478,130	1,352,872
Less: Allowance for credit losses	(21,693)	(14,438)
Net loans	<u>\$ 1,456,437</u>	<u>\$ 1,338,434</u>

(a) Accrued interest of \$ 5.5 million and \$ 4.3 million at December 31, 2023 and December 31, 2022, respectively, is excluded from amortized cost and presented in "Accrued interest receivable and other assets" on the Consolidated Balance Sheets.

(b) Unearned income, including net deferred loan fees and costs and unamortized premiums and discounts, totaled \$ 9.2 million and \$ 4.5 million at December 31, 2023 and 2022, respectively.

Allowance for Credit Losses: Loans

On January 1, 2023, the Company adopted ASU 2016-13. This methodology for calculating the allowance for credit losses considers the possibility of expected loss over the life of the loan. It also considers historical loss rates and other qualitative adjustments, as well as a new forward-looking component that considers reasonable and supportable forecasts over the expected life of each loan. To develop the ACL estimate under the current expected loss model, the Company segments the loan portfolio into loan pools based on loan type and similar credit risk elements. An ACL is maintained to absorb losses from the loan portfolio. The ACL is based on management's continuing evaluation of the risk characteristics and credit quality of the loan portfolio, assessment of current economic conditions, diversification and size of the portfolio, adequacy of collateral, past and anticipated loss experience, and the amount of nonperforming loans.

Prior to January 1, 2023 the Company's methodology for determining the allowance for loan losses (ALLL) was based on the requirements of ASC 310. The calculation of the ALLL was based on an incurred loan loss methodology and incorporated specific, general, and unallocated components. Management also performed impairment analyses on TDRs, which could have resulted in specific reserves.

Management reviews the loan portfolio quarterly using a defined, consistently applied process to make appropriate and timely adjustments to the ACL. When information confirms all or part of specific loans to be uncollectible, these amounts are promptly charged off against the ACL.

The following tables summarize the ACL within the primary segments of the loan portfolio and the activity within those segments (in thousands):

	For the Twelve Months Ended December 31, 2023					
	Allowance for Credit Losses					Balance December 31, 2023
	Balance December 31, 2022	CECL Adoption	Charge-offs	Recoveries	Provision	
Loans:						
Commercial real estate:						
Owner occupied	\$ 2,203	\$ 811	\$ (46)	\$ 5	\$ (305)	\$ 2,668
Non-owner occupied	5,597	(1,206)	-	-	89	4,480
Multifamily	662	591	-	-	543	1,796
Residential real estate	2,047	2,744	(108)	13	754	5,450
Commercial and industrial	1,483	2,320	(85)	38	621	4,377
Home equity lines of credit	1,753	(1,031)	-	70	(42)	750
Construction and other	609	956	-	-	425	1,990
Consumer installment	84	197	(63)	207	(243)	182
Total	\$ 14,438	\$ 5,382	\$ (302)	\$ 333	\$ 1,842	\$ 21,693

	For the Twelve Months Ended December 31, 2022					
	Allowance for Credit Losses					
	Balance December 31, 2021	Charge-offs	Recoveries	Provision	Balance December 31, 2022	
Loans:						
Commercial real estate:						
Owner occupied	\$ 1,836	\$ -	\$ 5	\$ 362	\$ 2,203	
Non-owner occupied	7,431	(150)	23	(1,707)	5,597	
Multifamily	454	-	-	208	662	
Residential real estate	1,740	-	61	246	2,047	
Commercial and industrial	882	(40)	312	329	1,483	
Home equity lines of credit	1,452	(25)	-	326	1,753	
Construction and other	533	-	-	76	609	
Consumer installment	14	(231)	141	160	84	
Total	\$ 14,342	\$ (446)	\$ 542	\$ -	\$ 14,438	

The total ACL increased by \$ 7.3 million, or 50 %, from December 31, 2022 to December 31, 2023. Approximately \$ 5.4 million of the change was the result of adopting ASU 2106-13 on January 1, 2023, and the remaining increase was driven by portfolio activity and the economic outlook. The Bank utilized Moody's September 2023 consensus information to estimate credit losses. The forecast takes into account the national housing price index and national unemployment rates. To the extent that credit risk is not fully identified within the forecasts, management has made qualitative adjustments to the ACL balance. The fluctuation in the ACL can also be attributed to the following:

- residential, C&I, multifamily and construction loans are due to increases in outstanding balances.
- owner occupied CRE and HELOC are due to a decrease in outstanding balances.
- non-owner occupied CRE are due to a decrease in reserves allocated using the individual allocation method to a historically problematic credit.

The provision fluctuations during the year ended December 31, 2022, allocated to:

- non-owner occupied commercial loans due to a decrease in substandard credits.
- owner occupied commercial loans due to an increase in loans, coupled with an increase in the specific reserve on impaired loans
- commercial and industrial loans, residential real estate loans, and multifamily loans due to an increase in loans
- home equity lines of credit and residential loans are due to an increase in loans, coupled with an increase in the specific reserve on impaired loans.

Credit Quality Indicators

Management evaluates individual loans in all of the commercial segments for possible impairment based on guidelines established by the Board of Directors. Loans are individually analyzed when, based on current information and events, the Company will probably be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Factors considered by management in evaluating credit loss include payment status, collateral value, and the probability of collecting scheduled principal and interest payments when due. Management determines the significance of payment delays and payment shortfalls on a case-by-case basis, taking into consideration all of the circumstances surrounding the loan and the borrower, including the length of the delay, the reasons for the delay, the borrower's prior payment record, and the amount of the shortfall concerning the principal and interest owed. The evaluation of the need and amount of a specific allocation of the allowance and whether a loan can be removed from impairment status is made quarterly.

Management uses a nine-point internal risk-rating system to monitor the credit quality of the overall loan portfolio. The first five categories are considered not criticized and are aggregated as Pass rated. The criticized rating categories utilized by management generally follow bank regulatory definitions. The Special Mention category includes assets that are currently protected but have potential weaknesses, resulting in undue and unwarranted credit risk, but not to the point of justifying a Substandard classification. Loans in the Substandard category have well-defined weaknesses that jeopardize the liquidation of the debt and have a distinct possibility that some loss will be sustained if the weaknesses are not corrected. All loans greater than 90 days past due are considered Substandard. A loan categorized as Doubtful contains all of the weaknesses as a Substandard loan with the added characteristic that the weaknesses are so pronounced that the collection or liquidation in full of both principal and interest is highly questionable or improbable. Any portion of a loan that has been charged off is placed in the Loss category.

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To help ensure that risk ratings are accurate and reflect the present and future capacity of borrowers to repay a loan as agreed, the Company has a structured loan rating process with several layers of internal and external oversight. Generally, consumer and residential mortgage loans are included in the Pass categories unless a specific action, such as payment delinquency, bankruptcy, repossession, or death, occurs to raise awareness of a possible credit quality loss. The Company's Commercial Loan Officers are responsible for the timely and accurate risk rating of the loans in their portfolios at origination and on an ongoing basis. The Credit Department performs an annual review of all commercial relationships with loan balances of \$ 750,000 or greater. Detailed reviews, including plans for resolution, are performed on criticized loans of \$ 150,000 or more on at least a quarterly basis. Loans in the Special Mention and Substandard categories that are collectively evaluated for impairment are given separate consideration in the determination of the allowance.

Management further monitors the performance and credit quality of the loan portfolio by analyzing the age of the portfolio as determined by the length of time a recorded payment is past due.

The following table represents outstanding loan balances by credit quality indicators and vintage year by class of financing receivable and current period gross charge-offs by year of origination as of December 31, 2023:

December 31, 2023								
Term Loans Amortized Cost Basis by Origination Year							Revolving Amortized Cost Basis	Total
(Dollar amounts in thousands)	2023	2022	2021	2020	2019	Prior		
Commercial real estate:								
Owner occupied								
Pass	\$ 14,634	\$ 34,850	\$ 41,609	\$ 25,040	\$ 12,304	\$ 41,976	\$ 2,662	\$ 173,075
Special Mention	-	2,271	-	-	13	799	-	3,083
Substandard	-	2,356	-	1,559	146	3,326	-	7,387
Total Owner occupied	\$ 14,634	\$ 39,477	\$ 41,609	\$ 26,599	\$ 12,463	\$ 46,101	\$ 2,662	\$ 183,545
Current-period gross charge-offs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46	\$ -	\$ 46
Non-owner occupied								
Pass	\$ 43,393	\$ 95,098	\$ 40,959	\$ 22,707	\$ 32,405	\$ 127,469	\$ 504	\$ 362,535
Special Mention	-	2,508	-	-	-	2,197	-	4,705
Substandard	-	-	-	-	5,237	24,569	-	29,806
Doubtful	-	-	647	-	3,887	-	-	4,534
Total Non-owner occupied	\$ 43,393	\$ 97,606	\$ 41,606	\$ 22,707	\$ 41,529	\$ 154,235	\$ 504	\$ 401,580
Current-period gross charge-offs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Multifamily								
Pass	\$ 29,218	\$ 25,776	\$ 4,267	\$ 10,453	\$ 1,391	\$ 11,231	\$ 104	\$ 82,440
Substandard	-	-	-	-	-	66	-	66
Total Multifamily	\$ 29,218	\$ 25,776	\$ 4,267	\$ 10,453	\$ 1,391	\$ 11,297	\$ 104	\$ 82,506
Current-period gross charge-offs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential real estate								
Pass	\$ 50,086	\$ 56,180	\$ 78,909	\$ 39,476	\$ 19,418	\$ 82,441	\$ 672	\$ 327,182
Substandard	-	127	210	-	24	1,311	-	1,672
Total Residential real estate	\$ 50,086	\$ 56,307	\$ 79,119	\$ 39,476	\$ 19,442	\$ 83,752	\$ 672	\$ 328,854
Current-period gross charge-offs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108	\$ -	\$ 108
Commercial and industrial								
Pass	\$ 46,918	\$ 43,494	\$ 17,909	\$ 25,143	\$ 2,741	\$ 6,533	\$ 66,842	\$ 209,580
Special Mention	-	-	-	-	-	-	184	184
Substandard	13	15	-	353	124	876	10,367	11,748
Loss	-	-	-	-	-	(4)	-	(4)
Total Commercial and industrial	\$ 46,931	\$ 43,509	\$ 17,909	\$ 25,496	\$ 2,865	\$ 7,405	\$ 77,393	\$ 221,508
Current-period gross charge-offs	\$ -	\$ -	\$ 75	\$ -	\$ 6	\$ 4	\$ -	\$ 85
Home equity lines of credit								
Pass	\$ -	\$ 126	\$ -	\$ 16	\$ 63	\$ 2,097	\$ 124,001	\$ 126,303
Substandard	-	105	-	36	29	583	762	1,515
Total Home equity lines of credit	\$ -	\$ 231	\$ -	\$ 52	\$ 92	\$ 2,680	\$ 124,763	\$ 127,818
Current-period gross charge-offs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Construction and other								
Pass	\$ 55,528	\$ 23,059	\$ 20,246	\$ 1,777	\$ 5,609	\$ 851	\$ 9,152	\$ 116,222
Special Mention	-	3,573	2,371	-	265	-	-	6,209
Substandard	-	-	420	-	1,770	-	484	2,674
Total Construction and other	\$ 55,528	\$ 26,632	\$ 23,037	\$ 1,777	\$ 7,644	\$ 851	\$ 9,636	\$ 125,105
Current-period gross charge-offs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consumer installment								
Pass	\$ 1,810	\$ 1,088	\$ 324	\$ 89	\$ 74	\$ 3,669	\$ -	\$ 7,054
Substandard	-	7	-	-	-	153	-	160
Total Consumer installment	\$ 1,810	\$ 1,095	\$ 324	\$ 89	\$ 74	\$ 3,822	\$ -	\$ 7,214
Current-period gross charge-offs	\$ -	\$ 25	\$ -	\$ -	\$ -	\$ 38	\$ -	\$ 63
Total Loans	<u>\$ 241,600</u>	<u>\$ 290,633</u>	<u>\$ 207,871</u>	<u>\$ 126,649</u>	<u>\$ 85,500</u>	<u>\$ 310,143</u>	<u>\$ 215,734</u>	<u>\$ 1,478,130</u>

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The following table presents the classes of the loan portfolio summarized by the aggregate Pass and the criticized categories of Special Mention, Substandard and Doubtful within the internal risk-rating system (in thousands):

	Pass	Special Mention	Substandard	Doubtful	Total Loans
December 31, 2022					
Commercial real estate:					
Owner occupied	\$ 176,400	\$ 6,873	\$ 8,475	\$ -	\$ 191,748
Non-owner occupied	331,584	6,387	42,609	-	380,580
Multifamily	58,251	-	-	-	58,251
Residential real estate	294,254	-	2,054	-	296,308
Commercial and industrial	185,674	7,936	1,992	-	195,602
Home equity lines of credit	127,080	-	985	-	128,065
Construction and other	90,728	308	3,163	-	94,199
Consumer installment	8,117	-	2	-	8,119
Total	<u>\$ 1,272,088</u>	<u>\$ 21,504</u>	<u>\$ 59,280</u>	<u>\$ -</u>	<u>\$ 1,352,872</u>

Collateral-dependent Loans

The following table presents individually analyzed and collateral-dependent loans by classes of loan type (in thousands):

	December 31, 2023				
	Type of Collateral				
(Dollar amounts in thousands)	Real Estate	Blanket Lien	Investment/Cash	Other	Total
Commercial real estate:					
Non-owner occupied	\$ 8,150	\$ -	\$ -	\$ -	\$ 8,150
Total	<u>\$ 8,150</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 8,150</u>

Nonperforming and Past Due Loans

The following tables present the aging of the recorded investment in past-due loans by class of loans (in thousands):

December 31, 2023	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days+ Past Due	Total Past Due	Total Loans
Commercial real estate:						
Owner occupied	\$ 183,242	\$ 197	\$ -	\$ 106	\$ 303	\$ 183,545
Non-owner occupied	397,964	3,616	-	-	3,616	401,580
Multifamily	82,440	-	-	66	66	82,506
Residential real estate	326,224	1,366	1,010	254	2,630	328,854
Commercial and industrial	221,304	-	146	58	204	221,508
Home equity lines of credit	126,894	447	180	297	924	127,818
Construction and other	125,040	65	-	-	65	125,105
Consumer installment	7,138	69	-	7	76	7,214
Total	<u>\$ 1,470,246</u>	<u>\$ 5,760</u>	<u>\$ 1,336</u>	<u>\$ 788</u>	<u>\$ 7,884</u>	<u>\$ 1,478,130</u>

December 31, 2022	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days+ Past Due	Total Past Due	Purchase Credit Impaired Loans	Total Loans
Commercial real estate:							
Owner occupied	\$ 191,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 191,748
Non-owner occupied	380,467	113	-	-	113	2,992	380,580
Multifamily	58,251	-	-	-	-	-	58,251
Residential real estate	293,698	2,093	111	406	2,610	24	296,308
Commercial and industrial	195,532	62	4	4	70	-	195,602
Home equity lines of credit	127,494	415	145	11	571	-	128,065
Construction and other	93,997	202	-	-	202	3,052	94,199
Consumer installment	8,096	23	-	-	23	-	8,119
Total	<u>\$ 1,349,283</u>	<u>\$ 2,908</u>	<u>\$ 260</u>	<u>\$ 421</u>	<u>\$ 3,589</u>	<u>\$ 6,068</u>	<u>\$ 1,352,872</u>

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The following tables present the recorded investment in nonaccrual loans and loans 90 and greater days past due and still on accrual by class of loans (in thousands):

(Dollar amounts in thousands)	December 31, 2023				
	Nonaccrual with no ACL	Nonaccrual with ACL	Total Nonaccrual	Loans Past Due Over 90 Days Still Accruing	Total Nonperforming
Commercial real estate:					
Owner occupied	\$ -	\$ 252	\$ 252	\$ -	\$ 252
Non-owner occupied	4,534	3,616	8,150	-	8,150
Multifamily	-	66	66	-	66
Residential real estate	-	1,170	1,170	-	1,170
Commercial and industrial	-	223	223	-	223
Home equity lines of credit	-	856	856	-	856
Consumer installment	153	7	160	-	160
Total	<u>\$ 4,687</u>	<u>\$ 6,190</u>	<u>\$ 10,877</u>	<u>\$ -</u>	<u>\$ 10,877</u>

December 31, 2022	Nonaccrual	90+ Days Past Due and Accruing
Commercial real estate:		
Owner occupied	\$ 69	\$ -
Residential real estate	1,431	-
Commercial and industrial	186	-
Home equity lines of credit	191	-
Construction and other	68	-
Consumer installment	166	-
Total	<u>\$ 2,111</u>	<u>\$ -</u>

Interest income that would have been recorded had these loans not been placed on nonaccrual status was \$ 689,000 and \$ 125,000 for the year ended December 31, 2023 and 2022, respectively.

Modifications to Borrowers Experiencing Financial Difficulty

Effective January 1, 2023, the Company implemented ASU 2022-02, which eliminated the recognition and measure of troubled debt restructurings and enhanced disclosures for loan modifications to borrowers experiencing financial difficulty. The Bank may modify the contractual terms of a loan to a borrower experiencing financial difficulty to mitigate the risk of loss. Such modifications may include a term extension, interest rate reduction, significant payment deferral, other modifications, or a combination of modification types. In general, any delay in payment of greater than 90 days in the last 12 months is considered to be a significant payment deferral.

The table below details the amortized cost basis of the loans modified to borrowings experiencing financial difficulty, disaggregated by class of loans and type of concessions granted, and the financial effect of the modifications:

	For the Twelve Months Ended December 31, 2023						
	Modifications						
	Payment Deferral	Term Extension	Payment Deferral and Term Extension	Interest Rate Reduction and Term Past Due	Interst Rate Reduction and Principal Forgiveness	Total	Percentage of Total Loans Held for Investment
Commercial real estate:							
Non-owner occupied	\$ -	\$ 14,924	\$ 2,507	\$ -	\$ -	\$ 17,431	1.18%
Construction and other	-	2,191	-	-	-	2,191	0.15%
Total	\$ -	\$ 17,115	\$ 2,507	\$ -	\$ -	\$ 19,622	1.33%

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As of December 31, 2023, the Bank had no commitments to lend additional funds on modified loans. As of December 31, 2023, the Bank did not have any loans that were modified for borrowers experiencing financial difficulty and subsequently defaulted. Payment default is defined as movement to nonperforming status, foreclosure or charge-off, whichever occurs first.

Allowance for Credit Losses: Unfunded Commitments

Upon adoption of ASU 2016-13 on January 1, 2023, the Company recorded a separate ACL for unfunded commitments using a methodology that is inherently similar to the methodology used for calculating the ACL for loans. The liability for credit losses on these exposures is included in "Accrued interest payable and other liabilities" on the Consolidated Balance Sheet. Prior to the adoption of ASU 2016-13, this type of liability was not recognized on the Consolidated Balance Sheet. The following table summarizes the ACL for unused commitments for the year ended December 31, 2023:

Credit Quality Disclosures Prior to the Adoption of ASU 2016-13

The following table presents information related to impaired loans by class of loans as of December 31, 2022 (in thousands):

December 31, 2022			
Impaired Loans			
	Recorded Investment	Unpaid Principal Balance	Related Allowance
With no related allowance recorded:			
Commercial real estate:			
Owner occupied	\$ 4,141	\$ 4,141	\$ -
Non-owner occupied	1,042	1,042	-
Residential real estate	706	770	-
Commercial and industrial	450	547	-
Home equity lines of credit	112	112	-
Total	\$ 6,451	\$ 6,612	\$ -
With an allowance recorded:			
Commercial real estate:			
Owner occupied	\$ 1,509	\$ 1,509	\$ 407
Non-owner occupied	12,528	12,528	167
Residential real estate	317	317	28
Commercial and industrial	1,378	1,378	39
Home equity lines of credit	132	132	48
Total	\$ 15,864	\$ 15,864	\$ 689
Total:			
Commercial real estate:			
Owner occupied	\$ 5,650	\$ 5,650	\$ 407
Non-owner occupied	13,570	13,570	167
Residential real estate	1,023	1,087	28
Commercial and industrial	1,828	1,925	39
Home equity lines of credit	244	244	48
Total	\$ 22,315	\$ 22,476	\$ 689

The table above includes troubled debt restructuring totaling \$ 3.3 million as of December 31, 2022. The amount allocated within the allowance for credit losses for these troubled debt restructurings was \$ 72,000 as of December 31, 2022.

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The following table presents the average recorded investment in impaired loans by class and interest income recognized by loan class under ASC 310, for the year ended December 31, 2022 (in thousands):

	For the Year Ended December 31, 2022	
	Average Recorded Investment	Interest Income Recognized
Commercial real estate:		
Owner occupied	\$ 2,637	\$ 231
Non-owner occupied	8,671	646
Residential real estate	998	46
Commercial and industrial	1,331	145
Home equity lines of credit	247	12
Total	<u>\$ 13,884</u>	<u>\$ 1,080</u>

The following table presents additional information regarding loans acquired with specific evidence of deterioration in credit quality under ASC 310-30:

(In Thousands)	December 01, 2022	December 31, 2022
Outstanding balance	\$ 7,919	\$ 7,998
Carrying amount	\$ 6,019	\$ 6,068

The primary risk of commercial and industrial loans is related to deterioration in the cash flow of the business, which may result in the liquidation of the business assets securing the loan. C&I loans are, by nature, secured by less substantial collateral than secured real estate loans. The primary risk of real estate construction loans is potential delays and disputes during the completion process. The primary risk of residential real estate loans is current economic uncertainties. The primary risk of commercial real estate loans is the loss of income of the owner or occupier of the property and the inability of the market to sustain rent levels. Consumer installment loans historically have experienced higher delinquency rates. Consumer installments are typically secured by less substantial collateral than other types of credits.

Nonperforming assets are nonaccrual loans, including nonaccrual troubled debt restructurings ("TDR"), loans 90 and greater days past due, other real estate owned, and repossessed assets. A loan is classified as nonaccrual when, in the opinion of management, there are serious doubts about the collectability of interest and principal. Accrual of interest is discontinued on a loan when management believes, after considering economic and business conditions, the borrower's financial condition is such that collection of principal and interest is doubtful. Payments received on nonaccrual loans are applied against the principal balance.

TDR Disclosures Prior to the Adoption of ASU 2022-02

TDR describes loans on which the bank has granted concessions for reasons related to the customer's financial difficulties. Such concessions may include one or more of the following:

- reduction in the interest rate to below-market rates
- extension of repayment requirements beyond normal terms
- reduction of the principal amount owed
- reduction of accrued interest due
- acceptance of other assets in full or partial payment of a debt

In each case, the concession is made due to deterioration in the borrower's financial condition, and the new terms are less stringent than those required on a new loan with similar risk.

The following tables summarize troubled debt restructurings that did not meet the exemption criteria above (in thousands):

	For the Year Ended				
	December 31, 2022				
	Number of Contracts			Pre-Modification	Post-Modification
	Term	Other	Total	Outstanding	Outstanding
Troubled Debt Restructurings	Modification			Recorded	Recorded
Commercial and industrial		3	-	3	1,252
					1,252

There were no subsequent defaults of troubled debt restructurings for the year ended December 31, 2022.

8. PREMISES AND EQUIPMENT

Major classifications of premises and equipment at December 31:

(Dollar amounts in thousands)	2023	2022
Land and land improvements	\$ 4,896	\$ 4,896
Building and leasehold improvements	21,014	20,537
Furniture, fixtures, and equipment	10,104	9,485
Financing right-of-use assets	3,456	3,703
Total premises and equipment	39,470	38,621
Less accumulated depreciation and amortization	18,131	16,660
Total premises and equipment, net	\$ 21,339	\$ 21,961

Depreciation expense charged to operations was \$ 1.5 million in 2023 and \$ 1.3 million in 2022.

9. GOODWILL AND INTANGIBLE ASSETS

Goodwill

Our annual goodwill impairment testing is performed as of October 1 each year, or more frequently as events occur or circumstances change that would more likely than not reduce the fair value of the Company below its carrying amount. The Company conducted a qualitative test as of October 1, 2023 through the evaluation of numerous factors such as economic trends, market and industry considerations, financial performance, and internal events.

(Dollar amount in thousands)	
Balance at December 31, 2021	\$ 15,071
Liberty acquisition	16,664
Balance at December 31, 2022	31,735
Measurement period adjustment	4,621
Balance at December 31, 2023	\$ 36,356

The carrying amount of the core deposit intangible was \$ 6.6 million and \$ 7.7 million for the years ended December 31, 2023, and 2022, respectively. Core deposit accumulated amortization was \$ 3.2 million and \$ 2.1 million for the years ended December 31, 2023, and 2022. Amortization expense totaled \$ 1.1 million and \$ 372,000 in 2023 and 2022, respectively.

Core Deposit Intangible

Core deposit intangible assets are amortized to their estimated residual values over their expected useful lives, commonly ten years. The estimated aggregate future amortization expense for core deposit intangible assets as of December 31, 2023, is as follows:

(Dollar amounts in thousands)		
Remaining	2024	\$ 1,031
	2025	998
	2026	968
	2027	691
	2028	665
	Thereafter	2,289
	Total	\$ 6,642

Mortgage Servicing Rights

We originate and periodically sell residential mortgage loans but continue to service those loans for the buyers. We record a servicing asset if we retain the right to service loans in exchange for servicing fees that exceed the going market servicing rate and are considered more than adequate compensation for servicing. Activity for mortgage servicing rights follows:

(Dollar amounts in thousands)	2023	2022
Beginning of year	\$ 2,072	\$ 542
Purchases (1)	-	1,680
Servicing retained from loan sales	60	19
Amortization	(496)	(169)
End of year	\$ 1,636	\$ 2,072

(1) Reflects the fair value of the mortgage servicing rights acquired in the merger.

The amortization of MSRs is determined in proportion to and over the period of the estimated servicing income. The amortization is recorded as a reduction to contractual fee income.

10. ACCRUED INTEREST RECEIVABLE AND OTHER ASSETS

The components of accrued interest receivable and other assets at the years ended December 31:

(Dollar amounts in thousands)	2023	2022
Restricted stock	\$ 9,002	\$ 5,777
Accrued interest receivable on investment securities	1,630	1,571
Accrued interest receivable on loans	5,457	4,333
Deferred tax asset, net	9,237	9,454
Operating right-of-use assets	560	717
Other	9,304	6,676
Total	<u>\$ 35,190</u>	<u>\$ 28,528</u>

11. DEPOSITS

Time deposits that meet or exceed the FDIC Insurance limit of \$250,000 as of December 31, 2023, and 2022 were \$ 117.6 million and \$ 50.9 million, respectively.

Scheduled maturities of all time deposits as of December 31, 2023, are as follows:

(Dollar amounts in thousands)	
2024	\$ 312,884
2025	10,044
2026	6,536
2027	2,031
2028	2,820
Total	<u>\$ 334,315</u>

12. SHORT-TERM BORROWINGS

For the years ended December 31, 2023 and 2022, short-term borrowings consisted of Federal Home Loan advances. Outstanding balances and related information on short-term borrowings are summarized as follows:

(Dollar amounts in thousands)	2023	2022
Balance at year-end	\$ 163,000	\$ 65,000
Average balance outstanding	\$ 101,088	\$ 8,576
Maximum month-end balance	\$ 163,000	\$ 80,000
Weighted-average rate at year-end	5.47%	4.38%
Weighted-average rate during the year	5.33%	3.58%

Average balances outstanding during the year represent daily average balances, and average interest rates represent interest expense divided by the related average balance.

The Company maintains a \$ 6.0 million line of credit and a \$ 10.0 million line of credit with other financial institutions. Both lines of credit have an adjustable rate based on the time of borrowings. On December 31, 2023, and 2022, there were no outstanding borrowings under these lines of credit. The additional borrowing capacity on FHLB advances was \$ 430.1 million and \$ 380.8 million on December 31, 2023, and 2022, respectively.

Under the terms of a blanket agreement, FHLB borrowings are secured by certain qualifying assets of the Company, which consist principally of first mortgage loans or mortgage-backed securities.

13. OTHER BORROWINGS

Other borrowings for the years ended December 31, consist of the following:

(Dollar amounts in thousands)		Weighted-average interest rate	Stated interest rate	2023	2022
Description	Maturity Date				
Finance lease liabilities	10/30/34 through 11/30/41	3.04%	2.50 % to 3.51%	\$ 3,614	\$ 3,811
Junior subordinated debt	12/21/37	7.16%	6.47 % to 7.32%	8,248	8,248
Total				<u>\$ 11,862</u>	<u>\$ 12,059</u>

The scheduled maturities of other borrowings are as follows:

(Dollar amounts in thousands)			Weighted-Average Rate
Year Ending December 31,	Amount		
2024	\$ 202		3.04%
2025	214		3.04%
2026	227		3.04%
2027	234		3.04%
2028	241		3.04%
Beyond 2028	10,744		4.81%
Total	<u>\$ 11,862</u>		<u>4.76%</u>

The Bank has a \$ 25.0 million irrevocable Standby Letter of Credit Agreement with the FHLB outstanding at December 31, 2023. This letter of credit is issued to secure municipal deposit accounts as required by law. The amount of funds available from the FHLB to the Bank is reduced by any letters of credit outstanding.

The Company formed a special purpose entity ("Entity") to issue \$ 8.0 million of floating rate, obligated mandatorily redeemable securities, and \$ 248,000 in common securities as part of a pooled offering. The rate adjusts quarterly, equal to SOFR plus 1.67 %. The Entity may redeem them at face value in whole or in part. The Company borrowed the issuance proceeds from the Entity in December 2006 in the form of an \$ 8.2 million note payable, which matures in December 2037.

As of December 31, 2023, the Company had finance lease liabilities of \$ 3.6 million. See Note 18, Commitments and Contingencies, for more information.

14. ACCRUED INTEREST PAYABLE AND OTHER LIABILITIES

The components of accrued interest payable and other liabilities are as follows at December 31,:

	2023	2022
(Dollar amounts in thousands)		
Accrued interest payable on deposits	\$ 2,485	\$ 693
Accrued interest payable on borrowings	741	\$ 185
Accrued executives' benefits	4,567	4,440
Accrued salary and benefits	2,771	1,942
Operating lease liabilities	566	723
Other	4,608	2,930
Total	<u>\$ 15,738</u>	<u>\$ 10,913</u>

15. INCOME TAXES

The provision for federal income taxes for the years ended December 31 consists of:

	2023	2022
(Dollar amounts in thousands)		
Current payable	\$ 4,092	\$ 3,544
Deferred	(705)	(324)
Total provision	<u>\$ 3,387</u>	<u>\$ 3,220</u>

The tax effects of deductible and taxable temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are as follows at December 31:

	2023	2022
(Dollar amounts in thousands)		
Deferred tax assets:		
Allowance for credit losses	\$ 4,469	\$ 2,921
Supplemental retirement plan	959	932
Investment security basis adjustment	18	18
Nonaccrual interest income	387	319
Accrued compensation	494	328
Deferred origination fees, net	878	26
Net unrealized loss on AFS securities	4,277	5,886
Lease liability	111	952
Acquisition fair value adjustments	77	728
Net operating losses	-	366
Other	374	252
Gross deferred tax assets	<u>12,044</u>	<u>12,728</u>
Deferred tax liabilities:		
Premises and equipment	961	1,123
Net unrealized gain on equity securities	27	48
FHLB stock dividends	115	242
Intangibles	478	474
Mortgage servicing rights	344	435
Right of use assets	843	928
Other	39	24
Gross deferred tax liabilities	<u>2,807</u>	<u>3,274</u>
Net deferred tax assets	<u>\$ 9,237</u>	<u>\$ 9,454</u>

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No valuation allowance was established on December 31, 2023, and 2022, in view of the Company's tax strategies, coupled with the anticipated future taxable income as evidenced by the Company's earnings potential.

The reconciliation between the federal statutory rate and the Company's effective consolidated income tax rate for the years ended December 31, is as follows:

(Dollar amounts in thousands)

	2023		2022	
	Amount	% of Pretax Income	Amount	% of Pretax Income
Provision at statutory rate	\$ 4,358	21.0%	\$ 3,967	21.0%
Tax-exempt income	(1,044)	(5.0)%	(893)	(4.7)%
Nondeductible interest expense	22	0.1%	5	-%
Nondeductible acquisition expense	-	0.0%	175	0.9%
Other	51	0.1%	(34)	(0.2)%
Actual tax expense and effective rate	<u>\$ 3,387</u>	<u>16.2%</u>	<u>\$ 3,220</u>	<u>17.0%</u>

ASC 740-10 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Benefits from tax positions should be recognized in the financial statements only when it is more likely than not that the tax position will be sustained upon examination by the appropriate taxing authority that would have full knowledge of all relevant information. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Tax positions that previously failed to meet the more-likely-than-not recognition threshold should be recognized in the first subsequent financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not recognition threshold should be derecognized in the first subsequent financial reporting period in which that threshold is no longer met.

At December 31, 2023 and 2022, the Company had no ASC 740-10 unrecognized tax benefits. The Company does not expect the total amount of unrecognized tax benefits to significantly increase within the next 12 months. The Company recognizes interest and penalties on unrecognized tax benefits as a component of income tax expense.

The Company and the Bank are subject to U.S. federal income tax as well as an income tax in the state of Florida, and the Bank is subject to a capital-based franchise tax in the state of Ohio. The Company and the Bank are no longer subject to examination by taxing authorities for years before December 31, 2020.

16. EMPLOYEE BENEFITS

Employee Retirement Plan

The Bank maintains section 401(k) employee savings and investment plans for all full-time employees and officers of the Bank who are at least 21 years of age. The Bank's contributions to the plans are discretionary and are based on 66 % matching of voluntary contributions up to 6 % of compensation for the years ended December 31, 2023, and 2022. Employee contributions are vested at all times, and MBC contributions are fully vested after six years beginning at the second year in 20 % increments. Prior service by Liberty employees who become Middlefield employees were reviewed for purposes of eligibility, vesting and, contribution allocations. Contributions for 2023 and 2022 to those plans amounted to \$ 641,000 and \$ 427,000 , respectively.

Executive Deferred Compensation Plans

The Company maintains executive deferred compensation plans to provide post-retirement payments to members of senior management. The plan agreements are noncontributory, defined contribution arrangements that provide supplemental retirement income benefits to several officers, with contributions made solely by the Bank. Accrued executive deferred compensation amounted to \$ 3.8 million and \$ 3.7 million as of December 31, 2023, and 2022, respectively. In addition, during 2023 and 2022, the Company recognized nonqualified deferred compensation expense of \$ 437,000 and \$ 164,000 , respectively, to the plans.

Stock Option and Restricted Stock Plan

In 2017, the Company adopted the 2017 Omnibus Equity Plan (the "2017 Plan") for granting incentive stock options, nonqualified stock options, restricted stock, and other equity awards to key officers and employees and nonemployee directors of the Company. A total of 448,000 shares of common stock were reserved for issuance under the 2017 Plan, which expires ten years from the date of board approval of the plan. The per-share exercise price of an option granted will not be less than the fair value of a share of common stock on the date the option is granted. The remaining available shares that can be issued under the 2017 Plan were 374,377 as of December 31, 2023.

There was no stock option activity during the years ended December 31, 2023, or 2022

During 2023 and 2022, the Compensation Committee of the Company's Board of Directors granted awards of restricted stock for an aggregate amount of 36,173 and 25,414 shares, respectively, to certain employees of the Bank. The expense recognized for all outstanding awards was \$ 374,000 and \$ 307,000 for the years ended 2023 and 2022, respectively. The number of restricted stock shares earned or settled will depend on specific conditions and are also subject to service period-based vesting. The award recipient must maintain service with Middlefield Banc Corp. and its affiliates until the third anniversary of the award to satisfy the service condition. The target TSR is 10 %, capped at 125 % of target, and reduced proportionally between 0 % and 10 %.

The liability for these accrued officer benefits was \$ 758,000 and \$ 693,000 for the years ended December 31, 2023, and December 31, 2022, respectively.

The Company recognizes restricted stock forfeitures in the period they occur.

The following table presents the activity during 2023 related to awards of restricted stock:

	Units	Weighted- average Grant Date Fair Value Per Unit
Nonvested at January 1, 2023	85,424	\$ 24.34
Granted	36,173	27.57
Vested	(11,791)	26.90
Forfeited	(31,233)	25.26
Nonvested at December 31, 2023	<u>78,573</u>	<u>\$ 25.95</u>
Expected to vest as of December 31, 2023	<u>78,573</u>	<u>\$ 25.95</u>

As of December 31, 2023, there was \$ 1.6 of total unrecognized compensation cost related to nonvested restricted shares granted under the 2017 Plan. The cost is expected to be recognized over a weighted-average period of 1.01 years. The total fair value of shares vested during the years ended December 31, 2023, and 2022 was \$ 317,000 and \$ 529,000 , respectively.

17. COMMITMENTS AND CONTINGENT LIABILITIES

In the ordinary course of business, various outstanding commitments and certain contingent liabilities are not reflected in the accompanying consolidated financial statements. These commitments and contingent liabilities represent financial instruments with off-balance-sheet risk. The contract or notional amounts of those instruments reflect the extent of involvement in particular types of financial instruments.

Commitments to Extend Credit which were composed of the following:

	December 31,	
(Dollar amounts in thousands)	2023	2022
Commitments to extend credit	\$ 418,952	\$ 443,364
Standby letters of credit	5,884	869
Total	\$ 424,836	\$ 444,233

The commitments to extend credit involve, to varying degrees, elements of credit and interest rate risk over the amount recognized in the Consolidated Balance Sheet. The Company's exposure to credit loss, in the event of nonperformance by the other parties to the financial instruments, is represented by the contractual amounts as disclosed. The Company minimizes its exposure to credit loss under these commitments by subjecting them to credit approval, review procedures, and collateral requirements as deemed necessary. Loan commitments generally have fixed expiration dates within one year of their origination.

Standby letters of credit are conditional commitments issued by the Company to guarantee the performance of a customer to a third party. These instruments are issued primarily to support bid or performance-related contracts. The coverage period for these instruments is typically one year, with an annual renewal option subject to prior approval by management. Fees earned from the issuance of these letters are recognized over the coverage period. The collateral is typically bank deposit instruments or customer business assets for secured letters of credit.

Commitments to Fund

We made an investment directly in a low-income housing tax credit operating partnership. As a limited partner, we are allocated tax credits and deductions associated with the underlying properties. Our maximum exposure to loss in connection with the partnership consists of the unamortized investment balance plus any unfunded equity commitments and tax credits claimed but subject to recapture. The investment at December 31, 2023 was \$ 2.0 and recorded in the Consolidated Balance Sheet in "Accrued interest receivable and other assets". We do not have any loss reserves recorded since we believe the likelihood of loss is remote. The investment is amortized over the period that we expect to receive the tax benefits. In 2023, we recognized \$ 35,000 of amortization and no tax credits associated with this investment. At December 31, 2023, we had an unfunded tax credit commitment of \$ 1.7, which is recorded in the Consolidated Balance Sheet in "Accrued interest payable and other liabilities".

Cannabis Industry

We provide deposit services to customers who are licensed by the State of Ohio to do business in (or are related to) the Division of Cannabis Control as growers, processors, and dispensaries. Marijuana businesses are regulated by the Ohio Department of Commerce and legal in the State of Ohio, although it is not legal at the federal level. The U.S. Department of the Treasury's Financial Crimes Enforcement Network ("FinCEN") published guidelines in 2014 for financial institutions servicing state-legal cannabis businesses. A financial institution that provides services to cannabis-related businesses can comply with Bank Secrecy Act ("BSA") disclosure standards by following the FinCEN guidelines. We maintain stringent written policies and procedures related to the acceptance of such businesses and the monitoring and maintenance of such business accounts. We conduct a significant due diligence review of the cannabis business before the business is accepted as a new client, including confirmation that the business is properly licensed by the State of Ohio. Throughout the relationship, we continue monitoring the business, including site visits, to ensure that the business continues to meet our stringent requirements, including maintenance of required licenses and periodic financial reviews of the business.

While we believe we are operating in compliance with the FinCEN guidelines, there can be no assurance that federal enforcement guidelines will not change. Federal prosecutors have significant discretion, and there can be no assurance that the federal prosecutors will not choose to strictly enforce the federal laws governing cannabis. Any change in the Federal government's enforcement position could cause us to immediately cease providing banking services to the cannabis industry. We are upfront with our customers regarding the fact that we may have to terminate our deposit services relationship if a change occurs with the Federal government's position, and that the termination may come with little or no notice.

Leasing Commitments

The Company leases six of its branch locations and one loan production office. As of December 31, 2023, net assets recorded under leases amounted to \$ 4.0 million and have remaining lease terms of 3 years to 18 years. As of December 31, 2023, finance lease assets included in premises and equipment, net, totaled \$ 3.5 million, and operating lease assets included in accrued interest receivable and other assets on the Consolidated Balance Sheet totaled \$ 560,000. As of December 31, 2023, finance lease obligations included in other borrowings totaled \$ 3.6 million, and operating lease obligations included in accrued interest payable and other liabilities on the Consolidated Balance Sheet totaled \$ 566,000.

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Lease costs incurred are as follows for the years ended December 31:

	2023	2022
Lease Costs:		
Finance lease cost:		
Amortization of right-of-use asset	\$ 248	\$ 176
Interest Expense	112	116
Other	47	30
Operating lease cost	216	206
Total lease cost	<u>\$ 623</u>	<u>\$ 528</u>

The following table displays the weighted-average term and discount rates for both operating and finance leases outstanding as of December 31, 2023:

	Operating	Finance
Weighted-average term (years)	4.2	14.6
Weighted-average discount rate	1.9 %	3.0 %

The following table displays the undiscounted cash flows due related to operating and finance leases as of December 31, 2023, along with a reconciliation to the discounted amount recorded on the December 31, 2023 Consolidated Balance Sheet:

	Operating	Finance
Undiscounted cash flows due within:		
2024	\$ 170	\$ 308
2025	169	314
2026	134	320
2027	27	320
2028	27	320
2029 and thereafter	68	2,886
Total undiscounted cash flows	595	4,468
Impact of present value discount	(29)	(854)
Amount reported on balance sheet	<u>\$ 566</u>	<u>\$ 3,614</u>

18. REGULATORY RESTRICTIONS

The Company is subject to the regulatory requirements of the Federal Reserve System as a bank holding company. The bank subsidiary is subject to regulations of the Federal Deposit Insurance Corporation ("FDIC") and the Ohio Division of Financial Institutions.

The Federal Reserve Board and the FDIC have extensive authority to prevent and remedy unsafe and unsound practices and violations of applicable laws and regulations by institutions and holding companies. The agencies may assess civil money penalties, issue cease-and-desist or removal orders, seek injunctions, and publicly disclose those actions. In addition, the Ohio Division of Financial Institutions possesses enforcement powers to address violations of Ohio banking law by Ohio-chartered banks.

The Company is subject to the regulatory requirements of the Federal Reserve System as a bank holding company. The Bank is subject to regulations of the FDIC and the State of Ohio, Division of Financial Institutions.

Cash Requirements

The Federal Reserve Bank of Cleveland requires the Company to maintain certain average reserve balances. The reserves requirement was reduced to zero as of December 31, 2023, and 2022.

Loans

Federal law prevents the Company from borrowing from the Bank unless specific obligations secure the loans. Further, such a secured loan is limited to 10 % of the Bank's common stock and capital surplus.

Dividends

The Bank is subject to dividend restrictions that generally limit the amount of dividends that an Ohio state-chartered bank can pay. Under the Ohio Banking Code, cash dividends may not exceed net profits as defined for that year combined with retained net profits for the two preceding years less any required transfers to surplus. Under this formula, the amount available for payment of dividends for 2024 approximates \$ 8.4 million, plus 2024 profits retained up to the dividend declaration date.

19. REGULATORY CAPITAL

Financial institution regulators have established guidelines for minimum capital ratios for banks, thrifts, and bank and thrift holding companies. The net unrealized gain or loss on available for sale securities is generally not included in computing regulatory capital. To avoid limitations on capital distributions, including dividend payments, the Bank and the Company must each hold a capital conservation buffer above the adequately capitalized risk-based capital ratios. Within the tabular presentation that follows is the adequately capitalized ratio plus a 2.50 % capital conservation buffer.

The Bank and the Company met each of the well-capitalized ratio guidelines as of December 31, 2023. The following table indicates the capital ratios for the Bank and the Company as of December 31, 2023, and 2022, as well as the capital category threshold ratios for a well-capitalized, adequately capitalized plus the capital conservation buffer institution.

	As of December 31, 2023			
	Leverage	Tier 1 Risk Based	Common Equity Tier 1	Total Risk Based
The Middlefield Banking Company	10.48%	11.82%	11.82%	13.08%
Middlefield Banc Corp.	10.68%	12.18%	11.66%	13.43%
Adequately capitalized ratio	4.00%	6.00%	4.50%	8.00%
Adequately capitalized ratio plus fully phased-in capital conservation buffer	4.00%	8.50%	7.00%	10.50%
Well-capitalized ratio (Bank only)	5.00%	8.00%	6.50%	10.00%

	As of December 31, 2022			
	Leverage	Tier 1 Risk Based	Common Equity Tier 1	Total Risk Based
The Middlefield Banking Company	11.16%	12.63%	12.63%	13.61%
Middlefield Banc Corp.	11.30%	12.80%	12.25%	13.78%
Adequately capitalized ratio	4.00%	6.00%	4.50%	8.00%
Adequately capitalized ratio plus fully phased-in capital conservation buffer	4.00%	8.50%	7.00%	10.50%
Well-capitalized ratio (Bank only)	5.00%	8.00%	6.50%	10.00%

20. RELATED PARTY TRANSACTION

Loans to principal officers, directors, and their affiliates during 2023 and 2022 were as follows:

(Dollars in thousands)	2023	2022
Beginning balance	\$ 2,057	\$ 2,333
New loans	23,922	-
Repayments	(1,794)	(276)
Ending balance	<u>\$ 24,185</u>	<u>\$ 2,057</u>

Deposits of related parties amount to \$ 33.1 million and \$ 24.1 million as of December 31, 2023 and 2022, respectively.

21. BUSINESS COMBINATION

As described in Note 1, on December 1, 2022, the Company completed its merger with Liberty, pursuant to a previously announced definitive merger agreement. The Company accounted for the Liberty acquisition using the acquisition method of accounting, and accordingly, assets acquired, liabilities assumed, and consideration exchanged were recorded at estimated fair value on the acquisition date, in accordance with purchase accounting. Management reviewed the estimated fair values and finalized the analysis of the acquired assets and liabilities within one year of the merger. As a result, the amount of goodwill was subsequently increased by \$ 4.6 million.

The Company expects to finalize its analysis of the acquired assets and assumed liabilities in the transaction within one year of the merger. As the Company finalizes its analysis of these assets, there may be adjustments to the recorded carrying values. Any adjustments to carrying values will be recorded in goodwill. The calculation of goodwill is subject to change for up to one year after closing date of the transaction as additional information relative to closing date estimates and uncertainties becomes available.

The Company also recorded an identifiable intangible asset representing the core deposit base of Liberty. The discounted cash flow method was used in valuing this intangible. This method is based upon the principle of future benefits; economic value is based on anticipated future benefits as measured by cash flows expected to occur in the future. The estimated future cash flows are converted to a value indicator by determining the present value of the cash flows using a discount rate. The discount rate is based on the nature of the business, the level of risk, and the expected stability of the estimated future cash flows. The higher the risk, the higher the discount rate, and the lower the value indicator.

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Time deposit fair values were estimated using an income approach. The methodology entailed discounting the contractual cash flows of the instruments over their remaining contractual lives at prevailing market rates. Interest and principal payments were projected for each category of CDs over the period from the valuation date to the maturity date. These payments represent future cash flows to be paid to depositors until maturity. Using appropriate market interest rates for each category of CDs, the future cash flows were discounted to their present value equivalents.

At the time of the merger, the preliminary fair value of the loans was determined using the income approach. The loans' underlying characteristics were considered, and various assumptions were applied regarding credit, interest, and prepayment risks for the loans based on loan types, payment types and fixed or variable classifications. Management reviewed the valuation approach, and during the second quarter of 2023, the Company utilized a discounted cash flow model to estimate the fair value of the loans using assumptions for the coupon rates, remaining maturities, prepayment speeds, projected default probabilities, losses given defaults, and estimates of prevailing discount rates. The discounted cash flow approach modeled the credit losses directly in the projected cash flows. As a result, the Company recorded a decrease in the fair value of the loans of \$ 4.5 million, along with a corresponding increase to goodwill.

Middlefield recorded \$ 21.3 million of goodwill associated with the purchase of Liberty.

The following table summarizes the purchase of Liberty:

(In Thousands, Except Per Share Data)

Purchase Price Consideration in Common Stock		
Middlefield Banc Corp. shares issued	2,561,513	
Value assigned to Middlefield Banc Corp. common shares	\$ 28.60	
Purchase price assigned to Liberty common shares exchanged for		73,259
Purchase Price Consideration in Cash		
Cash paid in lieu of fractional shares		6
Total Purchase Price		73,265
Net Assets Acquired:		
Liberty shareholders equity	\$ 49,041	
Adjustments to reflect assets acquired at fair value:		
Loans		
Allowance for credit loss	4,497	
Loans - interest rate	(4,583)	
Loans - general credit	(3,852)	
Core deposit intangible	6,669	
Investments	(1,461)	
Mortgage servicing rights	830	
Other	94	
Adjustments to reflect liabilities acquired at fair value:		
Time deposits	(228)	
Deferred taxes	973	
Total net assets acquired		51,980
Goodwill resulting from merger		\$ 21,285

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The following condensed statement reflects the amounts recognized as of the acquisition date for each major class of asset acquired and liability assumed at fair value:

(In Thousands)

Total purchase price	\$	73,265
Assets (liabilities) acquired:		
Net assets acquired:		
Cash		18,406
Loans and loans held for sale		306,970
Investments		57,907
Premises and equipment, net		6,087
Accrued interest receivable		1,563
Bank-owned life insurance		16,290
Core deposit intangible		6,670
Mortgage servicing rights		1,680
Other assets		3,111
Time deposits		(69,278)
Non-time deposits		(294,684)
Accrued interest payable		(246)
Other liabilities		(2,496)
Total net assets acquired		51,980
Goodwill resulting from the Liberty merger	\$	21,285

Results of operations for Liberty prior to the acquisition date are not included in the Consolidated Statement of Income for the year ended December 31, 2022. The results of activities from the former Liberty operations that are included in the Consolidated Statement of Income from the date of acquisition through December 31, 2022 are broken out in the following table:

	Actual from Acquisition Date Through December 31, 2022 (in thousands)
Net interest income	\$ 1,366
Noninterest income	\$ 117
Net income	\$ 867

The following table presents supplemental pro forma information as if the acquisition had occurred on January 1, 2022. The unaudited pro forma information includes adjustments for interest income on loans and securities acquired, amortization of intangibles arising from the transaction, depreciation expense on property acquired, interest expense on deposits acquired, and the related income tax effects. The pro forma information is not necessarily indicative of the results of operations that would have occurred had the transactions been effected on the assumed date.

	Pro Formas For the Year Ended December 31, 2022 (in thousands, except per share data)
Net interest income	\$ 63,488
Noninterest income	10,151
Net income	\$ 14,610
Pro forma earnings per share:	
Basic	\$ 2.42
Diluted	\$ 2.42

22. PARENT COMPANY

Following are condensed financial statements for the Company.

	December 31,	
	2023	2022
ASSETS		
Cash and due from banks	\$ 4,065	\$ 201
Other investments	544	645
Investment in nonbank subsidiary	1	1
Investment in bank subsidiary	208,098	202,887
Other assets	2,125	2,984
TOTAL ASSETS	\$ 214,833	\$ 206,718
LIABILITIES		
Other borrowings	\$ 8,248	\$ 8,248
Other liabilities	904	779
TOTAL LIABILITIES	9,152	9,027
STOCKHOLDERS' EQUITY	205,681	197,691
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 214,833	\$ 206,718

CONDENSED STATEMENT OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31,	
	2023	2022
INCOME		
Dividends from bank subsidiary	\$ 17,000	\$ 15,500
Loss on equity securities	(100)	(173)
Other income	3	7
Total income	<u>16,903</u>	<u>15,334</u>
EXPENSES		
Interest expense	605	288
Salaries and employee benefits	751	667
Ohio state franchise tax	1,578	1,157
Other expense	1,032	3,434
Total expenses	<u>3,966</u>	<u>5,546</u>
Income before income taxes	12,937	9,788
Income taxes	<u>(854)</u>	<u>(1,024)</u>
Income before equity in undistributed net income of subsidiaries	13,791	10,812
Equity in undistributed net income of subsidiaries	<u>3,578</u>	<u>4,861</u>
NET INCOME	<u>\$ 17,369</u>	<u>\$ 15,673</u>
Comprehensive income (loss)	<u>\$ 23,422</u>	<u>\$ (9,933)</u>

CONDENSED STATEMENT OF CASH FLOW

	Year Ended December 31,	
	2023	2022
OPERATING ACTIVITIES		
Net income	\$ 17,369	\$ 15,673
Adjustments to reconcile net income to net cash provided by operating activities:		
Equity in undistributed net income of subsidiaries	(3,578)	(4,861)
Stock-based compensation expense, net	374	307
Loss on equity securities	100	173
Other, net	969	(297)
Net cash provided by operating activities	15,234	10,995
INVESTING ACTIVITIES		
Acquisition, net of cash paid	-	10
FINANCING ACTIVITIES		
Repurchase of common shares	(4,506)	(6,119)
Cash dividends	(6,864)	(5,490)
Net cash used in financing activities	(11,370)	(11,609)
Increase (decrease) in cash	3,864	(604)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	201	805
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$ 4,065	\$ 201

23. SUBSEQUENT EVENTS

Subsequent Event

As previously disclosed, a cyber-attack occurred in April 2023 that resulted in a temporary disruption to our computer systems. A cybersecurity firm investigated the nature and scope of the incident, evaluated our systems, and confirmed that nonpublic information relating to current and former employees, customers, and others was obtained from our systems. We have no knowledge as to how the unauthorized third party has or plans to use the impacted data.

On January 8, 2024, a customer filed lawsuit against The Middlefield Banking Company in the U.S. District Court for the Northern District of Ohio related to the cyber-attack incident. A similar lawsuit was filed on January 10, 2024, against the Middlefield Banking Company in the Court of Common Pleas for Cuyahoga County, Ohio. The plaintiffs and class members in the two cases, who are current and former customers of the Bank, claim to have been harmed by alleged actions or inactions by the Bank in connection with the incident. The plaintiffs assert a variety of common law and statutory claims regarding the compromised nonpublic information and seek monetary damages, equitable and injunctive relief, pre-judgment and post-judgment interest, awards of actual and punitive damages, costs and attorneys' fees, and other related relief. We dispute the allegations in the lawsuits.

We maintain a cyber risk insurance policy to cover the costs resulting from cyber-attacks, such as the event that occurred in April 2023. The policy has an aggregate limit of \$ 3 million and a deductible of \$ 50,000 . The policy includes coverage for business loss, breach response, and liabilities that could occur as a result of a cyber event. We believe that our insurance policy will fully cover the losses associated with these lawsuits; however, it is possible that the losses could exceed the policy limit. It is not possible to reasonably estimate the amount of such losses or range of losses that might result from the resolution of these lawsuits. We expect that any costs associated with these lawsuits, including attorney fees, adverse judgements or settlements, will be billed to and paid by the insurance company in accordance with the terms of the policy.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

These comments should be read in conjunction with the Company's consolidated financial statements and accompanying notes appearing elsewhere herein.

This discussion contains certain performance measures determined by methods other than under GAAP. Management of the Company uses these non-GAAP measures in its analysis of the Company's performance. These measures are useful when evaluating the underlying performance and efficiency of the Company's operations and Consolidated Balance Sheet. The Company's management believes that these non-GAAP measures provide a greater understanding of ongoing operations, enhance comparability of results with prior periods and demonstrate the effects of significant gains and charges in the current period. The Company's management believes that investors may use these non-GAAP financial measures to evaluate the Company's financial performance without the impact of unusual items that may obscure trends in the Company's underlying performance. These disclosures should not be viewed as a substitute for financial measures determined under GAAP, nor are they necessarily comparable to non-GAAP performance measures that may be presented by other companies. Non-GAAP measures include tangible book value per common share, return on average tangible common equity, and pre-tax, pre-provision income. The Company calculates the regulatory capital ratios using current regulatory report instructions. The Company's management uses these measures to assess the quality of capital and believes that investors may find them useful in their evaluation of the Company. These capital measures may or may not be necessarily comparable to similar capital measures that may be presented by other companies.

2023 Financial Highlights (on a year-over-year basis unless noted):

- Net income increased 10.8% to a record \$17.4 million
- Earnings were \$2.14 per diluted share compared to \$2.59 per diluted share, reflecting a 34.5% increase in the average diluted shares outstanding related to the Liberty Bancshares, Inc. merger
- Pre-tax, pre-provision net income increased 25.7% to a record \$23.8 million ⁽¹⁾
- Net interest income increased 29.9% to a record \$65.2 million
- Total loans were a record \$1.48 billion, compared to \$1.35 billion at December 31, 2023
- Total deposits were \$1.43 billion, compared to \$1.40 billion at December 31, 2023
- Return on average assets was 0.99%, compared to 1.17%
- Return on average equity was 8.83%, compared to 11.25%
- Return on average tangible common equity ⁽¹⁾ was 11.20%, compared to 12.95%
- Strong asset quality with nonperforming assets to total assets of 0.60% at year end
- Allowance for credit losses was 1.47% of total loans, compared to 1.07%
- Equity to assets remained strong at 11.28% compared to 11.71%
- Book value increased 6.0% to \$25.41 per share
- Declared \$0.85 per share in dividends, a 4.9% increase

(1) See non-GAAP reconciliation under the section "GAAP to Non-GAAP Reconciliations"

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(Dollar amounts in thousands, except per share and share amounts, unaudited)

	For the Three Months Ended					For the Year Ended	
	Dec 31, 2023	Sep 30, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Per common share data							
Net income per common share - basic	\$ 0.44	\$ 0.47	\$ 0.63	\$ 0.60	\$ 0.53	\$ 2.14	\$ 2.60
Net income per common share - diluted	\$ 0.44	\$ 0.47	\$ 0.63	\$ 0.60	\$ 0.53	\$ 2.14	\$ 2.59
Dividends declared per share	\$ 0.25	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.30	\$ 0.85	\$ 0.81
Book value per share (period end)	\$ 25.41	\$ 23.94	\$ 24.38	\$ 24.13	\$ 23.98	\$ 25.41	\$ 23.98
Tangible book value per share (period end) (1)							
(2)	\$ 20.10	\$ 18.62	\$ 19.02	\$ 19.29	\$ 19.19	\$ 20.10	\$ 19.19
Dividends declared	\$ 2,023	\$ 1,619	\$ 1,616	\$ 1,605	\$ 2,514	\$ 6,864	\$ 5,490
Dividend yield	3.06%	3.12%	2.99%	2.89%	4.34%	2.63%	2.96%
Dividend payout ratio	57.10%	42.21%	31.74%	32.78%	71.79%	39.52%	37.23%
Average shares outstanding - basic	8,093,478	8,092,494	8,088,793	8,138,771	6,593,616	8,103,230	6,027,091
Average shares outstanding - diluted	8,116,261	8,101,306	8,101,984	8,152,629	6,610,907	8,126,013	6,044,382
Period ending shares outstanding	8,095,252	8,092,576	8,088,793	8,088,793	8,245,235	8,095,252	8,245,235
Selected ratios							
Return on average assets (Annualized)	0.78%	0.86%	1.17%	1.16%	0.97%	0.99%	1.17%
Return on average equity (Annualized)	7.13%	7.73%	10.41%	10.19%	9.35%	8.83%	11.25%
Return on average tangible common equity (1)							
(3)	9.11%	9.91%	13.12%	12.77%	11.13%	11.20%	12.95%
Efficiency (4)	68.99%	65.65%	61.27%	62.44%	72.75%	64.49%	64.96%
Equity to assets at period end	11.28%	10.80%	11.26%	11.30%	11.71%	11.28%	11.71%
Noninterest expense to average assets	0.68%	0.68%	0.69%	0.69%	0.86%	2.74%	2.84%

(1) See section "GAAP to Non-GAAP Reconciliations" for the reconciliation of GAAP performance measures to non-GAAP measures.

(2) Calculated by dividing tangible common equity by shares outstanding.

(3) Calculated by dividing annualized net income for each period by average tangible common equity.

(4) The efficiency ratio is calculated by dividing noninterest expense less amortization of intangibles by the sum of net interest income on a fully taxable-equivalent basis plus noninterest income.

Yields	For the Three Months Ended					For the Year Ended	
	Dec 31, 2023	Sep 30, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Interest-earning assets:							
Loans receivable (1)	6.01%	5.82%	5.96%	5.45%	5.11%	5.82%	4.79%
Investment securities (1)	4.26%	4.09%	4.08%	4.11%	3.83%	4.13%	3.73%
Interest-earning deposits with other banks	3.71%	4.13%	3.98%	3.46%	3.42%	3.82%	1.31%
Total interest-earning assets	5.76%	5.58%	5.69%	5.22%	4.88%	5.57%	4.45%
Deposits:							
Interest-bearing demand deposits	1.67%	1.51%	1.11%	0.83%	0.83%	1.32%	0.34%
Money market deposits	3.58%	2.94%	2.21%	1.52%	1.00%	2.65%	0.61%
Savings deposits	0.59%	0.58%	0.73%	1.03%	0.49%	0.76%	0.20%
Certificates of deposit	3.68%	3.27%	2.35%	1.71%	1.30%	2.83%	1.00%
Total interest-bearing deposits	2.56%	2.16%	1.60%	1.28%	0.87%	1.92%	0.51%
Non-Deposit Funding:							
Borrowings	5.57%	5.66%	5.26%	4.78%	4.25%	5.40%	3.35%
Total interest-bearing liabilities	2.96%	2.48%	2.02%	1.52%	1.02%	2.28%	0.59%
Cost of deposits	1.81%	1.53%	1.09%	0.84%	0.57%	1.32%	0.34%
Cost of funds	2.18%	1.80%	1.43%	1.02%	0.68%	1.62%	0.40%
Net interest margin (2)	3.70%	3.88%	4.34%	4.26%	4.23%	4.04%	4.08%

(1) Tax-equivalent adjustments to calculate the yield on tax-exempt securities and loans were determined using an effective tax rate of 21%.

(2) Net interest margin represents net interest income as a percentage of average interest-earning assets.

GAAP to Non-GAAP Reconciliations
Reconciliation of Common Stockholders' Equity to Tangible Common Equity
(Dollar amounts in thousands, unaudited)

	For the Period Ended				
	Dec 31, 2023	Sep 30, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022
Stockholders' equity	\$ 205,681	\$ 193,749	\$ 197,227	\$ 195,165	\$ 197,691
Less goodwill and other intangibles	42,998	43,103	43,368	39,171	39,436
Tangible common equity	<u>\$ 162,683</u>	<u>\$ 150,646</u>	<u>\$ 153,859</u>	<u>\$ 155,994</u>	<u>\$ 158,255</u>
Shares outstanding	8,095,252	8,092,576	8,088,793	8,088,793	8,245,235
Tangible book value per share	<u>\$ 20.10</u>	<u>\$ 18.62</u>	<u>\$ 19.02</u>	<u>\$ 19.29</u>	<u>\$ 19.19</u>

Reconciliation of Average Equity to Return on Average Tangible Common Equity

	For the Three Months Ended				For the Year Ended		
	Dec 31, 2023	Sep 30, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Average stockholders' equity	\$ 197,208	\$ 196,795	\$ 196,183	\$ 194,814	\$ 148,616	\$ 196,602	\$ 139,270
Less average goodwill and other intangibles	42,972	43,232	40,522	39,300	23,731	41,507	18,200
Average tangible common equity	<u>\$ 154,236</u>	<u>\$ 153,563</u>	<u>\$ 155,661</u>	<u>\$ 155,514</u>	<u>\$ 124,885</u>	<u>\$ 155,095</u>	<u>\$ 121,070</u>
Net income	\$ 3,543	\$ 3,836	\$ 5,092	\$ 4,897	\$ 3,502	\$ 17,368	\$ 15,673
Return on average tangible common equity (annualized)	<u>9.11%</u>	<u>9.91%</u>	<u>13.12%</u>	<u>12.77%</u>	<u>11.13%</u>	<u>11.20%</u>	<u>12.95%</u>

Reconciliation of Pre-Tax Pre-Provision Income (PTPP)

	For the Three Months Ended				For the Year Ended		
	Dec 31, 2023	Sep 30, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022	Dec 31, 2023	Dec 31, 2022
Net income	\$ 3,543	\$ 3,836	\$ 5,092	\$ 4,897	\$ 3,502	\$ 17,368	\$ 15,673
Add income taxes	709	703	986	989	651	3,387	3,220
Add provision for credit losses	554	1,127	814	507	-	3,002	-
PTPP	<u>\$ 4,806</u>	<u>\$ 5,666</u>	<u>\$ 6,892</u>	<u>\$ 6,393</u>	<u>\$ 4,153</u>	<u>\$ 23,757</u>	<u>\$ 18,893</u>

Changes in Financial Condition

General. The Company's total assets on December 31, 2023 were \$1.82 billion, an increase of \$135.2 million from December 31, 2022. For the same period, total loans increased by \$125.3 million, cash and cash equivalents increased by \$7.0 million, and investment securities increased by \$5.8 million. Stockholders' equity increased by \$8.0 million, or 4.0%, primarily due to higher retained earnings and an improvement in the unrealized losses on the available-for-sale investment portfolio, partially offset by acquisition of stock under the Company's stock repurchase program.

Cash and cash equivalents. Cash and cash equivalents increased \$7.0 million to \$60.8 million on December 31, 2023, from \$53.8 million on December 31, 2022. The increase in cash and cash equivalents is primarily due to an increase in deposits and borrowings, and partially offset by an increase in total loans. Deposits from customers into savings, checking and money market accounts as well as certificates of deposit, loan and securities repayments, and proceeds from borrowed funds typically increase these accounts. Decreases result from customer withdrawals, new loan originations, security purchases, and repayments of borrowed and brokered funds.

Investment securities. Management's objective in structuring the portfolio is to maintain liquidity while providing an acceptable rate of return without sacrificing asset quality. Securities available for sale on December 31, 2023, totaled \$170.8 million, an increase of \$5.8 million, or 3.52%, from \$165.0 million on December 31, 2022. Securities purchased were \$2.0 million, and there were no sales of securities for the year ended December 31, 2023. During this period, the Company recorded repayments, calls, and maturities of \$3.3 million and a decrease in the net unrealized holding loss through AOCI of \$6.1 million.

On December 31, 2023, the Company held \$31.9 million at fair value of subordinated debt in other banks, as compared to \$30.2 million on December 31, 2022. The average yield on this portfolio was 4.97% on December 31, 2023, as compared to 4.79% on December 31, 2022.

Periodically, management reviews the entire municipal bond portfolio to assess credit quality. Each security held in this portfolio is assessed on attributes that have historically influenced default incidences in the municipal market, such as sector, security, impairment filing, timeliness of disclosure, external credit assessment(s), credit spread, state, vintage, and underwriter. Municipal bonds compose 77.61% of the overall portfolio. These investments have historically proven to have extremely low credit risk.

Loans. The loan portfolio consists primarily of single-family mortgage loans used to purchase or refinance personal residences located within the Company's market area, commercial and industrial loans, home equity lines of credit, and commercial real estate loans used to finance properties that are used in the borrowers' businesses, or to finance investor-owned rental properties, and, to a lesser extent, construction and consumer loans. The portfolio is well dispersed geographically. Total loans increased \$125.3 million, or 9.26%, to \$1.48 billion as of December 31, 2023. The following table summarizes fluctuation within the primary segments of the loan portfolio (in thousands):

	December 31, 2023	December 31, 2022	\$ change	% change	% of loans
Commercial real estate:					
Owner occupied	\$ 183,545	\$ 191,748	\$ (8,203)	(4.28%)	12.42%
Non-owner occupied	401,580	380,580	21,000	5.52%	27.17%
Multifamily	82,506	58,251	24,255	41.64%	5.58%
Residential real estate	328,854	296,308	32,546	10.98%	22.25%
Commercial and industrial	221,508	195,602	25,906	13.24%	14.99%
Home equity lines of credit	127,818	128,065	(247)	(0.19%)	8.65%
Construction and Other	125,105	94,199	30,906	32.81%	8.46%
Consumer installment	7,214	8,119	(905)	(11.15%)	0.49%
Total loans	1,478,130	1,352,872	125,258	9.26%	100.00%
Less: Allowance for credit losses	(21,693)	(14,438)	7,255	50.25%	
Net loans	\$ 1,456,437	\$ 1,338,434	\$ 118,003	8.82%	

The Company's Mortgage Banking operation generates loans for sale to the Federal Home Loan Mortgage Corporation ("Freddie Mac") and the FHLB. There were no loans held for sale at December 31, 2023, and December 31, 2022. The Company recorded gains on the sale of these loans totaling \$97,000 based on proceeds of \$5.6 million for the year ended December 31, 2023.

The federal banking regulators have issued guidance for those institutions that are deemed to have concentrations in commercial real estate lending. According to the supervisory criteria contained in the guidance for identifying institutions with a potential commercial real estate concentration risk, institutions that have (1) total reported loans for construction, land development, and other land acquisitions that represent 100% or more of an institution's total risk-based capital; or (2) total commercial real estate loans representing 300% or more of the institution's total risk-based capital and the institution's commercial real estate loan portfolio has increased 50% or more during the prior 36 months are identified as having potential commercial real estate concentration risk. Institutions that are deemed to have concentrations in commercial real estate lending are expected to employ heightened levels of risk management concerning their commercial real estate portfolios and may be required to hold higher levels of capital. The Company, like many community banks, has a concentration in commercial real estate loans. On December 31, 2023, construction, land, and land development loans represent 62.4% of total risk-based capital. Nonowner-occupied commercial real estate loans (including construction, land, and land development loans) represented 304.0% of total risk-based capital; however, growth in that segment over the past 36 months was at 11.4%, which is less than the 50% threshold laid out in the regulatory guidance.

Management has extensive experience in commercial real estate lending and has implemented and continues to maintain heightened risk management procedures and strong underwriting criteria for its commercial real estate portfolio. Loan monitoring practices include but are not limited to periodic stress testing analysis to evaluate changes in cash flows due to interest rate increases and declines in net operating income. The primary risk elements with respect to our commercial loans are the financial condition of the borrower, sufficiency of collateral and timeliness of scheduled payments. We have a policy that requires a periodic review of financial statements from commercial loan customers and have a disciplined and formalized review of the existence of collateral and its value. Nevertheless, we may be required to maintain higher levels of capital as a result of our commercial real estate concentrations, which could require us to obtain additional capital, and may adversely affect shareholder returns. The Company has an extensive capital planning policy, which includes pro forma projections, including stress testing, in which the Board of Directors has established internal minimum targets for regulatory capital ratios that are more than well-capitalized ratios as defined by regulatory requirements.

The Company's commercial real estate portfolio included the following categories as of December 31, 2023:

CRE Category	Balance (in thousands)	Percent of CRE Portfolio	Percent of Loan Portfolio
Multi-Family	\$ 82,506	12.4%	5.6%
Office Space	81,032	12.1%	5.5%
Shopping Plazas	75,024	11.2%	5.1%
Self-Storage	60,233	9.0%	4.1%
Hospitality	40,155	6.0%	2.7%
Senior Living	37,543	5.6%	2.5%
Other	291,138	43.6%	19.7%
Total CRE	<u>\$ 667,631</u>	<u>100.0%</u>	<u>45.2%</u>

Nonperforming loans in the commercial real estate segment were \$8.5 million at December 31, 2023. The allowance for credit losses for this segment totaled \$8.9 million at December 31, 2023, representing an allowance for credit losses to loans ratio of 1.34% specific to the commercial real estate segment.

Our residential real estate loans totaled \$328.9 million, or 22.2% of total loans, at December 31, 2023. The Bank grants real estate loans primarily within its designated lending areas, consisting of the communities surrounding branch offices in Ashtabula, Geauga, Portage, Summit, Cuyahoga, Lake, Trumbull, Madison, Delaware, Franklin, Union, Logan, and Hardin counties in Ohio. At December 31, 2023, over 99% of our residential real estate loans were concentrated in Ohio, with approximately one-third of those loans concentrated in the Cleveland-Elyria metropolitan statistical area. Management believes our knowledge of these markets and our relative connectedness to the consumer borrowers we serve outweighs the geographic concentration risks. Our credit policy requires minimum credit scores, evidence of stable income, and maximum loan-to-values when underwriting residential real estate loans. The evaluation of our retail credit portfolio is defined in our credit policy and incorporates the Uniform Real Credit Classification and Account Management Policy as prescribed by federal regulatory authorities. Nonperforming loans in the residential real estate segment were \$1.2 million at December 31, 2023. The allowance for credit losses for this segment totaled \$5.5 million at December 31, 2023, representing an allowance for credit losses to loans ratio of 1.7% specific to the residential real estate segment.

The Company opted not to phase in, over three years, the effects of the initial CECL entry to equity for the implementation of ASC 326, recorded on January 1, 2023. As of December 31, 2023, management believes that the Company and the Bank meet all capital adequacy requirements to which they are subject.

The Company monitors fluctuations in unused commitments as a means of identifying potential material drawdowns on existing lines of credit. On December 31, 2023, unused commitments decreased by \$21.1 million, or 4.75%, from December 31, 2022. The commercial unused line of credit commitments were \$279.4 million as of December 31, 2023, compared to \$309.7 million on December 31, 2022.

Allowance for Credit Losses and Asset Quality. The ACL increased by \$7.3 million, or 50.2%, to \$21.7 million on December 31, 2023, from \$14.4 million on December 31, 2022. The increase was primarily due to the adoption of ASU 2016-13, and as a result, on January 1, 2023, the allowance for credit losses increased by \$5.4 million. The new accounting guidance changed the allowance for credit losses from an incurred loss model to an expected loss model. For the year ended December 31, 2023, net loan recoveries (charge-offs) totaled \$31,000, or 0.00% of average loans, annualized, compared to (\$96,000) or (0.00%) of average loans, annualized, for the same period in 2022. The allocation of the provision for credit losses associated with loans was \$1.8 million for the year ended December 31, 2023. The ratio of the allowance for credit losses to nonperforming loans was 199.4% as of December 31, 2023, compared to 683.9% for the same period in the prior year. The allowance for credit losses to total loans ratio increased from 1.07% as of December 31, 2022, to 1.47% as of December 31, 2023.

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Management analyzes the adequacy of the allowance for credit losses regularly through reviews of the performance of the loan portfolio considering economic conditions, changes in interest rates and the effect of such changes on real estate values, and changes in the amount and composition of the loan portfolio. The allowance for credit losses is a significant estimate that is particularly susceptible to changes in the near term. Risks that may impact our loan portfolio include the weakened economic outlook exacerbated by the current hostilities in Ukraine and the resulting increased uncertainty characterized by persistent inflation. The direct impacts of the pandemic and related economic disruptions, which previously dominated our risk analysis, have lessened. Geopolitical events and persistently high inflation with weakening growth prospects raise the potential for adverse impacts on the U.S. economy. Increasing interest rates could potentially impact the valuations of assets that collateralize our loans. Recent market liquidity events have added uncertainty, and the Company is concerned about the impact of tighter credit conditions on the economy and the effect that may have on future economic growth. Management's analysis includes a review of all loans designated as individually analyzed, historical loan loss experience, the estimated fair value of the underlying collateral, economic conditions, current interest rates, trends in the borrower's industry, and other factors that management believes warrant recognition in providing for an appropriate allowance for credit losses. Future additions or reductions to the allowance for credit losses will be dependent on these factors. Additionally, the Company uses an outside party to conduct an independent review of commercial and commercial real estate loans that is designed to validate management conclusions of risk ratings and the appropriateness of the allowance allocated to these loans. The Company uses the results of this review to help determine the effectiveness of policies and procedures and to assess the adequacy of the allowance for credit losses allocated to these types of loans. Management believes the allowance for credit losses is appropriately stated as of December 31, 2023. Based on the variables involved and management's judgments about uncertain outcomes, the determination of the allowance for credit losses is considered a critical accounting policy.

The following table illustrates the net charge-offs to average loans ratio for each loan category for each reported period:

	For the Year Ended December 31,					
	2023			2022		
	Average Loan Balance	Net recoveries (charge-offs)	Net recoveries (charge-offs) to average loans	Average Loan Balance	Net recoveries (charge-offs)	Net recoveries (charge-offs) to average loans
(Dollars in Thousands)						
<u>Type of Loans:</u>						
Commercial real estate:						
Owner occupied	\$ 177,870	\$ (41)	(0.02%)	\$ 131,817	\$ 5	0.00%
Non-owner occupied	377,896	-	0.00%	288,744	(127)	(0.04%)
Multifamily	79,546	-	0.00%	38,882	-	0.00%
Residential real estate	313,294	(95)	(0.03%)	233,186	61	0.03%
Commercial and industrial	210,012	(47)	(0.02%)	149,726	272	0.18%
Home equity lines of credit	123,023	70	0.06%	101,039	(25)	(0.02%)
Construction and other	121,529	-	0.00%	64,490	-	0.00%
Consumer installment	7,081	144	2.03%	7,012	(90)	(1.28%)
Total	<u>\$ 1,410,251</u>	<u>\$ 31</u>	<u>0.00%</u>	<u>\$ 1,014,896</u>	<u>\$ 96</u>	<u>(0.00%)</u>

Nonperforming assets. Nonperforming assets include nonaccrual loans, loans 90 days or more past due, other real estate owned, and repossessed assets. Real estate owned is written down to fair value at its initial recording and continually monitored for changes in fair value. A loan is classified as nonaccrual when, in the opinion of management, there are serious doubts about the collectability of interest and principal. Accrual of interest is discontinued on a loan when management believes, after considering economic and business conditions, the borrower's financial condition is such that collection of principal and interest is doubtful. Payments received on nonaccrual loans are applied against the principal until doubt about collectability ceases.

(Dollar amounts in thousands)	Asset Quality History	
	December 31, 2023	December 31, 2022
Nonperforming loans (2)	\$ 10,877	\$ 2,111
Other real estate owned	-	5,821
Nonperforming assets	<u>\$ 10,877</u>	<u>\$ 7,932</u>
Allowance for credit losses (a)	\$ 21,693	14,438
Ratios:		
Nonperforming loans to total loans	0.74%	0.16%
Nonperforming assets to total assets	0.60%	0.47%
Allowance for credit losses to total loans	1.47%	1.07%
Allowance for credit losses to nonperforming loans	199.44%	683.94%
Total loans	\$ 1,478,130	\$ 1,352,872
Total assets	\$ 1,822,883	\$ 1,687,682

- (1) On January 1, 2023, the Company adopted ASU 2022-02, Financial Instruments – Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures. As a result, nonperforming loans for the periods after January 1, 2023, include certain loans which were modified to borrowers experiencing financial difficulty. Amounts prior to January 1, 2023, exclude nonperforming troubled debt restructurings that were performing in according with their terms over a prescribed period of time, for which accounting guidance was eliminated upon adoption of ASU 2022-02.
- (2) The allowance for credit losses under the expected credit loss method is used for the period ended December 31, 2023, based on the January 1, 2023, implementation of ASU 2016-13, while periods prior use the incurred loss methodology

Nonperforming loans secured by real estate totaled \$10.4 million and \$1.7 million as of December 31, 2023 and 2022, respectively.

A major factor in determining the appropriateness of the allowance for credit losses is the type of collateral that secures the loans. Of the total nonperforming loans on December 31, 2023, 95.9% were secured by real estate. Although this does not insure against all losses, real estate typically provides for at least partial recovery, even in a distressed sale and declining-value environment. The objective of the Company is to minimize future loss exposure.

Deposits. The Company considers various sources when evaluating funding needs, including but not limited to deposits, which are a significant source of funds, totaling \$1.43 billion or 89.8% of the Company's total average funding sources at December 31, 2023. Total deposits increased \$24.6 million on December 31, 2023, from \$1.40 billion on December 31, 2022. The following table summarizes fluctuation within the primary segments of the deposit portfolio (in thousands):

	December 31, 2023	December 31, 2022	\$ change	% change
Noninterest-bearing demand	\$ 401,384	\$ 503,907	\$ (102,523)	(20.35%)
Interest-bearing demand	205,582	164,677	40,905	24.84%
Money market	274,682	187,498	87,184	46.50%
Savings	210,639	307,917	(97,278)	(31.59%)
Time	334,315	238,020	96,295	40.46%
Total deposits	<u>\$ 1,426,602</u>	<u>\$ 1,402,019</u>	<u>\$ 24,583</u>	<u>1.75%</u>

The Company uses specific non-core funding instruments to grow the balance sheet and maintain liquidity. These deposits, either from a broker or a listing service, were \$90.3 million on December 31, 2023 and \$5.0 million on December 31, 2022.

Deposit balances in excess of the \$250,000 FDIC-insured limit totaled approximately \$390.0 million, or 27.3% of total deposits, at December 31, 2023 and approximately \$346.8 million, or 24.7% of total deposits, at December 31, 2022.

States and political subdivisions in the U.S. deposits ("Public funds") compared to total deposits were \$141.3 million, or 9.9% at December 31, 2023 and \$169.5 million, or 12.1% at December 31, 2022.

Borrowed funds. The Company uses short-term and long-term borrowings as another source of funding for asset growth and liquidity needs. These borrowings primarily include advances from the FHLB and subordinated debt. Short-term borrowings increased by \$98 million to \$163.0 million as of December 31, 2023, compared to \$65.0 million at December 31, 2022. Other borrowings were relatively unchanged at approximately \$12.0 million as of December 31, 2023 and December 31, 2022.

Stockholders' equity. Stockholders' equity increased \$8.0 million, or 4.04%, to \$205.7 million at December 31, 2023 from \$197.7 million at December 31, 2022. This increase is the result of net income of \$17.4 million and a decrease in unrealized losses on investment securities available for sale of \$6.1 million. The increase was partially offset by \$6.9 million cash dividends paid, cumulative impact of ASU 2016-13 adoption of \$4.4 million, and treasury stock repurchase of 164,221 shares.

The Company's tangible book value per share, which is a non-GAAP financial measure, was \$20.10 at December 31, 2023 compared to \$19.19 at December 31, 2022. Tangible equity has been impacted by the unrealized losses of the Company's available for sale investment securities portfolio. The market value decline was a result of tightening of monetary policy by the Federal Reserve Board beginning in March of 2022; however, general improvements in the market during the latter half of 2023 reduced the unrealized losses in the portfolio. Net unrealized losses from available for sale investment securities were \$20.4 million as of December 31, 2023, compared to net unrealized losses of \$28.0 million at December 31, 2022.

RESULTS OF OPERATIONS

General. Net income for the year ended December 31, 2023, was \$17.4 million, a \$1.7 million or 10.8%, increase from the amount earned during the same period in 2022. Diluted earnings per share for the year was \$2.14 for the year ended December 31, 2023 and \$2.59 for the same period in 2022.

Net interest income. Net interest income, the primary source of revenue for the Company, is determined by the interest rate spread, which is defined as the difference between income on earning assets and the cost of funds supporting those assets, and the relative amounts of interest-earning assets and interest-bearing liabilities. Management reviews and periodically adjusts the mix of interest-earning assets and interest-bearing liabilities to manage and improve net interest income. The level of interest rates and changes in the amount and composition of interest-earning assets and liabilities affect the Company's net interest income. Management's goal is to maintain a balance between steady net interest income growth and the risks associated with interest rate fluctuations.

Net interest income for the year ended December 31, 2023, totaled \$65.2 million, an increase of 29.9% from that reported in the comparable period of 2022. The net interest margin was 4.04% for the year ended December 31, 2023, a decrease of 4 basis points for the same period of 2022. The decrease in the net interest margin is attributable to an increase in the average balance of interest-bearing deposits of \$204.0 million, coupled with a 148-basis point increase in the yield earned on those deposits. This was partially offset by a \$337.5 million increase in the average balance of loans receivable, coupled with a 90-basis point increase in the rate paid on those loans.

The Company is currently in a liability-sensitive position and expects to remain so for the next two year outlook period. An increase in rates should lead to an expansion of net interest margin as the Company's interest-earning assets reprice faster than its interest-bearing liabilities. Much of the Company's liability sensitivity is due to deposit account increase and related cost of funds. As part of the Company's strategy, floor rates are used to protect the Company's net interest margin in a declining interest rate environment. As of December 31, 2023, nearly all loan contracts with floor rates exceed their contractual floor rates and are repricing accordingly with rising interest rates. Please refer to Item 3, *Quantitative and Qualitative Disclosures about Market Risk*, for further discussion on asset and liability management and interest rate sensitivity.

Interest and dividend income. Interest and dividend income increased \$35.4 million or 64.5%, for the year ended December 31, 2023, compared to the same period in the prior year. The majority of the increase is attribute to a \$33.5 million increase in interest and fees on loans. The average balance of investment securities decreased by \$8.6 million, or 4.93%, and the 4.13% yield on the investment portfolio increased by 0.40% basis points, from 3.73%, for the same period in the prior year.

Interest expense. Interest expense increased by \$20.4 million, or 430.7%, for the year ended December 31, 2023, compared to the same period in the prior year. This is attributable to an increase in deposit expense of \$15.0 million and a \$5.4 million increase in short-term and other borrowings expenses. The increase in deposit expense is attributable to an increase in the average balance of interest-bearing deposits of \$202.0 million, or 22.6%. The increase is also attributable to an increase of 183 basis points in the rates paid on certificates of deposits and an increase of 204 basis points on the rates paid on money market deposits. The increase in short-term borrowing expenses is a result of the Bank taking on FHLB advances during the third and fourth quarter of 2023.

Provision for credit losses. The provision for credit losses represents the charge to income necessary to adjust the allowance for credit losses to an amount that represents management's assessment of the estimated expected credit losses inherent in the loan portfolio. Each quarter, management reviews the loan portfolio for estimated probable expected credit losses. Based on this review, a provision for credit losses of \$3.0 million was recorded for the year ended December 31, 2023, including a provision for credit losses on loans of \$1.2 and a reserve for unfunded commitments of \$1.8. There was no reserve for unfunded commitments recorded for the year ended December 31, 2022. The increase in the provision for credit losses for the year ended December 31, 2023 was primarily driven by the implementation of ASU 2016-13 on January 1, 2023, which changed the allowance for credit losses from an incurred loss model to an expected loss model and included a requirement to estimate and record an allowance for credit losses on unfunded commitments. The increase in the provision was also due to loan growth.

The allowance for credit losses to total loans for the year ended December 31, 2023, was 1.47%, compared to 1.07% during the same period in the prior year. The Company remains confident in its conservative and disciplined approach to credit and risk management.

Noninterest income. Noninterest income decreased by \$55,000, or 0.8%, for the year ended December 31, 2023, over the comparable 2022 period. This decrease was the result of a \$530,000 decrease in gross rental income and a loss of \$170,000 on the sale of other real estate owned. The decrease was partially offset by a \$364,000 increase in earnings on bank-owned life insurance.

Noninterest expense. Noninterest expense of \$48.1 million for the year ended December 31, 2023 was 26.6%, or \$10.1 million higher over the comparable 2022 period. The increase in noninterest expense was partially offset by a decrease in merger-related costs of \$1.9 million and no write down of other real estate owned in 2023. In 2022, other real estate owned writedowns of \$1.2 were recorded.

Provision for income taxes. The Company recognized \$3.4 million in income tax expense for the year ended December 31, 2023, which reflected an effective tax rate of 16.32%, as compared to \$3.2 million in income tax expense with an effective tax rate of 17.04% for the comparable 2023 period.

Critical Accounting Policies and Estimates

To prepare financial statements in accordance with accounting principles generally accepted in the United States, management exercises judgment in selecting and applying accounting policies and methodologies. Some accounting policies are more likely to have a critical impact on our financial results and expose those results to potential volatility. These policies require the application of judgment and usage of assumptions and estimates. These estimates and assumptions are based on currently available information, and future results could differ. Following is a description of our current critical accounting policy.

Allowance for credit losses. The Company's allowance for credit losses provides for an estimate of expected credit losses over the expected contractual life of the Company's existing loan portfolio. Arriving at an appropriate level of allowance for credit losses involves a high degree of judgment. probable losses based upon evaluations of known and inherent risks in the loan portfolio. Management uses our own historical data as well as peer data to develop the critical estimates and complex methods to assess the adequacy of the allowance for credit losses. Management also considers the prevailing business environment, which is affected by changing economic conditions and various external factors and which may impact the allowance for credit losses in ways currently unforeseen. For a complete discussion of the Company's methodology of assessing the adequacy of the reserve for loan losses, refer to Note 1 of "Notes to Consolidated Financial Statements" of this Annual Report.

Average Balance Sheet and Yield/Rate Analysis. The following table sets forth, for the periods indicated, information concerning the total dollar amounts of interest income from interest-earning assets and the resultant average yields, the total dollar amounts of interest expense on interest-bearing liabilities and the resultant average costs, net interest income, interest rate spreads and the net interest margin earned on average interest-earning assets. For purposes of this table, average balances are calculated using monthly averages, the average loan balances include nonaccrual loans and exclude the allowance for credit losses, and interest income includes accretion of net deferred loan fees. Yields on tax-exempt securities and loans (tax-exempt for federal income tax purposes) are shown on a fully tax-equivalent basis utilizing a federal tax rate of 21%. Yields and rates have been calculated on an annualized basis utilizing monthly interest amounts.

	For the Year Ended December 31,					
	2023			2022		
(Dollars in thousands)	Average Balance	Interest	Average Yield/Cost	Average Balance	Interest	Average Yield/Cost
Interest-earning assets:						
Loans receivable ⁽¹⁾	\$ 1,410,251	\$ 81,963	5.82%	\$ 1,014,896	\$ 48,513	4.79%
Investment securities ⁽¹⁾	165,910	5,807	4.13%	174,514	5,518	3.73%
Interest-earning deposits with other banks ⁽²⁾	66,295	2,531	3.82%	67,030	875	1.31%
Total interest-earning assets	\$ 1,642,456	\$ 90,301	5.57%	\$ 1,256,440	\$ 54,906	4.45%
Noninterest-earning assets	116,459			84,484		
Total assets	\$ 1,758,915			\$ 1,340,924		
Interest-bearing liabilities:						
Interest-bearing demand deposits	\$ 217,662	2,870	1.32%	\$ 164,569	\$ 554	0.34%
Money market deposits	244,765	6,498	2.65%	174,377	1,055	0.61%
Savings deposits	253,962	1,925	0.76%	259,225	527	0.20%
Certificates of deposit	272,443	7,702	2.83%	188,617	1,882	1.00%
Short-term borrowings	101,088	5,386	5.33%	8,576	307	3.58%
Other borrowings	11,965	717	5.99%	12,626	404	3.20%
Total interest-bearing liabilities	\$ 1,101,885	\$ 25,098	2.28%	\$ 807,990	\$ 4,729	0.59%
Noninterest-bearing liabilities:						
Noninterest-bearing demand deposits	\$ 449,102			\$ 386,296		
Other liabilities	11,326			7,368		
Stockholders' equity	196,602			139,270		
Total liabilities and stockholders' equity	\$ 1,758,915			\$ 1,340,924		
Net interest income		\$ 65,203			\$ 50,177	
Interest rate spread ⁽³⁾			3.29%			3.86%
Net interest margin ⁽⁴⁾			4.04%			4.08%
Ratio of average interest-earning assets to average interest-bearing liabilities			149.06%			155.50%

(1) Tax-equivalent adjustments to calculate the yield on tax-exempt securities and loans were \$1,106 and \$1,046 for the twelve months ended December 31, 2023 and 2022, respectively.

(2) Includes dividends received on restricted stock.

(3) Interest rate spread represents the difference between the average yield on interest-earning assets and the average cost of interest-bearing liabilities.

(4) Net interest margin represents net interest income as a percentage of average interest-earning assets.

Analysis of Changes in Net Interest Income. The following table analyzes the changes in interest income and interest expense, between the twelve-month periods ended December 31, 2023, and 2022, in terms of (1) changes in the volume of interest-earning assets and interest-bearing liabilities and (2) changes in yields and rates. The table reflects the extent to which changes in the Company's interest income and interest expense are attributable to changes in rate (change in rate multiplied by prior period volume), changes in volume (changes in volume multiplied by prior period rate), and changes attributable to the combined impact of volume/rate (change in rate multiplied by the change in volume). The changes attributable to the combined impact of volume/rate are allocated consistently between the volume and rate variances.

(Dollars in thousands)	2023 versus 2022			2022 versus 2021		
	Increase (decrease) due to			Increase (decrease) due to		
	Volume	Rate	Total	Volume	Rate	Total
Interest-earning assets:						
Loans receivable	\$ 18,938	\$ 14,512	\$ 33,450	\$ (1,708)	\$ 2,325	\$ 617
Investment securities	(246)	535	289	1,097	177	1,274
Interest-earning deposits with other banks	(10)	1,666	1,656	(61)	741	680
Total interest-earning assets	\$ 18,682	\$ 16,713	\$ 35,395	\$ (672)	\$ 3,243	\$ 2,571
Interest-bearing liabilities:						
Interest-bearing demand deposits	\$ 181	\$ 2,135	\$ 2,316	\$ (62)	\$ 342	\$ 280
Money market deposits	429	5,014	5,443	(55)	241	186
Savings deposits	(11)	1,409	1,398	2	363	365
Certificates of deposit	838	4,982	5,820	(486)	(240)	(726)
Short-term borrowings	3,312	1,767	5,079	-	307	307
Other borrowings	(21)	334	313	(15)	137	122
Total interest-bearing liabilities	\$ 4,728	\$ 15,641	\$ 20,369	\$ (616)	\$ 1,150	\$ 534
Net interest income	\$ 13,954	\$ 1,072	\$ 15,026	\$ (56)	\$ 2,093	\$ 2,037

Asset and Liability Management

The primary objective of the Company's asset and liability management function is to maximize net interest income while maintaining an acceptable level of interest rate risk given the Company's operating environment, capital and liquidity requirements, performance objectives, and overall business focus. The principal determinant of the exposure of the Company's earnings to interest rate risk is the timing difference between the repricing or maturity of interest-earning assets and the re-pricing or maturity of its interest-bearing liabilities. The Company's asset and liability management policies are designed to decrease interest rate sensitivity primarily by shortening the maturities of interest-earning assets while at the same time extending the maturities of interest-bearing liabilities. The Company's Board of Directors continues to believe in a strong asset/liability management process to insulate the Company from material changes in interest rates, whether on a short- or long-term basis.

The Company's Board of Directors has established an Asset and Liability Management Committee consisting of outside directors and senior management. This committee, which meets quarterly, generally monitors asset and liability management policies and strategies.

Interest Rate Sensitivity Simulation Analysis

The Company engages an external consultant to facilitate income simulation modeling quarterly. This modeling measures interest rate risk and sensitivity. The Asset and Liability Management Committee of the Company believes the various rate scenarios of the simulation modeling enable the Company to more accurately evaluate and manage the exposure of interest rate fluctuations on net interest income, the yield curve, various loan and mortgage-backed security prepayments, and deposit decay assumptions.

Earnings simulation modeling and assumptions about the timing and volatility of cash flows are critical in net portfolio equity valuation analysis. Particularly important are the assumptions driving mortgage prepayments and the expected attrition of the core deposit portfolios. These assumptions are based on the Company's historical experience and industry standards and are applied consistently across all rate risk measures.

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The Company has established the following guidelines for assessing interest rate risk:

Net interest income simulation ("NII") - Projected net interest income over the next twelve months will not be reduced by more than 10% given a gradual shift (i.e., over 12 months) in interest rates of up to 200 basis points (+ or -) and assuming no balance sheet growth.

Portfolio equity simulation - Portfolio equity is the net present value of the Company's existing assets and liabilities. The Company uses an Economic Value of Equity ("EVE") analysis which shows the estimated changes in portfolio equity considering certain long-term shock rates. Given a 200 basis point immediate and permanent increase in market interest rates, portfolio equity may not correspondingly decrease or increase by more than 20% of stockholders' equity. Given a 100 basis point immediate and permanent decrease in market interest rates, portfolio equity may not correspondingly decrease or increase by more than 10% of stockholders' equity.

The following table presents the simulated impact of a 200 basis point upward or 100 basis point downward shift of market interest rates on net interest income and the change in portfolio equity. This analysis was done assuming the interest-earning asset and interest-bearing liability levels at December 31, 2023, and December 31, 2022, remained constant. The impact of the market rate movements was developed by simulating the effects of rates changing gradually over one year from the December 31, 2023, and December 31, 2022 levels for net interest income and portfolio equity. The impact of market-rate movements was developed by simulating the effects of an immediate and permanent change in rates at December 31, 2023, and December 31, 2022, for portfolio equity:

Change in Rates	December 31, 2023		December 31, 2022	
	% Change in NII	% Change in EVE	% Change in NII	% Change in EVE
+200bp	(3.20%)	(9.20%)	(0.50%)	(2.80%)
-100bp	1.73%	2.90%	(0.30%)	(1.30%)

Liquidity and Capital Resources

Liquidity. Liquidity management involves monitoring the ability to meet the cash flow needs of bank customers, such as borrowings or deposit withdrawals and the Bank's financial commitments. The principal sources of liquidity are net income, loan repayments, maturing and principal reductions on securities and sales of securities available for sale, federal funds sold, and cash and deposits with banks. Along with its liquid assets, the Bank has additional sources of liquidity available to ensure adequate funds are available as needed. These include, but are not limited to, the purchase of federal funds, the ability to borrow funds under line of credit agreements with correspondent banks, a borrowing agreement with the Federal Home Loan Bank of Cincinnati, brokered deposits, and the adjustment of interest rates to obtain deposits. Management believes the Bank has the capital adequacy, profitability, and reputation for meeting its customers' current and projected needs.

Liquidity is managed based on factors including core deposits as a percentage of total deposits, the degree of funding source diversification, the allocation and amount of deposits among deposit types, the short-term funding sources used to fund assets, the amount of non-deposit funding used to fund assets, the availability of unused funding sources, off-balance sheet obligations, the availability of assets readily converted to cash without undue loss, the amount of cash and liquid securities we hold, and the re-pricing characteristics and maturities of our assets when compared to the re-pricing characteristics of our liabilities and other factors. Management manages liquidity on an integrated basis.

Liquid assets consist of cash and cash equivalents, including investments in very short-term investments (i.e., federal funds sold), equity securities, and investment securities classified as available for sale. The level of these assets is dependent on the operating, investing, and financing activities during any given period. On December 31, 2023, on a consolidated basis, cash and cash equivalents totaled \$60.8 million or 3.3% of total assets, equity securities totaled \$814,000 or 0.04% of total assets, and investment securities classified as available for sale totaled \$170.8 million or 9.4% of total assets. Management believes that current liquidity needs are satisfied by the current balance of cash and cash equivalents, readily available access to traditional funding sources, FHLB advances, junior subordinated debt, brokered deposits, and the portion of the investment and loan portfolios that mature within one year. These sources of funds will enable the Bank to meet cash obligations and off-balance sheet commitments as they come due.

On a consolidated basis, operating activities provided net cash of \$22.4 million and \$18.3 million for 2023 and 2022, respectively, generated principally from net income of \$17.4 million and \$15.7 million in these respective periods.

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On a consolidated basis, investing activities used net cash of \$126.5 million, which consisted primarily of an increase in loans, net, of \$129.2 million. This was partially offset by redemption of restricted stock of \$4.2 million. For the same period ended in 2022, investing activities used net cash of \$8.7 million, which consisted primarily of an increase in loans, net, of \$55.9 million and investment purchases of \$32.3 million. This was partially offset by investment sales of \$57.9 million and \$18.4 million in cash acquired in the merger.

On a consolidated basis, financing activities consist of the solicitation and repayment of customer deposits, borrowings and repayments, and the payment of dividends. During 2023, net cash provided by financing activities totaled \$111.2 million, principally derived from an increase in short term borrowings of \$98.0 million and a \$24.8 million increase in deposits. These changes were partially offset by \$6.9 million cash dividends paid and \$4.5 million to repurchase of common shares. During 2022, net cash used by financing activities totaled \$75.4 million, principally derived from a decrease in deposits of \$128.6 million, \$6.1 million repurchase of treasury shares, and \$5.5 million payment of dividends. These changes were partially offset by a \$65.0 million increase in short-term borrowings.

Management monitors projected liquidity needs and determines the desired level based partly on the Bank's commitment to making loans and management's assessment of the Bank's ability to generate funds. As a result, the Bank anticipates having sufficient liquidity to satisfy estimated short and long-term funding needs.

Liquidity for the Company. The primary source of liquidity for the Company is from subsidiary dividends from the Bank. The Company has sufficient liquidity to service its debt, support customary operations and activities, and fund capital distributions through dividends and repurchase of common shares. The Company generally maintains cash sufficient to meet projected interest payments on debt and other obligations. At December 31, 2023, the Company held cash of \$4.1 million.

The Company meets its liquidity requirements through regular dividends from the Bank and the capital markets if the need to raise additional capital arises. Federal banking law and the laws of the State of Ohio in which the Bank is chartered limits the amount of capital distributions a bank can make to its holding company. In 2023 and 2022, the Bank paid dividends to the Company totaling \$17.0 million and \$15.5 million, respectively. In the same periods, the Company paid dividends to its shareholders totaling \$6.9 million and \$3.0 million, respectively.

Capital Resources. The Company's primary source of capital is retained earnings. Historically, the Company has generated net retained income to support normal growth and expansion. Management has developed a capital planning policy to ensure regulatory compliance and capital adequacy for future expansion.

Registrant's Common Equity and Related Stockholder Matters

The Company had approximately 1,173 stockholders of record as of December 31, 2023. The Company's common stock is traded and authorized for quotation on NASDAQ under the symbol "MBCN." The Company currently expects consistency in the payout of future cash dividends.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The Company's internal control over financial reporting is 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.

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.

A material weakness is a significant deficiency (as defined in Public Company Accounting Oversight Board Auditing Standard No. 5), or a combination of significant deficiencies, that results in there being more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis by management or employees in the normal course by management or employees in the normal course of performing their assigned functions.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2023. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013). Based on this assessment, management believes that, as of December 31, 2023, the Company's internal control over financial reporting was effective.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm because section 989G of the Dodd Frank Act exempts smaller reporting companies from the requirement of an attestation by registered public accountants concerning internal controls over financial reporting.

/s/ Ronald L. Zimmerly

By: Ronald L. Zimmerly
Chief Executive Officer
(Principal Executive Officer)

Date: March 28, 2023

/s/ Michael C. Ranttila

By: Michael C. Ranttila
Executive Vice President, Chief Financial Officer
(Principal Financial & Accounting Officer)

Date: March 28, 2023

Item 9 — Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None

Item 9A – Controls and Procedures

(a) Disclosure Controls and Procedures

The Company's management, including the Company's principal executive officer and principal financial officer, has evaluated the effectiveness of the Company's "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon their evaluation, the principal executive officer and principal financial officer concluded that, as of the end of the period covered by this report, the Company's disclosure controls and procedures were effective in ensuring that the information required to be disclosed in the reports that the Company files or submits under the Exchange Act with the SEC (1) is recorded, processed, summarized and reported within the periods specified in the SEC's rules and forms, and (2) is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

(b) Internal Controls Over Financial Reporting

Management's annual report on internal control over financial reporting and the attestation report of the independent registered public accounting firm are incorporated herein by reference to Item 8 - the Company's audited Consolidated Financial Statements in this Annual Report on Form 10-K.

(c) Changes to Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting during the period ended December 31, 2023, that have materially affected or are reasonably likely to materially affect the Company's internal control over financial reporting.

Item 9B — Other Information

During the three months ended December 31, 2023, there were no "Rule 10b5-1 trading plans" or "non-Rule 10b5-1 trading arrangements" adopted, modified or terminated by any director or officer of the Company (as such terms are defined in Item 408 of Regulation S-K of the Exchange Act).

Item 9C — Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable

Part III

Item 10 — Directors, Executive Officers, and Corporate Governance

Incorporated by reference to the definitive proxy statement for the 2024 annual meeting of shareholders, which will be filed with the SEC not later than 120 days after December 31, 2023.

The Company's Code of Ethics is available on the corporate website <https://www.middlefieldbank.bank/uploads/userfiles/files/documents/Code-of-Ethics.pdf>. In addition, any future amendments to, or waivers from, a provision of the Code of Ethics that applies to the Company's directors or executive officers (including the Chief Executive Officer and Principal Financial and Accounting Officer) will be posted on this internet address.

Item 11 — Executive Compensation

Incorporated by reference to the definitive proxy statement for the 2024 annual meeting of shareholders, which will be filed with the SEC not later than 120 days after December 31, 2023.

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

Incorporated by reference to the definitive proxy statement for the 2024 annual meeting of shareholders, which will be filed with the SEC not later than 120 days after December 31, 2023.

Our 2017 Omnibus Equity Plan authorized the Company to issue up to 448,000 shares of the Company's common stock to our employees and non-employee directors in exchange for consideration in the form of goods or services. Information on awards outstanding under such plans as of December 31, 2023, is set forth below:

	(a)	(b)	(c)
	Number of Securities		Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))(1)
Plan Category	to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	
Equity compensation plans approved by security holders	-	-	374,377
Total	-	-	374,377

(1) Amount represents shares available for future issuance under the 2017 Omnibus Equity Plan.

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

Incorporated by reference to the definitive proxy statement for the 2024 annual meeting of shareholders, which will be filed with the SEC not later than 120 days after December 31, 2023.

Item 14 — Principal Accountant Fees and Services

Incorporated by reference to the definitive proxy statement for the 2024 annual meeting of shareholders, which will be filed with the SEC not later than 120 days after December 31, 2023.

PART IV

Item 15 — Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

Index to Consolidated Financial Statements:

Consolidated Financial Statements as of December 31, 2023 and 2022 and for each of the two years in the period ended December 31, 2023:

- Report of Independent Registered Public Accounting firm
- Consolidated Balance Sheet
- Consolidated Statement of Income
- Consolidated Statement of Comprehensive Income
- Consolidated Statement of Changes in Stockholders' Equity
- Consolidated Statement of Cash Flows
- Notes to Consolidated Financial Statements

(a)(2) Financial Statement Schedules

Financial Statement Schedules have been omitted because they are not applicable or the required information is shown elsewhere in the document in the Financial Statements or Notes thereto, or in "Management's Discussion and Analysis of Financial Condition and Results of Operations."

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(a)(3) [Exhibits](#)

See the list of exhibits below

(b) [Exhibits Required by Item 601 of Regulation S-K](#)

Exhibit Number	Description	Location
2.1	Agreement and Plan of Merger dated as of May 26, 2022 by and among Middlefield Banc Corp., MBCN Merger Subsidiary, LLC, and Liberty Bancshares, Inc.	Incorporated by reference to Exhibit 2.1 of Middlefield Banc Corp.'s Form 8-K Current Report and Form 425 filed on May 27, 2022
3.1	Second Amended and Restated Articles of Incorporation of Middlefield Banc Corp., as amended	Incorporated by reference to Exhibit 3.1 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2005, filed on March 29, 2006
3.2	Regulations of Middlefield Banc Corp.	Incorporated by reference to Exhibit 3.2 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 1, 2022
4	Specimen stock certificate	Incorporated by reference to Exhibit 4 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
4.1	Amended and Restated Trust Agreement, dated as of December 21, 2006, between Middlefield Banc Corp., as Depositor, Wilmington Trust Company, as Property trustee, Wilmington Trust Company, as Delaware Trustee, and Administrative Trustees	Incorporated by reference to Exhibit 4.1 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
4.2	Junior Subordinated Indenture, dated as of December 21, 2006, between Middlefield Banc Corp. and Wilmington Trust Company	Incorporated by reference to Exhibit 4.2 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
4.3	Guarantee Agreement, dated as of December 21, 2006, between Middlefield Banc Corp. and Wilmington Trust Company	Incorporated by reference to Exhibit 4.3 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
10.1.0*	2017 Omnibus Equity Plan	Incorporated by reference to Middlefield Banc Corp.'s definitive proxy statement for the 2017 Annual Meeting of Shareholders, Appendix A, filed on April 4, 2017
10.1.1	[reserved]	
10.2	[reserved]	
10.3	[reserved]	
10.4	Federal Home Loan Bank of Cincinnati Agreement for Advances and Security Agreement dated September 14, 2000	Incorporated by reference to Exhibit 10.4 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
10.4.1	[reserved]	

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10.4.2	[reserved]	
10.4.3	[reserved]	
10.4.4	[reserved]	
10.4.5	[reserved]	
10.4.6	[reserved]	
10.4.7*	Change in Control Agreement between Middlefield Banc Corp. and Michael C. Ranttila	Incorporated by reference to Exhibit 99 of Middlefield Banc Corp.'s Form 8-K Report filed on August 15, 2023
10.4.8*	Change in Control Agreement between Middlefield Banc Corp. and Courtney M. Erminio	Incorporated by reference to Exhibit 10.4.8 of Middlefield Bank Corp.'s Form 10-K Annual Report filed on March 15, 2023
10.5	Severance Agreement between Middlefield Banc Corp. and Ronald L. Zimmerly, Jr., dated December 1, 2022	Incorporated by reference to Exhibit 10.5 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2022, filed on March 15, 2023
10.6	Restricted Stock Award Agreement between Middlefield Banc Corp. and Ronald L. Zimmerly, Jr., dated December 1, 2022	Incorporated by reference to Exhibit 10.6 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2022, filed on March 15, 2023
10.7*	Amended Director Retirement Agreement with Frances H. Frank	Incorporated by reference to Exhibit 10.7 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.8	[reserved]	
10.9	[reserved]	
10.10	[reserved]	
10.11*	Director Retirement Agreement with Martin S. Paul	Incorporated by reference to Exhibit 10.11 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2001, filed on March 28, 2002
10.12	Split-Dollar Agreement between The Middlefield Banking Company and Ronald L. Zimmerly, Jr.	Incorporated by reference to Exhibit 10.12 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2022, filed on March 15, 2023

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10.13	[reserved]	
10.14*	Executive Survivor Income Agreement (aka DBO agreement [death benefit only]) with Donald L. Stacy	Incorporated by reference to Exhibit 10.14 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.15*	DBO Agreement with Jay P. Giles	Incorporated by reference to Exhibit 10.15 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.16*	DBO Agreement with Alfred F. Thompson, Jr.	Incorporated by reference to Exhibit 10.16 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.17*	DBO Agreement with Teresa M. Hetrick	Incorporated by reference to Exhibit 10.18 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.18 *	Executive Deferred Compensation Agreement with Jay P. Giles	Incorporated by reference to Exhibit 10.18 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2011, filed on March 20, 2012
10.19	[reserved]	
10.20*	DBO Agreement with James R. Heslop, II	Incorporated by reference to Exhibit 10.20 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.21*	DBO Agreement with Thomas G. Caldwell	Incorporated by reference to Exhibit 10.21 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.22*	Annual Incentive Plan	Incorporated by reference to Exhibit 10.22 of Middlefield Banc Corp.'s Form 8-K Current Report filed on March 12, 2019
10.22.1	[reserved]	
10.23**	Amended Executive Deferred Compensation Agreement with Thomas G. Caldwell	Incorporated by reference to Exhibit 10.23 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2019, filed on March 4, 2020
10.24**	Amended Executive Deferred Compensation Agreement with James R. Heslop, II	Incorporated by reference to Exhibit 10.24 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2019, filed on March 4, 2020

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10.25**	Amended Executive Deferred Compensation Agreement with Donald L. Stacy	Incorporated by reference to Exhibit 10.25 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2019, filed on March 4, 2020
10.26**	Executive Variable Benefit Deferred Compensation Agreement with James R. Heslop, II	Incorporated by reference to Exhibit 10.26 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2019, filed on March 4, 2020
10.27**	Executive Variable Benefit Deferred Compensation Agreement with Donald L. Stacy	Incorporated by reference to Exhibit 10.27 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2019, filed on March 4, 2020
10.28**	Executive Deferred Compensation Agreement with Charles O. Moore	Incorporated by reference to Exhibit 10.28 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2019, filed on March 4, 2020
10.29*	Executive Deferred Compensation Agreement with Ronald L. Zimmerly, Jr.	Incorporated by reference to Exhibit 10.29 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2022, filed on March 15, 2023
10.29.1	Form of conditional stock award under the 2017 Omnibus Equity Plan	Incorporated by reference to Exhibit 10.29 of Middlefield Banc Corp.'s Form 8-K Current Report filed on July 24, 2017
10.30**	Executive Deferred Compensation Agreement with Michael L. Allen	Incorporated by reference to Exhibit 10.30 of Middlefield Banc Corp.'s Form 10-Q Quarterly Report filed on May 7, 2019
10.31**	Executive Deferred Compensation Agreement with John D. Lane	Incorporated by reference to Exhibit 10.31 of Middlefield Banc Corp.'s Form 10-Q Quarterly Report filed on May 7, 2019
10.32**	Executive Deferred Compensation Agreement with Michael C. Ranttila	Incorporated by reference to Exhibit 10.32 of Middlefield Banc Corp.'s Form 10-K Annual Report filed on March 12, 2021
10.33**	Executive Deferred Compensation Agreement with Courtney M. Erminio	Incorporated by reference to Exhibit 10.33 of Middlefield Banc Corp.'s Form 10-Q Quarterly Report filed on August 8, 2022
10.34**	Executive Deferred Compensation Agreement with Alfred F. Thompson	Incorporated by reference to Exhibit 10.34 of Middlefield Banc Corp.'s Form 10-Q Quarterly Report filed on August 8, 2022
13	Portions of Annual Report to Shareholders for the year ended December 31, 2023 incorporated by reference into this Form 10-K	filed herewith
21	Subsidiaries of Middlefield Banc Corp.	filed herewith
23	Consent of S.R. Snodgrass, P.C., independent auditors of Middlefield Banc Corp.	filed herewith

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31.1	Rule 13a-14(a) certification of Chief Executive Officer	filed herewith
31.2	Rule 13a-14(a) certification of Chief Financial Officer	filed herewith
32	Rule 13a-14(b) certification	filed herewith
97	Policy Relating to Recovery of Erroneously Awarded Compensation	filed herewith
99.1	Form of Indemnification Agreement with directors of Middlefield Banc Corp. and with executive officers of Middlefield Banc Corp. and The Middlefield Banking Company	Incorporated by reference to Exhibit 99.1 of Middlefield Banc Corp.'s registration statement on Form 10, Amendment No. 1, filed on June 14, 2001
100	[reserved]	
101.INS***	Inline XBRL Instance	furnished herewith
101.SCH***	Inline XBRL Taxonomy Extension Schema	furnished herewith
101.CAL***	Inline XBRL Taxonomy Extension Calculation	furnished herewith
101.DEF***	Inline XBRL Taxonomy Extension Definition	furnished herewith
101.LAB***	Inline XBRL Taxonomy Extension Labels	furnished herewith
101.PRE***	Inline XBRL Taxonomy Extension Presentation	furnished herewith
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	

* management contract or compensatory plan or arrangement

** management contract or compensatory plan or arrangement, a schedule has been omitted pursuant to Item 601(a)(5) of Regulation S-K and will be provided on a supplemental basis to the SEC upon request.

*** XBRL information is furnished and not filed or a part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, as amended, is deemed not filed for purposes of section 18 of the Securities Exchange Act, as amended, and otherwise is not subject to liability under these sections.

Item 16 – Form 10-K Summary

None.

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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.

Middlefield Banc Corp.

By: /s/ Ronald L. Zimmerly, Jr.
Ronald L. Zimmerly, Jr.
Chief Executive Officer and Director
Date: March 28, 2024

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

/s/ Ronald L. Zimmerly, Jr. March 28, 2024
Ronald L. Zimmerly, Jr.
Chief Executive Officer and Director

/s/ Michael C. Ranttila March 28, 2024
Michael C. Ranttila,
Executive Vice President, Chief Financial Officer

/s/ Carolyn J. Turk March 28, 2024
Carolyn J. Turk, Director

/s/ Kenneth E. Jones March 28, 2024
Kenneth E. Jones, Director

/s/ James J. McCaskey March 28, 2024
James J. McCaskey, Director

/s/ William J. Skidmore March 28, 2024
William J. Skidmore, Chairman of the Board

/s/ Kevin A. DiGeronimo March 28, 2024
Kevin A. DiGeronimo, Director

/s/ Darryl E. Mast March 28, 2024
Darryl E. Mast, Director

/s/ Thomas W. Bevan March 28, 2024
Thomas W. Bevan, Director

/s/ Michael C. Voinovich March 28, 2024
Michael C. Voinovich, Director

/s/ Mark R. Watkins March 28, 2024
Mark R. Watkins, Director

/s/ Spencer T. Cohn March 28, 2024
Spencer T. Cohn, Director

Exhibit 21

Middlefield Banc Corp. Subsidiaries

- 1 The Middlefield Banking Company ("MBC"), an Ohio-chartered commercial bank that began operations in 1901, engages in general commercial banking in northeastern and central Ohio. MBC's consolidated financial statements also include the accounts of MBC's subsidiaries, Middlefield Investments, Inc. ("MI"), established in March of 2019, MB Insurance Services, LLC. (MIS), established in March of 2022, and LBSI Insurance, LLC. The principal executive office is located at 15985 East High Street, Middlefield, Ohio 44062-0035.
- 2 On October 23, 2009 Middlefield received approval from the Federal Reserve Bank of Cleveland to establish an asset resolution subsidiary. Organized as an Ohio corporation under the name EMORECO, Inc. and wholly owned by Middlefield Banc Corp, the purpose of the asset resolution subsidiary is to maintain, manage, and ultimately dispose of nonperforming loans and real estate acquired by the subsidiary bank as the result of borrower default on real estate-secured loans.



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements File No. 333-213607 and 333-219313 on Form S-3; File No. 333-218859 on Form S-8; and File No. 333-183497 on Form S-3D and Form S-3DPOS, effective September 13, 2012, of Middlefield Banc Corp. of our report dated March 28, 2024, relating to our audit of the consolidated financial statements, which appears in the Annual Report to Stockholders, which is incorporated in this Annual Report on Form 10-K of Middlefield Banc Corp. for the year ended December 31, 2023.

/s/S. R. Snodgrass, P.C.

Cranberry Township, Pennsylvania
March 28, 2024



Certification of Principal Executive Officer

I, Ronald L. Zimmerly, certify that:

1. I have reviewed this annual report on Form 10-K of Middlefield Banc Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 28, 2024

/s/ Ronald L. Zimmerly

Ronald L. Zimmerly
Chief Executive Officer



Certification of Principal Financial and Accounting Officer

I, Michael C. Ranttila, certify that:

1. I have reviewed this annual report on Form 10-K of Middlefield Banc Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 28, 2024

/s/ Michael C. Ranttila

Michael C. Ranttila
Principal Financial and Accounting Officer



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

In connection with the Annual Report of Middlefield Banc Corp. (the "Company") on Form 10-K for the period ending December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Ronald L. Zimmerly, President, and Michael C. Ranttila, Chief Financial Officer, certify, pursuant to 18 U.S.C., Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Ronald L. Zimmerly

Ronald L. Zimmerly
Chief Executive Officer

/s/ Michael C. Ranttila

Michael C. Ranttila
Principal Financial and Accounting Officer

Date: March 28, 2024

A signed original of this written statement required by Section 906 has been provided to Middlefield Banc Corp. and will be retained by Middlefield Banc Corp. and furnished to the Securities and Exchange Commission or its staff upon request.

THE MIDDLEFIELD BANC CORPORATION

COMPENSATION RECOVERY POLICY

Adopted by the Board of Directors on August 14, 2023

STATEMENT OF PURPOSE

Nasdaq Listing Rule 5608 and the Securities Exchange Commission (the "SEC") in Rule 10D-1 require Nasdaq-listed companies to (i) adopt a compensation recovery policy for the recovery from current and former Executive Officers of erroneously awarded Incentive-Based Compensation in the event of a required accounting restatement, (ii) comply with that compensation recovery policy for all Incentive-Based Compensation awarded to Executive Officers on or after October 4, 2023, the effective date of Nasdaq Listing Rule 5608, and (iii) provide certain disclosures regarding the compensation recovery policy in applicable filings under the Securities Exchange Act. This Compensation Recovery Policy (the "Policy") is the policy of Middlefield Banc Corp. (the "Company") regarding the Company's possible recovery from current and former Executive Officers of Incentive-Based Compensation awarded by the Company on or after October 4, 2023 as required by Nasdaq Listing Rule 5608 and SEC Rule 10D-1. This Policy also sets forth the Company's applicable disclosure obligations regarding the Policy under the securities laws.

APPLICABILITY AND SCOPE

General Rule. The Company will conduct a compensation recovery analysis in the event the Company is required to prepare an accounting restatement due to the Company's material noncompliance with any financial reporting requirement under the securities laws. Subject to applicable law, the Company will recover, in a reasonably prompt manner, the amount of erroneously awarded Incentive-Based Compensation received by current and former Executive Officers under the following circumstances: (i) the accounting restatement is required to correct errors in previously issued financial statements that are material to the previously issued financial statements, or (ii) the accounting restatement is required to correct errors that were not material to previously issued financial statements but would result in a material misstatement if the errors were corrected in the current period or left uncorrected in the current period. The Board may, in its sole discretion and in the exercise of its business judgment, determine whether and to what extent additional action is appropriate to address the circumstances surrounding any accounting restatement to minimize the likelihood of any recurrence and to impose such other discipline as the Board deems appropriate.

Lookback Period. The Company's recovery policy applies to all Incentive-Based Compensation received by a person after beginning service as an Executive Officer or who served as an Executive Officer at any time during the performance period for that Incentive-Based Compensation, during the three completed fiscal years immediately preceding the date that the Company is required to prepare an accounting restatement. In addition to the last three completed fiscal years, the recovery policy will apply to any transition period that results from a change in the Company's fiscal year within or immediately following those three completed fiscal years.

For purposes of determining the lookback recovery period, the date that the Company is required to prepare an accounting restatement shall be the earlier to occur of:

- the date the Company's board of directors, a committee of the board of directors, or the officer or officers of the Company authorized to take such action if board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an accounting restatement; or
- the date a court, regulator, or other legally authorized body directs the Company to prepare an accounting restatement as described in this Policy.

Determining the Amount of Erroneously Awarded Compensation. The amount of erroneously awarded Incentive-Based Compensation that is subject to this Policy is the amount of Incentive-Based Compensation received by an Executive Officer that exceeds the amount of Incentive-Based Compensation that otherwise would have been received had the Incentive-Based Compensation been determined based on the restated amounts. The Company shall compute erroneously awarded Incentive-Based Compensation on a pre-tax basis without regard to any taxes paid by the Executive Officer. When practicable, the Company may recover erroneously awarded Incentive-Based Compensation from Executive Officers by recovering compensation from outstanding equity grants and prospective cash incentive payments to avoid double-penalizing Executive Officers for taxes already paid.

For Incentive-Based Compensation based on stock price or total shareholder return ("TSR"), where the amount of erroneously awarded Incentive-Based Compensation is not subject to mathematical recalculation directly from the information in an accounting restatement:

- The amount shall be based on a reasonable estimate of the effect of the accounting restatement on the stock price or TSR upon which the erroneously awarded Incentive-Based Compensation was received; and
- The Company must maintain documentation of the determination of that reasonable estimate and provide such documentation to Nasdaq.

The Company must recover erroneously awarded Incentive-Based Compensation in compliance with this Policy except to the extent that the Company's Compensation Committee has made a determination that recovery would be impracticable under the following circumstances:

(i) the direct expense paid to a third party (e.g., accountants, attorneys, or consultants) to assist the Company in enforcing this Policy would exceed the amount to be recovered; or (ii) recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder. Before concluding that it would be impracticable to recover any amount of erroneously awarded compensation based on expense of enforcement, the Company must make a reasonable attempt to recover such erroneously awarded Incentive-Based Compensation, document such reasonable attempt(s) to recover, and provide that documentation to Nasdaq.

The Company is not required to determine that Executive Officers were at fault or directly contributed to the factors leading to a restatement before recovering erroneously awarded Incentive-Based Compensation from Executive Officers. The Company is prohibited from reimbursing or indemnifying any Executive Officer or former Executive Officer against the loss by the Executive Officer or former Executive Officer of erroneously awarded Incentive-Based Compensation.

The Company may exercise discretion in the means used by the Company to accomplish recovery of erroneously awarded Incentive-Based Compensation while remaining faithful to the requirement that the Company recover erroneously awarded Incentive-Based Compensation in a reasonably prompt manner. In pursuing recovery of erroneously awarded Incentive-Based Compensation, the Company may consider the particular facts and circumstances of each Executive Officer that owes a recoverable amount and may seek alternative methods of recovery. [For example, where appropriate based upon the facts and circumstances of an Executive Officer, the Company may establish a deferred payment plan that allows the Executive Officer to repay erroneously awarded Incentive-Based Compensation as soon as possible without unreasonable economic hardship to the Executive Officer.] Note: the SEC in its adopting release provided deferred payment plans as an example of an alternative method that a Board may adopt in appropriate circumstances. The SEC did not provide deferred payment plans as the exclusive alternative method of recovery and the Board may adopt other methods that are consistent with Rule 10D-1 and Nasdaq Listing Rule 5608. The bracketed text in this paragraph may be deleted.]

Coordination with the Incentive Compensation Recovered pursuant to the Sarbanes-Oxley Act of 2002. This Policy does not alter or affect any recovery of incentive compensation required by Section 304 of the Sarbanes-Oxley Act of 2002. To avoid duplicative recovery of incentive compensation from an Executive Officer, the amount of erroneously awarded Incentive-Based Compensation that the Company determines to be recoverable from an Executive Officer under this Policy shall credit Incentive-Based Compensation that the Executive Officer has already reimbursed the Company in

accordance with Section 304 of the Sarbanes-Oxley Act of 2002.

DEFINITIONS

Unless the context otherwise requires, the following definitions apply for purposes of this Policy.

Executive Officer. An Executive Officer is the Company's president, principal financial officer, principal accounting officer (or if there is no such accounting officer, the controller), any vice-president of the Company in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer who performs a policy-making function, or any other person who performs similar policy-making functions for the Company. Executive Officers of the Company's parent(s) or subsidiaries are deemed Executive Officers of the Company if they perform such policy making functions for the Company. For purposes of this definition, "policy-making function" is not intended to include policy-making functions that are not significant. Identification of an Executive Officer for purposes of this Policy would include, at a minimum, Executive Officers identified pursuant to Item 401 of the SEC's Regulation S-K (17 CFR 229.401(b)).

Financial Reporting Measures. Financial Reporting Measures are measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures. Stock price and TSR are also Financial Reporting Measures. A Financial Reporting Measure need not be presented within the financial statements or included in a filing with the SEC to be considered a Financial Reporting Measure under this Policy.

Examples of Financial Reporting Measures include but are not limited to the following:

- Revenues;
- Net income;
- Operating income;
- Financial ratios;
- Liquidity measures;
- Return measures (e.g., return on capital, return on assets);
- Earnings measures (e.g., earnings per share); and
- Any of such financial reporting measures relative to a peer group, where the issuer's financial reporting measure is subject to an accounting restatement.

Incentive-Based Compensation. Incentive-Based Compensation is any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure. Specific examples of "Incentive-Based Compensation" include:

- Non-equity incentive plan awards that are earned based wholly or in part on satisfying a financial reporting measure performance goal;
- Cash bonuses paid from a bonus pool the size of which is determined based wholly or in part on satisfying a financial reporting measure performance goal; and
- Restricted stock that is granted or becomes vested based wholly or in part on satisfying a financial reporting measure performance goal.

Incentive compensation that is subject only to time-based conditions or performance conditions that are not related to financial measures are not Incentive-Based Compensation subject to this Policy. Examples of compensation that would not be subject to this Policy include salaries, discretionary bonuses based on achieving subjective or strategic goals, non-equity incentive plan awards earned solely on satisfying operational or strategic goals, and equity awards contingent solely on completion of a specified employment period or attaining a goal or goals that are not Financial Reporting Measures.

Received. Incentive-Based Compensation is deemed received in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of the Incentive-Based Compensation occurs after the end of that period.

DISCLOSURE REQUIREMENTS

The Company shall make all disclosures and filings with respect to this Policy and maintain all documents and records that are required by the applicable rules and forms of the SEC including, without limitation, Rule S-K and Rule 10D-1, and any applicable Nasdaq listing standard.

ACKNOWLEDGEMENT BY EXECUTIVE OFFICERS

The Board shall provide notice to and seek written acknowledgement of this Policy from each Executive Officer; provided that the failure to provide such notice or obtain such acknowledgement shall have no impact on the applicability or enforceability of this Policy.

ADMINISTRATION OF POLICY

The Board shall have full authority to administer, amend or terminate this Policy. The Board shall, subject to the provisions of this Policy, make such determinations and interpretations and take such actions in connection with this Policy as it deems necessary, appropriate or advisable. All determinations and interpretations made by the Board shall be final, binding and conclusive. The Board may delegate any of its powers under this Policy to the Compensation Committee of the Board or any subcommittee or delegate thereof.

BOARD APPROVAL

The Compensation Recovery Policy will be submitted to the Board of Directors for approval prior to implementation.

BOARD REVIEW

The Compensation Recovery Policy will be sent to the board for review on an annual basis.