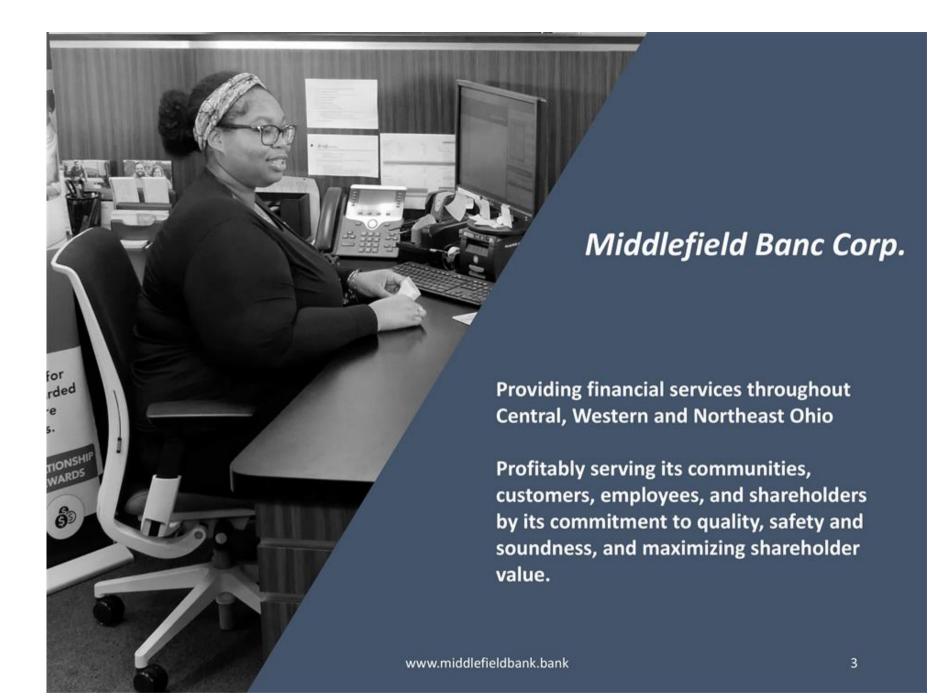


Forward Looking Statements

This presentation contains forward-looking statements within the meaning of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995 concerning Middlefield Banc Corp.'s plans, strategies, objectives, expectations, intentions, financial condition and results of operations. These forward-looking statements reflect management's current views and intentions and are subject to known and unknown risks, uncertainties, assumptions and other factors that could cause the actual results to differ materially from those contemplated by the statements. The significant risks and uncertainties related to Middlefield Banc Corp. of which management is aware are discussed in detail in the periodic reports that Middlefield Banc Corp. files with the Securities and Exchange Commission (the "SEC"), including in the "Risk Factors" section of its Annual Report on Form 10-K and its Quarterly Report on Form 10-Q. Investors are urged to review Middlefield Banc Corp.'s periodic reports, which are available at no charge through the SEC's website at Middlefield Corp.'s www.sec.gov and through Banc www.middlefieldbank.bank on the "Investor Relations" page. Middlefield Banc Corp. assumes no obligation to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this presentation.





At Middlefield Bank "MB", we believe in the power of community and giving back!

Each year, MB team members find ways to partner and support the local organizations making an impact in our own backyard. From sponsoring programs and events to volunteering with food banks, schools, local chapters of United Way, Junior Achievement and more, we're building a brighter future for every community that we're part of.

A Community Bank That is Safe, Strong, and Committed.

Highlights



21 Branches



3

Strong and compelling Ohio markets



#1

Community Bank in core markets



120+

Years of service



3.46%

Q3 2024 net interest margin

Strategic Strengths

Experienced and Proven Team:

- As part of the Company's comprehensive succession plan, Ron Zimmerly was appointed CEO in 2024 and Mike Ranttila CFO in 2023
- Strategic focus on developing and attracting proven bankers to support growth

Communities:

- · Serving attractive Ohio banking markets
- Located in three of the top five Ohio counties ranked by median household income
- · Optimally positioned between rural (funding) and metropolitan (lending) communities

Customers:

- Balanced mix of retail and commercial customers
- Geauga County in Northeast Ohio is home to the world's 4th largest Amish population

Community Banking Values and Focus:

- · Providing superior and responsive financial services since 1901
- Committed to quality, safety and soundness
- Local decision making and community investment creates competitive advantage

Financial Strength:

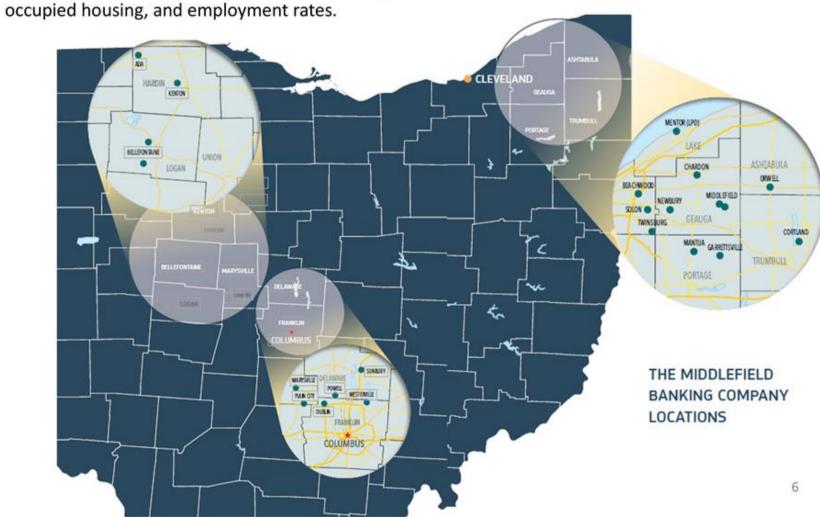
- Profitable throughout multiple economic cycles and never reported a loss
- AOCI impact is considerably lower than Middlefield's peers
- Above peer ROAA, NIM, Equity/Assets, and Tangible Equity/Assets*
- Legacy of returning capital back to shareholders
- Liquidity supported by FHLB borrowing capacity and access to the Federal Reserve Board's discount window

^{*} Please see Reconciliation of Non-GAAP Measures on slide 25

Compelling Ohio Banking Franchise

Only independent community bank with exposure to Central, Western, and Northeast Ohio Markets.

Branches are in counties that have above average median household income, median value of owner-



Experienced Executive Leadership Team Assembled

Middlefield has focused on pursuing a comprehensive succession plan. Through the successful integration of the December 2022 Liberty Bancshares acquisition and addition of new, experienced leaders, Middlefield is well positioned to move forward with the next phase of its growth strategy.

Ronald L. Zimmerly Jr. Chief Executive Officer and President



Zimmerly joined MBCN in 2022 after the Liberty Bancshares acquisition and has 35 years of banking experience, including 13 years as President and CEO of Liberty.

Michael Ranttila

Executive Vice President ,
Chief Financial Officer



Ranttila has been with the Bank for over 12 years, beginning as a Controller and then was promoted through pivotal roles within the Bank.

Tom Wilson

Executive Vice President /
Chief Strategy and

Innovation Officer



Wilson joined MBCN in 2022 after the Liberty Bancshares acquisition and has over 24 years of investment banking, management consulting, and investment experience.

Michael Cheravitch Executive Vice President / Chief Banking Officer



Cheravitch joined MBCN in 2023 from F.N.B. Corporation and has over 35 years of banking experience.

Sarah Winters
Senior Vice President /
Chief Human Resources
Officer



Winters joined MBCN in 2023 from KeyCorp and has 24 years of HR strategy, talent management, and business experience.

Courtney Erminio
Executive Vice President
Chief Risk Officer



Erminio joined MBCN in 2010 from Crowe Horwath and has 18 years of audit, risk and business experience.

Josh Riley

Senior Vice President / Chief Commercial Market Executive - Central Ohio



Riley joined MBCN in 2023 from First Merchants Bank and has over 21 years of financial services experience within the Central Ohio market.

Rebecca Noblit Executive Vice President / Chief Credit Officer



Noblit joined MBCN in 2022 after the Liberty Bancshares acquisition and has over 19 years of banking experience.

Anna Maria Brenneman Western Regional President



Brenneman joined MBCN in 2022 after the Liberty Bancshares acquisition and has over 35 years of banking experience.

Proven Board of Directors

Middlefield's board has an average age of 59 years and average tenure of 9 years

William J. Skidmore Director Since 2007 Age: 67



Skidmore has been Middlefield's Chairman since 2019 and former Northeast Ohio Senior District Manager of Waste Management.

Thomas W. Bevan Director Since 2017 Age: 58



Founding shareholder and CEO of Bevan & Associates, LPA, Inc.

Kevin A. DiGeronimo Director Since 2021 Age: 39



Principal at the DiGeronimo Companies and President of Independence Construction.

Ronald L. Zimmerly Jr. Director Since 2022 Age: 59



Zimmerly serves as Chief Executive Officer and President of Middlefield and The Middlefield Banking Company.

Kenneth E. Jones Director Since 2008 Age: 75



Former President of Chesapeake Financial Advisors.

Michael C. Voinovich Director Since 2020 Age: 50



Executive Vice President and Chief Investment Officer of ECHO Health, Inc.

Darryl E. Mast Director Since 2013 Age: 73



Former Vice President Operations for Hattie Larlham Care Group and Foundation.

James J. McCaskey Director Since 2004 Age: 60



McCaskey serves as Middlefield's Vice Chairman, and is President of McCaskey Landscape & Design, LLC.

Mark R. Watkins Director Since 2022 Age: 61



Partner in Watkins Farm, Watkins Farmland Stewardship, LLC, and Rushwood Farms, LLC.

Carolyn J. Turk Director Since 2004 Age: 67



Former Chief Financial Officer/Treasurer of Molded Fiber Glass Companies.

Spencer T. Cohn Director Since 2022 Age: 36

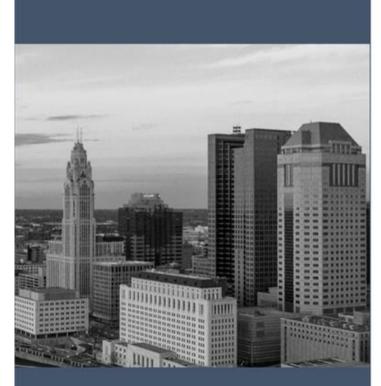


Director of Castle Creek.

Jennifer L. Moeller Director Since 2023 Age: 60



Moeller is an active angel investor, and former banking and personal financial software executive.



The 10-county area in Central Ohio is home to over **2.2 million** people and **16** Fortune 1000 company headquarters. The Columbus region is the **14**th largest metropolis in the U.S.⁽³⁾

Historic Growth Underway in The Columbus Region



Historic economic development is underway across Central Ohio, including recently announced projects⁽¹⁾ from Intel (\$100 Billion), Amazon (\$8.0 Billion), Honda (\$4.5 Billion), and Nationwide Children's Hospital (\$3.3 Billion). Intel's project alone is the largest single private-sector investment in Ohio's history.



Intel's initial \$20 billion investment into two new factories in Licking County could grow to as much as \$100 billion by the time the buildout is complete, creating one of the largest semiconductor manufacturing sites in the world. The first phase of the project is expected to create 3,000 Intel jobs and 7,000 construction jobs⁽²⁾.



The Columbus Region has experienced robust growth. From 2010 to 2020, the population of the city alone increased at a growth rate of more than 12%, which is substantially higher than the 2.1% average for the rest of the Midwest. The Columbus Region is expected to expand to 3 million people by 2050⁽³⁾. Every job at Intel is expected to create 13 more jobs in other industries, creating a total of 39,000 jobs in Central Ohio⁽¹⁾



The Middlefield Banking Company has a strong and established presence throughout Central and Western Ohio. With 10 locations throughout Central and Western Ohio, The Middlefield Banking Company is one of the largest independent community banks in the region making it well positioned to support the rapidly expanding financial needs of its surrounding communities.

Sources: (1) Betsy Liska Goldstein, "Intel on Intel" https://www.youtube.com/watch?v=9MOOwPq4CYw

(2) https://www.cleveland19.com/2022/09/09/intels-investment-phio-could-have-100-billion-impact/

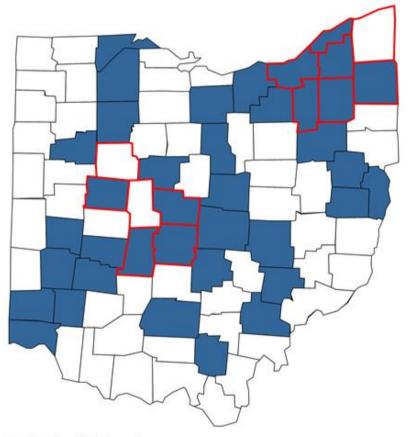
(3) https://columbusregion.com



- Intel supplier footprint has roughly doubled to 300 suppliers since project inception
- Suppliers include businesses in more than 38 counties in Ohio
- Suppliers come from every region in Ohio
- In addition to new full-time jobs at Intel, the project created 7,000 additional construction jobs - 92% of the construction workers onsite are Ohio residents
- The project is expected to produce tens of thousands of jobs across Ohio

Source: https://development.ohio.gov/home/news-andevents/all-news/2023-0925-Ohio-Delivers-on-Commitment-Issues-Onshoring-Grant-to-Intel

Middlefield's Markets Have a Strong Overlap with Intel's Supplier Network



Blue Counties: Counties with Intel suppliers Red Outlined Counties: Counties with MBCN branches

History of Creating Value for Shareholders

\$100 invested in Middlefield Banc Corp. from December 31, 2011, to September 30, 2024, has achieved a total return of \$499 compared to \$321 for the KBW Regional Banking Index, and \$354 for the Nasdaq Bank Index. Middlefield has outperformed the KBW Regional Banking Index and the Nasdaq Bank Index by 55.4% and 41.1%, respectively over this period.

Value Drivers

Never reported an annual loss

Long-term earnings and asset growth

Capital allocation strategy focused on acquisitions, share buybacks and dividends

Compelling dividend yield and track record of dividend growth

Management focused on longterm value creation



Well Positioned for Any Economic Cycle

Middlefield is focused on balancing stable loan growth with excellent asset quality. This approach has served the Bank well throughout its 120+ year history.

Reserved for Potential Credit Losses

At September 30, 2024, Middlefield's allowance for credit losses to nonperforming loans was 74.89%, while the allowance for credit losses to total loans was 1.50%.

Limited Nonperforming Assets

Overall asset quality remains strong, with \$30.1 million in nonperforming assets at September 30, 2024, or 1.62% of total assets. Three lending relationships accounted for \$20.2 million of nonperforming assets at September 30, 2024.

Well Capitalized

Equity to assets of 11.34% at September 30, 2024, compared to 10.80% at September 30, 2023.

Conservative Lending Culture

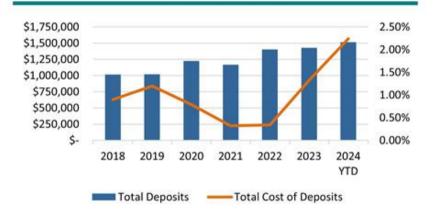
Focused on fair pricing, no national or sub-prime lending, lending within market area, and limited participation loans purchased.

Strong Deposit Base and Net Interest Margin

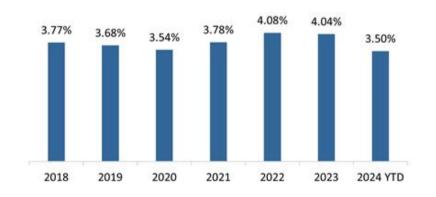
Overview

- Stable liquidity position supported by local deposit base
- Core deposit funding base supplemented by \$73.9 million in cash and cash equivalents, and \$169.9 million in investment securities available for sale at September 30, 2024
- Noninterest-bearing deposits were 25.8% of total deposits at September 30, 2024
- · Focused on maintaining a net interest margin above peer

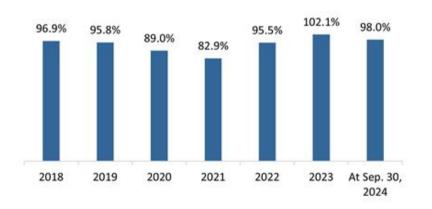
Deposit Trends (in thousands)



Net Interest Margin



Net Loans to Deposit Ratio



Excellent Asset Quality

Overview (at September 30, 2024)

Secured loans are subject to loan-to-value requirements based on collateral types

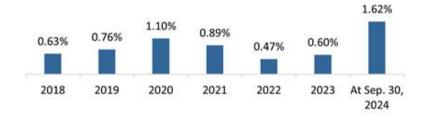
Strong credit culture in both good and bad economic cycles

Maintain strong compliance oversight

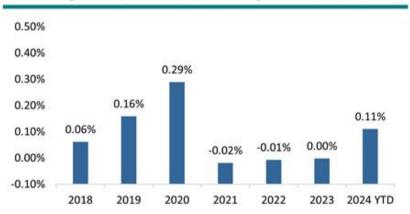
Continually improve enterprise risk management practices, monitoring, and reporting

Nonperforming loans at September 30, 2024, were impacted by three relationships totaling \$20.2 million, which management believes is not indicative of a trend in Middlefield's markets served, portfolio, or underwriting standards

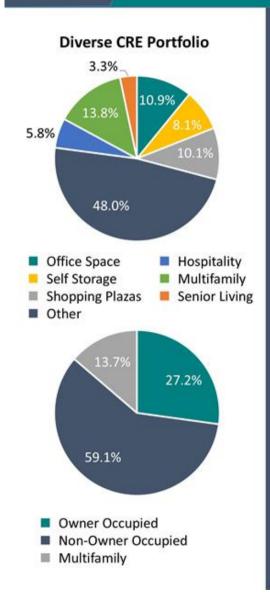
Nonperforming Assets to Total Assets



Net Charge-Offs (Recoveries) to Average Loans, Annualized

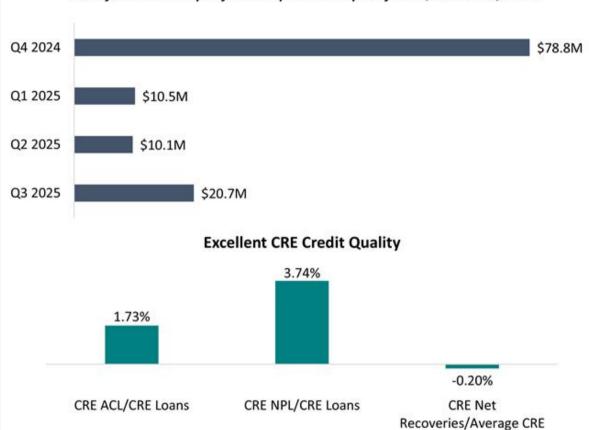


Balanced, High Performing CRE Portfolio (at September 30, 2024)



CRE Loan Repricing

At September 30, 2024, 76% of the Company's \$689.3 million CRE portfolio was variable, and 15% of the total CRE portfolio is expected to reprice from Q4 2024 to Q3 2025



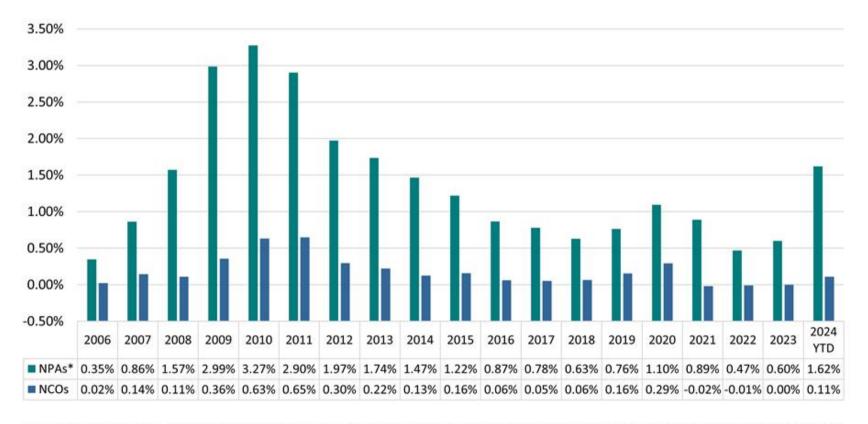
www.middlefieldbank.bank

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Loans

Strong Asset Quality: 2006 – 2024 YTD NPA and NCO Summary

- Conservative underwriting philosophy
- · "Quick to downgrade, slow to upgrade" credit philosophy mitigates loss exposure
- From 2006 to 2024 YTD, NCOs have averaged 11.0% of stated NPAs



^{*}NPAs exclude TDRs through 2022. In 2023, the Company adopted new accounting guidance that eliminated TDR accounting. Beginning in 2023, NPAs include certain loans that were modified to borrowers experiencing financial difficulty. The NPA numbers represent NPAs as a percentage of total assets at the period end date and the NCOs numbers represent NCOs to average loans, annualized.

Loans Supported by Local Decision Making and Individual Service

Middlefield's markets have seen significant industry consolidation in the past ten years. In most cases, large national and regional banks cannot deliver the same level of locally-based service that Middlefield can offer customers

Highlights



>30 Local Lenders



Highly
Productive LPO



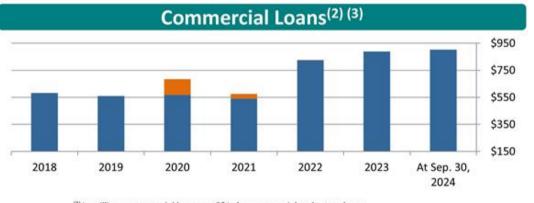
5.6%Consumer Loan
2018 – 2023
CAGR



8.8% Commercial Loan 2018 - 2023 CAGR

Residential Real Estate Loans(1) \$550 \$500 \$450 \$400 \$350 \$300 \$250 \$200 2018 2019 2020 2021 2023 At Sep. 30, 2022 2024

(1) In millions, includes consumer installment loans



(2) In millions, commercial loans are C&I plus commercial real estate loans (3) Orange bars reflect PPP loan balance

Disciplined Balance Sheet Growth

Highlights

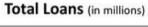
Introduced new products to attract more deposits and drive noninterest income

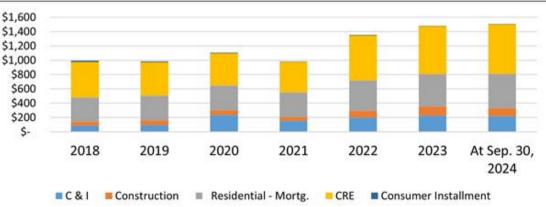
Continuing to enhance delivery in both personal and commercial channels

At September 30, 2024, Middlefield had \$73.9 million in cash and cash equivalents, and \$169.9 million in investment securities available for sale

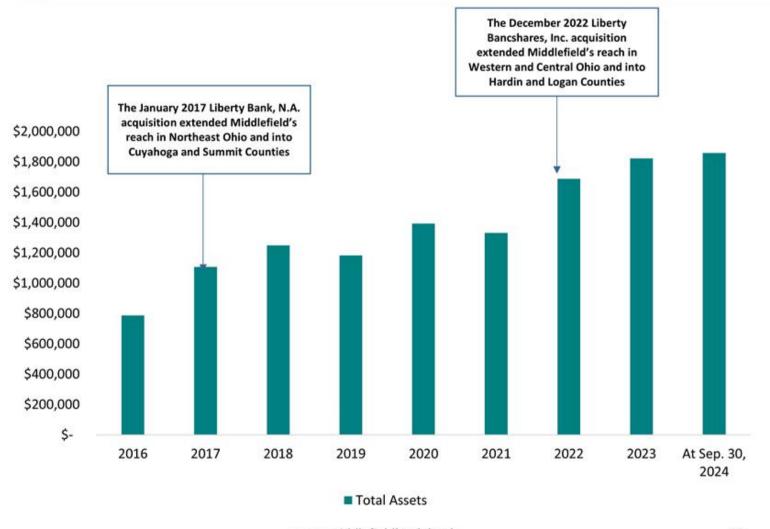
Strong capital levels, robust liquidity, diverse loan and deposit portfolios, and significant borrowing capacity available at the FHLB

Total Deposits (in millions) \$1,600 \$1,400 \$1,200 \$1,000 \$800 \$600 \$400 \$200 2018 2020 2021 2022 2023 2019 At Sep. 30, 2024 ■ Noninterest-bearing demand ■ Interest-bearing demand ■ Money market ■ Savings ■ Time



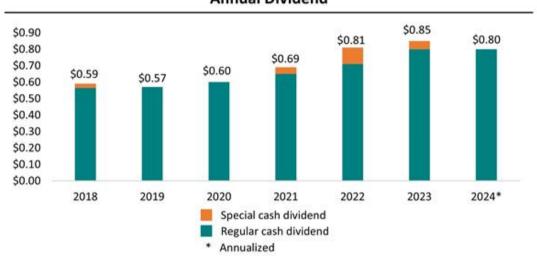


Successful Acquisition Strategy and Organic Growth: Total Assets Have Grown at a 12.7% CAGR From 2016 -2023



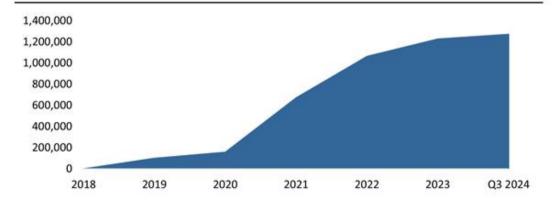
Returning Capital to Shareholders

Annual Dividend



Middlefield has a history of returning excess capital to shareholders. The Company has increased its regular dividend payment four times since 2018 and paid four special dividends over this period.

Cumulative Shares Repurchased



For the nine months ended September 30, 2024, the Company repurchased 43,858 shares of its common stock, at an average price of \$24.00 per share.

There were no repurchases during the third quarter of 2024.

Strategy Dependent on Customers and Communities

Through local decision making and a focus on powering growth within its communities, Middlefield is committed to building long-standing relationships with its customers



Local

"I put together an aggressive growth strategy for my business Exscape Designs. The need for a local relationship-based approach made clear sense. In my experience over the years with Middlefield Bank we have been able to achieve a lot of growth together. With Middlefield you're not just numbers, it's the relationship and community that matters to them."



Strong

"Wannemacher Ent., Inc. needed a community bank that was large enough to handle our biggest ever expansion. Yet we also wanted a bank that cared about us on an ongoing basis to look out for our future growth. The Middlefield team has provided both for us. From start to finish on the project they were totally engaged and encouraging. Our business has grown over the years because of strong customer relationships. It's great to have bankers like the Middlefield team that share that philosophy and perspective."



Committed

"It has been a pleasure to do business with Middlefield Bank for these past 20 years. When all of the other local major banks turned away from the business, Middlefield Bank welcomed it with open arms. This relationship started with trust and that trust is the foundation in which we continue to use Middlefield for all of our banking needs."



Supplemental Financial Data



Annual Financial Summary

Dollars in thousands	20	2023		022	2	021	2	020	20	019	2018		
Net interest income	\$	65,203	\$	50,177	\$	48,140	\$	43,388	\$	41,385	\$	40,448	
Provision for loan losses		3,002		0		700		9,840		890		840	
Noninterest income		6,691		6,746		7,249		5,990		4,841		3,728	
Noninterest expense		48,137		38,030		31,991		29,788		30,033		28,743	
Income before income taxes		20,755		18,893		22,698		9,750		15,303		14,593	
Income taxes		3,387		3,220		4,065		1,401		2,592		2,162	
Net income	\$	17,368	\$	15,673	\$	18,633	\$	8,349	\$	12,711	\$	12,431	
Net interest margin	4.04%		4.08%		3.78%		3.54%			3.68%	3.779		
Total assets	\$1,822,883		\$1,687,682		\$1,331,006		\$1,391,979		\$1	,182,475	\$1,248,398		
Loans outstanding, net	\$1,456,437		\$1,338,434		\$ 967,349		\$1,090,626		\$ 977,490		\$	984,681	
Deposits	\$1,426,602		\$1,402,019		\$1,166,610		\$1,225,200		\$1,020,843		\$1,016,067		
Equity capital	\$ 205,681		\$ 197,691		\$ 145,335		\$ 143,810		\$	137,775 \$		\$ 128,290	
Earnings per share – diluted (1)	\$	2.14	\$	2.60	\$	3.01	\$	1.31	\$	1.96	\$	1.92	
Cash dividend (per share) (1)	\$	0.85	\$	0.81	\$	0.69	\$	0.60	\$	0.57	\$	0.59	
Dividend pay-out ratio	39.52%		37.23%		22.76%		45.92%			28.99%		30.40%	
Return on average assets		0.99%		1.17%		1.36%		0.64%		1.05%		1.09%	
Return on average equity		8.83%	11.25%			12.74%		5.87%		9.35%	9.94%		
Return on average tangible common equity (2)	11.20%			12.95%		14.38%		6.66%		10.72%	11.57%		

⁽¹⁾ Per share data adjusted for 2-for-1 stock split on November 8, 2019

⁽²⁾ Refer to the Company's press releases for the corresponding periods for "GAAP to Non-GAAP Reconciliations"

Excellent Asset Quality and Capital Levels

Strong reserve coverage provides flexibility in managing potential losses with reduced impact on net income

	For the Three Months Ended												
Asset quality data	Sep. 30, 2024		Jun. 30, 2024		Mar. 31, 2024		Dec. 31, 2023		Sep. 30, 2023				
(Dollar amounts in thousands, unaudited)													
Nonperforming loans	\$ 30,078	\$	15,961	\$	10,831	\$	10,877	\$	7,717				
Other real estate owned	-	8 6			-				5,792				
Nonperforming assets	\$ 30,078	\$	15,961	\$_	10,831	\$	10,877	\$_	13,509				
Allowance for credit losses	\$ 22,526	\$	21,795	\$	21,069	\$	21,693	\$	20,986				
Allowance for credit losses/total loans	1.50%		1.46%		1.41%		1.47%		1.45%				
Net charge-offs (recoveries):													
Quarter-to-date	\$ 1,382	\$	(29)	\$	(68)	\$	(117)	\$	(16)				
Year-to-date	1,285		(97)		(68)		(31)		87				
Net charge-offs (recoveries) to average loans, annualized:													
Quarter-to-date	0.36%		(0.01%)		(0.02%)		(0.03%)		0.00%				
Year-to-date	0.11%		(0.01%)		(0.02%)		0.00%		0.01%				
Nonperforming loans/total loans	2.00%		1.07%		0.73%		0.74%		0.53%				
Allowance for credit losses/nonperforming loans	74.89%		136.55%		194.52%		199.44%		271.95%				
Nonperforming assets/total assets	1.62%		0.87%		0.60%		0.60%		0.75%				

Reconciliation of Non-GAAP Measures

42,350

2,340

5.58%

166,746

Reconciliation of Common Stockholders' Equity to

Less Average Goodwill and other intangibles

Return on average tangible common equity (annualized)

Average Tangible Common Equity

Net income

Tangible Common Equity

Tangible Common Equity	For the Three Months chaea													
(Dollar amounts in thousands, unaudited)		Sep. 30, 2024	8 8	Jun. 30, 2024		Mar. 31, 2024		Dec. 31, 2023		Sep. 30, 2023				
Stockholders' Equity Less Goodwill and other intangibles	\$	210,705 42,225	\$	206,788 42,482	\$	205,575 42,740	\$	205,681 42,998	\$	193,749 43,103				
Tangible Common Equity	\$	168,480	\$	164,306	\$	162,835	\$	162,683	\$	150,646				
Shares outstanding		8,071,032	0 9	8,067,144		8,067,144		8,095,252		8,092,576				
Tangible book value per share	\$	20.87	\$	20.37	\$	20.18	\$	20.10	\$	18.62				
Reconciliation of Average Equity to Return on Average												For the N	ine N	Months
Tangible Common Equity	For the Three Months Ended											Er	nded	
	-	Sep. 30, 2024	8 5	Jun. 30, 2024		Mar. 31, 2024		Dec. 31, 2023		Sep. 30, 2023		Sep. 30, 2024	-	Sep. 30, 2023
Average Stockholders' Equity	\$	209,096	\$	205,379	\$	205,342	\$	197,208	\$	196,795	\$	206,691	\$	196,074

For the Three Months Ended

This presentation includes disclosure of Middlefield Banc Corp.'s tangible book value per share and return on average tangible equity, which are financial measures not prepared in accordance with generally accepted accounting principles in the United States (GAAP). A non-GAAP financial measure is a numerical measure of historical or future financial performance, financial position or cash flows that excludes or includes amounts that are required to be disclosed by GAAP. Middlefield Banc Corp. believes that these non-GAAP financial measures provide both management and investors a more complete understanding of the underlying operational results and trends and Middlefield Banc Corp.'s marketplace performance. The presentation of this additional information is not meant to be considered in isolation or as a substitute for the numbers prepared in accordance with GAAP.

42,607

4,164

10.29%

162,772

42,654

162,688

10.30%

4,167 \$

42,972

154,236

3,543

9.11%

43,232

153,563

3,836

9.91%

42,512

164,179

10,671

8.68%

41,018

155,056

13,825

11.92%