

MIDDLEFIELD BANC CORP
Form 10-K
March 06, 2019

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark
One)

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

For the fiscal year ended December 31, 2018

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 I.R.S. Employer Identification No.
Incorporation or Organization

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

Common Stock, Without Par Value

Name of Each Exchange on Which Registered
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 **X**

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§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 **X** No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer **X**
Non-accelerated filer Smaller reporting company **X**
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 is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes No **X**

The aggregate market value on June 30, 2018 of common stock held by non-affiliates of the registrant was approximately \$163.8 million, based on the closing price of \$50.70 per share of common stock as reported on the NASDAQ Capital Market. As of March 6, 2019, there were 3,632,828 shares of common stock issued and outstanding.

Documents Incorporated by Reference Portions of the registrant's definitive proxy statements for the 2019 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, 2018 are incorporated by reference into Part I and Part II of this report.

MIDDLEFIELD BANC CORP.

YEAR ENDED DECEMBER 31, 2018

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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 subsidiaries. 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,” “similar expressions are intended to identify these forward-looking statements.

Forward-looking statements are necessarily subject to many risks and uncertainties. A number of things 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, 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 loan assets, 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
- 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

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 and central Ohio. The 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. The principal executive office is located at 15985 East High Street, Middlefield, Ohio 44062-0035.

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 certificates of deposit, 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 January 12, 2017, the Company completed its acquisition of Liberty Bank, N.A. ("Liberty"), pursuant to a previously announced definitive merger agreement. Under the terms of the merger agreement, Liberty shareholders received \$37.96 in cash or 1.1934 shares of the Company's common stock in exchange for each share of Liberty common stock they owned immediately prior to the merger. The Company issued 544,610 shares of its common stock in the merger and the aggregate merger consideration was approximately \$42.2 million. Upon closing, Liberty was merged into MBC, and its three full-service bank offices, in Twinsburg in northern Summit County, and in Beachwood and Solon in eastern Cuyahoga County, became offices of MBC. The systems integration of Liberty into MBC was completed in February, 2017.

Engaged in general commercial banking in northeastern and central 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, and consumer installment loans to make home improvements and to purchase automobiles, boats, and other personal expenditures. Although the bank makes agricultural loans, the amount of agricultural loans in the bank's loan portfolio is not significant.

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. At December 31, 2018, EMORECO's assets consist of one cash account and prepaid income tax. 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 advance approval of the Federal Reserve Bank.

Market Area MBC's footprint is home to 3.8 million people, or roughly one third of the Ohio population. MBC's product offering is geared toward traditional banking business delivered to both consumers and businesses located in its footprint of Northeast Ohio and the Columbus metro area. MBC's current strategy is aimed at using a strong deposit relationship in the more rural markets of Northeast Ohio to fund loan growth and build scale in its newer metro markets of Cleveland/Akron and Columbus. Columbus is in Franklin County and Cleveland is in Cuyahoga County.

Franklin County is Ohio's most populous county and Cuyahoga County is Ohio's second-most populous county. Columbus is the state capital and largest city in Ohio. Per capita gross domestic product, a measure of prosperity and standard of living, is significantly higher in the Columbus metro area relative to Ohio and the nation. Real gross domestic product per capita in the Columbus metro area is nearly \$10,000 higher than in the state and nearly \$6,500 higher than in the nation. The growth rate in employment for the Columbus metro area is faster than Ohio's growth rate. Construction continues to be the fastest-growing sector in the Columbus metro area, as it has been since 2015. The financial activities sector, an area in which the Columbus area is specialized relative to the state or nation, is also growing strongly. Per capita income in the Columbus metro area continues to be above the statewide level for Ohio.

MBC's market area in Northeastern Ohio consists principally of Cuyahoga, Geauga, Portage, Lake, Summit, Trumbull, and Ashtabula Counties. MBC's market area in Northeastern Ohio benefits from the area's proximity to Cleveland. The Cleveland metro area's real personal income per capita is more than \$4,500 greater than Ohio's income per capita. The

Cleveland MSA has a population of 2.1 million (2.8 million including Akron). MBC's four central Ohio branches are located in Dublin and Westerville, of Franklin County, and Sunbury and Powell, of Delaware County.

Based upon U.S. Census Bureau data compiled for 2012 through 2016, Delaware, Geauga and Lake counties are the first, third and seventh highest ranked counties, respectively, among Ohio's 88 counties based upon median family income. Powell and Dublin are the fourth and fifth highest ranked cities, respectively, in Ohio based upon median family income and MBC's offices in Beachwood and Solon, in Cuyahoga County, are located in three of the top twenty highest ranked cities in Ohio based upon median family income. A city of more than 47,000 residents located just northwest of Columbus, Ohio, Dublin is home to more than 20 corporate headquarters, an entrepreneurial center, and 4,300+ businesses. Dublin is also home to Ohio's largest corporation, Cardinal Health – 21 on the Fortune 500 list – and Dublin is also headquarters of the Wendy's Company. According to the 2010 Decennial Census and the census estimate between 2010 and 2016 from the Delaware County Regional Planning Commission, Delaware County is the fastest growing suburban county in Ohio.

Beachwood in eastern Cuyahoga County is suburban Cleveland's premier commercial and financial center. There is a high concentration of small businesses and affluent individuals in Beachwood. Home to almost 3,000 companies, Beachwood recently saw the opening of the world headquarters of Eaton Corporation. Beachwood's 12,000 residents have a median household income of \$88,287. 52% of the adult residents in Beachwood have at least a bachelor's degree and 62% are in executive, managerial and professional positions. According to reliable third-party information, there are approximately 30,000 small businesses in Cuyahoga County.

The economy of MBC's Northeast markets is centered around manufacturing and agriculture and includes a large Amish population. Geauga County is the center of the 4th largest Amish population in the world. Home to 94,020 residents, Geauga County has a median household income of \$74,165. Geauga County's labor participation rate of 66.4% outpaces that of Ohio (62.9%) and the US (63.2%).

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 mortgage, home equity, secured and unsecured consumer installment, commercial and industrial, and real estate construction loans for owner-occupied and income producing properties. The Bank's Credit Policy aspires to a loan composition mix consisting of approximately 45% to 70% consumer purpose transactions including residential real estate loans, home equity loans and other consumer loans. The Policy is also designed to provide for 35% to 40% of total loans as business purpose commercial loans and business and consumer credit card accounts of up to 5% of total loans.

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, 2018, MBC's 15%-of-capital limit on loans to a single borrower was approximately \$17.7 million.

The Bank offers specialized loans for business and commercial customers, including equipment and inventory financing, real estate construction loans and Small Business Administration loans for qualified businesses. A portion of the Bank's commercial loans are 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, but they are secured by real estate to provide the Bank with an extra measure of security. 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 a variety of purposes, including personal, home improvements, revolving credit lines, autos, boats, and recreational vehicles.

The following table shows on a consolidated basis the composition of the loan portfolio along with a reconciliation to loans receivable, net.

(Dollars in thousands)	Loan Portfolio Composition at December 31,				
	2018	2017	2016	2015	2014
Type of loan:					
Commercial and industrial	\$83,857	\$101,346	\$60,630	\$42,536	\$34,928
Real estate - construction	56,731	47,017	23,709	22,137	30,296
Real estate - mortgage:					
Residential	336,487	318,157	270,830	232,478	210,096
Commercial	498,247	437,947	249,490	231,701	190,685
Consumer installment	16,787	18,746	4,481	4,858	4,579
Total loans	992,109	923,213	609,140	533,710	470,584
Less:					
Allowance for loan and lease losses	7,428	7,190	6,598	6,385	6,846
Net loans	\$984,681	\$916,023	\$602,542	\$527,325	\$463,738

The following table presents consolidated 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.

(Dollars in thousands)	Loan Portfolio Maturity at December 31, 2018			
	Commercial and Industrial	Real Estate - Construction	Real Estate - Mortgage Commercial	Total
Amount due:				
In one year or less	\$17,656	\$ 2,690	\$ 20,433	\$40,779
After one year through five years	35,625	6,674	101,168	143,467
After five years	30,576	47,367	376,646	454,589

Total amount due	\$83,857	\$ 56,731	\$ 498,247	\$638,835
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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.

The following table shows on a consolidated basis the dollar amount of all loans due after December 31, 2018 that have predetermined interest rates and the dollar amount of all loans due after December 31, 2018 that have floating or adjustable rates.

	Fixed Rate	Adjustable Rate	Total
(Dollars in thousands)			
Commercial and industrial	\$54,899	\$28,958	\$83,857
Real estate - construction	8,741	47,990	56,731
Real estate - mortgage:			
Commercial	167,094	331,153	498,247
	\$230,734	\$408,101	\$638,835

Residential Mortgage Loans A significant portion of the Bank's lending consists of origination of conventional loans secured by 1-4 family real estate located in Franklin, Geauga, Portage, Trumbull, Summit, Cuyahoga, Delaware, and Ashtabula counties. Residential mortgage loans approximated \$336.5 million or 33.9% of the Bank's total loan portfolio at December 31, 2018.

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 88.3% of the portfolio of conventional mortgage loans secured by 1-4 family real estate at December 31, 2018 is adjustable rate. Generally, the Bank originates fixed-rate, single-family mortgage loans in conformity with Freddie Mac guidelines, so are saleable to Freddie Mac. These loans are sold with servicing rights retained, and are sold 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.

The Bank's home equity credit policy generally allows for a loan of up to 85% of a property's appraised value (and up to 89% for qualifying properties or borrowers), less the principal balance of the outstanding first mortgage loan. The Bank's home equity loans generally have terms of 20 years.

At December 31, 2018, residential mortgage loans of approximately \$3.5 million were non-accruing or 90 days or more delinquent and accruing on that date, representing 1.0% of the residential mortgage loan portfolio. At December 31, 2017, residential mortgage loans of approximately \$4.0 million were over 90 days delinquent or non-accruing on that date, representing 1.3% of the residential mortgage loan portfolio.

Commercial and Industrial Loans and Commercial Real Estate Loans

The Bank's commercial 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

Commercial real estate loans include commercial properties occupied by the proprietor of the business conducted on the premises, and income-producing or farm properties. Although the Bank makes agricultural loans, it currently does not have a significant amount of agricultural loans. 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 and commercial real estate 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 and commercial real estate 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 \$500,000 or more. Ongoing financial information is generally required for any commercial relationship where the exposure is \$250,000 or more.

The fair value of collateral for collateralized commercial loans must exceed the Bank's exposure. For this purpose fair value is determined by independent appraisal or by 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 agency, 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 measure of security. 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.

At December 31, 2018, commercial and commercial real estate loans totaled \$582.1 million, or 58.7% of the Bank's total loan portfolio. At December 31, 2018, commercial and commercial real estate loans of approximately \$4.1 million were non-accruing or 90 days or more delinquent and accruing on that date, and represented 0.7% of the commercial and commercial real estate loan portfolios. At December 31, 2017, commercial and commercial real estate loans totaled \$539.3 million, or 58.4% of the Bank's total loan portfolio. At December 31, 2017, commercial and commercial real estate loans of approximately \$4.4 million were over 90 days delinquent or non-accruing on that date, and represented 0.8% of the commercial and commercial real estate loan portfolios.

Real Estate Construction

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 completion of the construction phase of the loan. It is the norm 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 of up to one year, with a maximum LTV ratio for residential construction of 80%. The Bank also offers residential construction-to-permanent loans that have a twelve-month construction period followed by 30 years of permanent financing.

At December 31, 2018, real estate construction loans totaled \$56.7 million, or 5.7% of the Bank's total loan portfolio. There were no real estate construction loans 90 days delinquent or non-accruing on that date. At December 31, 2017, real estate construction loans totaled \$47.0 million, or 5.1% of the Bank's total loan portfolio. There were no real estate construction loans 90 days delinquent or non-accruing on that date.

Consumer Installment Loans The Bank's consumer installment loans include secured and unsecured loans to individual borrowers for a variety of purposes, including personal, home improvement, revolving credit lines, autos, 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 a higher loan loss allowance for consumer loans, while maintaining 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 generally is required for consumer loans having terms exceeding five years.

At December 31, 2018, the Bank had approximately \$16.8 million in its consumer installment loan portfolio, representing 1.7% of total loans. At December 31, 2017, the Bank had approximately \$18.7 million in its consumer installment loan portfolio, representing 2.0% of total loans.

Loan Solicitation and Processing Loan originations are developed from a number of sources, including continuing business with depositors, other borrowers and 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 creditworthiness of the borrower, 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 individual officer's loan approval authority. Loans exceeding an individual officer's approval authority are submitted to an Officer's Loan Committee, which has authority to approve loans up to \$3,000,000. The Board of Directors' Loan Committee acts as an approval authority for exposures over \$3,000,000 and up to \$6,000,000. Loans exceeding \$6,000,000 require approval from the full 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 and discounts varies with the volume and type of loans and commitments made and with competitive and economic conditions. Note 1 to the Consolidated Financial Statements included herein contains a discussion of the manner in which loan fees and income are recognized for financial reporting purposes.

Mortgage Banking Activity The Bank originates conventional 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, 2018, the Bank recorded gains of \$231,000 on the sale of \$13.0 million in loans receivable originated for sale. During the year ended December 31, 2017, the Bank recorded gains of \$291,000 on the sale of \$10.0 million in loans receivable originated for sale. The sold loans were sold on a servicing retained basis to Freddie Mac.

In addition to interest earned on loans and income recognized on the sale of loans, the Bank receives fees for servicing loans that it has sold. Because the Bank has data processing capacity that will allow it to expand its portfolio of serviced loans without incurring significant incremental expenses, the Bank intends in the future to augment its portfolio of loans serviced by continuing to originate and sell such fixed-rate single-family residential mortgage loans to Freddie Mac while retaining servicing.

Income from these activities will vary from period to period with the volume and type of loans originated and sold, which in turn is dependent on prevailing mortgage interest rates and their effect on the demand for loans in the Bank's market area.

Student Lending Through its acquisition of Liberty Bank, N.A., on January 12, 2017, MBC acquired Liberty's private student loan business. These loans provided qualified borrowers with the ability to finance the costs associated with obtaining a degree and to refinance their existing student loans. Pursuant to loan origination agreements with student loan originating and servicing companies, MBC made student loans to qualified students and sold those loans, without recourse and with servicing released, into the secondary market. Gains on the sales of these loans as well as interest income earned while held by MBC are included in the Consolidated Statement of Income. The lending program changed near the end of 2017, requiring the Company to expand "in-school" lending and extending the Company's carrying period, both of which increased the risk profile. The Company ceased the origination of new student loans at the end of 2017.

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 if repayment cannot be expected within a reasonable time or a repayment agreement is not entered into, a 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.

When the Bank acquires real estate through foreclosure, voluntary deed, or similar means, the real estate is classified as OREO until it is sold. When 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. 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 acquisition when possible. Losses are recognized for the amount by which the book value of the related mortgage loan exceeds the estimated net realizable value of the property.

The Bank undertakes 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 general and specific allowances for 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 of 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 collection of principal in full — on the basis of 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 loan 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 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 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.

Consolidated classified loans were as follows:

(Dollars in thousands)	December 31,									
	2018		2017		2016		2015		2014	
	Percent		Percent		Percent		Percent		Percent	
	Amount	of total loans	Amount	of total loans	Amount	of total loans	Amount	of total loans	Amount	of total loans
Classified loans:										
Special mention	\$13,076	1.32 %	\$11,829	1.28 %	\$5,657	0.93 %	\$5,297	0.99 %	\$4,987	1.06 %
Substandard	13,867	1.40 %	13,625	1.48 %	11,777	1.93 %	15,586	2.92 %	16,211	3.44 %
Doubtful	-	0.00 %	-	0.00 %	-	0.00 %	130	0.02 %	627	0.13 %
Total amount due	\$26,943	2.72 %	\$25,454	2.76 %	\$17,434	2.86 %	\$21,013	3.93 %	\$21,825	4.63 %

Other than those disclosed in the preceding table, the Bank does not believe there are any loans classified for regulatory purposes as loss, doubtful, substandard, special mention or otherwise, which will result in losses or have a material impact on future operations, liquidity or capital reserves. We are not aware of any other information that causes us to have serious doubts as to the ability of borrowers in general to comply with repayment terms.

Investments Investment securities provide a return on residual funds after lending activities. Investments may be in federal funds sold, corporate securities, U.S. Government and agency obligations, state and local government obligations and government-guaranteed mortgage-backed securities. The Bank generally does not invest in securities that are 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. Senior management can purchase and sell securities in accordance with 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 that are 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 balance sheet at their fair value. In accordance with the adoption of ASU 2016-01 on January 1, 2018, the Company reclassified \$625,000 from investment securities available for sale to equity securities.

The following table exhibits the consolidated amortized cost of the Bank's investment portfolio:

(Dollars in thousands)	December 31,		
	2018	2017	2016
Available for Sale:			
U.S. Government agency securities	\$7,442	\$8,664	\$10,158
Obligations of states and political subdivisions:			
Taxable	502	504	1,615
Tax-exempt	72,387	65,408	78,327
Mortgage-backed securities in government- sponsored entities	18,185	18,640	20,128
Total Available-for-Sale Securities	98,516	93,216	111,807
Equity securities in financial institutions	415	415	750
Total Investment Securities	\$98,931	\$93,631	\$112,557

The contractual maturity of investment debt securities is as follows:

	December 31, 2018										Total investment securities
	One year or less		More than one to five years		More than five to ten years		More than ten years				
	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	
(Dollars in thousands)	cost	yield	cost	yield	cost	yield	cost	yield	cost	yield	Fair value
U.S. government agency securities	\$2,000	1.37 %	\$-	-	\$224	4.97 %	\$5,218	3.21 %	\$7,442	2.77 %	\$7,471
Obligations of states and political subdivisions:											
Taxable	-	-	502	4.85 %	-	-	-	-	502	4.85 %	512
Tax-exempt **	6,547	3.42 %	1,606	3.45 %	9,303	3.25 %	54,931	3.15 %	72,387	3.19 %	72,581
Mortgage-backed securities in government-sponsored entities	-	-	-	-	3,646	1.94 %	14,539	2.92 %	18,185	2.72 %	17,758
Total	\$8,547	2.94 %	\$2,108	3.78 %	\$13,173	2.92 %	\$74,688	3.11 %	\$98,516	3.08 %	\$98,322
** Tax equivalent yield											

** Tax equivalent yield

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.

As of December 31, 2018, the Bank also held 36,793 shares of \$100 par value Federal Home Loan Bank 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, and only to the FHLB or to another member institution. Member institutions are required to 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 at December 31, 2018 was \$3.7 million.

Sources of Funds — *Deposit Accounts* Deposit accounts are a major source of funds for the Bank. The Bank offers a number of deposit products to attract both commercial and regular consumer checking and savings customers, including regular and money market savings accounts, NOW accounts, and a variety of fixed-maturity, fixed-rate certificates with maturities ranging from 3 to 60 months. These accounts earn interest at rates established by

management based on competitive market factors and management's desire to increase certain types or maturities of deposit liabilities. The Bank also provides travelers' checks, official checks, money orders, ATM services, and IRA accounts.

The following table shows on a consolidated basis the amount of time deposits of \$100,000 or more as of December 31, 2018, including certificates of deposit, by time remaining until maturity.

(Dollar amounts in thousands)	Amount	Percent of Total
Within three months	\$39,834	20.92 %
Beyond three but within six months	18,644	9.79 %
Beyond six but within twelve months	41,840	21.97 %
Beyond one year	90,094	47.32 %
Total	\$190,412	100.00%

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. At December 31, 2018, MBC had \$90.6 million of FHLB borrowings outstanding. The Company's subsidiary bank also has access to credit through the Federal Reserve Bank of Cleveland and other funding sources.

The outstanding balances and related information about short-term borrowings as of December 31, 2018, 2017, and 2016, which includes securities sold under agreements to repurchase, lines of credit with other banks and Federal Funds purchased are summarized on a consolidated basis as follows:

(Dollar amounts in thousands)	2018	2017	2016
Balance at year-end	\$90,398	\$74,707	\$68,359
Average balance outstanding	42,231	63,910	37,130
Maximum month-end balance	101,857	114,025	68,359
Weighted-average rate at year-end	2.53 %	1.36 %	0.61 %
Weighted-average rate during the year	1.99 %	1.18 %	0.89 %

Competition

The banking and financial services industry is highly competitive, and we compete with a wide range of 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 certain 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 financial institutions that have greater financial resources than we do and compete aggressively for market share. 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, and ability to offer sophisticated banking products and services. While we seek to remain competitive with respect to fees charged, interest rates and pricing, we believe that the of the Bank's commitment to personal service, innovation, and involvement in the communities and primary market areas that the Bank serves, as well as the Bank's commitment to quality community banking service, 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

As of December 31, 2018, the Bank had 200 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. As such, 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 is required to 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 by the Ohio Division of Financial Institutions.

The Company and The Middlefield Banking Company are subject to federal banking laws, and the Company is also subject to Ohio bank law. 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. The Bank must comply with Federal Reserve Board regulations requiring depository institutions to maintain reserves against their transaction accounts (principally NOW and regular checking accounts). Because required reserves are commonly maintained in the form of vault cash or in a noninterest-bearing account (or pass-through account) at a Federal Reserve Bank, the effect of the reserve requirement is to reduce an institution's earning assets.

The Federal Reserve Board and the FDIC have extensive authority to prevent and to 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 Acquisitions* The Bank Holding Company Act requires every bank holding company to obtain approval of the Federal Reserve before:

- directly or indirectly acquiring ownership or control of any voting shares of another bank or bank holding company, if after the acquisition the acquiring company would own or control more than 5% of the shares of the other bank or bank holding company (unless the acquiring company already owns or controls a majority of the shares),
- acquiring all or substantially all of the assets of another bank, or
- merging or consolidating with another bank holding company.

The Federal Reserve will not approve an acquisition, merger, or consolidation that would have a substantially anticompetitive result, unless the anticompetitive effects of the proposed transaction are clearly outweighed by a greater public interest in satisfying the convenience and needs of the community to be served. The Federal Reserve also considers capital adequacy and other financial and managerial factors in its review of acquisitions and mergers.

Additionally, the Bank Holding Company Act, the Change in Bank Control Act and the Federal Reserve Board's Regulation Y require advance approval of the Federal Reserve to acquire "control" of a 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 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 Ohio Division of Financial Institutions 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 related to the business of banking, the Federal Reserve considers whether the performance of the activities 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 a bank holding company may engage in, while preserving existing authority for bank holding companies to engage in activities that are 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 in nature 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 authority to decide that other activities are also financial in nature 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 enactment of the Gramm-Leach-Bliley Act. Federal Reserve Board rules require that all of the 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.

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. It is also Federal Reserve Board policy that bank holding companies serve as a source of strength for their subsidiary banking institutions.

Under Bank Holding Company Act section 5(e), the Federal Reserve Board may require a bank holding company to terminate any activity or relinquish control of a nonbank subsidiary if the Federal Reserve Board determines that the activity or control constitutes a serious risk to the financial safety, soundness or stability of a subsidiary bank. And with the Federal Deposit Insurance Corporation Improvement Act of 1991's addition of the prompt corrective action provisions to the Federal Deposit Insurance Act, section 38(f)(2)(I) of the Federal Deposit Insurance Act now provides that a federal bank regulatory authority may require a bank holding company to divest itself of an undercapitalized bank subsidiary if the agency determines that divestiture will improve the bank's financial condition and prospects.

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 were established in July 2013 (the Basel III capital rules), subject to phase-in periods for certain components and other provisions. The capital standards 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 comprised of capital instruments and related surplus meeting specified requirements, and 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 loan and lease 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 or 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 levels of capital are required for asset categories believed to present greater 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, a risk weight of 150% is assigned to certain past due loans and a risk weight of between 0% and 600% is assigned to permissible equity interest, depending on certain specified factors.

In addition to establishing the minimum regulatory capital requirements, the regulations limit capital distributions and certain discretionary bonus payments to management if the institutions 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. The capital conservation buffer requirement has been phasing in since January 1, 2016 and was fully implemented at 2.5% on January 1, 2019.

Regulatory relief legislated enacted in May 2018 requires the federal banking agencies, including the Federal Deposit Insurance Corporation, to establish for institutions with assets of less than \$10 billion of assets a "community bank leverage ratio" (the ratio of a bank's tangible equity capital to average total consolidated assets) of between 8 to 10%. A "qualifying community bank" with capital exceeding the specified requirement will be considered compliant with all applicable regulatory capital and leverage requirements, including the requirement to be "well capitalized." On November 21, 2018, the federal banking agencies issued a notice of proposed rulemaking seeking comment on a proposal that would create an alternative, voluntary, capital framework for qualifying institutions that will deem an institution to be well capitalized so long as the institutions maintains a leverage ratio of at least 9%. After the rule is finalized, a financial institution could elect to be subject to this new simplified capital requirement. At December 31, 2018, the Company and the Middlefield Banking Company exceeded each of its capital requirements.

The FDIC also employs a market risk component in its calculation of 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 account of 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 inordinate 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 account of 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 inordinate 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 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 that an unsafe or unsound condition or practice warrants that treatment.

A financial institution's operations can be significantly affected by its capital classification 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 have an adverse effect on the bank's liquidity. At each successively lower capital category, an insured depository institution is subject to additional restrictions. Undercapitalized institutions are required to take specified actions to increase their capital or otherwise decrease the risks to the federal deposit insurance funds. 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 to 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 are required to appoint a receiver or conservator shortly after an institution becomes critically undercapitalized.

The following table illustrates the capital and prompt corrective action guidelines applicable to the Company and the bank:

	As of December 31, 2018					
	Tier 1 Risk		Common Equity Tier 1		Total Risk	
	Leverage Based				Based	
The Middlefield Banking Company	9.60	%	11.09	%	11.09	%
Middlefield Banc Corp.	10.55	%	10.35	%	9.65	%
Adequately capitalized ratio	4.00	%	6.00	%	4.50	%
Adequately capitalized ratio plus fully phased-in capital conservation buffer	4.00	%	8.50	%	7.00	%
Well-capitalized ratio (Bank only)	5.00	%	8.00	%	6.50	%

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 for the payment of 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 for payment of 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. A bank's ability to pay dividends may be affected also by the FDIC's capital maintenance requirements and prompt corrective action rules. 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 fully fund the dividends and the prospective rate of earnings retention appears consistent with the organization's capital needs, asset quality, and overall financial condition.

The Dodd-Frank Act The Dodd-Frank Wall Street Reform and Consumer Protection Act ("DFA") became law on July 21, 2010. The DFA includes corporate governance and executive compensation reforms, new registration requirements for hedge fund and private equity fund advisers, increased regulation of over-the-counter derivatives and asset-backed securities, and new rules for credit rating agencies. The DFA includes these provisions:

Title X established an independent Federal regulatory body within the Federal Reserve System. Dedicated exclusively to consumer protection and known as the Consumer Financial Protection Bureau (the "CFPB"), this regulatory body has responsibility for most consumer protection laws, with rulemaking, supervisory, examination, and enforcement authority.

under section 334 the FDIC's minimum reserve ratio is to be increased from 1.15% to 1.35%, with the goal of attaining that 1.35% level by September 30, 2020. As of September 30, 2018, the reserve ratio exceeded the required minimum of 1.35%. Small banks, such as the Bank, with total assets less than \$10 billion, will receive credits to offset the portion of their assessments that helped to raise the reserve ratio from 1.15 percent to 1.35 percent. The DFA gives the FDIC much greater discretion to manage its insurance fund reserves, including where to set the insurance fund's designated reserve ratio. When the reserve ratio is at or above 1.38%, the FDIC has stated that it will automatically apply credits to reduce a small bank's regular assessment up to the entire amount of the assessment.

- the deposit insurance cover limit was increased to \$250,000 by section 335.
- section 627 repealed the longstanding prohibition against financial institutions paying interest on checking accounts.

section 331 changed the way deposit insurance premiums are calculated by the FDIC as well. That is, deposit insurance premiums are calculated based upon an institution's so-called assessment base. Until the DFA became law, the assessment base consisted of an institution's deposit liabilities. As revised by section 331, the assessment base is the difference between total assets and tangible equity. In other words, the assessment base takes account of all liabilities, not merely deposit liabilities.

the Office of the Comptroller of the Currency's ability to preempt state consumer protection laws is constrained by section 1044, and because of section 1042 state attorneys general have greater authority to enforce state consumer protection laws against national banks and their operating subsidiaries.

The CFPB, which has rulemaking, supervisory, and enforcement powers under specific federal consumer financial protection laws, including the Equal Credit Opportunity Act, Truth in Lending Act, Real Estate Settlement Procedures Act, Fair Credit Reporting Act, Fair Debt Collection Act, and Consumer Financial Privacy provisions of the Gramm-Leach-Bliley Act. In addition to giving the CFPB responsibility for these specific statutes, the DFA grants to the CFPB broad authority to prohibit the offering by banks of consumer financial products or engaging in acts or practices that the CFPB considers to be unfair, deceptive, or abusive. The CFPB has examination and primary

enforcement authority over depository institutions with \$10 billion or more in assets, not smaller institutions. However, smaller institutions are subject to CFPB rules. In addition, the standards established by the CFPB for large institutions have applied in practice to smaller institutions as well. The DFA does not prevent states from adopting consumer protection laws and standards that are more stringent than those adopted at the federal level and, in certain circumstances, permits state attorneys general to enforce compliance with both the state and federal laws and regulations.

Implementing section 1411 of the DFA, in 2013 the CFPB amended Regulation Z under the Truth in Lending Act, adding a rule that mortgage lenders must make a reasonable and good faith determination that a consumer being granted mortgage credit has the ability to repay the loan according to its terms. Under this new rule, referred to as the “ability-to-repay” rule, mortgage lenders may determine the consumer’s ability to repay in one of two ways. The first alternative involves assessment of eight underwriting factors, including the loan applicant’s current or reasonably expected income or assets, current employment status, monthly payment for the credit applied for, monthly payment on any simultaneous loan being made to the applicant, monthly payment for mortgage-related obligations, current debt obligations, alimony, and child support, monthly debt-to-income ratio or residual income, and credit history. The second alternative involves origination of a so-called “qualified mortgage,” meaning a mortgage with terms that are consistent with minimum standards established by the CFPB, which currently include a maximum 43% debt-to-income ratio for the borrower (although the 43% minimum debt-to-income ratio does not apply if the loan is eligible to be purchased, insured, or guaranteed by FNMA, FHLMC, HUD, or the VA). In general terms, a qualified mortgage is one with a term of 30 years or less, with substantially equal regular periodic payments (although adjustable-rate mortgages can be qualified mortgages), with total points and fees of 3% of the loan amount or less, and without negative amortization or interest-only payments or balloon payments.

A lender originating a qualified mortgage is protected against a legal claim that the lender failed to comply with the ability-to-repay rule. A mortgage with an interest rate exceeding the prime rate by 1.5 percentage points or more (3.5 percentage points for subordinate-lien loans such as home equity loans) is referred to in the CFPB rule as a higher-priced mortgage loan. The lender making a subprime qualified mortgage has less protection under the ability-to-repay rule than a lender making a prime qualified mortgage. A lender originating a mortgage that is not a qualified mortgage is exposed to a potential claim that the lender did not comply with the ability-to-repay rules, which could require the lender to pay damages to the borrower, including but not necessarily limited to the sum of all finance charges and fees paid by the borrower (a lender originating a subprime qualified mortgage bears this risk to a degree as well). The borrower's claim also could impair the lender's ability to enforce the loan terms or foreclose on the real estate collateral. Compliance with the ability-to-repay rules has increased community banks' compliance costs, including our own.

In addition to ability to repay, the DFA imposes a risk-retention requirement on mortgage lenders selling loans into the secondary mortgage market. With some exceptions a mortgage lender selling a loan into the secondary mortgage market must retain ownership of at least 5% of the loan, the assumption being that if mortgage lenders remain exposed to credit risk they will not knowingly make loans that fail to satisfy ordinary and reasonable standards of creditworthiness. A qualified mortgage for purposes of the ability-to-repay rule is also exempt from the risk-retention requirement, allowing a mortgage lender to sell 100% of a qualified mortgage rather than only 95%.

The existing and future rulemakings issued under the Dodd-Frank Act have resulted, and may continue to result, in a significant cost of compliance. The changes resulting from the Dodd-Frank Act may impact the profitability of our business activities, require changes to certain of our business practices, impose upon us more stringent capital, liquidity and leverage requirements or otherwise materially and adversely affect us.

In an Executive Order signed on February 3, 2017, the President of the United States directed the Secretary of the Treasury, in consultation with federal financial regulators, to assess the rules promulgated under the Dodd-Frank Act since 2010 with a view to producing a plan to revise them as necessary. It is unknown at this time to what extent new legislation will be passed into law, what pending or new regulatory proposals will be adopted, or if existing legislation or regulations will be repealed. It is also unknown what the effect of such passage, adoption or repeal would have, either positively or negatively, on our industry or on us. If legislation or regulations are implemented or repealed, it may be time-consuming and expensive for us to alter our internal operations in order to comply with such changes.

The Regulatory Relief Act The Economic Growth, Regulatory Relief, and Consumer Protection Act (the "Regulatory Relief Act") was signed into law in May 2018. The Regulatory Relief Act amends parts of the Dodd-Frank Act, as well as other laws that involve regulation of the financial industry. While the Regulatory Relief Act keeps in place fundamental aspects of the Dodd-Frank Act's regulatory framework, the Regulatory Relief Act includes a number of provisions that are favorable to bank holding companies with total consolidated assets of less than \$10 billion, such as the Company, and also makes changes to consumer mortgage and credit reporting regulations and to the authorities of the agencies that regulate the financial industry. A number of the provisions included in the Regulatory Relief Act require the federal banking agencies to either promulgate regulations or amend existing regulations, and it will likely

take some time for these agencies to implement the necessary changes.

The following is a brief summary of select provisions of the Regulatory Relief Act which are not otherwise covered in other sections below.

Provisions that are Favorable to Community Banks. There are a number of provisions in the Regulatory Relief Act that will have a favorable impact on community banks such as The Middlefield Banking Company. These are briefly referenced below.

Simplified Capital Requirements for Community Banks. The Regulatory Relief Act simplifies capital calculations by requiring regulators to create a community bank leverage ratio of tangible equity/average assets between 8% and 10%. Depository institutions that maintain a higher ratio would automatically be deemed to be well capitalized and in compliance with capital and leverage requirements, although regulators retain the flexibility to determine that a depository institution may not qualify for the community bank leverage ratio test based on the institution's risk profile. On November 21, 2018, the federal banking agencies issued a notice of proposed rulemaking seeking comment on a proposal that would create an alternative, voluntary, capital framework for qualifying institutions that will deem an institution to be well capitalized so long as the institution maintains a leverage ratio of at least 9% and adequately capitalized so long as the institution maintains a leverage ratio of at least 7.5%. Under the proposed rule, banks with less than \$10 billion in assets would be able to elect the community bank leverage ratio framework if they meet the 9 percent ratio and if they hold 25 or less percent of assets in off-balance sheet exposures, 5 percent or less of assets in total trading assets and liabilities, 25 percent or less in mortgage servicing assets and 25 percent or less in temporary difference deferred tax assets. The proposal provides details about the calculation of the community bank leverage ratio, the election process and how the agencies would handle situations when banks' leverage ratios deteriorate and when Prompt Corrective Action is required. A qualifying community banking organization that has chosen the alternative framework would not be required to calculate the existing risk-based and leverage capital requirements and would also be considered to have met the capital ratio requirements to be well capitalized for the agencies' prompt corrective action rules, provided it has a community bank leverage ratio greater than 9 percent.

Revised Capital Requirements for High Volatility Commercial Real Estate Loans. The Regulatory Relief Act also provides that federal banking regulators may not impose higher capital standards on High Volatility Commercial Real Estate (HVCRE) exposures unless they are for acquisition, development or construction (ADC), and clarifies ADC status. The Regulatory Relief Act expands the exclusions from the current definition of an HVCRE exposure by (1) excluding loans for (a) the acquisition or refinancing of existing income-producing real property if the cash flow of the property is sufficient to support the debt service and expenses of the property and (b) for improvements to existing income-producing real property if the cash flow of the property is sufficient to support the debt service and expenses of the property and (2) by counting paid development expenses and contributed real property or improvements towards the borrower's contributed capital. This new two-prong test provides lenders with the flexibility to terminate the HVCRE ADC designation and release the borrower's additional capital without the need for refinancing. The Regulatory Relief Act also makes it clear that lenders have discretion to determinate when and if the two-prong test has been satisfied based on their own underwriting criteria.

Exception for Certain Reciprocal Deposits from Treatment as Brokered Deposits. The Regulatory Relief Act amends the Federal Deposit Insurance Act to exclude reciprocal deposits of an insured depository institution from limitations on broker deposits. A well-managed and well-capitalized depository institution may now hold reciprocal deposits in an amount that does not exceed the lesser of \$5 billion or 20% of the depository institution's total liabilities without those reciprocal deposits being treated as brokered deposits. Reciprocal deposits are defined in the Regulatory Relief Act as deposits that a bank receives through a deposit placement network with the same maturity (if any) and in the same aggregate amount as deposits (other than deposits obtained through a deposit broker) placed by the bank in another network bank. The amendment will also have the effect of lowering deposit insurance premiums for well-capitalized banks that use deposit placement networks.

Increase in Asset Threshold for Qualifying for an 18-Month Examination Cycle. For well-managed, well-capitalized banks, the Regulatory Relief Act increases the asset threshold for institutions qualifying for an 18-month on-site examination cycle, from the current 12-month on-site examination cycle, from \$1 billion to \$3 billion in total consolidated assets.

Short Form Call Reports. The Regulatory Relief Act requires the federal banking agencies to promulgate regulations allowing an insured depository institution with less than \$5 billion in total consolidated assets (and that satisfies such other criteria as determined to be appropriate by the agencies) to submit a short-form call report for its first and third quarters of a calendar year.

Consumer Protection Enhancements. The Regulatory Relief Act improves consumer access to mortgage credit by, among other things, (i) exempting banks with less than \$10 billion in assets from the ability-to-repay requirements for certain qualified residential mortgage loans; (ii) removing the requirement to obtain appraisals for certain transactions valued at less than \$400,000 in rural areas; (iii) exempting banks and credit unions that originate fewer than 500 open-end and 500 closed-end mortgages from expanded Home Mortgage Disclosure Act data disclosures mandated by the Dodd-Frank Act; (iv) amending the SAFE Mortgage Licensing Act by providing registered mortgage loan originators in good standing with 120 days of transitional authority to originate loans when moving from a federal depository institution to a non-depository institution or across state lines; (v) requiring the CFPB to clarify how TILA-RESPA Integrated Disclosure applies to mortgage assumption transactions and construction-to-permanent home loans as well as outline certain liabilities related to model disclosure use, (vi) adding certain protections for consumers, including veterans and active duty military personnel, expanded credit

freezes and creation of an identity theft protection database.

Other new proposals for legislation continue to be introduced in the U.S. Congress that could further substantially revise regulation of the bank and non-bank financial services industries and impose restrictions on the operations and general ability of firms within the industry to conduct business consistent with historical practices. Federal and state regulatory agencies also frequently adopt changes to their regulations or change the manner in which existing regulations are applied. Certain aspects of current or proposed regulatory or legislative changes to laws applicable to the financial industry, if enacted or adopted, may impact the profitability of our business activities, require more oversight or change certain of our business practices, including the ability to offer new products, obtain financing, attract deposits, make loans and achieve satisfactory interest spreads and could expose us to additional costs, including increased compliance costs. These changes also may require us to invest significant management attention and resources to make any necessary changes to operations to comply and could have an adverse effect on our business, financial condition and results of operations.

Sarbanes-Oxley Act of 2002 The goals of the Sarbanes-Oxley Act enacted in 2002 are to increase corporate responsibility, to provide for enhanced penalties for accounting and auditing improprieties at publicly traded companies, and to 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 Securities Exchange Act of 1934. 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-month period 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. The premium that banks pay for deposit insurance is based upon a risk classification system established by the FDIC. Banks with higher levels of capital and a low degree of supervisory concern are assessed lower premiums than banks with lower levels of capital or a higher degree of supervisory concern.

The FDIC is able to assess higher rates to institutions with a significant reliance on secured liabilities or a significant reliance on brokered deposits but, for well-managed and well-capitalized institutions, only when accompanied by rapid asset growth.

Assessments are based on the average consolidated total assets less tangible equity capital of a financial institution. Assessment rates range from 2.5 to 9 basis points on the broader assessment base for banks in the lowest risk category (“well capitalized” and CAMELS I or II) and up to 30 to 45 basis points for banks in the highest risk category.

Effective July 1, 2016, the FDIC changed the way established small banks are assessed for deposit insurance. The FDIC has eliminated the risk categories for 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 I or II ratings has been reduced to 1.5 to 16 basis points and the maximum assessment rate for established small banks with CAMELS III through V ratings is 30 basis points.

As of September 30, 2018, the Deposit Insurance Fund reserve ratio exceeded the required minimum of 1.35% set by the Dodd-Frank Act. Small banks, such as the Bank, with total assets less than \$10 billion, will receive credits to offset the portion of their assessments that helped to raise the Deposit Insurance Fund reserve ratio from 1.15 percent to 1.35 percent. The total amount of small bank credits is estimated to be approximately \$750 million. When the Deposit Insurance Fund reserve ratio is at or above 1.38%, the FDIC has stated that it will automatically apply credits to reduce a small bank’s regular assessment up to the entire amount of the assessment.

The FDIC has authority to increase insurance assessments. 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 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 Although The Middlefield Banking Company is not a member bank of the Federal Reserve System, it is required by the Federal Deposit Insurance Act to comply with section 23A and section 23B of the Federal Reserve Act — pertaining to transactions with affiliates — as if it were a member bank. 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 Regulation O of the Federal Reserve Board. 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. And 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, 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 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 operation — 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 March 6, 2017 states that MBC's CRA rating is "Satisfactory."

Federal Home Loan Bank The Federal Home Loan Bank serves as a credit source for their 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 standards take into account a member's performance under the Community Reinvestment Act and its record of lending to first-time home buyers.

Cybersecurity 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.

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. While to date we have not experienced a significant compromise, significant data loss or any material financial losses related to cybersecurity attacks, our systems and those of our clients and third-party service providers are under constant threat and it is possible that we could experience a significant event in the future. Risks and exposures related to cybersecurity attacks are expected to remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats, as well as due to the expanding use of Internet banking, mobile banking and other technology-based products and services by the Bank and its clients.

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,

- 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,

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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.

State Banking Regulation As an Ohio-chartered bank, The Middlefield Banking Company is subject to regular examination by the Ohio Division of Financial Institutions. 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 Ohio Division of Financial Institutions 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

We are exposed to interest rate risk. 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 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. 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.

The Company may not be able to attract and retain skilled people. The Company's success depends, in large part, on its ability to attract and retain key people. Competition for the best people can be intense and the Company may not be able to hire people or to retain them. The unexpected loss of the services of key personnel of the Company could have a material adverse impact on the Company's business because of their skills, knowledge of the Company's market, years of industry experience, and the difficulty of promptly finding qualified replacement personnel. The Company has non-competition agreements with senior officers and key personnel.

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 other major metropolitan areas, 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.

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. This supervision and regulation affects 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. 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.

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 loan losses may prove to be insufficient to absorb the probable, incurred 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 accounting principles generally accepted in the United States (“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 loan losses. The allowance for loan losses is a reserve established through a provision for possible loan losses charged to expense that represents management’s best estimate of probable losses that have been incurred within the existing portfolio of loans. Current accounting standards for loan loss provisioning are based on the so-called “incurred loss” model. Under this model, a bank can reserve against a loan loss through a provision to the loan loss reserve only if that loss has been “incurred,” which means a loss that is probable and can be reasonably estimated. To meet that standard, banks have to document why a loss is probable and reasonably estimable, and the easiest way to do that is to refer to historical loss rates and the bank’s own prior loss experience with the type of asset in question. Banks are not limited to using historical experience in deciding the appropriate level of the loan loss reserve. In making these determinations, management can use judgment that takes into account other factors, such as changes in underwriting standards and changes in the economic environment that would have an impact on loan losses.

The level of the allowance for loan losses reflects management's continuing evaluation of industry concentrations; specific credit risks; loan loss experience; current loan portfolio quality; present economic, political, and regulatory conditions; and unidentified losses inherent in the current loan portfolio. The determination of the appropriate level of the allowance for possible loan losses inherently involves a high degree of subjectivity and requires management to make significant estimates of current credit risks, all of which may undergo material changes. Continuing deterioration in economic conditions affecting borrowers, new information regarding existing loans, identification of additional problem loans and other factors, both within and outside of the Company's control, may require an increase in the allowance for possible loan losses. If charge-offs in future periods exceed the allowance for possible loan losses, the Company will need additional provisions to increase the allowance for possible loan losses. In addition, bank regulatory agencies periodically review the allowance for loan and lease losses and may require an increase in the provision for possible loan losses or the recognition of further loan charge-offs, based on judgments different than those of management. Any increases in the allowance for possible loan 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.

A new accounting standard may require us to increase our allowance for loan and lease losses and may have a material adverse effect on our financial condition and results of operations. The Financial Accounting Standards Board ("FASB") has adopted a new accounting standard that will be effective for the Bank for our first fiscal year after December 15, 2019. This standard, referred to as Current Expected Credit Loss, or CECL, will require financial institutions to determine periodic estimates of lifetime expected credit losses on loans, and recognize the expected credit losses as allowances for loan losses. This will change the current method of providing allowances for loan losses that are probable, which may require us to increase our allowance for loan and lease losses, and to greatly increase the types of data we will need to collect and review to determine the appropriate level of the allowance for loan and lease losses. Any change in the allowance for loan and lease losses at the time of adoption will be an adjustment to retained earnings and would change the Bank's capital levels. A banking organization that experiences a reduction in retained earnings as of the CECL adoption date may elect to phase in the regulatory capital impact of adopting CECL over a three-year transition period. Any increase in our allowance for loan and lease losses or expenses incurred to determine the appropriate level of the allowance for loan and lease losses may have a material adverse effect on our financial condition and results of operations. Upon adoption of the CECL, credit loss allowances may increase, which would decrease retained earnings and thereby affect common equity tier 1 capital for regulatory capital purposes. CECL implementation poses operational risk, including the failure to properly transition internal processes or systems, which could lead to call report errors, financial misstatements, or operational losses. Successful implementation may require adjustments to existing data elements and credit loss methods.

Material breaches in security of bank systems may have a significant effect on the Company's business. 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 privacy monitoring activities.

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 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 or operational errors). These disruptions may interfere with service to customers and result in a financial loss or liability.

Changing interest rates have a direct and immediate impact on financial institutions. 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 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, 2018, approximately \$536.8 million, or 52.8%, 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 Federal Home Loan Bank of Atlanta, or the 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.

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 and central Ohio, particularly Franklin, Geauga, Portage, Trumbull, Ashtabula, Summit, Delaware, and Cuyahoga Counties. A very 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.

Changes in accounting standards could materially impact our consolidated financial statements. Our accounting policies and methods are fundamental to how the Company records and reports its financial condition and results of operations. The accounting standard setters, including the Financial Accounting Standards Board, the SEC, and other regulatory bodies, from time to time may change the financial accounting and reporting standards that govern the preparation of our consolidated financial statements. These changes can be hard to predict and can materially impact how we record and report our financial condition and results of operations. In some cases, the Company could be required to apply a new or revised standard retroactively, resulting in changes to previously reported financial results, or a cumulative charge to retained earnings. Management may be required to make difficult, subjective, or complex judgments about matters that are uncertain. Materially different amounts could be reported under different conditions or using different assumptions.

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. As of December 31, 2018, our loans for construction, land development, and other land represent only 51% of our total risk-based capital. At December 31, 2018, the Bank's non-owner occupied commercial real estate concentration was 404% of the Bank's capital and the Bank's commercial real estate loan portfolio has increased by approximately 178% during the prior 36 months. The Bank has determined that its CRE portfolio concentration levels require enhanced monitoring under the regulatory guidance. Management has implemented and continues to maintain heightened portfolio monitoring and reporting, and enhanced underwriting criteria with respect to its commercial real estate portfolio. Nevertheless, our level of commercial real estate lending could limit our growth or require us to obtain additional capital, lead to increased regulatory scrutiny, and could have a material adverse effect on our business, financial condition and results of operations.

Our net-loan-to-deposit-ratio is higher than our peer group and may affect our future profitability and growth. At December 31, 2018, the ratio of our net loans to our total deposits was 96.9%. FDIC-insured, low-cost deposits are a stable and desirable source of funding for banks. If we have insufficient core deposits to fund our loan growth, we may be required to rely more heavily on nondeposit sources of funds. The availability and cost of nondeposit funding are more sensitive to changing economic or financial conditions. Our need to rely on noncore funding sources to support future growth may reduce our net interest margin and have an adverse effect on our profitability.

Changes in Tax Laws Could Have an Adverse Effect on Us, Our Industry, Our Customers, The Value of Collateral Securing Our Loans and Demand for Our Loans. Federal tax reform legislation enacted by Congress in December 2017 contains a number of provisions that could have an impact on the banking industry, borrowers and the market for single-family residential and multifamily residential real estate. Among the changes are: a lower cap on the amount of mortgage interest that a borrower may deduct on single-family residential mortgages; the lower mortgage interest cap will be spread among all of the borrower's residential mortgages, which may result in elimination or lowering of the mortgage interest deduction on a second home; limitations on deductibility of business interest expense; limitations on the deductibility of state and local income and property taxes. Such changes could have an adverse effect on the market for and valuation of single-family residential properties and multifamily residential properties, and on the demand for such loans in the future. If home ownership or multifamily residential property ownership become less attractive, demand for our loans could decrease. The value of the properties securing loans in our portfolio may be adversely impacted as a result of the changing economics of home ownership and multifamily residential ownership, which could require an increase in our provision for loan losses, which would reduce our profitability and could materially adversely affect our business, financial condition and results of operations.

We Are Dependent on Our Management Team and Key Employees, and If We Are Not Able to Retain Them, Our Business Operations Could Be Materially Adversely Affected. Our success depends, in large part, on our management team and key employees. 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. Though we have change-in-control agreements in place with certain members of our management team they may still elect to leave at any time. 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.

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 replace them with other service providers, 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 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.

There are risks with respect to future expansion and acquisitions or mergers. The Company may seek in the future to acquire other financial institutions or parts of those institutions. The Company may also expand into new markets or lines of business or offer new products or services. These activities would involve a number of risks, including:

- the time and expense associated with identifying and evaluating potential acquisitions and merger partners;

- using inaccurate estimates and judgments to evaluate credit, operations, management, and market risks with respect to the target institution or assets;
- diluting our existing shareholders in an acquisition;
- the time and expense associated with evaluating new markets for expansion, hiring experienced local management, and opening new offices;
- taking a significant amount of time negotiating a transaction or working on expansion plans, resulting in management's attention being diverted from the operation of our existing business; and
- the time and expense associated with integrating the operations and personnel of the combined businesses, creating an adverse short-term effect on our results of operations.

There is also a risk that any expansion effort will not be successful.

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. As of December 31, 2018, MBC could have declared dividends of approximately \$10.1 million in the aggregate 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.

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, 2018, we had \$17.5 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 Associated with the Company's Common Stock

A limited trading market exists for our common shares which could lead to price volatility. Your ability to sell our common shares depends upon the existence of an active trading market for our common shares. While our stock is quoted on the NASDAQ Capital Market, there is low trading volume in our common stock. As a result, you may be unable to sell or purchase our common shares at the volume, price and time you desire. The limited trading market for our common shares may cause fluctuations in the market value of our common shares to be exaggerated, leading to price volatility in excess of that which would occur in a more active trading market. In addition, even if a more active market of our common stock develops, we cannot assure you that such a market will continue.

Factors that may affect the volatility of our stock include:

our actual or anticipated operating and financial results, including how those results vary from the expectations of management, securities analysts and investors

changes in financial estimates or publication of research reports and recommendations by financial analysts or actions taken by rating agencies with respect to other financial institution

failure to declare dividends on our common stock from time to time

reports in the press or investment community generally or relating to our reputation or the financial services industry

developments in our business or operations or in the financial sector generally

any future offerings by us of our common stock

legislative or regulatory changes affecting our industry generally or our business and operations specifically

the operating and stock price performance of companies that investors consider to be comparable to us

announcements of strategic developments, acquisitions, restructurings, dispositions, financings and other material events by us or our competitors

expectations of (or actual) equity dilution, including the actual or expected dilution to various financial measures, including earnings per share, that may be caused by this offering

actions by our current shareholders, including future sales of common shares by existing shareholders, including our directors and executive officers

proposed or final regulatory changes or developments

anticipated or pending regulatory investigations, proceedings, or litigation that may involve or affect us

other changes in U.S. or global financial markets, global economies and general market conditions, such as interest or foreign exchange rates, stock, commodity, credit or asset valuations or volatility

Item 1B — Unresolved Staff Comments

Not applicable

Item 2 — Properties

The Bank's offices are:

Location	County	Owned/Leased	Other Information
Main Office: 15985 East High Street Middlefield, Ohio	Geauga	Owned	
Branches : West Branch 15545 West High Street Middlefield, Ohio	Geauga	Owned	
Garrettsville Branch 8058 State Street Garrettsville, Ohio	Portage	Owned	
Mantua Branch 10519 South Main Street Mantua, Ohio	Portage	Leased	three-year lease renewed in November 2016, with option to renew for two additional consecutive three-year terms
Chardon Branch 348 Center Street Chardon, Ohio	Geauga	Owned	
Orwell Branch 30 South Maple Street Orwell, Ohio	Ashtabula	Owned	

Newbury Branch

11110 Kinsman Road Geauga Leased
Newbury, Ohio

ten-year lease dated April 2006, with option to renew for four additional consecutive five-year terms; lease renewed in December 2016 for five years

Cortland Branch

3450 Niles Cortland
Road Trumbull Owned
Cortland, Ohio

Dublin Branch

6215 Perimeter Drive Franklin Leased
Dublin, Ohio

fifteen-year lease dated February 2004, extended to expire September 2021, with one option to renew for an additional three-year period

Westerville Branch

17 North State Street Franklin Owned
Westerville, Ohio

Administrative
Offices: Geauga Owned
15200 Madison Road
Suite 108

Middlefield, Ohio

Mentor Loan
Production Office

8353 Mentor Avenue Lake Leased
Mentor, Ohio

one-year lease dated September 2015, revised December 2017, with option to renew for two additional terms of one year each

Sunbury Branch

492 West Cherry
Street Delaware Leased
Sunbury, Ohio

five-year lease dated July 2016, with the option to renew for two additional five-year terms

Beachwood
Branch

25201 Chagrin Blvd. Cuyahoga Leased ten-year lease dated June 2005, extended for a period of 10 years commencing on July 1, 2015, with option to renew for two consecutive periods of five years each

Beachwood,
Ohio

Solon Branch

6134 Kruse Drive Cuyahoga Leased twelve-year lease dated June 2008, with the option to renew for four additional five-year terms, first option exercised July 26, 2016, lease expiring July 31, 2025

Solon, Ohio

Twinsburg
Branch

2351 Edison Summit Owned
Blvd

Twinsburg, Ohio

Powell Branch

10628 Sawmill Delaware Owned
Parkway

Powell, Ohio

At December 31, 2018, the net book value of the Bank's investment in premises and equipment totaled \$13.0 million.

Item 3 — Legal Proceedings

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

Our common stock is traded on the NASDAQ Capital Market under the symbol “MBCN.” At the close of business on December 31, 2018, there were approximately 1,035 shareholders of record.

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 2018 Annual Report to Shareholders and is incorporated herein by reference.

Item 6 — Selected Financial Data

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 2018 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. appear in the Company's 2018 Annual Report to Shareholders and are incorporated herein by reference.

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

None

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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, have 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 for the purpose of ensuring that the information required to be disclosed in the reports that the Company files or submits under the Exchange Act with the Securities and Exchange Commission (the "SEC") (1) is recorded, processed, summarized and reported within the time 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, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B — Other Information

None

Part III

Item 10 — Directors, Executive Officers, and Corporate Governance

Incorporated by reference to the definitive proxy statement for the 2019 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

The Company's Code of Ethics is available on the corporate website at www.middlefieldbank.bank/pdf/CodeofEthics.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 at this internet address.

Item 11 — Executive Compensation

Incorporated by reference to the definitive proxy statement for the 2019 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

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

Incorporated by reference to the definitive proxy statement for the 2019 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

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

Incorporated by reference to the definitive proxy statement for the 2019 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

Item 14 — Principal Accountant Fees and Services

Incorporated by reference to the definitive proxy statement for the 2019 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

Part IV

Item 15 — Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

Index to Consolidated Financial Statements :

Consolidated Financial Statements as of December 31, 2018 and 2017 and for each of the two years in the period ended December 31, 2018:

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."

(a)(3) Exhibits

See the list of exhibits below

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

Exhibit Description

Location

Number

3.1	<u>Second Amended and Restated Articles of Incorporation of Middlefield Banc Corp., as amended</u>	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	<u>Regulations of Middlefield Banc Corp.</u>	Incorporated by reference to Exhibit 3.2 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
4	<u>Specimen stock certificate</u>	Incorporated by reference to Exhibit 4 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
4.1	<u>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</u>	Incorporated by reference to Exhibit 4.1 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
4.2	<u>Junior Subordinated Indenture, dated as of December 21, 2006, between Middlefield Banc Corp. and Wilmington Trust Company</u>	Incorporated by reference to Exhibit 4.2 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
4.3	<u>Guarantee Agreement, dated as of December 21, 2006, between Middlefield Banc Corp. and Wilmington Trust Company</u>	Incorporated by reference to Exhibit 4.3 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006

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10.1.0*	<u>2017 Omnibus Equity Plan</u>	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*	<u>2007 Omnibus Equity Plan</u>	Incorporated by reference to Middlefield Banc Corp.'s definitive proxy statement for the 2008 Annual Meeting of Shareholders, Appendix A, filed on April 7, 2008
10.2*	<u>Severance Agreement between Middlefield Banc Corp. and Thomas G. Caldwell, dated January 7, 2008</u>	Incorporated by reference to Exhibit 10.2 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.3*	<u>Severance Agreement between Middlefield Banc Corp. and James R. Heslop, II, dated January 7, 2008</u>	Incorporated by reference to Exhibit 10.3 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.4	<u>Federal Home Loan Bank of Cincinnati Agreement for Advances and Security Agreement dated September 14, 2000</u>	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*	<u>Severance Agreement between Middlefield Banc Corp. and Teresa M. Hetrick, dated January 7, 2008</u>	Incorporated by reference to Exhibit 10.4.1 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.4.2	[reserved]	
10.4.3*	<u>Severance Agreement between Middlefield Banc Corp. and Donald L. Stacy, dated January 7, 2008</u>	Incorporated by reference to Exhibit 10.4.3 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.4.4*	<u>Severance Agreement between Middlefield Banc Corp. and Alfred F. Thompson Jr., dated January 7, 2008</u>	Incorporated by reference to Exhibit 10.4.4 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.5	[reserved]	
10.6*	<u>Amended Director Retirement Agreement with Richard T. Coyne</u>	Incorporated by reference to Exhibit 10.6 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.7*	<u>Amended Director Retirement Agreement with Frances H. Frank</u>	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*	<u>Director Retirement Agreement with Donald D. Hunter</u>	Incorporated by reference to Exhibit 10.10 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2001, filed on March 28, 2002
10.11*	<u>Director Retirement Agreement with Martin S. Paul</u>	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*	[reserved]	
10.13*	[reserved]	
10.14*	<u>Executive Survivor Income Agreement (aka DBO agreement [death benefit only]) with Donald L. Stacy</u>	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*	<u>DBO Agreement with Jay P. Giles</u>	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*	<u>DBO Agreement with Alfred F. Thompson Jr.</u>	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*	<u>DBO Agreement with Teresa M. Hetrick</u>	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*	<u>Executive Deferred Compensation Agreement with Jay P. Giles</u>	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*	<u>DBO Agreement with James R. Heslop, II</u>	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*	<u>DBO Agreement with Thomas G. Caldwell</u>	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*	<u>Annual Incentive Plan</u>	Incorporated by reference to Exhibit 10.22 of Middlefield Banc Corp.'s Form 8-K Current Report filed on June 12, 2012

10.22.1*	<u>Annual Incentive Plan 2018 Award Summary</u>	Incorporated by reference to Middlefield Banc Corp.'s Form 8-K current Report filed on March 13, 2018
10.23*	<u>Amended Executive Deferred Compensation Agreement with Thomas G. Caldwell</u>	Incorporated by reference to Exhibit 10.23 of Middlefield Banc Corp.'s Form 8-K Current Report filed on May 9, 2008
10.24*	<u>Amended Executive Deferred Compensation Agreement with James R. Heslop, II</u>	Incorporated by reference to Exhibit 10.24 of Middlefield Banc Corp.'s Form 8-K Current Report filed on May 9, 2008
10.25*	<u>Amended Executive Deferred Compensation Agreement with Donald L. Stacy</u>	Incorporated by reference to Exhibit 10.25 of Middlefield Banc Corp.'s Form 8-K Current Report filed on May 9, 2008
10.26*	<u>Executive Variable Benefit Deferred Compensation Agreement with James R. Heslop, II</u>	Incorporated by reference to Exhibit 10.26 of Middlefield Banc Corp.'s Form 8-K Current Report filed on July 11, 2018
10.27*	<u>Executive Variable Benefit Deferred Compensation Agreement with Donald L. Stacy</u>	Incorporated by reference to Exhibit 10.27 of Middlefield Banc Corp.'s Form 8-K Current Report filed on July 11, 2018
10.28*	<u>Executive Deferred Compensation Agreement with Charles O. Moore</u>	Incorporated by reference to Exhibit 10.28 of Middlefield Banc Corp.'s Form 10-Q Current Report filed on August 7, 2018
10.29*	<u>Form of conditional stock award under the 2007 Omnibus Equity Plan</u>	Incorporated by reference to Exhibit 10.29 of Middlefield Banc Corp.'s Form 8-K Current Report filed on March 4, 2016
10.29.1	<u>Form of conditional stock award under the 2017 Omnibus Equity Plan</u>	Incorporated by reference to Exhibit 10.29 of Middlefield Banc Corp.'s Form 8-K Current Report filed on July 24, 2017
13	<u>Portions of Annual Report to Shareholders for the year ended December 31, 2018 incorporated by reference into this Form 10-K</u>	filed herewith
21	<u>Subsidiaries of Middlefield Banc Corp.</u>	filed herewith
23	<u>Consent of S.R. Snodgrass, P.C., independent auditors of Middlefield Banc Corp.</u>	filed herewith
31.1	<u>Rule 13a-14(a) certification of Chief Executive Officer</u>	filed herewith
31.2	<u>Rule 13a-14(a) certification of Chief Financial Officer</u>	filed herewith

32 Rule 13a-14(b) certification filed herewith

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99.1	<u>Form of Indemnification Agreement with directors of Middlefield Banc Corp. and with executive officers of Middlefield Banc Corp. and The Middlefield Banking Company</u>	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
101.INS**	XBRL Instance	furnished herewith
101.SCH**	XBRL Taxonomy Extension Schema	furnished herewith
101.CAL**	XBRL Taxonomy Extension Calculation	furnished herewith
101.DEF**	XBRL Taxonomy Extension Definition	furnished herewith
101.LAB**	XBRL Taxonomy Extension Labels	furnished herewith
101.PRE**	XBRL Taxonomy Extension Presentation	furnished herewith

* management contract or compensatory plan or arrangement

** 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 of 1934, as amended, and otherwise is not subject to liability under these sections.

Item 16 – Form 10-K Summary

None.

Signatures

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

Middlefield Banc Corp.

By: /s/
Thomas
G.
Caldwell
Thomas
G.
Caldwell
President
and Chief
Executive
Officer
Date:
March 6,
2019

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/ Thomas G. Caldwell	March 6, 2019
Thomas G. Caldwell President, Chief Executive Officer, and Director	
/s/ Donald L. Stacy	March 6, 2019
Donald L. Stacy, Treasurer and Chief Financial Officer (Principal accounting and financial officer)	
/s/ Carolyn J. Turk	March 6, 2019
Carolyn J. Turk, Chairman of the Board	

/s/ Eric W. Hummel
Eric W. Hummel, Director

March 6,
2019

/s/ James R. Heslop, II
James R. Heslop, II, Executive Vice President,
Chief Operating Officer, and Director

March 6,
2019

/s/ Kenneth E. Jones
Kenneth E. Jones, Director

March 6,
2019

/s/ James J. McCaskey
James J. McCaskey, Director

March 6,
2019

/s/ William J. Skidmore
William J. Skidmore, Director

March 6,
2019

/s/ Robert W. Toth
Robert W. Toth, Director

March 6,
2019

/s/ Clayton W. Rose, III March 6, 2019
Clayton W. Rose, III, Director

/s/ Darryl E. Mast March 6, 2019
Darryl E. Mast, Director

/s/ Thomas W. Bevan March 6, 2019
Thomas W. Bevan, Director

/s/ William A. Valerian March 6, 2019
William A. Valerian, Director