



2016 Annual Report

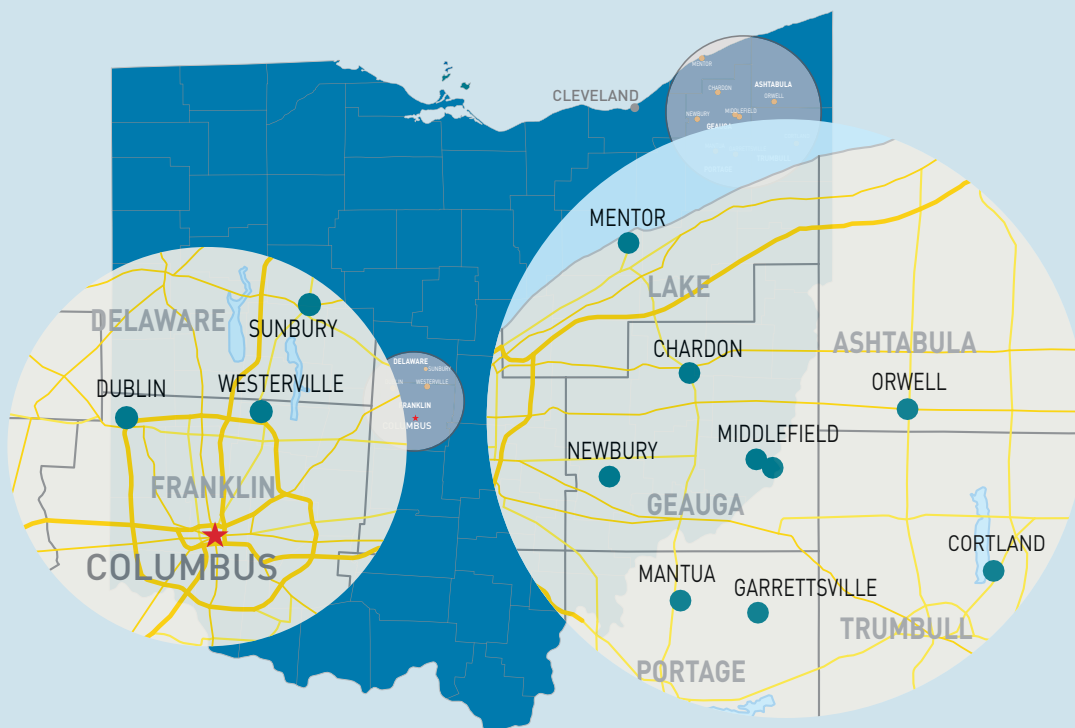


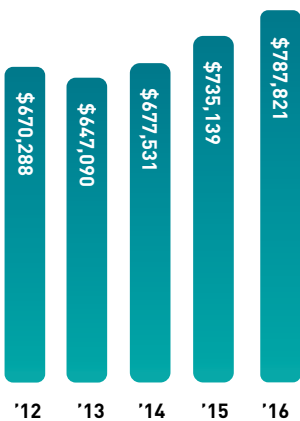
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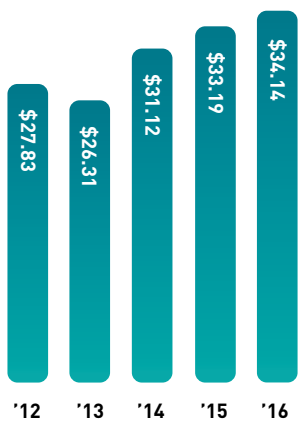
STATISTICAL SUMMARY



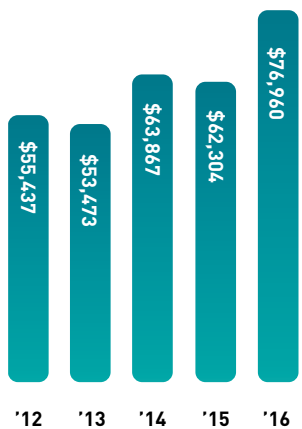
Net Income
(in thousands)



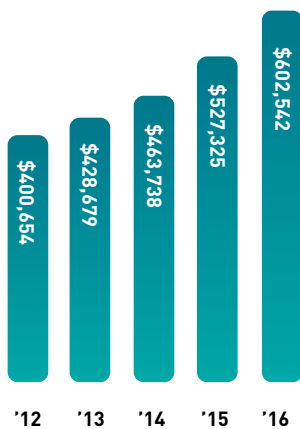
Total Assets
(in thousands)



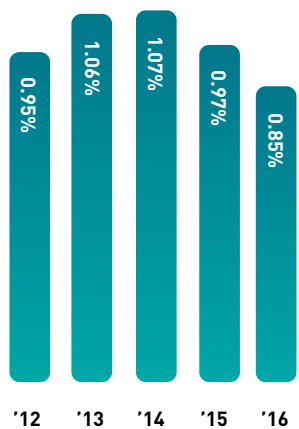
Book Value Per Share



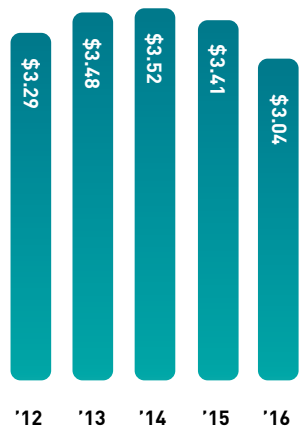
Equity Capital
(in thousands)



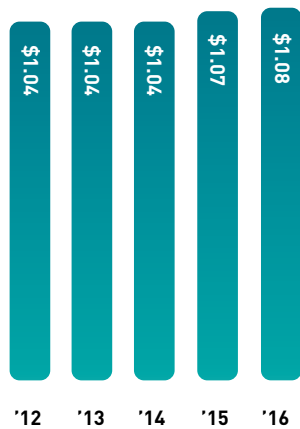
Net Loans Outstanding
(in thousands)



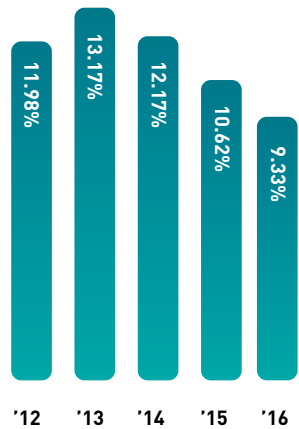
Return on Average Assets



Basic Earnings Per Share



Dividends Per Share



Return on Average Equity

DECADE OF PROGRESS

(Dollar amounts in thousands, except earnings per share data)	2007	2008	2009
Interest Income	\$ 24,873	\$ 26,038	\$ 26,051
Interest Expense	13,531	14,058	11,783
Net Interest Income	11,342	11,980	14,268
Provision for Loan Loss	430	608	2,578
Net Interest Income After Provision for Loan Losses	10,912	11,372	11,690
Noninterest Income, Including Security Gains/Losses	2,632	2,226	2,668
Noninterest Expense	9,373	10,596	12,650
Income Before Income Taxes	4,171	3,002	1,708
Income Taxes	796	387	(73)
Net Income	\$ 3,375	\$ 2,615	\$ 1,781
Total Assets	\$434,273	\$467,847	\$558,658
Deposits	362,918	394,819	487,106
Equity Capital	34,962	35,059	36,707
Loans Outstanding, Net	306,147	318,019	348,660
Allowance for Loan Losses	3,299	3,557	4,937
Net Charge-offs	423	351	1,198
Full Time Employees (Average Equivalents)	91	101	106
Number of Offices	9	10	10
Earnings Per Share	\$ 2.17	\$ 1.72	\$ 1.15
Dividends Per Share	0.94	1.03	1.04
Book Value Per Share	22.56	22.83	23.46
Dividend Payout Ratio	43.07%	60.25%	90.28%
Cash Dividends Paid	\$ 1,454	\$ 1,575	\$ 1,608
Return on Average Assets	0.85%	0.58%	0.36%
Return on Average Equity	10.06%	7.91%	4.90%

2010	2011	2012	2013	2014	2015	2016
\$ 29,094	\$ 29,727	\$ 28,746	\$ 28,178	\$ 27,874	\$ 28,595	\$ 29,994
10,945	8,652	6,447	5,250	4,070	3,820	4,190
18,149	21,075	22,299	22,928	23,804	24,775	25,804
3,580	3,085	2,168	196	370	315	570
14,569	17,990	20,131	22,732	23,434	24,460	25,234
2,623	2,237	3,451	3,145	3,588	4,044	3,959
14,763	15,501	15,639	16,870	17,850	20,077	20,872
2,429	4,726	7,943	9,007	9,172	8,427	8,321
(88)	596	1,662	1,979	1,992	1,562	1,905
\$ 2,517	\$ 4,130	\$ 6,281	\$ 7,028	\$ 7,180	\$ 6,865	\$ 6,416
\$632,197	\$654,551	\$670,288	\$647,090	\$677,531	\$735,139	\$787,821
565,251	580,962	593,335	568,836	586,112	624,447	629,934
38,022	47,253	55,437	53,473	63,867	62,304	76,960
366,277	395,061	400,654	428,679	463,738	527,325	602,542
6,221	6,819	7,779	7,046	6,846	6,385	6,598
2,296	2,487	1,208	929	570	776	357
108	113	120	125	139	143	139
10	10	10	10	10	10	11
\$ 1.60	\$ 2.45	\$ 3.29	\$ 3.48	\$ 3.52	\$ 3.41	\$ 3.04
1.04	1.04	1.04	1.04	1.04	1.07	1.08
23.90	26.81	27.83	26.31	31.12	33.19	34.14
65.04%	42.71%	31.87%	29.84%	29.54%	30.90%	36.13%
\$ 1,637	\$ 1,764	\$ 2,002	\$ 2,048	\$ 2,121	\$ 2,153	\$ 2,318
0.41%	0.65%	0.95%	1.06%	1.07%	0.97%	0.85%
6.44%	10.24%	11.98%	13.17%	12.17%	10.62%	9.33%

NOTE: The above per share amounts have been restated to 5% stock dividends paid in 2007.

LETTER TO OUR SHAREHOLDERS



Thomas G. Caldwell

President and Chief Executive Officer

To Our Shareholders and Friends:

By many accounts, 2016 was a historic year in the Company's 115-year history, as a result of the careful execution of our growth-oriented business plan. Over the past several years, we have consistently communicated our plans to invest in our business in order to increase our competitiveness, support our growth, and remain independent. I am proud with the continued execution of our business plan and we remain committed to the strategies we have created to enhance the size, scale and scope of our Bank.

Total assets for 2016 increased 7.0% to a record \$787.8 million, compared to \$735.1 million last year. This growth was primarily due to a 14.3% improvement in the Company loan portfolio, as a result of significant growth in commercial and industrial loans, and higher residential and commercial real estate loans. The Company's growing asset base helped Middlefield increase net interest income for 2016 by 4.2% to a record \$25.8 million.

While we grew the Bank's assets during the year, I am pleased to report our asset quality continues to improve, driven by our prudent lending practices and stable local economies. At December 31, 2016, nonperforming loans declined 31.1%, while charge-offs declined 54.0%. This is the lowest level of nonperforming loans since the recession.

In our Northeast Ohio market, we announced the merger with Liberty Bank, N.A. in June. Founded in 1990, the Beachwood, Ohio-based Liberty Bank is a full-service community national bank with assets of approximately \$223.0 million at June 30, 2016. With branch offices in Beachwood, Solon, and Twinsburg, the independently-owned bank specializes in providing innovative personal and business financing solutions with competitive rates and a high level of personalized customer service. Liberty Bank continues to be recognized as one of the nation's strongest financial institutions by receiving a 5-Star Superior rating from Bauer Financial, Inc. Liberty Bank is also a Preferred Lender for the Small Business Administration.

The merger closed on January 13th, will be accretive to 2017's earnings, and I am encouraged with the integration of the two institutions as both Banks share a common culture and work ethic. As a result of the merger, Middlefield is now one of the top 30 largest financial institutions in the State of Ohio, with over \$1.0 billion in total assets, an \$816 million loan portfolio, and deposits of approximately \$820 million. We are excited to begin providing many of our community-oriented services to Liberty's customers, as well as new customers in Cuyahoga and Summit Counties.

During 2016, we had one-time expenses of \$0.7 million associated with the acquisition of Liberty. In addition, we continue to invest in modern online, digital, and mobile banking programs to make it easier for customers to interact with the Bank. Despite these focused investments, noninterest expenses only increased 4.0%, compared to the 7.0% increase in the asset size of our Bank.

As part of our strategic plan, we expanded our presence in Central Ohio with the October opening of a new branch in Sunbury, located in Delaware County just north of Columbus. Sunbury is one of the state's fastest growing suburbs and, along with our other two banking offices located in Franklin County, we now have three offices serving the Central Ohio market. Chuck Moore, our Central Ohio President, and his team are doing a great job expanding our brand. Loans in Central Ohio increased 18.4% in 2016, while our deposit base grew 16.2%.

Increases in our asset size, loan portfolio, and book value, combined with strong asset quality, and our commitment to profitable growth helped create value for shareholders during 2016. The Company's stock price improved 23.4% in 2016. Middlefield's market cap, which multiplies the stock price by the shares outstanding at a specific point of time, increased 43.4% in 2016 to \$87.2 million. This improvement allowed the Company to join the Russell Microcap® index in June, which helps broaden the Company's exposure to the investment community.

While Middlefield's size has increased, we remain focused on our community banking principles and offering customers exceptional service and customized financial products. We continue to support our communities by contributing to local organizations. We understand that without supporting our communities and its members, Middlefield would not be successful.

In addition, many of our associates live in the communities we serve. Throughout all levels of our organization, Middlefield's associates focus on providing superior financial products and responsive personalized service, while promoting economic growth. Middlefield's success is achieved by honoring these values, which is often lost in today's modern banking landscape, where less individualized services and personal integration are becoming the norm. I'd like to use this opportunity to thank all of our associates for their hard work and dedication.

Net income was \$6.4 million for 2016 and included \$0.7 million of nonrecurring expenses associated with

the merger of Liberty. Had it not been for these higher one-time expenses, net income would have been up from 2015's net income of \$6.9 million. Despite higher expenses, Middlefield achieved a return on average equity of 9.33%, which was down from a year ago, but continues to compare favorably to other similarly sized Ohio banks.

For 2016, the Company paid total dividends of \$1.08 per share, which represented a dividend payout ratio of 36.1%, compared to dividends of \$1.07, and a dividend payout ratio of 30.9% for 2015.

Middlefield ended 2016 with a strong base to continue enlarging our organization. We improved our growth opportunities by expanding our presence in Central Ohio with the opening of our Sunbury branch, and enhancing our footprint in Northeast Ohio with the merger of Liberty. We will continue to support and serve our communities through our dedication to quality, safety and soundness, while providing our customers personalized financial products that help answer their specific financial needs.

I'd like to conclude my letter with a special welcome to Liberty's shareholders, who elected to become shareholders of Middlefield. I look forward to your support as we focus on maximizing shareholder value by remaining an independent community-oriented financial services provider and executing our growth-oriented strategic plan.

We look forward to reporting on the Bank's progress throughout 2017 as we sincerely appreciate the dedication of our associates, the loyalty of our customers and the commitment and interest of our shareholders. Thank you.

Sincerely,



Thomas G. Caldwell
President and Chief Executive Officer

LETTER FROM THE CHAIRMAN



Carolyn J. Turk, C.P.A.
Chairman, Board of Directors

Chairman's Letter to the Shareholders

2016 was a year for tremendous progress for Middlefield Banc Corp. We delivered on several strategic initiatives, improved our financial performance and enhanced our long-term value to our shareholders. During the year, we raised additional capital of \$11.9 million, opened a new branch in the thriving community of Sunbury, Ohio and entered into a definitive agreement to merge Liberty Bank, N. A. into The Middlefield Banking Company. All of these accomplishments represent significant milestones in our 115-year history.

The Liberty transaction has enabled us to expand our footprint into Cuyahoga and Summit Counties, provided us with opportunities to increase our non-interest income with additions to our portfolio of products offered, and gained talent to further enhance our franchise. The finalized of this acquisition transaction was completed on January 12, 2017 and as a result Middlefield Bank has surpassed the significant \$1 billion mark for assets.

The banking industry is experiencing increased optimism in early 2017 due to current business climate, interest rates, anticipation of less regulatory burden and increased loan demand. We continue to be conservative in our approach of conducting business and maintain a book of business that exhibits high standards for maintaining credit quality.

In 2017, our primary goals are to further enhance our financial performance and to complete the successful integration of Liberty Bank while remaining a strong and safe community bank that exceeds the expectations of our customers.

Surround yourself with great people and you can do great things. We have formed a strong management team and are sincerely grateful for the extraordinary efforts of our employees. We welcome our new Liberty customers, employees and shareholders to the Middlefield Banc Corp. family. Our future is bright!!

On behalf of the Middlefield Banc Corp. Board of Directors and our employees, we thank you for your continued support.

Sincerely,

A handwritten signature in dark ink that reads "Carolyn J. Turk". The signature is fluid and cursive.

Carolyn J. Turk
Chairman, Board of Directors

MIDDLEFIELD BANC CORP. BOARD OF DIRECTORS



Carolyn J. Turk, C.P.A. – 2004
Chairman, Board of Directors
Middlefield Banc Corp.
The Middlefield Banking Company
Controller
Molded Fiber Glass Companies



Kenneth E. Jones – 2008
Retired Financial Consultant
and Advisor



Thomas G. Caldwell – 1997
President and Chief Executive Officer
Middlefield Banc Corp.
The Middlefield Banking Company



Robert W. Toth – 2009
Retired: Gold Key Processing, Ltd



James R. Heslop, II – 2001
Executive Vice President
Chief Operating Officer
Middlefield Banc Corp.
The Middlefield Banking Company



Eric W. Hummel – 2011
President
Hummel Construction



James J. McCaskey – 2004
President
McCaskey Landscape and Design,
LLC



Darryl E. Mast – 2013
Retired: Hattie Larlham Care
Group, and Hattie Larlham
Foundation



William J. Skidmore – 2007
Northeast Ohio Senior
District Manager
Waste Management
of Ohio, Inc.



Clayton W. Rose, III, C.P.A. –
2014
Executive Principal
Rea & Associates, Inc.

Central Ohio Region Advisory Board

Jeffrey A. Gongwer
George J. Kontogiannis, AIA
Timothy C. Long
Michael J. Moran



THE MIDDLEFIELD BANKING COMPANY OFFICERS

Thomas G. Caldwell – 1986
President and Chief Executive Officer

James R. Heslop, II – 1996
*Executive Vice President
Chief Operating Officer*

Charles O. Moore – 2016
President, Central Ohio

Teresa M. Hetrick – 1996
*Senior Vice President
Operations/Administration*

Donald L. Stacy – 1999
*Senior Vice President
Chief Financial Officer*

Eric P. Hollinger – 2013
*Senior Vice President
Senior Lender*

David G. Dalessandro – 2014
*Senior Vice President
Chief Credit Officer*

Shalini Singhal – 2016
*Senior Vice President
Chief Information Officer*

Kathleen M. Johnson – 1971
*Vice President
Chief Accounting Officer*

Alfred F. Thompson, Jr. – 1996
*Vice President
Loan Administration*

Matthew E. Bellin – 2006
*Vice President
Commercial Lender*

Felicia M. Hough – 2009
*Vice President
Regional Branch Administration*

Courtney M. Erminio – 2010
*Vice President
Risk Officer*

Laura E. Neale – 2010
*Vice President
Commercial Lender*

Robert J. Dawson – 2015
*Vice President
Commercial Lender*

Carole L. Shaull – 2015
*Vice President
Human Resource Administrator*

John Solich – 2015
*Vice President
Commercial Lender*

Deborah L. Burn – 2016
*Vice President
Commercial Lender*

J Todd Price – 2016
*Vice President
Central Ohio Team Leader*

Karen D. Branham – 1983
*Assistant Vice President
Bookkeeping Manager*

Thomas R. Neikirk – 1994
*Assistant Vice President
Commercial Lender*

Kathleen M. Vanek – 1998
*Assistant Vice President
Mantua Branch Manager*

Marlin J. Moschell – 2000
*Assistant Vice President
Orwell Lending Officer*

Kevin J. Mitchell – 2007
*Assistant Vice President
Lender II*

Jean M. Carter – 2009
*Assistant Vice President
Chardon Branch Manager/
Licensed Annuity Specialist*

Dale L. Moore – 2009
*Assistant Vice President
IT Administrator*

James C. Foster – 2011
*Assistant Vice President
Orwell Branch Manager*

Stephen J. Lebold – 2012
*Assistant Vice President
Westerville Branch Manager*

Linda M. Zak – 2014
*Assistant Vice President
Residential Lending Service Manager*

Warren Cox – 2016
*Assistant Vice President
Sunbury Branch Manager*

Thomas Parker – 2016
*Assistant Vice President
Commercial Lender*

Brett A. Richey – 2010
*Banking Officer
Special Assets Manager*

Mark A. Sawyer – 2010
*Banking Officer
Loan Department Supervisor*

Lisabeth A. Muldowney – 2012
*Banking Officer
Garrettsville Branch Manager*

Michelle Bahleda – 2014
*Banking Officer
Lender*

Lori A. Graham – 2013
Compliance/CRA Officer

Kristie Bond – 2014
BSA/Security Officer

THE MIDDLEFIELD BANKING COMPANY STAFF & BRANCH LOCATIONS



Main Office *Walk up ATM*

15985 East High Street, P.O. Box 35

Middlefield, Ohio 44062

888.801.1666 • 440.632.1666 • fax: 440.632.1700

Staff:

Mary Gerbasi – 2010 – *Branch Manager*

Linda Chandler – 2007 – *Teller*

Melissa Gay – 2008 – *CSR/Licensed Annuity Specialist*

Denise Smith – 2009 – *Head Teller*

Brenda Reiter – 2015 – *Teller*

Victoria Poole – 2015 – *Customer Service Representative*

Erika Chernesky – 2016 – *Teller*

Heather Lemr – 2016 – *Teller*

Anita Russell – 2016 – *Teller*

Alyssa Seydler – 2016 – *Teller*

Financial Services:

Thomas Hart – 2004 – *Financial Consultant*

Stacey Albright – 2011 – *Financial Consultant Assistant*

Lending Department:

Jane Armstrong – 1998 – *Lender*

Michael Morrison – 2010 – *Special Assets Manager*

Nicole Loving – 2014 – *Commercial Loan Administrator*

Kay Eckman – 2016 – *Commercial Loan Administrator*

Paul Weeks – 2016 – *Commercial Loan Administrator*

Human Resources:

Kathy Robinson – 2016



West Branch *Drive up ATM*

15545 West High Street, P.O. Box 35

Middlefield, Ohio 44062

888.801.1666 • 440.632.8113 • fax: 440.632.9781

Staff:

Loretta Ricci – 2016 – *Branch Manager*

Patti Russo – 1982 – *CSR/Licensed Annuity Specialist*

Rachel Dean – 1985 – *Head Teller*

Brenda Varner – 2008 – *Teller*

Melissa Mathews – 2009 – *Teller*

Heather Eiermann – 2011 – *Teller*

Nancy McCullough – 2011 – *Teller*

Candice Bowers – 2014 – *Teller**

Heather Koon – 2016 – *Teller**

* denotes part time



Garretttsville Branch *Drive up ATM*

8058 State Street

Garretttsville, Ohio 44231

888.801.1666 • 330.527.2121 • fax: 330.527.4210

Staff:

Vickie Moss – 1998 – *Teller*

Colleen Steele – 1998 – *Head Teller*

Dawn Semich – 2005 – *CSR/Licensed Annuity Specialist*

LynnRae Derthick – 2006 – *Teller*

Lisa Morrison – 2012 – *Teller*

Sydney Handshue – 2016 – *Teller*

Jessica Lucanski – 2016 – *Teller*



Orwell Branch *Drive up ATM*

30 South Maple Street, P.O. Box 66

Orwell, Ohio 44076

888.801.1666 • 440.437.7200 • fax: 440.437.1111

Staff:

Lisa Stokes – 2012 – *Teller*

Heather Mance – 2014 – *Teller*

Rachel Reese – 2014 – *Customer Service Representative*

Shelene Darling – 2016 – *Teller**

Shirley Rafferty – 2016 – *Head Teller*



Cortland Branch *Drive up ATM*

3450 Niles-Cortland Road

Cortland, Ohio 44410

888.801.1666 • 330.637.3208 • fax: 330.637.3207

Staff:

Bonnie Davis – 2013 – *Branch Manager*

Lisa Swango – 2006 – *CSR/Licensed Annuity Specialist*

Jill Donko – 2013 – *Head Teller*

Cindy Hynst – 2013 – *Teller*

Michelle DeMichael – 2015 – *Teller*



Mantua Branch *Walk up ATM*

10519 Main Street, P.O. Box 648

Mantua, Ohio 44255

888.801.1666 • 330.274.0881 • fax: 330.274.0883

Staff:

Alyssa Boxler – 2012 – *Teller**

Katelyn Cook – 2012 – *CSR/Licensed Annuity Specialist*

Tammi Apple – 2013 – *Teller*

Sarah Bruggmann – 2015 – *Teller*



Newbury Branch *Drive up ATM*
 11110 Kinsman Road, Suite 1, P.O. Box 208
 Newbury, Ohio 44065
 888.801.1666 • 440.564.7000 • fax: 440.564.7004

Staff:

Kathy Shanholtzer – 2007 – *Branch Manager*
Helen Milburn – 2008 – *Teller*
Nicole Lange – 2012 – *Customer Service Representative*
Wendy Cherney – 2013 – *Teller*
Julie Smith – 2016 – *Teller*



Chardon Branch *Drive up ATM*
 348 Center Street, P.O. Box 1078
 Chardon, Ohio 44024
 888.801.1666 • 440.286.1222 • fax: 440.286.1111

Staff:

Dottie Brown – 2006 – *Head Teller*
Nerina Mazurek – 2013 – *Teller**
Frances Bozeglav – 2014 – *Teller*
Laura Bush – 2016 – *Teller**
Tiffany Ward – 2016 – *Consumer Lender/Deposit Specialist*



Dublin Branch *Drive up ATM*
 6215 Perimeter Drive
 Dublin, Ohio 43017
 614.793.4631 • fax: 614.793.8922

Staff:

Colleen Pirmann – 2011 – *Branch Manager*
Tyler Henkle – 2015 – *Commercial Lender*
Lori Jones – 2015 – *Head Teller*
Jessica Jacobs – 2016 – *Teller*
Amanda Stricko – 2016 – *Credit Analyst*



Westerville Branch *Drive up ATM*
 17 North State Street
 Westerville, Ohio 43081
 614.890.7832 • fax: 614.890.4633

Staff:

Tammy Downing – 2016 – *Teller**
Elizabeth Flowers – 2016 – *Head Teller*
Rachel Raines – 2016 – *Teller*

Sunbury Branch *Drive up ATM*

492 West Cherry Street

P.O. Box 987

Sunbury, Ohio 43074

740.913.0632 • fax: 614.392.5680

Staff:

Jason Nelson – 2011 – *Branch Manager Trainee*

Ashley Reik – 2016 – *Teller*



528 Administrative Offices

15200 Madison Road, P.O. Box 35

Middlefield, Ohio 44062

888.801.1666

Operations:

Karen Westover – 1983 – *Bookkeeper*

Pamela Malcuit – 1989 – *Bookkeeper*

Donna Williams – 1990 – *Bookkeeper*

Lauren Harth – 1995 – *BSA/Security Assistant**

Tara Morgan – 1997 – *Proof Specialist*

Bonnie Hofstetter – 1998 – *Courier**

Lisa Sanborn – 2000 – *Electronic Banking Specialist*

Joan Sweet – 2002 – *Bookkeeper*

Kristina Stephens – 2006 – *IRA/HSA Administrator*

David Harth – 2008 – *Facility Manager*

Carrie Reiter – 2008 – *Courier**

Derreck Haynes – 2011 – *Systems Training/Development Specialist*

Erica Brilla – 2012 – *Support Center Representative*

Patricia Kelley – 2012 – *Support Center Representative*

Juliann Kish – 2012 – *IS Support/Marketing Assistant*

Marie Casserlie – 2013 – *Float Teller*

John Wilt – 2013 – *Network Administrator*

Christopher Pratt – 2014 – *Customer Support Specialist*

Kimberly Utterback – 2014 – *Compliance Assistant*

Jamie Brinkerhoff – 2015 – *Electronic Bank Representative*

Rachel Gordon – 2015 – *Staff Accountant*

Erna Leagan-Mabel – 2015 – *Float Teller*

Mirsadies Yon – 2015 – *Support Center Representative*

Jamie Genovese – 2016 – *Support Center Representative*

Tracy Weaver – 2016 – *Bookkeeper*

Sheri Wedge – 2016 – *Bookkeeper*

Loan Department:

Helen Stowe – 1985 – *Loan Data Specialist*

Vivian Helmick – 1998 – *Loan Data Specialist*

Diana Koller – 1998 – *Loan Documentation Specialist*

Carolyn Fackler – 2001 – *Consumer Loan Processor*

Sue Trumbull – 2005 – *Bank Card Representative*

Darleen Beaver – 2007 – *Loan Documentation Specialist/Receptionist**

Bethany Rowland – 2008 – *Residential Loan Processor*

Shannon Smith – 2009 – *Residential Loan Processor*

J. Thomas Browne – 2010 – *Credit Analyst*

Carmella Honkala – 2010 – *Consumer Loan Processor*

Sonya Green – 2013 – *Loan Data Specialist*

Jenni Underwood – 2013 – *Residential Loan Closer*

Maryann Damante – 2014 – *Residential Loan Processor*

Deanne Drenik – 2014 – *Commercial Loan Processor*

Christine Iannetta – 2014 – *Loan Data Specialist*

Sandra Miller – 2014 – *Credit Analyst*

Daniel Plant – 2014 – *Underwriter*

Steven Fleishman – 2015 – *Credit Analyst*

Lake County Loan Production Office

8373 Mentor Avenue

Mentor, Ohio 44060

440.632.8140

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

**Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of
1934 for the fiscal year ended: December 31, 2016**

Commission File Number: 001-36613

Middlefield Banc Corp.

(Exact name of registrant as specified in its charter)

Ohio

(State or other jurisdiction
of incorporation or organization)

34-1585111

(IRS Employer
Identification No.)



15985 East High Street, Middlefield, Ohio 44062-0035
(440) 632-1666

(Address, including zip code, and telephone number,
including area code, of registrant's principal executive offices)

Securities registered pursuant to section 12(b) of the Act : common stock, without par value

Securities registered pursuant to section 12(g) of the Act : none

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of 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, or a smaller reporting company. See definition of "accelerated filer," "large accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☒

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

The aggregate market value on June 30, 2016 of common stock held by non-affiliates of the registrant was approximately \$71.1 million. As of March 10, 2017, there were 2,800,429 shares of common stock issued and outstanding.

Documents Incorporated by Reference Portions of the registrant's definitive proxy statements for the 2017 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, 2016 are incorporated by reference into Part I and Part II of this report.

MIDDLEFIELD BANC CORP.
YEAR ENDED DECEMBER 31, 2016
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SIGNATURES

Item 1 — Business

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 engages in the resolution and disposition of troubled assets in central Ohio. 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.com.

On January 12, 2017, we completed our 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 Middlefield’s common stock in exchange for each share of Liberty common stock they owned immediately prior to the merger. Middlefield issued approximately 557,079 shares of its common stock in the merger and the aggregate merger consideration was approximately \$43.1 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.

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, it currently has no significant agricultural loans.

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, 2016, EMORECO’s assets consist of one nonperforming loan and two OREO properties. According to Federal law governing bank holding companies, the 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 market area in northeastern Ohio consists principally of Cuyahoga, Geauga, Portage, Lake, Summit, Trumbull, and Ashtabula Counties. Benefitting from the area’s proximity to Cleveland and Warren, population and income levels have maintained steady growth over the years. MBC’s two central Ohio branches are located in Dublin, Sunbury and Westerville in Franklin County, north of Columbus.

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,” “plan,” and 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 users, including the features, pricing, and quality compared to competitors’ products and services
- the willingness of users 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 habit
- the volume of lending under the student loan program acquired in the merger with Liberty Bank, N.A.

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.

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 rental properties. The Bank’s Credit Policy aspires to a loan composition mix consisting of approximately 40% to 50% consumer purpose transactions including residential real estate loans, home equity loans and other consumer loans. The Policy is also designed to provide for 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 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, 2016, MBC’s 15%-of-capital limit on loans to a single borrower was approximately \$11.6 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 substantial 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 in dollar amounts and in percentages along with a reconciliation to loans receivable, net.

Loan Portfolio Composition at December 31,											
(Dollars in thousands)	2016		2015		2014		2013		2012		
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
Type of loan:											
Commercial and industrial	\$ 60,630	9.95%	\$ 42,536	7.97%	\$ 34,928	7.42%	\$ 54,498	12.51%	\$ 62,188	15.23%	
Real estate construction	23,709	3.89	22,137	4.15	30,296	6.44	25,601	5.88	22,522	5.51	
Mortgage:											
Residential	270,830	44.46	232,478	43.56	210,096	44.65	210,310	48.27	203,872	49.92	
Commercial	249,490	40.96	231,701	43.41	190,685	40.52	141,171	32.40	115,734	28.34	
Consumer installment	4,481	0.74	4,858	0.91	4,579	0.97	4,145	0.94	4,117	1.00	
Total loans	609,140	<u>100.00%</u>	533,710	<u>100.00%</u>	470,584	<u>100.00%</u>	435,725	<u>100.00%</u>	408,433	<u>100.00%</u>	
Less:											
Allowance for loan and lease losses	<u>6,598</u>		<u>6,385</u>		<u>6,846</u>		<u>7,046</u>		<u>7,779</u>		
Net loans	<u>\$ 602,542</u>		<u>\$ 527,325</u>		<u>\$ 463,738</u>		<u>\$ 428,679</u>		<u>\$ 400,654</u>		

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.

Loan Portfolio Maturity at December 31, 2016						
(Dollars in thousands)	Commercial and Industrial	Real Estate Construction	Mortgage		Consumer Installment	Total
Amount due:			Residential	Commercial		
In one year or less	\$ 16,792	874	4,061	5,148	168	\$ 27,043
After one year through five years	23,186	7,055	12,180	17,448	3,043	62,912
After five years	<u>20,652</u>	<u>15,780</u>	<u>254,589</u>	<u>226,894</u>	<u>1,270</u>	<u>519,185</u>
Total amount due	<u>\$ 60,630</u>	<u>\$ 23,709</u>	<u>\$ 270,830</u>	<u>\$ 249,490</u>	<u>\$ 4,481</u>	<u>\$ 609,140</u>

Loans due on demand and overdrafts are included in the amount due in one year or less. The Company has no loans without a stated schedule of repayment or a stated maturity.

The following table shows on a consolidated basis the dollar amount of all loans due after December 31, 2016 that have pre-determined interest rates and the dollar amount of all loans due after December 31, 2016 that have floating or adjustable rates.

	Fixed Rate	Adjustable Rate	Total
(Dollars in thousands)			
Commercial and industrial	\$ 38,039	\$ 22,591	\$ 60,630
Real estate construction	3,551	20,158	23,709
Mortgage:			
Residential	11,942	258,888	270,830
Commercial	57,599	191,891	249,490
Consumer installment	4,337	144	4,481
	<u>\$ 115,468</u>	<u>\$ 493,672</u>	<u>\$ 609,140</u>

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, and Ashtabula Counties. Residential mortgage loans approximated \$270.8 million or 44.5% of the Bank's total loan portfolio at December 31, 2016.

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 95.6% of the portfolio of conventional mortgage loans secured by 1-4 family real estate at December 31, 2016 is adjustable rate. Generally, the Bank originates fixed-rate, single-family mortgage loans in conformity with Freddie Mac guidelines, so as to permit their being sold 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, 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, 2016, residential mortgage loans of approximately \$4.0 million were over 90 days delinquent or non-accruing on that date, representing 1.5% of the residential mortgage loan portfolio. At December 31, 2015, residential mortgage loans of approximately \$4.1 million were over 90 days delinquent or non-accruing on that date, representing 1.8% 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
- short-term notes
- renewable operating lines of credit
- selected guaranteed or subsidized loan programs for small businesses
- loans to finance capital equipment
- loans to professionals
- term business loans
- 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 occupier 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 income

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 \$1,000,000 or more. Ongoing financial information is generally required for any commercial credit 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 15 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, 2016 commercial and commercial real estate loans totaled \$310.1 million, or 50.9% of the Bank's total loan portfolio. At December 31, 2016, commercial and commercial real estate loans of approximately \$1.9 million were over 90 days delinquent or non-accruing on that date, and represented 0.6% of the commercial and commercial real estate loan portfolios. At December 31, 2015, commercial and commercial real estate loans totaled \$274.2 million, or 51.4% of the Bank's total loan portfolio. At December 31, 2015, commercial and commercial real estate loans of approximately \$3.3 million were over 90 days delinquent or non-accruing on that date, and represented 1.2% 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, 2016, real estate construction loans totaled \$23.7 million, or 3.9% 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, 2015, real estate construction loans totaled \$22.1 million, or 4.1% of the Bank's total loan portfolio. Real estate construction loans of approximately \$0.1 million were over 90 days delinquent or non-accruing on that date, representing 0.6% of the real estate construction loan portfolio.

Consumer Installment Loans The Bank's consumer installment loans include secured and unsecured loans to individual borrowers for 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, 2016, the Bank had approximately \$4.5 million in its consumer installment loan portfolio, representing 0.7% of total loans. At December 31, 2015, the Bank had approximately \$4.9 million in its consumer installment loan portfolio, representing 0.9% 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 \$2,000,000. The Board of Directors' Loan Committee acts as an approval authority for exposures over \$2,000,000 and up to \$5,000,000. Loans exceeding \$5,000,000 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, 2016, the Bank recorded gains of \$0.4 million on the sale of \$19.7 million in loans receivable originated for sale. During the year ended December 31, 2015, the Bank recorded gains of \$0.3 million on the sale of \$17.6 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 with 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 merger with Liberty Bank, N.A., on January 12, 2017, MBC has acquired Liberty's private student loan business, which provides qualified borrowers nationwide with the ability to finance the costs associated with obtaining their undergraduate or graduate degrees and to refinance their existing student loans. Pursuant to loan origination agreements with student loan origination and servicing companies, MBC will make student loans to qualified students and sell those loans, without recourse and with servicing released, into the secondary market. This "originate-to-sell" model allows the Bank to enhance its liquidity, making credit more widely available while transferring the risk of non-payment to third parties. During the years ended December 31, 2016 and 2015, Liberty Bank, N.A. originated \$259.0 million and \$43.7 million, respectively, in student loans. We anticipate continuing the student loan program but can give no assurance that MBC will originate student loans at equivalent levels.

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, it 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 weakness, are required to be designated “special mention” by management.

When an 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, 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.

As of December 31, 2016, 2015, 2014, 2013 and 2012 consolidated classified loans were as follows:

Classified Loans at December 31,										
(Dollars in thousands)	2016		2015		2014		2013		2012	
	Percent of total		Percent of total		Percent of total		Percent of total		Percent of total	
	Amount	loans	Amount	loans	Amount	loans	Amount	loans	Amount	loans
Classified loans:										
Special mention	\$ 5,657	0.93%	\$ 5,297	0.99%	\$ 4,987	1.06%	\$ 4,685	1.08%	\$ 3,364	0.82%
Substandard	11,777	1.93%	15,586	2.92%	16,211	3.44%	19,328	4.44%	26,459	6.48%
Doubtful	0	0.00%	130	0.02%	627	0.13%	43	0.01%	59	0.01%
Total amount due	\$ 17,434	2.86%	\$ 21,013	3.93%	\$ 21,825	4.63%	\$ 24,056	5.53%	\$ 29,882	7.31%

Other than those disclosed above, 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.

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

(Dollars in thousands)	Investment Portfolio Amortized Cost and Fair Value at December 31,					
	2016		2015		2014	
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value
Available for Sale:						
U.S. Government agency securities	\$ 10,158	\$ 10,236	\$ 21,655	\$ 21,629	\$ 23,035	\$ 22,896
Obligations of states and political subdivisions:						
Taxable	1,615	1,740	1,989	2,123	2,953	3,179
Tax-exempt	78,327	79,483	91,940	95,167	91,916	95,166
Mortgage-backed securities in government-sponsored entities	20,128	20,069	24,480	24,524	29,150	29,391
Private-label mortgage-backed securities	1,579	1,709	2,079	2,263	2,672	2,919
Equity securities in financial institutions	750	1,139	750	814	750	783
Total Investment Securities	<u>\$ 112,557</u>	<u>\$ 114,376</u>	<u>\$ 142,893</u>	<u>\$ 146,520</u>	<u>\$ 150,476</u>	<u>\$ 154,334</u>

The contractual maturity of investment debt securities is as follows:

(Dollars in thousands)	December 31, 2016										
	One year or less		More than one to five years		More than five to ten years		More than ten years		Total investment securities		
	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Amortized cost	Average yield	Fair value
U.S. Government agency securities	-	-	2,000	1.38%	\$ 0	0.00%	8,158	3.18%	10,158	2.83%	\$ 10,236
Obligations of states and political subdivisions:											
Taxable	-	-	-	-	1,615	5.24%	-	-	1,615	5.24%	1,740
Tax-exempt **	3,626	3.92%	7,487	3.75%	10,025	3.79%	57,189	3.17%	78,327	3.34%	79,483
Mortgage-backed securities in government-sponsored entities	-	-	-	-	230	3.12%	19,898	2.47%	20,128	2.47%	20,069
Private-label mortgage-backed securities	56	5.53%	-	0.00%	-	-	1,523	4.53%	1,579	4.56%	1,709
Total	\$ 3,682	3.94%	\$ 9,487	3.25%	\$ 11,870	3.97%	86,768	3.04%	111,807	3.18%	\$113,237

** 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, 2016, the Bank also held 22,038 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, 2015 was \$1.9 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, 2016, including certificates of deposit, by time remaining until maturity.

(Dollar amounts in thousands)	<u>Amount</u>	<u>Percent of Total</u>
Within three months	\$ 13,079	13.58%
Beyond three but within six months	11,886	12.35%
Beyond six but within twelve months	14,905	15.48%
Beyond one year	<u>56,410</u>	<u>58.59%</u>
Total	<u>\$ 96,280</u>	<u>100.00%</u>

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, 2016, MBC had \$66.2 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, 2016 and 2015, 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)	<u>2016</u>	<u>2015</u>
Balance at year-end	\$ 68,359	\$ 35,825
Average balance outstanding	37,130	11,768
Maximum month-end balance	68,359	35,825
Weighted-average rate at year-end	0.61%	1.37%
Weighted-average rate during the year	0.89%	1.65%

Personnel

As of December 31, 2016, the Bank had 139 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 new 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 changes in technology, changes in the banking marketplace, competition for banking services, and so on. 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 Basel III, the Bank is required to maintain a minimum common equity Tier 1 capital ratio of 4.5%, a Tier 1 capital ratio of 6%, a total capital ratio of 8%, and a Tier 1 leverage ratio of 4%. Basel III also established a "capital conservation buffer" of 2.5% above the new regulatory minimum capital requirements, which must consist entirely of common equity Tier 1 capital with phased-in effectiveness that began in January 2016 at 0.625% of risk-weighted assets and increasing by that amount each year until fully implemented in January 2019. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a common equity Tier 1 ratio to risk-weighted assets above the minimum but below the conservation buffer will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall. These ratios are absolute minimums. In practice, banks are expected to operate with more than the absolute minimum capital. The FDIC may establish greater minimum capital requirements for specific institutions.

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.

The banking agencies have also established a minimum leverage ratio of 3%, which represents Tier 1 capital as a percentage of total assets, less intangibles. However, for bank holding companies and financial institutions seeking to expand and for all but the most highly rated banks and bank holding companies, the banking agencies expect an additional cushion of at least 100 to 200 basis points. At December 31, 2016, the Company was in compliance with all regulatory capital requirements.

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 risk-based capital ratio, its 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%, 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 its subsidiary.

	As of December 31, 2016			
	Leverage	Tier 1 Risk Based	Common Equity Tier 1	Total Risk Based
The Middlefield Banking Company	9.46%	13.03%	13.03%	14.25%
Middlefield Banc Corp.	9.27%	13.07%	13.07%	15.75%
Adequately capitalized ratio	4.00%	6.00%	4.50%	8.00%
Adequately capitalized ratio plus capital conservation buffer	4.00%	8.50%	7.00%	10.50%
Well-capitalized ratio (Bank only)	5.00%	8.00%	6.50%	10.00%

New Capital Rules On July 9, 2013, the federal bank regulatory agencies issued a final rule that revised their risk-based capital requirements and the method for calculating risk-weighted assets to make them consistent with agreements that were reached by the Basel Committee on Banking Supervision and certain provisions of the Dodd-Frank Act. The final rule applies to all depository institutions, top-tier bank holding companies with total consolidated assets of \$500 million or more and top-tier savings and loan holding companies.

The rule establishes a new common equity Tier 1 minimum capital requirement (4.5% of risk-weighted assets), increases the minimum Tier 1 capital to risk-based assets requirement (from 4.0% to 6.0% of risk-weighted assets) and assigns a higher risk weight (150%) to exposures that are more than 90 days past due or are on nonaccrual status and to certain commercial real estate facilities that finance the acquisition, development or construction of real property.

The rule also includes changes in what constitutes regulatory capital, some of which are subject to a two-year transition period. These changes include the phasing-out of certain instruments as qualifying capital. In addition, Tier 2 capital is no longer limited to the amount of Tier 1 capital included in total capital. Mortgage servicing rights, certain deferred tax assets and investments in unconsolidated subsidiaries over designated percentages of common stock will be required to be deducted from capital, subject to a two-year transition period. Finally, Tier 1 capital will include accumulated other comprehensive income (which includes all unrealized gains and losses on available-for-sale debt and equity securities), subject to a two-year transition period. In the first quarter of 2015 the Company permanently opted out of the inclusion of accumulated other comprehensive income in its capital calculation in an effort to reduce the impact of market volatility on its regulatory capital levels.

The new capital requirements also include changes in the risk weights of assets to better reflect credit risk and other risk exposures. These include a 150% risk weight (up from 100%) for certain high volatility commercial real estate acquisition, development and construction loans and nonresidential mortgage loans that are 90 day past due or otherwise on nonaccrual status; a 20% (up from 0%) credit conversion factor for the unused portion of a commitment with an original maturity of one year or less that is not unconditionally cancellable; a 250% risk weight (up from 100%) for mortgage servicing and deferred tax assets that are not deducted from capital; and increased risk-weights (from 0% to up to 600%) for equity exposures.

Finally, the rule limits capital distributions and certain discretionary bonus payments if the banking organization does not hold a “capital conservation buffer” consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets in addition to the amount necessary to meet its minimum risk-based capital requirements.

The final rule became effective for the bank on January 1, 2015. The capital conservation buffer requirement is being phased in effective January 1, 2016 at 0.625% of risk-weighted assets increasing each year until fully implemented at 2.5% on January 1, 2019.

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. Until the anniversary of the January 12, 2017 merger of Liberty Bank into The Middlefield Banking Company, The Middlefield Banking Company cannot pay a dividend to Middlefield Banc Corp. without advance approval of the Ohio Division of Financial Institutions.

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, this regulatory body has responsibility for most consumer protection laws, with rulemaking, supervisory, examination, and enforcement authority.
- section 171 restricted the amount of trust preferred securities that may be considered Tier 1 capital. For depository institution holding companies with total assets of less than \$15 billion, trust preferred securities issued before May 19, 2010 may continue to be included in Tier 1 capital, but future issuances of trust preferred securities are no longer eligible for treatment as Tier 1 capital.
- 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; however, financial institutions with assets of less than \$10 billion are exempt from the cost of the increase. The DFA also removes the upper limit on the designated reserve ratio, which was formerly capped at 1.5%, removing the upper limit on the size of the insurance fund as a consequence. 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.
- 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. Section 331, however, makes clear that the assessment base shall now be 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.
- section 604 requires the Federal bank regulatory agencies to take into account the risks to the stability of the U.S. banking or financial system associated with approval of an application for acquisition of a bank, for acquisition of a nonbank company, or for a bank merger transaction.
- section 619 implements the so-called "Volcker rule," prohibiting a banking entity from engaging in proprietary trading or from sponsoring or investing in a hedge fund or private equity fund.

The DFA created a new, independent federal agency called the Consumer Financial Protection Bureau (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, but is more commonly known as a subprime loan. A subprime loan can be a qualified mortgage, but 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.

Although we believe the majority of our mortgage originations are prime qualified mortgages, the ability-to-repay rule creates a new basis for challenge by regulators and by consumers. In addition, the CFPB’s mission is consumer protection, not lender safety and soundness, and for that reason the CFPB wrote the ability-to-repay rule with the goal of preventing consumers from being steered by lenders into expensive and unsustainable borrowing, rather than with the goal of assuring actual loan repayment. Accordingly, typical credit-quality features such as LTV standards are not part of the ability-to-repay rule, and it will not necessarily be the case that qualified mortgages have a higher probability or history of repayment than other mortgages. 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%.

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 Federally 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 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.

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 federally 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 of 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 recent 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.

Corporate Governance and Compensation The Federal banking agencies jointly published their final Guidance on Sound Incentive Compensation Policies in June of 2010. The goal of the guidance is to enable financial organizations to manage the safety and soundness risks of incentive compensation arrangements and to assist banks and bank holding companies with identification of improperly structured compensation arrangements. To ensure that incentive compensation arrangements do not encourage employees to take excessive risks that undermine safety and soundness, the incentive compensation guidance sets forth these key principles –

- incentive compensation arrangements should provide employees incentives that appropriately balance risk and financial results in a manner that does not encourage employees to expose the organization to imprudent risk,
- these arrangements should be compatible with effective controls and risk management, and
- these arrangements should be supported by strong corporate governance, including active and effective oversight by the board of directors.

To implement the interagency guidance, a financial organization must regularly review incentive compensation arrangements for all executive and non-executive employees who, either individually or as part of a group, have the ability to expose the organization to material amounts of risk, also reviewing the risk-management, control, and corporate governance processes related to these arrangements. The organization must immediately correct any identified deficiencies in compensation arrangements or processes that are inconsistent with safety and soundness.

In addition to numerous provisions that affect the business of banks and bank holding companies, the DFA includes in Title IX a number of provisions affecting corporate governance and executive compensation, for example the requirements that stockholders be given the opportunity to consider and vote upon executive compensation disclosed in a company’s annual meeting proxy statement, that a company’s compensation committee be comprised entirely of independent directors and that the committee have stated minimum authorities, that company policy provide for recovery of excess incentive compensation after an accounting restatement, and that stockholders have the ability to designate director nominees for inclusion in a company’s annual meeting proxy statement. Section 956 also provides for adoption of incentive compensation guidelines jointly by the Federal banking agencies and the SEC, the National Credit Union Administration, and the Federal Housing Finance Agency.

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 December 2, 2013 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. We employ 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 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,
- 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 1.A — Risk Factors

Risks Related to the Company's Business

We are exposed to interest-rate risk. With the record low interest rates that have prevailed for many years, 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.

New mortgage lending rules may constrain our residential mortgage lending business. The Consumer Financial Protection Bureau has issued several rules on mortgage lending, notably a rule requiring all home mortgage lenders to determine a borrower's ability to repay the loan. Loans with certain terms and conditions and that otherwise meet the definition of a "qualified mortgage" may be protected from liability. In either case, the Company may find it necessary to tighten its mortgage loan underwriting standards, which may constrain our ability to make loans consistent with our business strategies.

The Truth in Lending Act-RESPA Integrated Disclosure ("TRID") rule became effective for loans originated on or after October 3, 2015. The TRID rule required extensive modifications to the process of closing a federally regulated residential mortgage loan and the systems supporting that process among lenders, real estate agents, title insurance agents and attorneys that close residential mortgage loans, and others. Enforcement and interpretation of the TRID rule among mortgage industry participants such as Fannie Mae, Freddie Mac and federal banking regulators like the FDIC is not yet apparent. Management's assessment and management of TRID compliance risk will evolve as the residential mortgage lending industry gains experience with loan closings, loan purchases and examinations. The TRID rule, including the cost of compliance and the ultimate impact on the mortgage industry, could adversely impact the Company's profitability.

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. Because the Company is currently smaller than many commercial lenders in its market, it is on occasion prevented from making commercial loans in amounts competitors can offer. 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.

A critical resource for maintaining the safety and soundness of banks so that they can fulfill their basic function of financial intermediation, the allowance for possible 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, forward-leaning 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 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 and future trends, 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. 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. In addition, 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. 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.

Material breaches in security of bank systems may have a significant effect on the Company 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 the 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 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, and Ashtabula 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.

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, 2016, MBC could have declared dividends of approximately \$8.5 million in the aggregate to the Company, assuming the ODFI did not object. 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. Until January 20, 2019, MBC cannot pay dividends to the Company unless MBC first obtains approval of the ODFI.

Risks Associated with the Company's Common Stock

The Company's common stock is thinly traded, and it is therefore susceptible to wide price swings. Trading under the symbol MBCN, our stock became listed on the Nasdaq Capital Market in September of 2014. While our stock is quoted on the NASDAQ Capital Market, it trades infrequently. 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.

Liberty Risk Factor

It may be difficult to integrate the business of Liberty, N.A. and we may fail to realize all of the anticipated benefits of the acquisition of Liberty N.A. If our costs to integrate the business of Liberty into our existing operations are greater than anticipated or we are not able to achieve the anticipated benefits of the merger, including cost savings and other synergies, our business could be negatively affected. In addition, it is possible that the ongoing integration processes could result in the loss of key employees, loss of customers, errors or delays in systems implementation, the disruption of our ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect our ability to maintain relationships with customers and employees or to achieve the anticipated benefits of the merger. Integration efforts also may divert management attention and resources.

Item 1B — Unresolved Staff Comments

Not applicable

Item 2 — Properties

The Bank's offices are:

<u>Location</u>	<u>County</u>	<u>Owned/Leased</u>	<u>Other Information</u>
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 four additional consecutive three-year terms
Chardon Branch 348 Center Street Chardon, Ohio	Geauga	Owned	
Orwell Branch 30 South Maple Avenue Orwell, Ohio	Ashtabula	Owned	
Newbury Branch 11110 Kinsman Road Newbury, Ohio	Geauga	Leased	ten-year lease dated December 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 Cortland, Ohio	Trumbull	Owned	
Dublin Branch 6215 Perimeter Drive Dublin, OH	Franklin	Leased	twenty-year lease dated February 2004, with the option to purchase after the tenth year
Westerville Branch 17 North State Street Westerville, OH	Franklin	Owned	
Administrative Offices: 15200 Madison Road Suite 108 Middlefield, Ohio 44062	Geauga	Owned	
Mentor Loan Production Office 8353 Mentor Avenue Mentor, OH 44060	Lake	Leased	one-year lease dated September 2015, with the option to renew for two additional one-year terms
Sunbury Branch 492 West Cherry Street Sunbury, OH	Delaware	Leased	five-year lease dated July 1, 2016, with the option to renew for two additional five-year terms

At December 31, 2016 the net book value of the Bank's investment in premises and equipment totaled \$11.2 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 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

Information relating to the market for Middlefield’s common equity and related shareholder matters appears under “Market Price of and Dividends on the Registrant’s Common Equity and Related Stockholder Matters” in the Company’s 2016 Annual Report to Shareholders and is incorporated herein by reference. Information relating to dividend restrictions for Registrant’s common stock appears under “Supervision and Regulation.”

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 2016 Annual Report to Shareholders and is incorporated herein by reference.

Item 7A — Quantitative and Qualitative Disclosures about Market Risk

The above-captioned information appears under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the section “*Interest Rate Sensitivity Simulation Analysis*” in the Company’s 2016 Annual Report to Shareholders and is incorporated herein by reference.

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 2016 Annual Report to Shareholders and are incorporated herein by reference.

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

None

Item 9A – Controls and Procedures

(a) Disclosure Controls and Procedures

The Company’s management, including the Company’s principal executive officer and principal financial officer, 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 is 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, 2016 that have materially affected, or are reasonable likely to materially affect, the Company's internal control over financial reporting.

Item 9B — Other Information

None

Part III

Item 10 — Directors, Executive Officers of the Registrant, and Corporate Governance

Incorporated by reference to the definitive proxy statement for the 2017 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2016.

Item 11 — Executive Compensation

Incorporated by reference to the definitive proxy statement for the 2017 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2016.

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

Incorporated by reference to the definitive proxy statement for the 2017 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2016.

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

Incorporated by reference to the definitive proxy statement for the 2017 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2016.

Item 14 — Principal Accountant Fees and Services

Incorporated by reference to the definitive proxy statement for the 2017 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2016.

PART IV

Item 15 — Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

Index to Consolidated Financial Statements :

Consolidated Financial Statements as of December 31, 2016 and 2015 and for each of the three years in the period ended December 31, 2016:

- Report of Independent Registered Public Accounting firm
- Consolidated Balance Sheets
- 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 number	Description	location
3.1	Second Amended and Restated Articles of Incorporation of Middlefield Banc Corp., as amended	Incorporated by reference to Exhibit 3.1 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2005, filed on March 29, 2006
3.2	Regulations of Middlefield Banc Corp.	Incorporated by reference to Exhibit 3.2 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
4.0	Specimen stock certificate	Incorporated by reference to Exhibit 4 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
4.1	Amended and Restated Trust Agreement, dated as of December 21, 2006, between Middlefield Banc Corp., as Depositor, Wilmington Trust Company, as Property trustee, Wilmington Trust Company, as Delaware Trustee, and Administrative Trustees	Incorporated by reference to Exhibit 4.1 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
4.2	Junior Subordinated Indenture, dated as of December 21, 2006, between Middlefield Banc Corp. and Wilmington Trust Company	Incorporated by reference to Exhibit 4.2 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
4.3	Guarantee Agreement, dated as of December 21, 2006, between Middlefield Banc Corp. and Wilmington Trust Company	Incorporated by reference to Exhibit 4.3 of Middlefield Banc Corp.'s Form 8-K Current Report filed on December 27, 2006
10.1.0*	[reserved]	
10.1.1*	2007 Omnibus Equity Plan	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*	Severance Agreement between Middlefield Banc Corp. and Thomas G. Caldwell, dated January 7, 2008	Incorporated by reference to Exhibit 10.2 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.3*	Severance Agreement between Middlefield Banc Corp. and James R. Heslop, II, dated January 7, 2008	Incorporated by reference to Exhibit 10.3 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.4.1*	Severance Agreement between Middlefield Banc Corp. and Teresa M. Hetrick, dated January 7, 2008	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*	Severance Agreement between Middlefield Banc Corp. and Donald L. Stacy, dated January 7, 2008	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*	Severance Agreement between Middlefield Banc Corp. and Alfred F. Thompson Jr., dated January 7, 2008	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	Federal Home Loan Bank of Cincinnati Agreement for Advances and Security Agreement dated September 14, 2000	Incorporated by reference to Exhibit 10.4 of Middlefield Banc Corp.'s registration statement on Form 10 filed on April 17, 2001
10.6*	Amended Director Retirement Agreement with Richard T. Coyne	Incorporated by reference to Exhibit 10.6 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.7*	Amended Director Retirement Agreement with Frances H. Frank	Incorporated by reference to Exhibit 10.7 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.8*	Amended Director Retirement Agreement with Thomas C. Halstead	Incorporated by reference to Exhibit 10.8 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.9*	[reserved]	
10.10*	Director Retirement Agreement with Donald D. Hunter	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*	Director Retirement Agreement with Martin S. Paul	Incorporated by reference to Exhibit 10.11 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2001, filed on March 28, 2002
10.12*	Amended Director Retirement Agreement with Donald E. Villers	Incorporated by reference to Exhibit 10.12 of Middlefield Banc Corp.'s Form 8-K Current Report filed on January 9, 2008
10.13*	Executive Survivor Income Agreement (aka DBO agreement [death benefit only]) with Donald L. Stacy	Incorporated by reference to Exhibit 10.14 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.14*	DBO Agreement with Jay P. Giles	Incorporated by reference to Exhibit 10.15 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.15*	DBO Agreement with Alfred F. Thompson Jr.	Incorporated by reference to Exhibit 10.16 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.16	[reserved]	
10.17*	DBO Agreement with Teresa M. Hetrick	Incorporated by reference to Exhibit 10.18 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004

10.18 *	Executive Deferred Compensation Agreement with Jay P. Giles	Incorporated by reference to Exhibit 10.18 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2011, filed on March 20, 2012
10.19*	DBO Agreement with James R. Heslop, II	Incorporated by reference to Exhibit 10.20 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.20*	DBO Agreement with Thomas G. Caldwell	Incorporated by reference to Exhibit 10.21 of Middlefield Banc Corp.'s Annual Report on Form 10-K for the Year Ended December 31, 2003, filed on March 30, 2004
10.21*	Form of Indemnification Agreement with directors of Middlefield Banc Corp. and with executive officers of Middlefield Banc Corp. and The Middlefield Banking Company	Incorporated by reference to Exhibit 99.1 of Middlefield Banc Corp.'s registration statement on Form 10, Amendment No. 1, filed on June 14, 2001
10.22*	Annual Incentive Plan	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*	Annual Incentive Plan 2014 Award Summary	Incorporated by reference to Exhibit 10.22.1 of Middlefield Banc Corp.'s Form 8-K Current Report filed on April 17, 2014
10.23*	Amended Executive Deferred Compensation Agreement with Thomas G. Caldwell	Incorporated by reference to Exhibit 10.23 of Middlefield Banc Corp.'s Form 8-K Current Report filed on May 9, 2008
10.24*	Amended Executive Deferred Compensation Agreement with James R. Heslop, II	Incorporated by reference to Exhibit 10.24 of Middlefield Banc Corp.'s Form 8-K Current Report filed on May 9, 2008
10.25*	Amended Executive Deferred Compensation Agreement with Donald L. Stacy	Incorporated by reference to Exhibit 10.25 of Middlefield Banc Corp.'s Form 8-K Current Report filed on May 9, 2008
10.26*	[reserved]	
10.27	[reserved]	
10.28	[reserved]	
13	Portions of Annual Report to Shareholders for the year ended December 31, 2016 incorporated by reference into this Form 10-K	filed herewith
21	Subsidiaries of Middlefield Banc Corp.	filed herewith
23	Consent of S.R. Snodgrass, P.C., independent auditors of Middlefield Banc Corp.	filed herewith
31.1	Rule 13a-14(a) certification of Chief Executive Officer	filed herewith
31.2	Rule 13a-14(a) certification of Chief Financial Officer	filed herewith

32	Rule 13a-14(b) certification	filed herewith
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 15, 2017

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 10, 2017
Thomas G. Caldwell
President, Chief Executive Officer, and Director

/s/ Donald L. Stacy March 10, 2017
Donald L. Stacy, Treasurer and Chief Financial Officer
(Principal accounting and financial officer)

/s/ Carolyn J. Turk March 10, 2017
Carolyn J. Turk, Chairman of the Board

/s/ Eric W. Hummel March 10, 2017
Eric W. Hummel, Director

/s/ James R. Heslop, II March 10, 2017
James R. Heslop, II, Executive Vice President,
Chief Operating Officer, and Director

/s/ Kenneth E. Jones March 10, 2017
Kenneth E. Jones, Director

/s/ James J. McCaskey March 10, 2017
James J. McCaskey, Director

/s/ William J. Skidmore March 10, 2017
William J. Skidmore, Director

/s/ Robert W. Toth March 10, 2017
Robert W. Toth, Director

/s/ Clayton W. Rose, III March 10, 2017
Clayton W. Rose, III, Director

/s/ Darryl E. Mast March 10, 2017
Darryl E. Mast, Director

/s/ Thomase W. Bevan March 10, 2017
Thomas W. Bevan, Director

/s/ William A. Valerian March 10, 2017
William A. Valerian, Director



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Middlefield Banc Corp.

We have audited the accompanying consolidated balance sheet of Middlefield Banc Corp. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2016. These consolidated financial statements are the responsibility of Middlefield Banc Corp.'s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. Middlefield Banc Corp. is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Middlefield Banc Corp.'s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Middlefield Banc Corp. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

S.R. Snodgrass, P.C.

Cranberry Township, Pennsylvania
March 15, 2017

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

	December 31,	
	2016	2015
ASSETS		
Cash and due from banks	\$ 31,395	\$ 22,421
Federal funds sold	1,100	1,329
Cash and cash equivalents	32,495	23,750
Investment securities available for sale, at fair value	114,376	146,520
Loans held for sale	634	1,107
Loans	609,140	533,710
Less allowance for loan and lease losses	6,598	6,385
Net loans	602,542	527,325
Premises and equipment, net	11,203	9,772
Goodwill	4,559	4,559
Core deposit intangibles	36	76
Bank-owned life insurance	13,540	13,141
Other real estate owned	934	1,412
Accrued interest and other assets	7,502	7,477
TOTAL ASSETS	\$ 787,821	\$ 735,139
LIABILITIES		
Deposits:		
Noninterest-bearing demand	\$ 133,630	\$ 116,498
Interest-bearing demand	59,560	57,219
Money market	74,940	78,856
Savings	172,370	180,653
Time	189,434	191,221
Total deposits	629,934	624,447
Short-term borrowings	68,359	35,825
Other borrowings	9,437	9,939
Accrued interest and other liabilities	3,131	2,624
TOTAL LIABILITIES	710,861	672,835
STOCKHOLDERS' EQUITY		
Common stock, no par value; 10,000,000 shares authorized, 2,640,418 and 2,263,403 shares issued; 2,263,403 and 2,242,025 shares outstanding	47,943	36,191
Retained earnings	41,334	37,236
Accumulated other comprehensive income	1,201	2,395
Treasury stock, at cost; 386,165 shares	(13,518)	(13,518)
TOTAL STOCKHOLDERS' EQUITY	76,960	62,304
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 787,821	\$ 735,139

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31,		
	2016	2015	2014
INTEREST AND DIVIDEND INCOME			
Interest and fees on loans	\$ 25,798	\$ 23,824	\$ 22,726
Interest-bearing deposits in other institutions	53	33	24
Federal funds sold	20	13	14
Investment securities:			
Taxable interest	1,106	1,467	1,896
Tax-exempt interest	2,913	3,160	3,127
Dividends on stock	104	98	87
Total interest and dividend income	<u>29,994</u>	<u>28,595</u>	<u>27,874</u>
INTEREST EXPENSE			
Deposits	3,618	3,426	3,633
Short-term borrowings	322	194	148
Other borrowings	68	83	118
Trust preferred securities	182	117	171
Total interest expense	<u>4,190</u>	<u>3,820</u>	<u>4,070</u>
NET INTEREST INCOME	25,804	24,775	23,804
Provision for loan losses	<u>570</u>	<u>315</u>	<u>370</u>
NET INTEREST INCOME AFTER PROVISION FOR LOAN LOSSES	<u>25,234</u>	<u>24,460</u>	<u>23,434</u>
NONINTEREST INCOME			
Service charges on deposit accounts	1,940	1,874	1,876
Investment securities gains, net	303	323	248
Earnings on bank-owned life insurance	403	624	276
Revenue from investment services	415	436	451
Gains on sale of loans	419	329	237
Other income	479	458	500
Total noninterest income	<u>3,959</u>	<u>4,044</u>	<u>3,588</u>
NONINTEREST EXPENSE			
Salaries and employee benefits	10,249	9,751	8,817
Occupancy expense	1,252	1,253	1,108
Equipment expense	991	944	963
Data processing costs	1,335	1,071	917
Ohio state franchise tax	632	300	342
Federal deposit insurance expense	438	472	449
Professional fees	1,441	1,247	1,086
(Gain) loss on other real estate owned	(448)	(48)	183
Advertising expenses	734	721	488
Other real estate expenses	329	611	387
Directors fees	413	451	403
Core deposit intangible amortization	40	40	40
Appraiser fees	419	56	-
ATM fees	446	358	371
Other expense	2,601	2,850	2,296
Total noninterest expense	<u>20,872</u>	<u>20,077</u>	<u>17,850</u>
Income before income taxes	8,321	8,427	9,172
Income taxes	<u>1,905</u>	<u>1,562</u>	<u>1,992</u>
NET INCOME	<u>\$ 6,416</u>	<u>\$ 6,865</u>	<u>\$ 7,180</u>
EARNINGS PER SHARE			
Basic	\$ 3.04	\$ 3.41	\$ 3.52
Diluted	3.03	3.39	3.50
DIVIDENDS DECLARED PER SHARE	\$ 1.08	\$ 1.07	\$ 1.04

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31,		
	2016	2015	2014
Net income	\$ 6,416	\$ 6,865	\$ 7,180
Other comprehensive (loss) income:			
Net unrealized holding (loss) gain on available- for-sale investment securities	(1,505)	91	7,498
Tax effect	511	(31)	(2,549)
Reclassification adjustment for investment securities gains included in net income	(303)	(323)	(248)
Tax effect	103	110	84
Total other comprehensive (loss) income	(1,194)	(153)	4,785
Comprehensive income	<u>\$ 5,222</u>	<u>\$ 6,712</u>	<u>\$ 11,965</u>

See accompanying notes to the consolidated financial statements.

MIDDLEFIELD BANC CORP.
CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
(Dollar amounts in thousands, except shares and dividend per share amount)

	Common Stock		Retained	Accumulated	Treasury	Total
	Shares	Amount	Earnings	Other Comprehensive Income (Loss)	Stock	Stockholders' Equity
Balance, December 31, 2013	2,221,834	\$ 34,979	\$ 27,465	\$ (2,237)	\$ (6,734)	\$ 53,473
Net income			7,180			7,180
Other comprehensive income				4,785		4,785
Dividend reinvestment and purchase plan	19,791	590				590
Stock options exercised		(50)				(50)
Stock-based compensation	400	10				10
Cash dividends (\$1.04 per share)			(2,121)			(2,121)
Balance, December 31, 2014	2,242,025	\$ 35,529	\$ 32,524	\$ 2,548	\$ (6,734)	\$ 63,867
Net income			6,865			6,865
Other comprehensive loss				(153)		(153)
Purchase of treasury stock (196,635 shares)					(6,784)	(6,784)
Dividend reinvestment and purchase plan	20,393	651				651
Stock options exercised	400	(7)				(7)
Stock-based compensation	585	18				18
Cash dividends (\$1.07 per share)			(2,153)			(2,153)
Balance, December 31, 2015	2,263,403	\$ 36,191	\$ 37,236	\$ 2,395	\$ (13,518)	\$ 62,304
Net income			6,416			6,416
Other comprehensive loss				(1,194)		(1,194)
Common stock issuance, net of issuance cost (\$697)	360,815	11,210				11,210
Dividend reinvestment and purchase plan	15,300	519				519
Stock options exercised		(6)				(6)
Stock-based compensation	900	29				29
Cash dividends (\$1.08 per share)			(2,318)			(2,318)
Balance, December 31, 2016	2,640,418	\$ 47,943	\$ 41,334	\$ 1,201	\$ (13,518)	\$ 76,960

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31,		
	2016	2015	2014
OPERATING ACTIVITIES			
Net income	\$ 6,416	\$ 6,865	\$ 7,180
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for loan losses	570	315	370
Investment securities gains, net	(303)	(323)	(248)
Depreciation and amortization	1,066	1,013	1,049
Amortization of premium and discount on investment securities	119	669	737
Accretion of deferred loan fees, net	(245)	(603)	(237)
Origination of loans held for sale	(19,736)	(17,889)	(6,223)
Proceeds from sale of loans held for sale	20,628	17,549	6,022
Gains on sale of loans	(419)	(329)	(237)
Earnings on bank-owned life insurance	(403)	(624)	(276)
Deferred income taxes	(93)	558	(154)
Stock-based compensation expense	29	18	10
(Gain) loss on other real estate owned	(448)	(48)	183
Other real estate owned writedowns	(19)	102	123
(Increase) decrease in accrued interest receivable	(39)	(292)	40
Increase (decrease) in accrued interest payable	-	80	(49)
Other, net	678	121	(831)
Net cash provided by operating activities	<u>7,801</u>	<u>7,182</u>	<u>7,459</u>
INVESTING ACTIVITIES			
Investment securities available for sale:			
Proceeds from repayments and maturities	23,201	13,497	13,474
Proceeds from sale of securities	9,063	15,686	8,383
Purchases	(1,744)	(21,946)	(12,287)
Increase in loans, net	(76,199)	(63,937)	(36,222)
Proceeds from the sale of other real estate owned	1,607	1,762	832
Purchase of restricted stock	(317)	-	-
Purchase of bank-owned life insurance	-	(4,000)	-
Proceeds from death benefit	575	-	-
Purchase of premises and equipment	(2,166)	(507)	(902)
Net cash used for investing activities	<u>(45,980)</u>	<u>(59,445)</u>	<u>(26,722)</u>
FINANCING ACTIVITIES			
Net increase (decrease) in deposits	5,487	38,335	17,276
Increase in short-term borrowings, net	32,534	21,017	3,999
Repayment of other borrowings	(502)	(685)	(985)
Common stock issued	11,210	-	-
Stock options exercised	(6)	(7)	(50)
Proceeds from dividend reinvestment and purchase plan	519	651	590
Purchase of treasury stock	-	(6,784)	-
Cash dividends	(2,318)	(2,153)	(2,121)
Net cash provided by (used for) financing activities	<u>46,924</u>	<u>50,374</u>	<u>18,709</u>
Increase (decrease) in cash and cash equivalents	8,745	(1,889)	(554)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	<u>23,750</u>	<u>25,639</u>	<u>26,193</u>
CASH AND CASH EQUIVALENTS AT END OF YEAR	<u>\$ 32,495</u>	<u>\$ 23,750</u>	<u>\$ 25,639</u>
SUPPLEMENTAL INFORMATION			
Cash paid during the year for:			
Interest on deposits and borrowings	\$ 4,190	\$ 3,740	\$ 4,119
Income taxes	1,335	800	2,260
Non-cash investing transactions:			
Loans to facilitate the sale of other real estate owned	\$ 63	\$ -	\$ -
Transfers from loans to other real estate owned	\$ 720	638	1,030
Death benefit proceeds not yet received from insurance company	\$ -	575	-

See accompanying notes to the consolidated financial statements.

MIDDLEFIELD BANC CORP.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of the significant accounting and reporting policies applied in the presentation of the accompanying financial statements follows:

Nature of Operations and Basis of Presentation

Middlefield Banc Corp. (the “Company”) is an Ohio corporation organized to become the holding company of The Middlefield Banking Company (“MBC”). MBC is a state-chartered bank located in Ohio. On April 19, 2007, Middlefield Banc Corp. acquired Emerald Bank (“EB”), an Ohio-chartered commercial bank headquartered in Dublin, Ohio. EB merged into MBC on January 20, 2014. On October 23, 2009, the Company established an asset resolution subsidiary named EMORECO, Inc. The Company and its subsidiaries derive substantially all of their income from banking and bank-related services, which includes interest earnings on residential real estate, commercial mortgage, commercial and consumer financings as well as interest earnings on investment securities and deposit services to its customers through ten locations. The Company is supervised by the Board of Governors of the Federal Reserve System, while MBC is subject to regulation and supervision by the Federal Deposit Insurance Corporation and the Ohio Division of Financial Institutions.

The consolidated financial statements of the Company include its wholly owned subsidiaries, MBC and EMORECO, Inc. Significant intercompany items have been eliminated in preparing the consolidated financial statements.

The financial statements have been prepared in conformity with U.S. Generally Accepted Accounting Principles. In preparing the financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the balance sheet date and revenues and expenses for the period. Actual results could differ from those estimates.

Investment Securities

Investment securities are classified at the time of purchase, based on management’s intention and ability, as securities held to maturity or securities available for sale. Debt securities acquired with the intent and ability to hold to maturity are stated at cost adjusted for amortization of premium and accretion of discount, which are computed using a level yield method and recognized as adjustments of interest income. Certain other debt securities have been classified as available for sale to serve principally as a source of liquidity. Unrealized holding gains and losses for available-for-sale securities are reported as a separate component of stockholders’ equity, net of tax, until realized. Realized security gains and losses are computed using the specific identification method. Interest and dividends on investment securities are recognized as income when earned.

Securities are evaluated on at least a quarterly basis and more frequently when economic or market conditions warrant such an evaluation to determine whether a decline in their value is other than temporary. For debt securities, management considers whether the present value of cash flows expected to be collected are less than the security’s amortized cost basis (the difference defined as the credit loss), the magnitude and duration of the decline, the reasons underlying the decline and the Bank’s intent to sell the security or whether it is more likely than not that the Bank would be required to sell the security before its anticipated recovery in market value, to determine whether the loss in value is other than temporary. Once a decline in value is determined to be other than temporary, if the Bank does not intend to sell the security, and it is more likely than not that it will not be required to sell the security, before recovery of the security’s amortized cost basis, the charge to earnings is limited to the amount of credit loss. Any remaining difference between fair value and amortized cost (the difference defined as the non-credit portion) is recognized in other comprehensive income, net of applicable taxes. Otherwise, the entire difference between fair value and amortized cost is charged to earnings. For equity securities where the fair value has been significantly below cost for one year, the Bank’s policy is to recognize an impairment loss unless sufficient evidence is available that the decline is not other than temporary and a recovery period can be predicted.

Restricted Stock

Common stock of the Federal Home Loan Bank (“FHLB”) represents ownership in an institution that is wholly owned by other financial institutions. This equity security is accounted for at cost and classified with other assets. The FHLB of Cincinnati has reported profits for 2016 and 2015, remains in compliance with regulatory capital and liquidity requirements, and continues to pay dividends on the stock and make redemptions at the par value. With consideration given to these factors, management concluded that the stock was not impaired at December 31, 2016 or 2015.

Mortgage Banking Activities Mortgage loans originated and intended for sale in the secondary market are carried at fair value. The Bank sells the loans on a servicing retained basis. Servicing rights are initially recorded at fair value with the income statement effect recorded in gains on sales of loans. The Bank measures servicing assets using the amortization method. Fair value is based on market prices for comparable mortgage servicing contracts, when available, or alternatively, is based on a valuation model that calculates the present value of estimated future net servicing income. Loan servicing rights are amortized in proportion to and over the period of estimated net future servicing revenue. The expected period of the estimated net servicing income is based in part on the expected prepayment of the underlying mortgages. The unamortized balance of mortgage servicing rights is included in accrued interest and other assets on the Consolidated Balance Sheet.

Mortgage servicing rights were periodically evaluated for impairment, beginning in 2016. Impairment represents the excess of amortized cost over its estimated fair value. Impairment is determined by stratifying rights into tranches based on predominant risk characteristics, such as interest rate and original time to maturity. Any impairment is reported as a valuation allowance for an individual tranche. If the Company later determines that all or a portion of the impairment no longer exists for a particular grouping, a reduction of the allowance will be recorded as an increase to income.

Servicing fee income is recorded for fees earned for servicing loans. The fees are based on a contractual percentage of outstanding principal and are recorded as income when earned. The amortization of mortgage servicing rights is netted against loan servicing fee income. Late fees and ancillary fees related to loan servicing are not material.

The Company is exposed to interest rate risk on loans held for sale and rate-lock loan commitments (“IRLCs”). As market interest rates increase or decrease, the fair value of loans held for sale and rate-lock commitments will decrease or increase. The Company enters into derivative transactions principally to protect against the risk of adverse interest movements affecting the value of the Company’s committed loan sales pipeline. In order to mitigate the risk that a change in interest rates will result in a decrease in value of the Company’s IRLCs in the committed mortgage pipeline or its loans held for sale, the Company enters into mandatory forward loan sales contracts with secondary market participants. Mandatory forward sales contracts and committed loans intended to be held for sale are considered free-standing derivative instruments and changes in fair value are recorded in current period earnings. For committed loans, fair value is measured using current market rates for the associated mortgage loans. For mandatory forward sales contracts, fair value is measured using secondary market pricing.

Loans

Loans that management has the intent and ability to hold for the foreseeable future or until maturity or payoff generally are reported at their outstanding unpaid principal balances net of the allowance for loan and lease losses. Interest income is recognized as income when earned on the accrual method. The accrual of interest is discontinued on a loan when management believes, after considering economic and business conditions, the borrower’s financial condition is such that collection of interest is doubtful. Interest received on nonaccrual loans is recorded as income or applied against principal according to management’s judgment as to the collectability of such principal.

Loan origination fees and certain direct loan origination costs are being deferred and the net amount amortized as an adjustment of the related loan’s yield. Management is amortizing these amounts over the contractual life of the related loans.

Allowance for Loan and Lease Losses

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

A loan is considered impaired when it is probable the borrower will not repay the loan according to the original contractual terms of the loan agreement. Management has determined that first mortgage loans on one-to-four family properties and all consumer loans represent large groups of smaller-balance homogeneous loans that are to be collectively evaluated. Loans that experience insignificant payment delays, which are defined as 90 days or less, generally are not classified as impaired. A loan is not impaired during a period of delay in payment if the Company expects to collect all amounts due, including

interest accrued, at the contractual interest rate for the period of delay. All loans identified as impaired are evaluated independently by management. The Company estimates credit losses on impaired loans based on the present value of expected cash flows or the fair value of the underlying collateral if the loan repayment is expected to come from the sale or operation of such collateral. Impaired loans, or portions thereof, are charged off when it is determined a realized loss has occurred. Until such time, an allowance for loan and lease losses is maintained for estimated losses. Cash receipts on impaired loans are applied first to accrued interest receivable unless otherwise required by the loan terms, except when an impaired loan is also a nonaccrual loan, in which case the portion of the payment related to interest is recognized as income.

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

Premises and Equipment

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

Goodwill

The Company accounts for goodwill using a three-step process for testing the impairment of goodwill on at least an annual basis. This approach could cause more volatility in the Company's reported net income because impairment losses, if any, could occur irregularly and in varying amounts. No impairment of goodwill was recognized in any of the periods presented.

Intangible Assets

Intangible assets include core deposit intangibles, which are a measure of the value of consumer demand and savings deposits acquired in business combinations accounted for as purchases. The core deposit intangibles are being amortized to expense over a 10 year life on a straight-line basis. The recoverability of the carrying value of intangible assets is evaluated on an ongoing basis, and permanent declines in value, if any, are charged to expense.

Bank-Owned Life Insurance ("BOLI")

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

Other Real Estate Owned

Real estate properties acquired through foreclosure are initially recorded at fair value at the date of foreclosure, establishing a new cost basis. After foreclosure, management periodically performs valuations and the real estate is carried at the lower of cost or fair value less estimated cost to sell. Revenue and expenses from operations of the properties, gains or losses on sales and additions to the valuation allowance are included in operating results.

Income Taxes

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

Earnings Per Share

The Company provides dual presentation of basic and diluted earnings per share. Basic earnings per share are calculated utilizing net income as reported in the numerator and average shares outstanding in the denominator. The computation of diluted earnings per share differs in that the dilutive effects of any stock options, warrants, and convertible securities are adjusted in the denominator.

Stock-Based Compensation

The Company accounts for stock compensation based on the grant date fair value of all share-based payment awards that are expected to vest, including employee share options to be recognized as employee compensation expense over the requisite service period.

For each of the years ended December 31, 2016, 2015, and 2014, the Company recorded no compensation cost related to vested stock options. As of December 31, 2016, there was no unrecognized compensation cost related to unvested stock options.

At year ended December 31, 2016, 900 shares of restricted stock were awarded and immediately vested. At year ended December 31, 2015, 585 shares of restricted stock were awarded and immediately vested. There were no shares of restricted stock issued in 2014.

For the years ended December 31, 2016 and 2015, 500 and 2,175 options were exercised resulting in net proceeds to the participant of \$6,000 and \$7,000, respectively.

Cash Flow Information

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

Advertising Costs

Advertising costs are expensed as incurred.

Reclassification of Comparative Amounts

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

Recent Accounting Pronouncements:

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* (a new revenue recognition standard). The Update’s core principle is that a company will recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, this Update specifies the accounting for certain costs to obtain or fulfill a contract with a customer and expands disclosure requirements for revenue recognition. This Update is effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. The Company is currently evaluating the impact the adoption of the standard will have on the Company’s financial position or results of operations.

In August 2015, the FASB issued ASU 2015-14, *Revenue from Contract with Customers (Topic 606)*. The amendments in this Update defer the effective date of ASU 2014-09 for all entities by one year. Public business entities, certain not-for-profit entities, and certain employee benefit plans should apply the guidance in ASU 2014-09 to annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. All other entities should apply the guidance in ASU 2014-09 to annual reporting periods beginning after December 15, 2018, and interim reporting periods within annual reporting periods beginning after December 15, 2019. The Company is evaluating the effect of adopting this new accounting Update.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. This Update applies to all entities that hold financial assets or

owe financial liabilities and is intended to provide more useful information on the recognition, measurement, presentation, and disclosure of financial instruments. Among other things, this Update (a) requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income; (b) simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; (c) eliminates the requirement to disclose the fair value of financial instruments measured at amortized cost for entities that are not public business entities; (d) eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; (e) requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (f) requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (that is, securities or loans and receivables) on the balance sheet or the accompanying notes to the financial statements; and (g) clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. For public business entities, the amendments in this Update are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. For all other entities, including not-for-profit entities and employee benefit plans within the scope of Topics 960 through 965 on plan accounting, the amendments in this Update are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. All entities that are not public business entities may adopt the amendments in this Update earlier as of the fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The standard requires lessees to recognize the assets and liabilities that arise from leases on the balance sheet. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. A short-term lease is defined as one in which (a) the lease term is 12 months or less and (b) there is not an option to purchase the underlying asset that the lessee is reasonably certain to exercise. For short-term leases, lessees may elect to recognize lease payments over the lease term on a straight-line basis. For public business entities, the amendments in this Update are effective for fiscal years beginning after December 15, 2018, and interim periods within those years. For all other entities, the amendments in this Update are effective for fiscal years beginning after December 15, 2019, and for interim periods within fiscal years beginning after December 15, 2020. The amendments should be applied at the beginning of the earliest period presented using a modified retrospective approach with earlier application permitted as of the beginning of an interim or annual reporting period. This Update is not expected to have a significant impact on the Company's financial statements.

In March 2016, the FASB issued ASU 2016-05, *Derivatives and Hedging (Topic 815)*. The amendments in this Update apply to all reporting entities for which there is a change in the counterparty to a derivative instrument that has been designated as a hedging instrument under Topic 815. The standards in this Update clarify that a change in the counterparty to a derivative instrument that has been designated as the hedging instrument under Topic 815 does not, in and of itself, require designation of that hedging relationship provided that all other hedge accounting criteria continue to be met. For public business entities, the amendments in this Update are effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. For all other entities, the amendments in this Update are effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within fiscal years beginning after December 15, 2018. An entity has an option to apply the amendments in this Update on either a prospective basis or a modified retrospective basis. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In March 2016, the FASB issued ASU 2016-06, *Derivatives and Hedging (Topic 815)*. The amendments apply to all entities that are issuers of or investors in debt instruments (or hybrid financial instruments that are determined to have a debt host) with embedded call (put) options. The amendments in this Update clarify the requirements for assessing whether contingent call (put) options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt host. An entity performing the assessment under the amendments in this Update is required to assess the embedded call (put) options solely in accordance with the four-step decision sequence. For public business entities, the amendments in this Update are effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. For entities other than public business entities, the amendments in this Update are effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within fiscal years beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In March 2016, the FASB issued ASU 2016-07, *Investments – Equity Method and Joint Ventures (Topic 323)*. The Update affects all entities that have an investment that becomes qualified for the equity method of accounting as a result of an increase in the level of ownership interest or degree of influence. The amendments in this Update eliminate the requirement that when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence, an investor must adjust the investment, results of operations, and retained earnings retroactively on a step-by-step basis as if the equity method had been in effect during all previous periods that the investment had been held. The amendments require that the equity method investor add the cost of acquiring the additional interest in the investee to the current basis of the investor's previously held interest and adopt the equity method of accounting as of the date the investment becomes qualified for equity method accounting. Therefore, upon qualifying for the equity method of accounting, no retroactive adjustment of the investment is required. The amendments in this Update require that an entity that has an available-for-sale equity security that becomes qualified for the equity method of accounting recognize through earnings the unrealized holding gain or loss in accumulated other comprehensive income at the date the investment becomes qualified for use of the equity method. The amendments in this Update are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. The amendments should be applied prospectively upon their effective date to increases in the level of ownership interest or degree of influence that result in the adoption of the equity method. Earlier application is permitted. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In March 2016, the FASB issued ASU 2016-08, *Revenue from Contracts with Customers (Topic 606)*. The amendments in this Update affect entities with transactions included within the scope of Topic 606, which includes entities that enter into contracts with customers to transfer goods or services (that are an output of the entity's ordinary activities) in exchange for consideration. The amendments in this Update do not change the core principle of the guidance in Topic 606; they simply clarify the implementation guidance on principal versus agent considerations. The amendments in this Update are intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations. The amendments in this Update affect the guidance in ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which is not yet effective. The effective date and transition requirements for the amendments in this Update are the same as the effective date and transition requirements of Update 2014-09. ASU No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, defers the effective date of Update 2014-09 by one year. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In March 2016, the FASB issued ASU 2016-09, *Compensation – Stock Compensation (Topic 718)*. The amendments in this Update affect all entities that issue share-based payment awards to their employees. The standards in this Update provide simplification for several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as with equity or liabilities, and classification on the statement of cash flows. Some of the areas for simplification apply only to nonpublic entities. In addition to those simplifications, the amendments eliminate the guidance in Topic 718 that was indefinitely deferred shortly after the issuance of FASB Statement No. 123 (revised 2004), *Share-Based Payment*. This should not result in a change in practice because the guidance that is being superseded was never effective. For public business entities, the amendments in this Update are effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. For all other entities, the amendments are effective for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted for any entity in any interim or annual period. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In April 2016, the FASB issued ASU 2016-10, *Revenue from Contracts with Customers (Topic 606)*. The amendments in this Update affect entities with transactions included within the scope of Topic 606, which includes entities that enter into contracts with customers to transfer goods or services in exchange for consideration. The amendments in this Update do not change the core principle for revenue recognition in Topic 606. Instead, the amendments provide (1) more detailed guidance in a few areas and (2) additional implementation guidance and examples based on feedback the FASB received from its stakeholders. The amendments are expected to reduce the degree of judgment necessary to comply with Topic 606, which the FASB expects will reduce the potential for diversity arising in practice and reduce the cost and complexity of applying the guidance. The amendments in this Update affect the guidance in ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which is not yet effective. The effective date and transition requirements for the amendments in this Update are the same as the effective date and transition requirements in Topic 606 (and any other Topic amended by Update 2014-09). ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, defers the effective date of Update 2014-09 by one year. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In May 2016, the FASB issued ASU 2016-11, *Revenue Recognition (Topic 605) and Derivative and Hedging (Topic 815)*, which rescinds SEC paragraphs pursuant to two SEC Staff Announcements at the March 3, 2016, Emerging Issues Task Force meeting. This Update did not have a significant impact on the Company's financial statements

In May 2016, the FASB issued ASU 2016-12, *Revenue from Contracts with Customers (Topic 606)*, which among other things clarifies the objective of the collectability criterion in Topic 606, as well as certain narrow aspects of Topic 606. The amendments in this Update affect the guidance in ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which is not yet effective. The effective date and transition requirements for the amendments in this Update are the same as the effective date and transition requirements for Topic 606 (and any other Topic amended by Update 2014-09). ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, defers the effective date of Update 2014-09 by one year. This Update is not expected to have a significant impact on the Company's financial statements

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which changes the impairment model for most financial assets. This Update is intended to improve financial reporting by requiring timelier recording of credit losses on loans and other financial instruments held by financial institutions and other organizations. The underlying premise of the Update is that financial assets measured at amortized cost should be presented at the net amount expected to be collected, through an allowance for credit losses that is deducted from the amortized cost basis. The allowance for credit losses should reflect management's current estimate of credit losses that are expected to occur over the remaining life of a financial asset. The income statement will be effected for the measurement of credit losses for newly recognized financial assets, as well as the expected increases or decreases of expected credit losses that have taken place during the period. ASU 2016-13 is effective for annual and interim periods beginning after December 15, 2019, and early adoption is permitted for annual and interim periods beginning after December 15, 2018. With certain exceptions, transition to the new requirements will be through a cumulative effect adjustment to opening retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"), which addresses eight specific cash flow issues with the objective of reducing diversity in practice. Among these include recognizing cash payments for debt prepayment or debt extinguishment as cash outflows for financing activities; cash proceeds received from the settlement of insurance claims should be classified on the basis of the related insurance coverage; and cash proceeds received from the settlement of bank-owned life insurance policies should be classified as cash inflows from investing activities while the cash payments for premiums on bank-owned policies may be classified as cash outflows for investing activities, operating activities, or a combination of investing and operating activities. The amendments in this Update are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. An entity that elects early adoption must adopt all of the amendments in the same period. The amendments in this Update should be applied using a retrospective transition method to each period presented. If it is impracticable to apply the amendments retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The Company is currently evaluating the impact the adoption of the standard will have on the Company's statement of cash flows.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740)* ("ASU 2016-16"), which requires recognition of current and deferred income taxes resulting from an intra-entity transfer of any asset (excluding inventory) when the transfer occurs. Consequently, the amendments in this Update eliminate the exception for an intra-entity transfer of an asset other than inventory. The amendments in this Update are effective for public business entities for fiscal years beginning after December 15, 2017, including interim periods within those annual reporting periods. For all other entities, the amendments are effective for annual reporting periods beginning after December 15, 2018, and interim reporting periods within annual periods beginning after December 15, 2019. Early adoption is permitted for all entities as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued or made available for issuance. That is, earlier adoption should be in the first interim period if an entity issues interim financial statements. The amendments in this Update should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The Company is currently evaluating the impact the adoption of the standard will have on the Company's financial position or results of operations.

In October 2016, the FASB issued ASU 2016-17, *Consolidation (Topic 810)* (“ASU 2016-17”), which amends the consolidation guidance on how a reporting entity that is the single decision maker of a VIE should treat indirect interests in the entity held through related parties that are under common control with the reporting entity when determining whether it is the primary beneficiary of that VIE. The primary beneficiary of a VIE is the reporting entity that has a controlling financial interest in a VIE and, therefore, consolidates the VIE. A reporting entity has an indirect interest in a VIE if it has a direct interest in a related party that, in turn, has a direct interest in the VIE. Under the amendments, a single decision maker is not required to consider indirect interests held through related parties that are under common control with the single decision maker to be the equivalent of direct interests in their entirety. Instead, a single decision maker is required to include those interests on a proportionate basis consistent with indirect interests held through other related parties. This Update is not expected to have a significant impact on the Company’s financial statements.

In October 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230)* (“ASU 2016-18”), which requires that a statement of cash flows explains the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this Update are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. The amendments in this Update should be applied using a retrospective transition method to each period presented. The Company is currently evaluating the impact the adoption of the standard will have on the Company’s statement of cash flows.

In December 2016, the FASB issued ASU 2016-19, *Technical Corrections and Improvements*, which represents changes to clarify, correct errors, or make minor improvements to the Accounting Standards Codification. The amendments make the Accounting Standards Codification easier to understand and easier to apply by eliminating inconsistencies and providing clarifications. Most of the amendments in this Update do not require transition guidance and are effective upon issuance of this Update. This Update is not expected to have a significant impact on the Company’s financial statements.

In December 2016, the FASB issued ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers* “ASU 2016-20”. This Update, among other things, clarifies that guarantee fees within the scope of Topic 460, *Guarantees*, (other than product or service warranties) are not within the scope of Topic 606. The effective date and transition requirements for ASU 2016-20 are the same as the effective date and transition requirements for the new revenue recognition guidance. For public entities with a calendar year-end, the new guidance is effective in the quarter and year beginning January 1, 2018. For all other entities with a calendar year-end, the new guidance is effective in the year ending December 31, 2019, and interim periods in 2020. The Company is currently evaluating the impact the adoption of the standard will have on the Company’s financial position or results of operations.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805), Clarifying the Definition of a Business* “ASU 2017-01”, which provides a more robust framework to use in determining when a set of assets and activities (collectively referred to as a “set”) is a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This screen reduces the number of transactions that need to be further evaluated. Public business entities should apply the amendments in this Update to annual periods beginning after December 15, 2017, including interim periods within those periods. All other entities should apply the amendments to annual periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. The amendments in this Update should be applied prospectively on or after the effective date. This Update is not expected to have a significant impact on the Company’s financial statements.

Accounting Standards Update 2017-03, *Accounting Changes and Error Corrections (Topic 250)* and *Investments—Equity Method and Joint Ventures (Topic 323)*, Amendments to SEC Paragraphs Pursuant to Staff Announcements at the September 22, 2016 and November 17, 2016 EITF Meetings

In January 2017, the FASB issued ASU 2017-03, *Accounting Changes and Error Corrections (Topic 250)* and *Investments—Equity Method and Joint Ventures (Topic 323)*, Amendments to SEC Paragraphs Pursuant to Staff Announcements at the September 22, 2016 and November 17, 2016 EITF Meetings. This ASU adds an SEC paragraph to the Codification following an SEC Staff Announcement about applying Staff Accounting Bulletin (SAB) Topic 11.M. Specifically this announcement

applies to ASU No. 2014- 09, Revenue from Contracts with Customers (Topic 606); ASU No. 2016-02, Leases (Topic 842); and ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. A registrant should evaluate ASUs that have not yet been adopted to determine the appropriate financial statement disclosures about the potential material effects of those ASUs on the financial statements when adopted. If a registrant does not know or cannot reasonably estimate the impact that adoption of the ASUs referenced in this announcement are expected to have on the financial statements, then in addition to making a statement to that effect, that registrant should consider additional qualitative financial statement disclosures to assist the reader in assessing the significance of the impact that the standard will have on the financial statements of the registrant when adopted. In this regard, the SEC staff expects the additional qualitative disclosures to include a description of the effect of the accounting policies that the registrant expects to apply, if determined, and a comparison to the registrant’s current accounting policies. Also, a registrant should describe the status of its process to implement the new standards and the significant implementation matters yet to be addressed. The amendments in this Update are effective immediately.

2. EARNINGS PER SHARE

There are no convertible securities that would affect the numerator in calculating basic and diluted earnings per share; therefore, net income as presented on the Consolidated Statement of Income will be used as the numerator. The following table sets forth the composition of the weighted-average common shares (denominator) used in the basic and diluted earnings per share computation for the year ended December 31.

	2016	2015	2014
Weighted-average common shares outstanding	2,494,022	2,251,365	2,231,165
Average treasury stock shares	(386,165)	(236,399)	(189,530)
Weighted-average common shares and common stock equivalents used to calculate basic earnings per share	2,107,857	2,014,966	2,041,635
Additional common stock equivalents used to calculate diluted earnings per share	11,357	9,154	7,871
Weighted-average common shares and common stock equivalents used to calculate diluted earnings per share	2,119,214	2,024,120	2,049,506

Options to purchase 29,324 shares of common stock at prices ranging from \$17.55 to \$37.48 were outstanding during the year ended December 31, 2016. Of those options, 29,324 were considered dilutive based on the average market price exceeding the strike price for the year ended December 31, 2016. The remaining options had no dilutive effect on the earnings per share.

Options to purchase 31,949 shares of common stock at prices ranging from \$17.55 to \$40.24 were outstanding during the year ended December 31, 2015. Of those options, 27,250 were considered dilutive based on the average market price exceeding the strike price for the year ended December 31, 2015. The remaining options had no dilutive effect on the earnings per share.

Options to purchase 46,451 shares of common stock at prices ranging from \$17.55 to \$40.24 were outstanding during the year ended December 31, 2014. Of those options, 28,282 were considered dilutive based on the average market price exceeding the strike price for the year ended December 31, 2014. The remaining options had no dilutive effect on the earnings per share.

3. INVESTMENT SECURITIES AVAILABLE FOR SALE

The amortized cost, gross gains and losses and fair values of securities available for sale are as follows:

(Dollar amounts in thousands)	December 31, 2016			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. government agency securities	\$ 10,158	\$ 174	\$ (96)	\$ 10,236
Obligations of states and political subdivisions:				
Taxable	1,615	129	(4)	1,740
Tax-exempt	78,327	1,678	(522)	79,483
Mortgage-backed securities in government-sponsored entities	20,128	202	(261)	20,069
Private-label mortgage-backed securities	1,579	130	-	1,709
Total debt securities	111,807	2,313	(883)	113,237
Equity securities in financial institutions	750	389	-	1,139
Total	<u>\$ 112,557</u>	<u>\$ 2,702</u>	<u>\$ (883)</u>	<u>\$ 114,376</u>

(Dollar amounts in thousands)	December 31, 2015			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. government agency securities	\$ 21,655	\$ 245	\$ (271)	\$ 21,629
Obligations of states and political subdivisions:				
Taxable	1,989	134	-	2,123
Tax-exempt	91,940	3,402	(175)	95,167
Mortgage-backed securities in government-sponsored entities	24,480	316	(272)	24,524
Private-label mortgage-backed securities	2,079	184	-	2,263
Total debt securities	142,143	4,281	(718)	145,706
Equity securities in financial institutions	750	64	-	814
Total	<u>\$ 142,893</u>	<u>\$ 4,345</u>	<u>\$ (718)</u>	<u>\$ 146,520</u>

The amortized cost and fair value of debt securities at December 31, 2016, by contractual maturity, are shown below. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

(Dollar amounts in thousands)	Amortized Cost	Fair Value
Due in one year or less	\$ 3,693	\$ 3,759
Due after one year through five years	9,487	9,796
Due after five years through ten years	11,870	12,248
Due after ten years	<u>86,757</u>	<u>87,434</u>
Total	<u>\$ 111,807</u>	<u>\$ 113,237</u>

Investment securities with an approximate carrying value of \$60.3 million and \$68.8 million at December 31, 2016 and 2015, respectively, were pledged to secure deposits and other purposes as required by law.

Proceeds from the sales of securities available for sale and the gross realized gains and losses for the years ended December 31, 2016 through 2014, are as follows (in thousands):

	2016	2015	2014
Proceeds from sales	\$ 9,063	\$ 15,686	\$ 8,383
Gross realized gains	309	440	306
Gross realized losses	(6)	(117)	(58)

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

(Dollar amounts in thousands)	December 31, 2016					
	Less than Twelve Months		Twelve Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. government agency securities	\$ 3,803	\$ (47)	\$ 1,316	\$ (49)	\$ 5,119	\$ (96)
Obligations of states and political subdivisions						
Tax-exempt	23,554	(522)	-	-	23,554	(522)
Taxable	502	(4)	-	-	502	(4)
Mortgage-backed securities in government-sponsored entities	9,066	(126)	4,438	(135)	13,504	(261)
Total	<u>\$ 36,925</u>	<u>\$ (699)</u>	<u>\$ 5,754</u>	<u>\$ (184)</u>	<u>\$ 42,679</u>	<u>\$ (883)</u>

(Dollar amounts in thousands)	December 31, 2015					
	Less than Twelve Months		Twelve Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. government agency securities	\$ 3,818	\$ (57)	\$ 10,872	\$ (214)	\$ 14,690	\$ (271)
Obligations of states and political subdivisions						
Tax-exempt	1,268	(9)	9,394	(166)	10,662	(175)
Mortgage-backed securities in government-sponsored entities	8,725	(86)	6,685	(186)	15,410	(272)
Total	<u>\$ 13,811</u>	<u>\$ (152)</u>	<u>\$ 26,951</u>	<u>\$ (566)</u>	<u>\$ 40,762</u>	<u>\$ (718)</u>

There were 67 securities that were considered temporarily impaired at December 31, 2016.

On a quarterly basis, the Company performs an assessment to determine whether there have been any events or economic circumstances indicating that a security with an unrealized loss has suffered other-than-temporary impairment ("OTTI"). A debt security is considered impaired if the fair value is less than its amortized cost basis at the reporting date. The accounting literature requires the Company to assess whether the unrealized loss is other than temporary. For equity securities where the fair value has been significantly below cost for one year, the Company's policy is to recognize an impairment loss unless sufficient evidence is available that the decline is not other than temporary and a recovery period can be predicted.

The Company has asserted that at December 31, 2016 and 2015, the declines outlined in the above table represent temporary declines and the Company does not intend to sell and does not believe it will be required to sell these securities before recovery of their cost basis, which may be at maturity. The Company has concluded that any impairment of its investment securities portfolio outlined in the above table is not other than temporary and is the result of interest rate changes, sector credit rating changes, or company-specific rating changes that are not expected to result in the non-collection of principal and interest during the period.

Debt securities issued by U.S. government agencies, U.S. government-sponsored enterprises, and state and political subdivisions accounted for more than 97.5% of the total available-for-sale portfolio as of December 31, 2016, and no credit losses are expected, given the explicit and implicit guarantees provided by the U.S. federal government and the lack of significant unrealized loss positions within the obligations of state and political subdivisions security portfolio. The Company evaluates credit losses on a quarterly basis. The Company considered the following factors in determining whether a credit loss exists and the period over which the debt security is expected to recover:

- The length of time and the extent to which the fair value has been less than the amortized cost basis.
- Changes in the near term prospects of the underlying collateral of a security such as changes in default rates, loss severity given default and significant changes in prepayment assumptions.
- The level of cash flows generated from the underlying collateral supporting the principal and interest payments of the debt securities.
- Any adverse change to the credit conditions and liquidity of the issuer, taking into consideration the latest information available about the overall financial condition of the issuer, credit ratings, recent legislation, and government actions affecting the issuer's industry and actions taken by the issuer to deal with the present economic climate.

4. LOANS AND RELATED ALLOWANCE FOR LOAN LOSSES

Major classifications of loans at December 31 are summarized as follows (in thousands):

	2016	2015
Commercial and industrial	\$ 60,630	\$ 42,536
Real estate - construction	23,709	22,137
Real estate - mortgage:		
Residential	270,830	232,478
Commercial	249,490	231,701
Consumer installment	4,481	4,858
	609,140	533,710
Less allowance for loan and lease losses	(6,598)	(6,385)
Net loans	<u>\$ 602,542</u>	<u>\$ 527,325</u>

The Company's primary business activity is with customers located within its local trade area, eastern Geauga County, and contiguous counties to the north, east, and south. The Company also serves the central Ohio market with offices in Dublin, Sunbury and Westerville, Ohio. Commercial, residential, consumer, and agricultural loans are granted. Although the Company has a diversified loan portfolio at December 31, 2016 and 2015, loans outstanding to individuals and businesses are dependent upon the local economic conditions in its immediate trade area.

The following tables summarize the primary segments of the loan portfolio and the allowance for loan and lease losses as of December 31, 2016 and 2015 (in thousands):

December 31, 2016	Commercial and industrial	Real estate- construction	Real Estate- Mortgage		Consumer installment	Total
			Residential	Commercial		
Loans:						
Individually evaluated for impairment	\$ 1,190	\$ 913	\$ 3,135	\$ 7,187	\$ 5	\$ 12,430
Collectively evaluated for impairment	59,440	22,796	267,695	242,303	4,476	596,710
Total loans	<u>\$ 60,630</u>	<u>\$ 23,709</u>	<u>\$ 270,830</u>	<u>\$ 249,490</u>	<u>\$ 4,481</u>	<u>\$ 609,140</u>

December 31, 2015	Commercial and industrial	Real estate- construction	Real estate- Mortgage		Consumer installment	Total
			Residential	Commercial		
Loans:						
Individually evaluated for impairment	\$ 1,808	\$ 1,787	\$ 3,881	\$ 6,199	\$ 6	\$ 13,681
Collectively evaluated for impairment	40,728	20,350	228,597	225,502	4,852	520,029
Total loans	<u>\$ 42,536</u>	<u>\$ 22,137</u>	<u>\$ 232,478</u>	<u>\$ 231,701</u>	<u>\$ 4,858</u>	<u>\$ 533,710</u>

December 31, 2016	Commercial and industrial	Real estate- construction	Real Estate- Mortgage		Consumer installment	Total
			Residential	Commercial		
Allowance for loan and lease losses:						
Ending allowance balance attributable to loans:						
Individually evaluated for impairment	\$ 90	\$ -	\$ 251	\$ 186	\$ -	\$ 527
Collectively evaluated for impairment	358	172	2,567	2,949	25	6,071
Total ending allowance balance	<u>\$ 448</u>	<u>\$ 172</u>	<u>\$ 2,818</u>	<u>\$ 3,135</u>	<u>\$ 25</u>	<u>\$ 6,598</u>

December 31, 2015	Commercial and industrial	Real estate- construction	Real Estate- Mortgage		Consumer installment	Total
			Residential	Commercial		
Allowance for loan and lease losses:						
Ending allowance balance attributable to loans:						
Individually evaluated for impairment	\$ 388	\$ 130	\$ 276	\$ 39	\$ -	\$ 833
Collectively evaluated for impairment	479	146	2,863	2,039	25	5,552
Total ending allowance balance	<u>\$ 867</u>	<u>\$ 276</u>	<u>\$ 3,139</u>	<u>\$ 2,078</u>	<u>\$ 25</u>	<u>\$ 6,385</u>

The Company's loan portfolio is segmented to a level that allows management to monitor risk and performance. The portfolio is segmented into Commercial and Industrial ("C&I"), Real Estate Construction, Real Estate - Mortgage which is further segmented into Residential and Commercial real estate, and Consumer Installment Loans. The C&I loan segment consists of loans made for the purpose of financing the activities of commercial customers. The residential mortgage loan segment consists of loans made for the purpose of financing the activities of residential homeowners. The commercial mortgage loan segment consists of loans made for the purpose of financing the activities of commercial real estate owners and operators. The consumer loan segment consists primarily of installment loans and overdraft lines of credit connected with customer deposit accounts.

Management evaluates individual loans in all of the commercial segments for possible impairment if the loan is greater than \$150,000 and if the loan either is in nonaccrual status, or is risk rated Substandard or Doubtful and is greater than 90 days past due. Loans are considered to be impaired when, based on current information and events, it is probable that the Company will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Factors considered by management in evaluating impairment include payment status, collateral value, and the probability of collecting scheduled principal and interest payments when due. Management determines the significance of payment delays and payment shortfalls on a case-by-case basis, taking into consideration all of the circumstances surrounding the loan and the borrower, including the length of the delay, the reasons for the delay, the borrower's prior payment record, and the amount of the shortfall in relation to the principal and interest owed. The Company does not separately evaluate individual consumer and residential mortgage loans for impairment, unless such loans are part of a larger relationship that is impaired.

Once the determination has been made that a loan is impaired, the determination of whether a specific allocation of the allowance is necessary is measured by comparing the recorded investment in the loan to the fair value of the loan using one of three methods: (a) the present value of expected future cash flows discounted at the loan's effective interest rate; (b) the loan's observable market price; or (c) the fair value of the collateral less selling costs. The method is selected on a loan-by-loan basis, with management primarily utilizing the fair value of collateral method. The evaluation of the need and amount of a specific allocation of the allowance and whether a loan can be removed from impairment status is made on a quarterly basis. The Company's policy for recognizing interest income on impaired loans does not differ from its overall policy for interest recognition.

The following tables present impaired loans by class, segregated by those for which a specific allowance was required and those for which a specific allowance was not necessary (in thousands):

December 31, 2016				
Impaired Loans				
	Recorded Investment	Unpaid Principal Balance	Related Allowance	
With no related allowance recorded:				
Commercial and industrial	\$ 319	\$ 318	\$ -	
Real estate - construction	913	909	-	
Real estate - mortgage:				
Residential	2,142	2,140	-	
Commercial	2,031	2,027	-	
Total	<u>\$ 5,405</u>	<u>\$ 5,394</u>	<u>\$ -</u>	
With an allowance recorded:				
Commercial and industrial	\$ 871	868	\$ 90	
Real estate - construction	-	-	-	
Real estate - mortgage:				
Residential	993	991	251	
Commercial	5,156	5,147	186	
Consumer installment	5	5	-	
Total	<u>\$ 7,025</u>	<u>\$ 7,011</u>	<u>\$ 527</u>	
Total:				
Commercial and industrial	\$ 1,190	\$ 1,186	\$ 90	
Real estate - construction	913	909	-	
Real estate - mortgage:				
Residential	3,135	3,131	251	
Commercial	7,187	7,174	186	
Consumer installment	5	5	-	
Total	<u>\$ 12,430</u>	<u>\$ 12,405</u>	<u>\$ 527</u>	

December 31, 2015

Impaired Loans

	Recorded Investment	Unpaid Principal Balance	Related Allowance
With no related allowance recorded:			
Commercial and industrial	\$ 1,027	\$ 1,025	\$ -
Real estate - construction	1,657	1,651	-
Real estate - mortgage:			
Residential	2,445	2,443	-
Commercial	2,337	2,335	-
Consumer installment	-	-	-
Total	<u>\$ 7,466</u>	<u>\$ 7,454</u>	<u>\$ -</u>
With an allowance recorded:			
Commercial and industrial	\$ 781	\$ 781	\$ 388
Real estate - construction	130	130	130
Real estate - mortgage:			
Residential	1,436	1,436	276
Commercial	3,862	3,846	39
Consumer installment	6	6	-
Total	<u>\$ 6,215</u>	<u>\$ 6,199</u>	<u>\$ 833</u>
Total:			
Commercial and industrial	\$ 1,808	\$ 1,806	\$ 388
Real estate - construction	1,787	1,781	130
Real estate - mortgage:			
Residential	3,881	3,879	276
Commercial	6,199	6,181	39
Consumer installment	6	6	-
Total	<u>\$ 13,681</u>	<u>\$ 13,653</u>	<u>\$ 833</u>

The tables above include troubled debt restructuring totaling \$6.7 million and \$3.1 million as of December 31, 2016 and 2015, respectively.

The following table presents interest income by class, recognized on impaired loans (in thousands):

	As of December 31, 2016		As of December 31, 2015		As of December 31, 2014	
	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized
Commercial and industrial	\$ 1,211	\$ 35	\$ 1,468	\$ 100	\$ 1,989	\$ 85
Real estate - construction	1,281	62	2,407	115	3,631	154
Real estate - mortgage:						
Residential	3,529	178	4,356	160	5,331	171
Commercial	7,384	553	5,203	350	5,998	229
Consumer installment	6	11	6	-	11	1
Total	<u>\$ 13,410</u>	<u>\$ 839</u>	<u>\$ 13,440</u>	<u>\$ 725</u>	<u>\$ 16,960</u>	<u>\$ 640</u>

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

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

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

The following tables present the number of loan modifications by class, the corresponding recorded investment, and the subsequently defaulted modifications (in thousands):

December 31, 2016					
	Number of Contracts			Pre-Modification Outstanding Recorded Investment	Post-Modification Outstanding Recorded Investment
	Term Modification	Other	Total		
Troubled Debt Restructurings					
Commercial and industrial	5	-	5	\$ 610	\$ 610
Residential real estate	4	-	4	166	166
Commercial real estate	1	-	1	311	311

December 31, 2015					
	Number of Contracts			Pre-Modification Outstanding Recorded Investment	Post-Modification Outstanding Recorded Investment
	Term Modification	Other	Total		
Troubled Debt Restructurings					
Commercial and industrial	6	-	6	\$ 434	\$ 434
Real estate construction	1	-	1	181	181
Residential real estate	5	1	6	515	535
Commercial real estate	1	-	1	270	270

December 31, 2014					
	Number of Contracts			Pre-Modification Outstanding Recorded Investment	Post-Modification Outstanding Recorded Investment
	Term Modification	Other	Total		
Troubled Debt Restructurings					
Residential real estate	3	-	3	\$ 140	\$ 140
Commercial real estate	1	-	1	48	48
Consumer	1	-	1	6	6

			December 31, 2016	
			Number of Contracts	Recorded Investment
Troubled Debt Restructurings subsequently defaulted				
Commercial and industrial			2	\$ 7
Real estate construction			1	-
Residential real estate			4	278
Commercial real estate			1	119

	December 31, 2015	
	Number of Contracts	Recorded Investment
Troubled Debt Restructurings subsequently defaulted		
Commercial and industrial	2	\$ 14
Real estate construction	1	130
	December 31, 2014	
	Number of Contracts	Recorded Investment
Troubled Debt Restructurings subsequently defaulted		
Residential real estate	1	\$ 15

Management uses a nine-point internal risk-rating system to monitor the credit quality of the overall loan portfolio. The first five categories are considered not criticized and are aggregated as pass rated. The criticized rating categories utilized by management generally follow bank regulatory definitions. The Special Mention category includes assets that are currently protected but are potentially weak, resulting in an undue and unwarranted credit risk, but not to the point of justifying a Substandard classification. Loans in the Substandard category have well-defined weaknesses that jeopardize the liquidation of the debt and have a distinct possibility that some loss will be sustained if the weaknesses are not corrected. All loans greater than 90 days past due are considered Substandard. Any portion of a loan that has been charged off is placed in the Loss category.

To help ensure that risk ratings are accurate and reflect the present and future capacity of borrowers to repay a loan as agreed, the Company has a structured loan-rating process with several layers of internal and external oversight. Generally, consumer and residential mortgage loans are included in the Pass categories unless a specific action, such as bankruptcy, repossession, or death, occurs to raise awareness of a possible credit event. The Company's Commercial Loan Officers are responsible for the timely and accurate risk rating of the loans in their portfolios at origination and on an ongoing basis with the Chief Credit Officer ultimately responsible for accurate and timely risk ratings. The Credit Department performs an annual review of all commercial relationships \$1,000,000 or greater. Confirmation of the appropriate risk grade is included in the review on an ongoing basis. The Company engages an external consultant to conduct loan reviews on a semiannual basis. Generally, the external consultant reviews commercial relationships greater than \$250,000 and/or criticized relationships greater than \$125,000. Detailed reviews, including plans for resolution, are performed on loans classified as Substandard on a quarterly basis. Loans in the Special Mention and Substandard categories that are collectively evaluated for impairment are given separate consideration in the determination of the allowance.

The following tables present the classes of the loan portfolio summarized by the aggregate Pass rating and the criticized categories of Special Mention, Substandard, and Doubtful within the internal risk rating system as of December 31, 2016 and 2015 (in thousands):

	Pass	Special Mention	Substandard	Doubtful	Total Loans
December 31, 2016					
Commercial and industrial	\$ 58,539	\$ 663	\$ 1,428	\$ -	\$ 60,630
Real estate - construction	23,541	144	24	-	23,709
Real estate - mortgage:					
Residential	264,481	428	5,921	-	270,830
Commercial	240,678	4,422	4,390	-	249,490
Consumer installment	4,467	-	14	-	4,481
Total	<u>\$ 591,706</u>	<u>\$ 5,657</u>	<u>\$ 11,777</u>	<u>\$ -</u>	<u>\$ 609,140</u>

	Pass	Special Mention	Substandard	Doubtful	Total Loans
December 31, 2015					
Commercial and industrial	\$ 40,560	\$ 242	\$ 1,734	\$ -	\$ 42,536
Real estate - construction	22,007	-	-	130	22,137
Real estate - mortgage:					
Residential	225,945	728	5,805	-	232,478
Commercial	219,331	4,327	8,043	-	231,701
Consumer installment	4,854	-	4	-	4,858
Total	<u>\$ 512,697</u>	<u>\$ 5,297</u>	<u>\$ 15,586</u>	<u>\$ 130</u>	<u>\$ 533,710</u>

Management further monitors the performance and credit quality of the loan portfolio by analyzing the age of the portfolio as determined by the length of time a recorded payment is past due. The following tables present the classes of the loan portfolio summarized by the aging categories of loans and nonaccrual loans as of December 31, 2016 and 2015 (in thousands):

	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days+ Past Due	Total Past Due	Total Loans
December 31, 2016						
Commercial and industrial	\$ 60,407	\$ 17	\$ 2	\$ 204	\$ 223	\$ 60,630
Real estate - construction	23,709	-	-	-	-	23,709
Real estate - mortgage:						
Residential	268,041	1,909	207	673	2,789	270,830
Commercial	249,081	92	-	317	409	249,490
Consumer installment	4,465	-	10	6	16	4,481
Total	<u>\$ 605,703</u>	<u>\$ 2,018</u>	<u>\$ 219</u>	<u>\$ 1,200</u>	<u>\$ 3,437</u>	<u>\$ 609,140</u>

	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days+ Past Due	Total Past Due	Total Loans
December 31, 2015						
Commercial and industrial	\$ 41,544	\$ 225	\$ 26	\$ 741	\$ 992	\$ 42,536
Real estate - construction	22,137	-	-	-	-	22,137
Real estate - mortgage:						
Residential	229,725	1,482	92	1,179	2,753	232,478
Commercial	230,903	189	-	609	798	231,701
Consumer installment	4,837	16	3	2	21	4,858
Total	<u>\$ 529,146</u>	<u>\$ 1,912</u>	<u>\$ 121</u>	<u>\$ 2,531</u>	<u>\$ 4,564</u>	<u>\$ 533,710</u>

The following tables present the classes of the loan portfolio summarized by nonaccrual loans and loans 90 days or more past due and still accruing as of December 31, 2016 and 2015 (in thousands):

	<u>Nonaccrual</u>	<u>90+ Days Past Due and Accruing</u>
December 31, 2016		
Commercial and industrial	\$ 454	\$ -
Real estate - construction	-	-
Real estate - mortgage:		
Residential	4,034	-
Commercial	1,409	-
Consumer installment	6	-
Total	<u>\$ 5,903</u>	<u>\$ 0</u>
	<u>Nonaccrual</u>	<u>90+ Days Past Due and Accruing</u>
December 31, 2015		
Commercial and industrial	\$ 1,450	\$ -
Real estate - construction	130	-
Real estate - mortgage:		
Residential	4,122	-
Commercial	1,842	-
Consumer installment	1	2
Total	<u>\$ 7,545</u>	<u>\$ 2</u>

Interest income that would have been recorded had these loans not been placed on nonaccrual status was \$309,000 in 2016, \$259,000 in 2015, and \$207,000 in 2014.

An allowance for loan and lease losses (“ALLL”) is maintained to absorb losses from the loan portfolio. The ALLL is based on management’s continuing evaluation of the risk characteristics and credit quality of the loan portfolio, assessment of current economic conditions, diversification and size of the portfolio, adequacy of collateral, past and anticipated loss experience, and the amount of nonperforming loans.

The Company’s methodology for determining the ALLL is based on the requirements of ASC Section 310-10-35 for loans individually evaluated for impairment (discussed above) and ASC Subtopic 450-20 for loans collectively evaluated for impairment, as well as the Interagency Policy Statement on the Allowance for Loan and Lease Losses and other bank regulatory guidance. The total of the two components represents the Company’s ALLL.

Loans that are collectively evaluated for impairment are analyzed, with general allowances being made as appropriate. For general allowances, historical loss trends are used in the estimation of losses in the current portfolio. These historical loss amounts are modified by other qualitative factors.

The classes described above, which are based on the purpose code assigned to each loan, provide the starting point for the ALLL analysis. Management tracks the historical net charge-off activity at the purpose code level. A historical charge-off factor is calculated utilizing the last twelve consecutive quarters.

Management has identified a number of additional qualitative factors which it uses to supplement the historical charge-off factor, because these factors are likely to cause estimated credit losses associated with the existing loan pools to differ from historical loss experience. The additional factors that are evaluated quarterly and updated using information obtained from internal, regulatory, and governmental sources are: national and local economic trends and conditions; levels of and trends in delinquency rates and nonaccrual loans; trends in volumes and terms of loans; effects of changes in lending policies; experience, ability, and depth of lending staff; value of underlying collateral; and concentrations of credit from a loan type, industry, and/or geographic standpoint.

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

The following tables summarize the primary segments of the loan portfolio (in thousands):

	Commercial and industrial	Real estate- construction	Real estate- residential mortgage	Real estate- commercial mortgage	Consumer installment	Total
ALLL balance at December 31, 2015	\$ 867	\$ 276	\$ 3,139	\$ 2,078	\$ 25	\$ 6,385
Charge-offs	(237)	-	(414)	(70)	(22)	(743)
Recoveries	90	-	141	140	15	386
Provision	(272)	(104)	(48)	987	7	570
ALLL balance at December 31, 2016	<u>\$ 448</u>	<u>\$ 172</u>	<u>\$ 2,818</u>	<u>\$ 3,135</u>	<u>\$ 25</u>	<u>\$ 6,598</u>
	Commercial and industrial	Real estate- construction	Real estate- residential mortgage	Real estate- commercial mortgage	Consumer installment	Total
ALLL balance at December 31, 2014	\$ 642	\$ 868	\$ 3,703	\$ 1,576	\$ 57	\$ 6,846
Charge-offs	(280)	(385)	(425)	(92)	(15)	(1,197)
Recoveries	207	-	186	5	23	421
Provision	298	(207)	(325)	589	(40)	315
ALLL balance at December 31, 2015	<u>\$ 867</u>	<u>\$ 276</u>	<u>\$ 3,139</u>	<u>\$ 2,078</u>	<u>\$ 25</u>	<u>\$ 6,385</u>

The decrease in the ALLL balance for commercial and industrial loans was largely due to a \$237,000 charge off. The decrease in the ALLL balance for residential real estate was largely due to aggregate charge offs of \$414,000 of loans secured by first liens. The increase in the ALLL balance for commercial real estate is mostly due to the 7.7% growth in the portfolio.

5. OTHER REAL ESTATE OWNED (“OREO”)

OREO comprises foreclosed assets acquired in settlement of loans and is carried at fair value less estimated cost to sell and is included in other real estate owned on the Consolidated Balance Sheet. As of December 31, 2016 and December 31, 2015, there were \$934,000 and \$1,412,000, respectively, of OREO. As of December 31, 2016, the Company has initiated formal foreclosure proceedings on \$1.0 million of real estate.

6. PREMISES AND EQUIPMENT

Major classifications of premises and equipment at December 31:

(Dollar amounts in thousands)	2016	2015
Land and land improvements	\$ 2,891	\$ 1,943
Building and leasehold improvements	12,081	11,414
Furniture, fixtures, and equipment	5,404	4,853
	<u>20,376</u>	<u>18,210</u>
Less accumulated depreciation and amortization	<u>9,173</u>	<u>8,438</u>
Total	<u>\$ 11,203</u>	<u>\$ 9,772</u>

Depreciation and amortization charged to operations was \$735,000 in 2016, \$715,000 in 2015, and \$750,000 in 2014.

7. GOODWILL AND INTANGIBLE ASSETS

Goodwill totaled \$4,559,000 at the years ended December 31, 2016, and 2015. Core deposit intangible carrying amount was \$36,000 and \$76,000 for the years ended December 31, 2016, and 2015, respectively. Core deposit accumulated amortization was \$360,000 and \$320,000 for the years ended December 31, 2016, and 2015.

Core deposit intangible assets are amortized on a straight-line basis over their estimated lives of ten years. Amortization expense totaled \$40,000 in 2016, 2015, and 2014, respectively. The estimated aggregate future amortization expense for core deposit intangible assets as of December 31, 2016, is \$36,000 in 2017.

8. OTHER ASSETS

The components of other assets at the years ended December 31:

(Dollar amounts in thousands)	2016	2015
Restricted stock	\$ 2,204	\$ 1,887
Accrued interest on investment securities	812	1,010
Accrued interest on loans	1,614	1,377
Deferred tax asset, net	1,607	959
Other	1,265	2,244
Total	<u>\$ 7,502</u>	<u>\$ 7,477</u>

9. DEPOSITS

Time deposits at December 31, 2016, mature \$76.8 million, \$16.3 million, \$8.4 million, \$46.5 million, and \$41.4 million during 2017, 2018, 2019, 2020, and 2021, respectively.

The aggregate of all time deposit accounts of \$250,000 or more amounted to \$27.8 million and \$29.0 million at December 31, 2016 and 2015, respectively.

10. SHORT-TERM BORROWINGS

The year ended December 31 outstanding balances and related information of short-term borrowings, which includes securities sold under agreements to repurchase and short-term borrowings from other banks, are summarized as follows:

(Dollar amounts in thousands)	2016	2015
Balance at year-end	\$ 68,359	\$ 35,825
Average balance outstanding	37,130	11,768
Maximum month-end balance	68,359	35,825
Weighted-average rate at year-end	0.61%	1.37%
Weighted-average rate during the year	0.89%	1.65%

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

The Company maintains a \$6.0 million line of credit at an adjustable rate, currently 4.00%, a \$10.0 million line of credit at an adjustable rate, currently at 3.93%, and a \$4.0 million line of credit at an adjustable rate, currently 4.03%. At December 31, 2016, 2015, and 2014, outstanding borrowings under these lines were \$0, \$9.5 million, and \$3.1 million, respectively.

The following table provides additional detail regarding short-term borrowed funds.

	Repurchase Agreements (Sweep) Accounted for as Secured Borrowings (in thousands) Overnight and Continuous	
	December 31, 2016	December 31, 2015
Repurchase agreements:		
Mortgage-backed securities in government sponsored entities	\$ 2,667	\$ 1,877
Tax-exempt obligations of states and political subdivisions	968	-
U.S. Government agency securities	-	1,052
Gross amount of recognized liabilities	<u>\$ 3,635</u>	<u>\$ 2,929</u>

11. OTHER BORROWINGS

Other borrowings consist of advances from the FHLB and subordinated debt as follows:

(Dollar amounts in thousands) Description	Maturity range		Weighted- average interest rate	Stated interest rate range		2016	2015
	from	to		from	to		
Fixed-rate amortizing	07/01/17	10/01/28	4.02%	2.99%	4.47%	\$ 1,189	\$ 1,691
Junior subordinated debt	12/21/37	12/21/37	2.20%	2.20	2.20	8,248	8,248
Total						<u>\$ 9,437</u>	<u>\$ 9,939</u>

The scheduled maturities of other borrowings are as follows:

(Dollar amounts in thousands)

Year Ending December 31,	Amount	Weighted- Average Rate
2017	373	4.00%
2018	252	4.02%
2019	155	4.04%
2020	116	4.04%
2021	87	4.05%
Beyond 2021	<u>8,454</u>	<u>2.25%</u>
Total	<u>\$ 9,437</u>	<u>2.37%</u>

Fixed-rate amortizing advances from the FHLB require monthly principal and interest payments and an annual 20 percent pay-down of outstanding principal. Monthly principal and interest payments are adjusted after each 20 percent pay-down. Under the terms of a blanket agreement, FHLB borrowings are secured by certain qualifying assets of the Company which consist principally of first mortgage loans or mortgage-backed securities. Under this credit arrangement, the Company has a remaining borrowing capacity of approximately \$184.9 million at December 31, 2016.

The Company formed a special purpose entity ("Entity") to issue \$8,000,000 of floating rate, obligated mandatorily redeemable securities, and \$248,000 in common securities as part of a pooled offering. The rate adjusts quarterly, equal to LIBOR plus 1.67%. The Entity may redeem them, in whole or in part, at face value. The Company borrowed the proceeds of the issuance from the Entity in December 2006 in the form of an \$8,248,000 note payable, which is included in the other borrowings on the Company's Consolidated Balance Sheet.

12. OTHER LIABILITIES

The components of other liabilities are as follows:

	2016	2015
(Dollar amounts in thousands)		
Accrued interest payable	\$ 395	\$ 395
Supplemental Executive Retirement Plan	1,125	1,091
Accrued salary expense	768	689
Other	843	449
Total	<u>\$ 3,131</u>	<u>\$ 2,624</u>

13. INCOME TAXES

The provision for federal income taxes consists of:

(Dollar amounts in thousands)	2016	2015	2014
Current payable	\$ 1,998	\$ 1,004	\$ 2,146
Deferred	(93)	558	(154)
Total provision	<u>\$ 1,905</u>	<u>\$ 1,562</u>	<u>\$ 1,992</u>

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

(Dollar amounts in thousands)	2016	2015
Deferred tax assets:		
Allowance for loan and lease losses	\$ 2,243	\$ 2,171
Supplemental retirement plan	382	371
Investment security basis adjustment	66	66
Nonaccrual interest income	456	415
Deferred origination fees, net	-	12
OREO adjustments	26	92
Accrued compensation	261	234
Other	82	23
Gross deferred tax assets	<u>3,516</u>	<u>3,384</u>
Deferred tax liabilities:		
Premises and equipment	445	514
Net unrealized gain on securities	618	1,233
FHLB stock dividends	225	225
Intangibles	449	401
Mortgage servicing rights	103	68
Deferred origination fees, net	63	-
Other	6	44
Gross deferred tax liabilities	<u>1,909</u>	<u>2,485</u>
Net deferred tax assets	<u>\$ 1,607</u>	<u>\$ 899</u>

No valuation allowance was established at December 31, 2016 and 2015, in view of the Company's ability to carry back to taxes paid in previous years and certain tax strategies, coupled with the anticipated future taxable income as evidenced by the Company's earnings potential.

The reconciliation between the federal statutory rate and the Company's effective consolidated income tax rate is as follows:

(Dollar amounts in thousands)

	2016		2015		2014	
	Amount	% of Pretax Income	Amount	% of Pretax Income	Amount	% of Pretax Income
Provision at statutory rate	\$ 2,829	34.0%	\$ 2,866	34.0%	\$ 3,119	34.0%
Tax-free income	(1,177)	(14.1)	(1,347)	(15.9)	(1,187)	(12.9)
Nondeductible interest expense	32	0.4	34	0.4	37	0.4
Nondeductible merger-related expense	186	2.2	-	0.0	-	0.0
Other	35	0.4	9	0.0	23	0.2
Actual tax expense and effective rate	<u>\$ 1,905</u>	<u>22.9%</u>	<u>\$ 1,562</u>	<u>18.5%</u>	<u>\$ 1,992</u>	<u>21.7%</u>

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

At December 31, 2016 and December 31, 2015, the Company had no unrecognized tax benefits. The Company does not expect the total amount of unrecognized tax benefits to significantly increase within the next 12 months. The Company recognizes interest and penalties on unrecognized tax benefits as a component of income tax expense.

The Company and the Bank are subject to U.S. federal income tax as well as an income tax in the state of Ohio, and the Bank is subject to a capital-based franchise tax in the state of Ohio. The Company and the Bank are no longer subject to examination by taxing authorities for years before December 31, 2013.

14. EMPLOYEE BENEFITS

Retirement Plan

The Bank maintains section 401(k) employee savings and investment plans for all full-time employees and officers of the Bank with more than one year of service. The Bank's contributions to the plans are based on 50 percent matching of voluntary contributions up to 6 percent of compensation. Employee contributions are vested at all times, and MBC contributions are fully vested after six years beginning at the second year in 20 percent increments. Contributions for 2016, 2015, and 2014, to these plans amounted to \$156,000, \$156,000, and \$143,000, respectively.

Supplemental Retirement Plan

Until 2001, MBC maintained a Directors' Retirement Plan to provide postretirement payments over a ten-year period to members of the Board of Directors who had completed five or more years of service. The plan required payment of 25 percent of the final average annual board fees paid to a director in the three years preceding the director's retirement.

The following table illustrates the components of the projected payments for the Directors' Retirement Plan for the years ended:

	Projected Payments
2017	\$ 23,000
2018	18,000
2019	12,000
2020	10,000
2021	2,000
Total	<u>\$ 65,000</u>

The retirement plan is available solely for nonemployee directors of The Middlefield Banking Company, but the Bank has not entered into any additional retirement arrangements for nonemployee directors since 2001. All director participants have retired.

Executive Deferred Compensation Plan

The Company maintains an Executive Deferred Compensation Plan (the "Plan") to provide post-retirement payments to members of senior management. The Plan agreements are noncontributory, defined contribution arrangements that provide supplemental retirement income benefits to several officers, with contributions made solely by the Bank. During 2016, 2015, and 2014, the Company contributed \$99,000, \$65,000, and \$115,000, respectively, to the Plan.

Stock Option and Restricted Stock Plan

The Company maintains a stock option and restricted stock plan ("the Plan") for granting incentive stock options, nonqualified stock options, and restricted stock to key officers and employees and nonemployee directors of the Company. A total of 160,000 shares of authorized and unissued or issued common stock were reserved for issuance under the Plan, which expires ten years from the date of board approval of the plan. The per share exercise price of an option granted will not be less than the fair value of a share of common stock on the date the option is granted.

The following table presents share data related to the outstanding options:

	2016	Weighted- average Exercise Price	2015	Weighted- average Exercise Price
Outstanding, January 1	\$ 31,949	\$ 25.03	\$ 46,451	\$ 27.90
Expired	(2,125)	40.24	(10,802)	36.93
Exercised	(500)	23.00	(2,175)	21.31
Forfeited	-	-	(1,525)	33.53
	<u>\$ 29,324</u>	<u>\$ 23.67</u>	<u>\$ 31,949</u>	<u>\$ 25.03</u>
Outstanding, December 31	<u>\$ 29,324</u>	<u>\$ 23.67</u>	<u>\$ 31,949</u>	<u>\$ 25.03</u>
Exercisable, December 31	<u>\$ 29,324</u>	<u>\$ 23.67</u>	<u>\$ 31,949</u>	<u>\$ 25.03</u>

The following table summarizes the characteristics of stock options at December 31, 2016:

Grant Date	Exercise Price	Outstanding			Exercisable	
		Shares	Contractual Average Life	Average Exercise Price	Shares	Average Exercise Price
May 16, 2007	37.48	1,337	0.36	37.48	1,337	37.48
December 10, 2007	37.00	1,950	0.93	37.00	1,950	37.00
January 2, 2008	36.25	1,337	1.00	36.25	1,337	36.25
November 10, 2008	23.00	16,500	1.85	23.00	16,500	23.00
May 9, 2011	17.55	8,200	4.35	17.55	8,200	17.55
		<u>29,324</u>			<u>29,324</u>	

No options were granted for the years ended December 31, 2016 and 2015. The Company recognizes compensation expense in the amount of fair value of the common stock at the grant date and as an addition to stockholders' equity.

15. COMMITMENTS

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

(Dollar amounts in thousands)	2016	2015
Commitments to extend credit	\$ 161,646	\$ 112,134
Standby letters of credit	<u>1,416</u>	<u>4,404</u>
Total	<u>\$ 163,062</u>	<u>\$ 116,538</u>

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

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

Commitments to fund certain mortgage loans (interest rate locks) to be sold into the secondary market and forward contracts for the future delivery of these mortgage loans are considered derivatives. It is the Company's practice to enter into the forward contracts for the future purchase of mortgage-backed securities when interest rate lock commitments are entered into in order to economically hedge the effect of changes in interest rates resulting from its commitments to fund the loans. These mortgage banking derivatives are not formally designated as hedge relationships. The derivative assets and liabilities are considered immaterial as of December 31, 2016. Associated income and expense is reported in gains on sale of loans.

Leasing Arrangements

The Company leases certain of its banking facilities under operating leases which contain certain renewal options. As of December 31, 2016, approximate future minimum rental payments, including the renewal options under these leases, are as follows (in thousands):

2017	\$	324
2018		325
2019		320
2020		332
2021		321
Thereafter		1,749
	\$	<u>3,371</u>

The above amounts represent minimum rentals not adjusted for possible future increases due to escalation provisions and assume that all renewal option periods will be exercised by the Company. Rent expense approximated \$285,000, \$288,000, and \$269,000 for the years ended December 31, 2016, 2015, and 2014, respectively.

16. REGULATORY RESTRICTIONS

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

Since the establishment in the fourth quarter of 2009 of Middlefield Banc Corp.'s nonbank-asset resolution subsidiary, EMORECO, Inc., the Bank has sold \$5.8 million of nonperforming assets to this subsidiary.

Cash Requirements

The Cleveland district Federal Reserve Bank requires the Company to maintain certain average reserve balances. As of December 31, 2016 and 2015, the Bank had required reserves of \$8.2 million and \$6.9 million comprising vault cash and a depository amount held with the Federal Reserve Bank.

Loans

Federal law prevents the Company from borrowing from the Bank unless the loans are secured by specific obligations. Further, such secured loans are limited in amount of 10 percent of the Bank's common stock and capital surplus.

Dividends

MBC is subject to dividend restrictions that generally limit the amount of dividends that can be paid by an Ohio state-chartered bank. Under the Ohio Banking Code, cash dividends may not exceed net profits as defined for that year combined with retained net profits for the two preceding years less any required transfers to surplus. Under this formula the amount available for payment of dividends for 2016 approximates \$8.4 million plus 2017 profits retained up to the date of the dividend declaration. As a condition to the ODFI's approval of the merger of Liberty Bank, N.A. into MBC, until the second anniversary of the merger, that is until January 12, 2019, MBC will have to obtain the ODFI's advance approval for dividend payments to the Company.

17. REGULATORY CAPITAL

The Bank and Company are subject to regulatory capital requirements administered by banking agencies. Capital adequacy guidelines and prompt corrective-action regulations involve quantitative measures of assets, liabilities, and certain off-balance-sheet items calculated under regulatory accounting practices. Capital amounts and classifications are also subject to qualitative judgments by regulators about components, risk weightings, and other factors and the regulators can lower classifications in certain cases. Failure to meet various capital requirements can initiate regulatory action that could have a direct material effect on the financial statements. Management believes as of December 31, 2016, the Bank and Company have met all capital adequacy requirements to which they are subject.

The prompt corrective action regulations provide five classifications, including well capitalized, adequately capitalized, under-capitalized, significantly undercapitalized, and critically undercapitalized, although these terms are not used to represent overall financial condition. If adequately capitalized, regulatory approval is required to accept brokered deposits. If undercapitalized, capital distributions are limited, as is asset growth and expansion, and plans for capital restoration are required.

The Basel III Capital Rules became effective for the Bank on January 1, 2015 and certain provisions are subject to a phase-in period. The implementation of the capital conservation buffer began January 1, 2016 at the 0.625% level and will be phased in over a four -year period (increasing by that amount on each subsequent January 1, until it reaches 2.5% on January 1, 2019). The Basel III Capital Rules also provide for a “countercyclical capital buffer” that is applicable to only certain covered institutions and does not have any current applicability to the Bank. The capital conservation buffer is designed to absorb losses during periods of economic stress. Banking institutions with a ratio of Common Equity Tier 1 capital to risk-weighted assets above the minimum but below the conservation buffer (or below the combined capital conservation buffer and countercyclical capital buffer, when the latter is applied) will face constraints on dividends, equity repurchases and compensation based on the amount of the shortfall.

The following tables present actual and required capital ratios as of December 31, 2016 and 2015, under the Basel III Capital Rules. Capital levels required to be considered well capitalized are based upon prompt corrective action regulations, as amended to reflect the changes under the Basel III Capital Rules.

	As of December 31, 2016			
	Leverage	Tier 1 Risk Based	Common Equity Tier 1	Total Risk Based
The Middlefield Banking Company	9.46%	13.03%	13.03%	14.25%
Middlefield Banc Corp.	9.27%	13.07%	13.07%	15.75%
Adequately capitalized ratio	4.00%	6.00%	4.50%	8.00%
Adequately capitalized ratio plus capital conservation buffer	4.00%	8.50%	7.00%	10.50%
Well-capitalized ratio (Bank only)	5.00%	8.00%	6.50%	10.00%

	As of December 31, 2015			
	Leverage	Tier 1 Risk Based	Common Equity Tier 1	Total Risk Based
The Middlefield Banking Company	9.23%	12.52%	12.52%	13.73%
Middlefield Banc Corp.	8.69%	12.00%	12.00%	13.20%
Adequately capitalized ratio	4.00%	6.00%	4.50%	8.00%
Adequately capitalized ratio plus capital conservation buffer	4.00%	8.50%	7.00%	10.50%
Well-capitalized ratio (Bank only)	5.00%	8.00%	6.50%	10.00%

18. FAIR VALUE DISCLOSURE MEASUREMENTS

The following disclosures show the hierarchal disclosure framework associated with the level of pricing observations utilized in measuring assets and liabilities at fair value. The three broad levels defined by U.S. generally accepted accounting principles are as follows:

- Level I: Quoted prices are available in active markets for identical assets or liabilities as of the reported date.
- Level II: Pricing inputs are other than the quoted prices in active markets, which are either directly or indirectly observable as of the reported date. The nature of these assets and liabilities includes items for which quoted prices are available but traded less frequently and items that are fair-valued using other financial instruments, the parameters of which can be directly observed.
- Level III: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

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

The following tables present the assets measured on a recurring basis on the Consolidated Balance Sheet at their fair value as of December 31, 2016 and 2015, by level within the fair value hierarchy. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

December 31, 2016				
(Dollar amounts in thousands)	Level I	Level II	Level III	Total
Assets measured on a recurring basis:				
U.S. government agency securities	\$ -	\$ 10,236	\$ -	\$ 10,236
Obligations of states and political subdivisions	-	81,223	-	81,223
Mortgage-backed securities in government- sponsored entities	-	20,069	-	20,069
Private-label mortgage-backed securities	-	1,709	-	1,709
Total debt securities	-	113,237	-	113,237
Equity securities in financial institutions	-	1,139	-	1,139
Total	<u>\$ -</u>	<u>\$ 114,376</u>	<u>\$ -</u>	<u>\$ 114,376</u>
December 31, 2015				
	Level I	Level II	Level III	Total
Assets measured on a recurring basis:				
U.S. government agency securities	\$ -	\$ 21,629	\$ -	\$ 21,629
Obligations of states and political subdivisions	-	97,290	-	97,290
Mortgage-backed securities in government- sponsored entities	-	24,524	-	24,524
Private-label mortgage-backed securities	-	2,263	-	2,263
Total debt securities	-	145,706	-	145,706
Equity securities in financial institutions	-	814	-	814
Total	<u>\$ -</u>	<u>\$ 146,520</u>	<u>\$ -</u>	<u>\$ 146,520</u>

Financial instruments are considered Level III when their values are determined using pricing models, discounted cash flow methodologies or similar techniques and at least one significant model assumption or input is unobservable. In addition to these unobservable inputs, the valuation models for Level III financial instruments typically also rely on a number of inputs that are readily observable either directly or indirectly. Level III financial instruments also include those for which the determination of fair value requires significant management judgment or estimation.

The following tables present the assets measured on a non-recurring basis on the Consolidated Balance Sheet at their fair value by level within the fair value hierarchy. Impaired loans that are collateral dependent are written down to fair value through the establishment of specific reserves. Techniques used to value the collateral that secure the impaired loan include quoted market prices for identical assets classified as Level I inputs and observable inputs, employed by certified appraisers, for similar assets classified as Level II inputs. In cases where valuation techniques included inputs that are unobservable and are based on estimates and assumptions developed by management based on the best information available under each circumstance, the asset valuation is classified as Level III inputs.

(Dollar amounts in thousands)	December 31, 2016			
	Level I	Level II	Level III	Total
Assets measured on a non-recurring basis:				
Impaired loans	\$ -	\$ -	\$ 6,498	\$ 6,498
Other real estate owned	-	-	511	511

(Dollar amounts in thousands)	December 31, 2015			
	Level I	Level II	Level III	Total
Assets measured on a non-recurring basis:				
Impaired loans	\$ -	\$ -	\$ 12,848	\$ 12,848
Other real estate owned	-	-	1,412	1,412

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

Quantitative Information about Level III Fair Value Measurements					
(Dollar amounts in thousands)	Fair Value Estimate	Valuation Techniques	Unobservable Input	Range (Weighted Average)	
December 31, 2016					
Impaired loans	\$ 4,928	Discounted cash flow	Discount rate	3.1% to 7.0%	(5.1%)
	1,570	Appraisal of collateral (1)	Appraisal adjustments (2)	0.0% to 59.7%	(28.2%)
Other real estate owned	\$ 511	Appraisal of collateral (1)	Appraisal adjustments (2)	0% to 10.0%	

Quantitative Information about Level III Fair Value Measurements					
(Dollar amounts in thousands)	Fair Value Estimate	Valuation Techniques	Unobservable Input	Range (Weighted Average)	
December 31, 2015					
Impaired loans	\$ 6,867	Discounted cash flow	Discount rate	3.1% to 7.9%	(5.0%)
	\$ 5,981	Appraisal of collateral (1)	Appraisal adjustment (2)	0.0% to 87.1%	(23.3%)
Other real estate owned	\$ 1,412	Appraisal of collateral (1)	Appraisal adjustments (2)	0% to 10.0%	(7.3%)

- (1) Fair value is generally determined through independent appraisals of the underlying collateral, which generally include various level 3 inputs which are not identifiable.
- (2) Appraisals may be adjusted by management for qualitative factors such as economic conditions and estimated liquidation expenses. The range and weighted average of liquidation expenses and other appraisal adjustments are presented as a percent of the appraisal.

The estimated fair value of the Company's financial instruments is as follows:

December 31, 2016					
	Carrying Value	Level I	Level II (in thousands)	Level III	Total Fair Value
Financial assets:					
Cash and cash equivalents	\$ 32,495	\$ 32,495	\$ -	\$ -	\$ 32,495
Investment securities available for sale	114,376	-	114,376	-	114,376
Loans held for sale	634	-	634	-	634
Net loans	602,542	-	-	604,447	604,447
Bank-owned life insurance	13,540	13,540	-	-	13,540
Restricted stock	2,204	2,204	-	-	2,204
Accrued interest receivable	2,426	2,426	-	-	2,426
Financial liabilities:					
Deposits	\$ 629,934	\$ 440,500	\$ -	\$ 189,871	\$ 630,371
Short-term borrowings	68,359	68,359	-	-	68,359
Other borrowings	9,437	-	-	9,512	9,512
Accrued interest payable	395	395	-	-	395
December 31, 2015					
	Carrying Value	Level I	Level II (in thousands)	Level III	Total Fair Value
Financial assets:					
Cash and cash equivalents	\$ 23,750	\$ 23,750	\$ -	\$ -	\$ 23,750
Investment securities available for sale	146,520	-	146,520	-	146,520
Loans held for sale	1,107	-	1,107	-	1,107
Net loans	527,325	-	-	534,021	534,021
Bank-owned life insurance	13,141	13,141	-	-	13,141
Restricted stock	1,887	1,887	-	-	1,887
Accrued interest receivable	2,387	2,387	-	-	2,387
Financial liabilities:					
Deposits	\$ 624,447	\$ 433,226	\$ -	\$ 191,747	\$ 624,973
Short-term borrowings	35,825	35,825	-	-	35,825
Other borrowings	9,939	-	-	10,063	10,063
Accrued interest payable	395	395	-	-	395

Financial instruments are defined as cash, evidence of ownership interest in an entity, or a contract which creates an obligation or right to receive or deliver cash or another financial instrument from/to a second entity on potentially favorable or unfavorable terms.

Fair value is defined as the amount at which a financial instrument could be exchanged in a current transaction between willing parties other than in a forced liquidation sale. If a quoted market price is available for a financial instrument, the estimated fair value would be calculated based upon the market price per trading unit of the instrument.

If no readily available market exists, the fair value estimates for financial instruments should be based upon management's judgment regarding current economic conditions, interest rate risk, expected cash flows, future estimated losses, and other factors as determined through various option pricing formulas or simulation modeling. Since many of these assumptions result from judgments made by management based upon estimates which are inherently uncertain, the resulting estimated fair values may not be indicative of the amount realizable in the sale of a particular financial instrument. In addition, changes in assumptions on which the estimated fair values are based may have a significant impact on the resulting estimated fair values.

As certain assets such as deferred tax assets and premises and equipment are not considered financial instruments, the estimated fair value of financial instruments would not represent the full value of the Company.

The Company employed simulation modeling in determining the estimated fair value of financial instruments for which quoted market prices were not available based upon the following assumptions.

Cash and Cash Equivalents, Federal Home Loan Bank Stock, Accrued Interest Receivable, Accrued Interest Payable, and Short-Term Borrowings

The fair value is equal to the current carrying value.

Bank-Owned Life Insurance

The fair value is equal to the cash surrender value of the life insurance policies.

Investment Securities Available for Sale

The fair value of investment securities is equal to the available quoted market price. If no quoted market price is available, fair value is estimated using the quoted market price for similar securities.

Loans

The fair value is estimated by discounting future cash flows using current market inputs at which loans with similar terms and qualities would be made to borrowers of similar credit quality. Where quoted market prices were available, primarily for certain residential mortgage loans, such market rates were utilized as estimates for fair value.

Mortgage Loans held for sale

Mortgage loans held for sale are carried at their fair value. Mortgage loans held for sale are estimated using security prices for similar product types and, therefore, are classified in Level II.

Deposits and Other Borrowed Funds

The fair values of certificates of deposit and other borrowed funds are based on the discounted value of contractual cash flows. The discount rates are estimated using rates currently offered for similar instruments with similar remaining maturities. Demand, savings, and money market deposits are valued at the amount payable on demand as of year-end.

Commitments to Extend Credit

These financial instruments are generally not subject to sale, and estimated fair values are not readily available. The carrying value, represented by the net deferred fee arising from the unrecognized commitment or letter of credit, and the fair value, determined by discounting the remaining contractual fee over the term of the commitment using fees currently charged to enter into similar agreements with similar credit risk, are not considered material for disclosure. The contractual amounts of unfunded commitments and letters of credit are presented in Note 14.

19. ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table presents the changes in accumulated other comprehensive income by component net of tax:

	Unrealized gains on available-for-sale securities (a)
(Dollars in thousands)	
Balance as of December 31, 2015	<u>\$ 2,395</u>
Other comprehensive loss before reclassification	(994)
Amount reclassified from accumulated other comprehensive income	<u>(200)</u>
Period change	(1,194)
Balance at December 31, 2016	<u>\$ 1,201</u>

(a) All amounts are net of tax. Amounts in parentheses indicate debits.

The following tables present significant amounts reclassified out of each component of accumulated other comprehensive income (loss):

	Amount Reclassified from Accumulated Other Comprehensive Income (a)	Affected Line Item in the Statement Where Net Income is Presented
(Dollars in thousands)		
Details about other comprehensive income	December 31, 2016	
Unrealized gains on available-for-sale securities		
	\$ 303	Investment securities gains, net
	(103)	Income taxes
	<u>\$ 200</u>	Net of tax

	Amount Reclassified from Accumulated Other Comprehensive Income (a)	Affected Line Item in the Statement Where Net Income is Presented
(Dollars in thousands)		
Details about other comprehensive income	December 31, 2015	
Unrealized gains on available-for-sale securities		
	\$ 323	Investment securities gains, net
	(110)	Income taxes
	<u>\$ 213</u>	Net of tax

(a) Amounts in parentheses indicate debits to net income

20. SUBSEQUENT EVENT

On January 12, 2017, we completed our 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 Middlefield's common stock in exchange for each share of Liberty common stock they owned immediately prior to the merger. Middlefield issued approximately 557,079 shares its common stock in the merger and the aggregate merger consideration was approximately \$43.1 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.

Middlefield Banc Corp
Unaudited Pro Forma Combined Consolidated Condensed Balance Sheet
As of December 31, 2016
(Dollars in Thousands, Except Per Share Amounts)

	December 31, 2016
<u>ASSETS</u>	
Cash and due from banks	\$ 52,718
Fed funds sold	1,100
Cash and cash equivalents	53,818
Investment securities available for sale, at fair value	113,796
Loans held for sale	992
Loans	807,450
Less allowance for loan and lease losses	6,598
Net loans	800,852
Premises and equipment, net	11,535
Goodwill	13,807
Core deposit intangibles	3,123
Bank owned life insurance	15,193
Other real estate owned	934
Accrued interest and other assets	10,310
TOTAL ASSETS	\$ 1,024,360
<u>LIABILITIES</u>	
Noninterest-bearing demand	\$ 171,711
Interest-bearing demand	83,759
Money market	170,155
Savings	182,364
Time	220,697
Total deposits	828,686
Short-term borrowings	68,359
Other borrowings	21,437
Accrued interest and other liabilities	7,434
TOTAL LIABILITIES	\$ 925,916
<u>EQUITY</u>	
Common stock	\$ 69,502
Surplus / additional paid in capital	-
Retained earnings	41,259
Accumulated other comprehensive income	1,201
Treasury stock	(13,518)
TOTAL STOCKHOLDERS' EQUITY	\$ 98,444
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 1,024,360

Middlefield Banc Corp
Unaudited Pro Forma Combined Consolidated Condensed Statement of Income
For the Twelve Months Ended December 31, 2016 and 2015
(Dollars in Thousands, Except Per Share Amounts)

	<u>Year Ended December 31, 2016</u>	<u>Year-Ended December 31, 2015</u>
<u>INTEREST INCOME</u>		
Interest and fees on originated loans	\$ 35,308	\$ 31,986
Interest bearing deposits in other institutions	210	124
Federal funds sold	20	13
Investment securities	4,019	4,627
Dividends on stock	138	164
Total interest income	<u>39,695</u>	<u>36,914</u>
<u>INTEREST EXPENSE</u>		
Deposits	4,315	4,265
Short term borrowings	322	194
Other borrowings	560	575
Trust preferred securities	182	117
Total interest expense	<u>5,379</u>	<u>5,151</u>
Net interest income	34,316	31,763
Provision for loan and lease losses	570	315
Net interest income after provision for loan and lease losses	<u>33,746</u>	<u>31,448</u>
<u>NONINTEREST INCOME</u>		
Service charges on deposit accounts	2,266	2,156
Investment securities gains, net	303	323
Earnings on bank-owned life insurance	430	678
Gains on sale of loans	1,257	805
Other income	1,229	1,224
Total noninterest income	<u>5,485</u>	<u>5,186</u>
<u>NONINTEREST EXPENSE</u>		
Salaries and employee benefits	14,523	13,454
Occupancy expense	1,762	1,746
Equipment expense	1,206	1,156
Data processing costs	1,931	1,489
Core deposit intangible amortization	382	382
Other expense	8,919	8,453
Total noninterest expense	<u>28,723</u>	<u>26,680</u>
Income before taxes	10,508	9,954
Income taxes	2,473	1,954
NET INCOME	<u><u>\$ 8,035</u></u>	<u><u>\$ 8,000</u></u>
Less: Income attributable to common stock subject to possible conversion	-	-
Pro forma net income attributable to common stock not subject to possible conversion	\$ 8,035	\$ 8,000
Pro forma net income per common share - basic	\$ 3.02	\$ 3.11
Pro forma net income per common share - diluted	3.00	3.10
Weighted average number of shares outstanding - basic	2,664,936	2,572,045
Weighted average number of shares outstanding - diluted	2,676,293	2,581,199

21. PARENT COMPANY

Following are condensed financial statements for the Company.

CONDENSED BALANCE SHEET

(Dollar amounts in thousands)

	December 31,	
	2016	2015
ASSETS		
Cash and due from banks	\$ 2,543	\$ 1,329
Investment securities available for sale	1,139	814
Investment in nonbank subsidiary	2,360	2,418
Investment in subsidiary bank	76,365	73,061
Other assets	2,837	2,475
TOTAL ASSETS	\$ 85,244	\$ 80,097
LIABILITIES		
Trust preferred securities	\$ 8,248	\$ 8,248
Short-term borrowings	-	9,499
Other liabilities	36	43
TOTAL LIABILITIES	8,284	17,790
STOCKHOLDERS' EQUITY	76,960	62,307
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 85,244	\$ 80,097

CONDENSED STATEMENT OF COMPREHENSIVE INCOME

	Year Ended December 31,		
	2016	2015	2014
INCOME			
Dividends from subsidiary bank	\$ 3,400	\$ 4,023	\$ 3,142
Other	24	19	8
Total income	3,424	4,042	3,150
EXPENSES			
Interest expense	366	290	304
Other	1,856	860	816
Total expenses	2,222	1,150	1,120
Income before income tax benefit	1,202	2,892	2,030
Income tax benefit	(561)	(386)	(378)
Income before equity in undistributed net income of subsidiaries	1,763	3,278	2,408
Equity in undistributed net income of subsidiaries	4,653	3,587	4,772
NET INCOME	\$ 6,416	\$ 6,865	\$ 7,180
Comprehensive Income	\$ 5,222	\$ 6,712	\$ 11,965

CONDENSED STATEMENT OF CASH FLOWS

(Dollar amounts in thousands)	Year Ended December 31,		
	2016	2015	2014
OPERATING ACTIVITIES			
Net income	\$ 6,416	\$ 6,865	\$ 7,180
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed net income of Middlefield Banking Company	(4,710)	(3,703)	(4,798)
Equity in undistributed net loss of EMORECO	57	116	26
Stock-based compensation expense	29	18	10
Other	(484)	(503)	(409)
Net cash provided by operating activities	<u>1,308</u>	<u>2,793</u>	<u>2,009</u>
FINANCING ACTIVITIES			
Net (decrease) increase in short-term borrowings	(9,499)	6,363	(759)
Purchase of treasury stock	-	(6,784)	-
Common stock issued	11,210	-	-
Stock options exercised	(6)	(7)	(50)
Proceeds from dividend reinvestment plan	519	651	590
Cash dividends	(2,318)	(2,153)	(2,121)
Net cash used for financing activities	<u>(94)</u>	<u>(1,930)</u>	<u>(2,340)</u>
Increase (decrease) in cash	1,214	863	(331)
CASH AT BEGINNING OF YEAR	<u>1,329</u>	<u>466</u>	<u>797</u>
CASH AT END OF YEAR	<u>\$ 2,543</u>	<u>\$ 1,329</u>	<u>\$ 466</u>

22. SELECTED QUARTERLY FINANCIAL DATA (Unaudited)

(Dollar amounts in thousands)

	Three Months Ended			
	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Total interest income	\$ 7,348	\$ 7,405	\$ 7,420	\$ 7,821
Total interest expense	<u>1,025</u>	<u>1,066</u>	<u>1,026</u>	<u>1,073</u>
Net interest income	6,323	6,339	6,394	6,748
Provision for loan losses	<u>105</u>	<u>105</u>	<u>105</u>	<u>255</u>
Net interest income after provision for loan losses	6,218	6,234	6,289	6,493
Total noninterest income	909	1,173	977	485
Total noninterest expense	<u>5,338</u>	<u>4,915</u>	<u>5,662</u>	<u>4,957</u>
Income before income taxes	1,789	2,492	1,604	2,021
Income taxes	<u>302</u>	<u>566</u>	<u>261</u>	<u>776</u>
Net income	<u>\$ 1,487</u>	<u>\$ 1,926</u>	<u>\$ 1,343</u>	<u>\$ 1,245</u>
Per share data:				
Net income				
Basic	\$ 0.79	\$ 0.94	\$ 0.60	\$ 0.55
Diluted	0.79	0.94	0.60	0.55
Average shares outstanding:				
Basic	1,878,177	2,051,137	2,247,587	2,251,412
Diluted	1,886,943	2,059,411	2,256,230	2,259,589

(Dollar amounts in thousands)

	Three Months Ended			
	March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015
Total interest income	\$ 7,035	\$ 7,066	\$ 7,151	\$ 7,343
Total interest expense	<u>883</u>	<u>990</u>	<u>959</u>	<u>988</u>
Net interest income	6,152	6,076	6,192	6,355
Provision for loan losses	<u>105</u>	<u>-</u>	<u>105</u>	<u>105</u>
Net interest income after provision for loan losses	6,047	6,076	6,087	6,250
Total noninterest income	796	962	1,108	1,178
Total noninterest expense	<u>4,811</u>	<u>5,217</u>	<u>4,669</u>	<u>5,380</u>
Income before income taxes	2,032	1,821	2,526	2,048
Income taxes	<u>404</u>	<u>316</u>	<u>544</u>	<u>298</u>
Net income	<u>\$ 1,628</u>	<u>\$ 1,505</u>	<u>\$ 1,982</u>	<u>\$ 1,750</u>
Per share data:				
Net income				
Basic	\$ 0.79	\$ 0.73	\$ 0.96	\$ 0.93
Diluted	0.78	0.73	0.96	0.92
Average shares outstanding:				
Basic	2,053,660	2,058,986	2,064,054	1,884,484
Diluted	2,062,867	2,068,313	2,072,639	1,893,345

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

This information should be read in conjunction with the consolidated financial statements and accompanying notes to the financial statements.

This Management's Discussion and Analysis section of the Annual Report contains forward-looking statements. Forward-looking statements are based upon a variety of estimates and assumptions. The estimates and assumptions involve judgments about a number of things, including future economic, competitive, and financial market conditions and future business decisions. These matters are inherently subject to significant business, economic, and competitive uncertainties, all of which are difficult to predict and many of which are beyond the Company's control. Although the Company believes its estimates and assumptions are reasonable, actual results could vary materially from those shown. Inclusion of forward-looking information does not constitute a representation by the Company or any other person that the indicated results will be achieved. Investors are cautioned not to place undue reliance on forward-looking information.

These forward-looking statements may involve significant risks and uncertainties. Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, actual results may differ materially from the results in these forward-looking statements.

Significant Factors Affecting Financial Results

Capital maintenance is a priority. The Company's Tier 1 leverage capital was 9.27% as of December 31, 2016, with total risk-based capital of 15.75%. MBC's Tier 1 leverage capital was 9.46% as of December 31, 2016, with total risk-based capital of 14.25%. In 2016 MBC grew the balance sheet as a result of increasing loan volume. We also benefitted from strong income and stockholders' equity experienced growth. The goal of the elevated capital levels is to account for potential economic stress in the markets in which the Company operates and to account for the levels of substandard and other nonperforming assets.

Longer-term prospects for growth. Continued reduction of nonperforming assets continues to be a higher priority than growth. The Company does not anticipate significant deposit growth. An increase in loan demand and the availability of high-quality lending opportunities continues to be the driver of growth potential and depends on a broad range of economic factors in the markets in which the Company operates, including the condition of real estate markets in northeastern Ohio and in central Ohio.

Nonperforming and classified assets held by the banking industry have decreased from previous elevated levels. Because of uncertainty about economic sustainability and the potential for other factors to have an adverse impact on the prospects for the banking industry, such as national and global economic and political factors, the bank regulatory agencies have insisted that banks increase the size of the buffer that protects a bank from unknown potential adverse events and circumstances: regulatory capital.

The total number of banks and savings associations as of the end of 2016 is less than half the number at the end of 1990. Nevertheless, a large percentage of the institutions that remain are small, community-oriented institutions, although the share of total banking assets that they control continues to decline. As an increasing share of the banking universe is occupied by the largest institutions, and taking into account economic, demographic, and technological changes and a greatly expanding regulatory burden, the future of banking favors larger institutions. We believe these factors create a strong incentive for growth through industry consolidation, meaning acquisition of smaller institutions by larger institutions and mergers of smaller institutions as a defense to competitive pressure from larger institutions. We therefore believe that industry consolidation is likely to continue and that the pace of consolidation could actually accelerate.

The trend toward consolidation would be most advantageous for financial institution organizations that have a surplus of capital, a strategy for growth, a strong financial profile, and few if any regulatory supervisory concerns, the ingredients of prompt regulatory approval that could be a significant competitive advantage in the market for financial institution mergers and acquisitions. Our goal is to maintain that advantage, although we give no assurance that our efforts to do so will succeed. We continue to commit significant resources to increase operational effectiveness in The Middlefield Banking Company. We continue to invest resources to nonperforming and substandard assets and to prevent growth.

Critical Accounting Policies

Allowance for loan and lease losses. Arriving at an appropriate level of allowance for loan and lease losses involves a high degree of judgment. The Company's allowance for loan and lease losses provides for probable losses based upon evaluations of known and inherent risks in the loan portfolio.

Management uses historical information to assess the adequacy of the allowance for loan and lease losses as well as the prevailing business environment, which is affected by changing economic conditions and various external factors and which may impact the portfolio in ways currently unforeseen. The allowance is increased by provisions for loan losses and by recoveries of loans previously charged-off and reduced by loans charged-off. For a full discussion of the Company's methodology of assessing the adequacy of the reserve for loan losses, refer to Note 1 of "Notes to Consolidated Financial Statements" of this Annual Report.

Valuation of Securities. Securities are classified as held to maturity or available for sale on the date of purchase. Only those securities classified as held to maturity are reported at amortized cost. Available-for-sale and trading securities are reported at fair value with unrealized gains and losses included in accumulated other comprehensive income, net of related deferred income taxes, on the Consolidated Balance Sheet. The majority of all of the Company's securities are valued based on prices compiled by third party vendors using observable market data. However, certain securities are less actively traded and do not always have quoted market prices. The determination of their fair value, therefore, requires judgment, as this determination may require benchmarking to similar instruments or analyzing default and recovery rates. Examples include certain collateralized mortgage and debt obligations and high-yield debt securities. Realized securities gains or losses are reported within noninterest income in the Consolidated Statement of Income. The cost of securities sold is based on the specific identification method.

Management evaluates securities for other-than-temporary impairment ("OTTI") at least on a quarterly basis, and more frequently when economic or market conditions warrant such an evaluation. Investment securities are generally evaluated for OTTI under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 320, Investments — Debt and Equity Securities. Consideration is given to the length of time and the extent to which the fair value has been less than cost, the financial condition and near-term prospects of the issuer, whether the market decline was affected by macroeconomic conditions and whether the Company has the intent to sell the debt security or more likely than not will be required to sell the debt security before its anticipated recovery. In analyzing an issuer's financial condition, the Company may consider whether the securities are issued by the federal government or its agencies, or U.S. government-sponsored enterprises, whether downgrades by bond rating agencies have occurred, and the results of reviews of the issuer's financial condition. The assessment of whether an other-than-temporary decline exists involves a high degree of subjectivity and judgment and is based on the information available to management at a point in time.

When OTTI occurs, the amount of the OTTI recognized in earnings depends on whether an entity intends to sell the security or it is more likely than not it will be required to sell the security before recovery of its amortized cost basis. If an entity intends to sell or it is more likely than not it will be required to sell the security before recovery of its amortized cost basis, the OTTI shall be recognized in earnings equal to the entire difference between the investment's amortized cost basis and its fair value at the balance sheet date. The previous amortized cost basis less the OTTI recognized in earnings becomes the new amortized cost basis of the investment. For debt securities that do not meet the aforementioned criteria, the amount of impairment is split into two components as follows: 1) OTTI related to credit loss, which must be recognized in the income statement and 2) OTTI related to other factors, which is recognized in other comprehensive income or loss. The credit loss is defined as the difference between the present value of the cash flows expected to be collected and the amortized cost basis. For equity securities, the entire amount of impairment is recognized through earnings.

Debt securities issued by U.S. government agencies, U.S. government-sponsored enterprises, and state and political subdivisions accounted for more than 97.9% of the total available-for-sale portfolio as of December 31, 2016, and no credit losses are expected, given the explicit and implicit guarantees provided by the U.S. federal government and the lack of significant unrealized loss positions within the obligations of state and political subdivisions security portfolio. The Company considered the following factors in determining whether a credit loss exists and the period over which the debt security is expected to recover:

- The length of time and the extent to which the fair value has been less than the amortized cost basis.
- Changes in the near term prospects of the underlying collateral of a security such as changes in default rates, loss severity given default and significant changes in prepayment assumptions.
- The level of cash flows generated from the underlying collateral supporting the principal and interest payments of the debt securities.

- Any adverse change to the credit conditions and liquidity of the issuer, taking into consideration the latest information available about the overall financial condition of the issuer, credit ratings, recent legislation and government actions affecting the issuer's industry and actions taken by the issuer to deal with the present economic climate.

Refer to Note 3 in the consolidated financial statements.

Income Taxes

The Company estimates income tax expense based on amounts expected to be owed to the various tax jurisdictions in which the Company conducts business. On a quarterly basis, management assesses the reasonableness of the Company's effective tax rate based upon management's current estimate of the amount and components of net income, tax credits and the applicable statutory tax rates expected for the full year. The estimated income tax expense is recorded in the Consolidated Statement of Income.

Deferred income tax assets and liabilities are determined using the balance sheet method and are reported in accrued taxes, interest and expenses in the Consolidated Balance Sheet. Under this method, the net deferred tax asset or liability is based on the tax effects of the differences between the book and tax basis of assets and liabilities and recognizes enacted changes in tax rates and laws. Deferred tax assets are recognized to the extent they exist and are subject to a valuation allowance based on management's judgment that realization is more likely than not.

Accrued taxes represent the net estimated amount due to taxing jurisdictions and are reported in accrued taxes, interest and expenses in the Consolidated Balance Sheet. The Company evaluates and assesses the relative risks and appropriate tax treatment of transactions and filing positions after considering statutes, regulations, judicial precedent and other information and maintains tax accruals consistent with management's evaluation of these relative risks and merits. Changes to the estimate of accrued taxes occur periodically due to changes in tax rates, interpretations of tax laws, the status of examinations being conducted by taxing authorities and changes to statutory, judicial and regulatory guidance that impact the relative risks of tax positions. These changes, when they occur, can affect deferred taxes and accrued taxes as well as the current period's income tax expense and can be significant to the operating results of the Company.

Goodwill and Other Intangible Assets

Goodwill is the excess of the purchase price over the fair value of the assets acquired in connection with business acquisitions accounted for as purchases. Other intangible assets consist of branch acquisition core deposit premiums. Initially, an assessment of qualitative factors (Step 0) is performed to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying value, then performing the two-step impairment test is unnecessary. However, if we conclude otherwise, then we are required to perform the first step (Step 1) of the two-step impairment test by calculating the fair value of the reporting unit and comparing the fair value with the carrying amount of the reporting unit. If the fair value is less than the carrying value, an expense may be required on our books to write down the goodwill to the proper carrying value. Step 2 of impairment testing, which is necessary only if Step 1 fails, compares the implied fair value of the goodwill with the carrying amount of the goodwill.

The Company must assess goodwill and other intangible assets each year for impairment. The gross carrying amount of goodwill and intangible assets is tested for impairment in the fourth quarter, after the annual forecasting process.

Fair Value of Financial Instruments

The disclosure of the fair value of financial instruments is based on available market prices or management's estimates of the fair value of such instruments.

Management consults with a third party for available market prices as well as performs calculations of the present value of contractual cash flows discounted at current comparative market inputs. Prepayment estimates are utilized when appropriate.

Changes in Financial Condition

General The Company's total assets increased \$52.7 million or 7.2% to \$787.8 million at December 31, 2016 from \$735.1 million at December 31, 2015. This was due to an increase in net loans of \$75.2 million, which was partially offset by a decrease in investments of \$32.1 million.

The increase in the Company's total assets reflects a related increase in total liabilities of \$38.0 million or 5.6% to a total balance of \$710.9 million at December 31, 2016 from \$672.8 million at December 31, 2015. The Company experienced an increase in total stockholders' equity of \$14.7 million.

The increase in total liabilities was due to growth in deposits and short-term borrowings for the year. Total deposits increased \$5.5 million or 0.9% to \$629.9 million at December 31, 2016 from \$624.4 million as of December 31, 2015. Short-term borrowings increased \$32.5 million or 90.8% to \$68.4 million at December 31, 2016 from \$35.8 million as of December 31, 2015. The net increase in total stockholders' equity can be attributed to an increase in retained earnings and common stock of \$4.1 million and of \$11.8 million, respectively.

Cash on hand and Federal funds sold Cash and due from banks and federal funds sold represent cash and cash equivalents which increased \$8.7 million or 36.8% to \$32.5 million at December 31, 2016 from \$23.7 million at December 31, 2015. Deposits from customers into savings and checking accounts, loan and security repayments and proceeds from borrowed funds typically increase these accounts. Decreases result from customer withdrawals, new loan originations, security purchases and repayments of borrowed funds.

Securities Management's objective in structuring the portfolio is to maintain a prudent level of liquidity while providing an acceptable rate of return without sacrificing asset quality. Maturing securities have historically provided sufficient liquidity. The balance of total securities decreased \$32.1 million, or 21.9%, as compared to 2015, with the ratio of securities to total assets decreasing to 14.5% at December 31, 2016, compared to 19.9% at December 31, 2015.

The Company benefits from owning mortgage-backed securities, which totaled \$21.8 million or 19.0% of the Company's total investment portfolio at December 31, 2016. The primary difference of mortgage-backed securities is the amortization of principal as compared to other types of investment securities, which deliver proceeds upon maturity or call date. The weighted-average federal tax equivalent (FTE) yield on all debt securities at year-end 2016 was 4.05%, as compared to 4.11% at year-end 2015. While the Company's focus is to generate interest revenue primarily through loan growth, management will continue to invest excess funds in securities when opportunities arise.

Loans receivable The loans receivable category consists primarily of single-family mortgage loans used to purchase or refinance personal residences located within the Company's market area and commercial real estate loans used to finance properties that are used in the borrowers' businesses or to finance investor-owned rental properties and commercial loans to finance the business operations and to a lesser extent construction and consumer loans. Net loans receivable increased \$75.2 million or 14.3% to \$602.5 million at December 31, 2016 from \$527.3 million at December 31, 2015. Included in this growth were increases in residential and commercial mortgages and C&I loans of \$56.1 million and \$18.1 million, respectively, but partially offset by a \$0.4 million decrease in consumer installment loans.

The product mix in the loan portfolio is commercial and industrial loans equaling 10.0%, construction loans 3.9%, residential real estate loans 44.5%, commercial real estate loans 41.0% and consumer loans 0.7% at December 31, 2016 compared with 8.0%, 4.1%, 43.6%, 43.4% and 0.9%, respectively, at December 31, 2015.

Loans contributed 86.0% of total interest income in 2016 and 83.3% in 2015. The loan portfolio yield of 4.55% in 2016 was 18 basis points higher than the average yield for total interest-earning assets. Management recognizes that while the loan portfolio holds some of the Company's highest yielding assets, it is inherently the most risky portfolio. Accordingly, management attempts to balance credit risk versus return with conservative credit standards. Management has developed and maintains comprehensive underwriting guidelines and a loan review function that monitors credits during and after the approval process. Management follows additional procedures to obtain current borrower financial information annually throughout the life of the loan obligation.

To minimize risks associated with changes in the borrower's future repayment capacity, the Company generally requires scheduled periodic principal and interest payments on all types of loans and normally requires collateral.

The Company will continue to monitor the size of its loan portfolio growth. The Company's lending markets have rebounded from the suppressed levels of loan originations in previous years. The Company anticipates total loan growth to be steady, with volume to continue at a moderate pace. The Company remains committed to sound underwriting practices without sacrificing asset quality and avoiding exposure to unnecessary risk that could weaken the credit quality of the portfolio.

Restricted stock. The Company's investment in restricted stock increased \$0.3 million, or 16.8%, to \$2.2 million as of December 31, 2016, compared to \$1.9 million as of December 31, 2015.

Goodwill. Goodwill results from prior business acquisitions and represents the excess of the purchase price over the fair value of acquired tangible assets and liabilities and identifiable intangible assets. Goodwill is assessed annually for impairment and any such impairment is recognized in the period identified by a charge to earnings.

The process of evaluating goodwill for impairment requires management to make significant estimates and judgments. The use of different estimates, judgments or approaches to estimate fair value could result in a different conclusion regarding impairment of goodwill. Based on the analysis, management has determined that there is no goodwill impairment.

The Company values core deposits and monitors the ongoing value of core deposit intangibles and goodwill on an annual basis. Goodwill balances were unchanged in 2016.

Bank owned life insurance. Bank owned life insurance (BOLI) is universal life insurance, purchased by the Company, on the lives of the Company's officers. The beneficial aspects of these universal life insurance policies are tax-free earnings and a tax-free death benefit, which are realized by the Company as the owner of the policies. BOLI increased by \$0.4 million to \$13.5 million as of December 31, 2016 from \$13.1 million at the end of 2015 as a result of the increases in cash surrender value.

Deposits. Interest-earning assets are funded generally by both interest-bearing and noninterest-bearing core deposits. Deposits are influenced by changes in interest rates, economic conditions and competition from other banks. The Company considers various sources when evaluating funding needs, including but not limited to deposits, which represented 89.0% of the Company's total funding sources at December 31, 2016. The deposit base consists of demand deposits, savings, money market accounts and time deposits. Total deposits increased \$5.5 million or 0.9% to \$629.9 million at December 31, 2016 from \$624.4 million at December 31, 2015.

Savings and time deposits are the largest sources of funding for the Company's earning assets, making up a combined 57.4% of total deposits. During 2016, time deposits decreased \$1.8 million, or 0.9% while savings decreased \$8.3 million, or 4.6%, from year-end 2015. The time deposit decrease is primarily due to the decline in out-of-market time deposits.

Demand deposit balances increased in 2016 by \$19.5 million, or 11.2%, to finish at \$193.2 million at year-end 2016 as compared to \$173.7 million at year-end 2015. The Company will continue to experience increased competition for deposits in its market areas, which could challenge net growth in its deposit balances. The Company will continue to evaluate its deposit portfolio mix to properly employ both retail and wholesale funds to support earning assets and minimize interest costs.

Borrowed funds. The Company uses short and long-term borrowings as another source of funding to benefit asset growth and liquidity needs. These borrowings primarily include FHLB advances, junior subordinated debt, lines of credit from other banks and repurchase agreement borrowings. Borrowed funds increased \$32.0 million or 70.0% to \$77.8 million at December 31, 2016 from \$45.8 million at December 31, 2015. Short-term borrowings increased \$32.5 million in order to fund loan growth.

Stockholders' equity. The Company maintains a capital level that exceeds regulatory requirements as a margin of safety for its depositors and shareholders. All of the capital ratios exceeded the regulatory well-capitalized guidelines.

Stockholders' equity totaled \$77.0 million at December 31, 2016, compared to \$62.3 million at December 31, 2015, which represents an increase of 23.5%. There was no change in the treasury stock balance of \$13.5 million from 2015 to 2016. Retained earnings increased \$4.1 million resulting from net income, less cash dividends paid of \$2.3 million, or \$1.08 per share, year-to-date. Common stock increased \$11.8 million or 32.5% to \$47.9 million at December 31, 2016 from \$36.2 million at December 31, 2015. The Company maintains a dividend reinvestment and stock purchase plan. The plan allows shareholders to purchase additional shares of Company stock. A benefit of the plan is to permit the shareholders to reinvest cash dividends as well as make supplemental purchases without the usual payment of brokerage commissions. During 2016,

shareholders invested \$0.5 million through the dividend reinvestment and stock purchase plan. These proceeds resulted in the issuance of 15,300 new shares at an average price of \$33.21.

Average Balance Sheet and Yield/Rate Analysis. The following table sets forth, for the periods indicated, information concerning the total dollar amounts of interest income from interest-earning assets and the resultant average yields, the total dollar amounts of interest expense on interest-bearing liabilities and the resultant average costs, net interest income, interest rate spread and the net interest margin earned on average interest-earning assets. For purposes of this table, average balances are calculated using monthly averages and the average loan balances include nonaccrual loans and exclude the allowance for loan and lease losses, and interest income includes accretion of net deferred loan fees. Yields on tax-exempt securities (tax-exempt for federal income tax purposes) are shown on a fully tax-equivalent basis utilizing a federal tax rate of 34%.

(Dollars in thousands)	For the Twelve Months Ended December 31,								
	2016			2015			2014		
	Average Balance	Interest	Average Yield/Cost	Average Balance	Interest	Average Yield/Cost	Average Balance	Interest	Average Yield/Cost
Interest-earning assets:									
Loans receivable	\$ 565,223	\$ 25,798	4.55%	\$ 494,931	\$ 23,824	4.81%	\$ 455,035	\$ 22,726	4.99%
Investment securities (3)	131,797	4,019	4.18%	152,015	4,627	4.11%	158,585	5,023	4.18%
Interest-bearing deposits with other banks	22,316	177	0.79%	23,855	144	0.60%	33,119	125	0.38%
Total interest-earning assets	719,336	29,994	4.37%	670,801	28,595	4.51%	646,739	27,874	4.56%
Noninterest-earning assets	37,716			39,470			24,845		
Total assets	<u>\$ 757,052</u>			<u>\$ 710,271</u>			<u>\$ 671,584</u>		
Interest-bearing liabilities:									
Interest-bearing demand deposits	\$ 65,403	195	0.30%	\$ 62,064	191	0.31%	\$ 59,484	193	0.32%
Money market deposits	80,331	332	0.41%	76,034	312	0.41%	75,443	300	0.40%
Savings deposits	174,995	427	0.24%	179,095	542	0.30%	177,958	560	0.31%
Certificates of deposit	186,627	2,664	1.42%	190,097	2,381	1.25%	180,634	2,580	1.43%
Borrowings	46,865	572	1.22%	22,108	394	1.78%	19,567	437	2.23%
Total interest-bearing liabilities	554,221	4,190	0.75%	529,398	3,820	0.72%	513,086	4,070	0.79%
Noninterest-bearing liabilities:									
Other liabilities	134,090			116,218			99,511		
Stockholders' equity	68,741			64,655			58,987		
Total liabilities and stockholders' equity	<u>\$ 757,052</u>			<u>\$ 710,271</u>			<u>\$ 671,584</u>		
Net interest income		<u>\$ 25,804</u>			<u>\$ 24,775</u>			<u>\$ 23,804</u>	
Interest rate spread (1)			3.61%			3.78%			3.77%
Net interest margin (2)			3.79%			3.94%			3.93%
Ratio of average interest-earning assets to average interest-bearing liabilities			129.79%			126.71%			126.05%

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

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

(3) Tax-equivalent adjustments to interest income for tax-exempt securities were \$1,501, \$1,628, and \$1,611 for 2016, 2015, and 2014, respectively.

Interest Rates and Interest Differential

(Dollars in thousands)	2016 versus 2015			2015 versus 2014		
	Increase (decrease) due to			Increase (decrease) due to		
	Volume	Rate	Total	Volume	Rate	Total
Interest-earning assets:						
Loans receivable	\$ 3,292	\$ (1,318)	\$ 1,974	\$ 1,956	\$ (858)	\$ 1,098
Investment securities	(838)	230	(608)	(273)	(123)	(396)
Interest-bearing deposits with other banks	(11)	44	33	(45)	64	19
Total interest-earning assets	<u>2,443</u>	<u>(1,044)</u>	<u>1,399</u>	<u>1,638</u>	<u>(917)</u>	<u>721</u>
Interest-bearing liabilities:						
Interest-bearing demand deposits	10	(6)	4	8	(10)	(2)
Money market deposits	18	2	20	2	10	12
Savings deposits	(11)	(104)	(115)	4	(22)	(18)
Certificates of deposit	(46)	329	283	127	(326)	(199)
Borrowings	371	(193)	178	51	(94)	(43)
Total interest-bearing liabilities	<u>342</u>	<u>28</u>	<u>370</u>	<u>192</u>	<u>(442)</u>	<u>(250)</u>
Net interest income	<u>\$ 2,101</u>	<u>\$ (1,072)</u>	<u>\$ 1,029</u>	<u>\$ 1,446</u>	<u>\$ (475)</u>	<u>\$ 971</u>

Allowance for Loan and Lease Losses. The allowance for loan and lease losses (“ALLL”) represents the amount management estimates is adequate to provide for probable losses inherent in the loan portfolio as of the balance sheet date. Accordingly, all loan losses are charged to the allowance, and all recoveries credited to it. The ALLL is established through a provision for loan losses, which is charged to operations. The provision is based on management's periodic evaluation of the adequacy of the ALLL, taking into account the overall risk characteristics of the various portfolio segments, the Company's loan loss experience, the impact of economic conditions on borrowers, and other relevant factors. The estimates used to determine the adequacy of the ALLL, including the amounts and timing of future cash flows expected on impaired loans, are particularly susceptible to significant change in the near term. The total ALLL is a combination of a specific allowance for identified problem loans and a general allowance for homogeneous loan pools.

The allowance for loan and lease loss balance as of December 31, 2016 totaled \$6.6 million representing a \$0.2 million increase from the end of 2015. For the year of 2016, the provision for loan losses was \$0.6 million which represented an increase of \$0.3 million from the \$0.3 million provided during 2015. Asset quality is a high priority in our overall business plan as it relates to long-term asset growth projections. During 2016, net charge-offs decreased by \$0.4 million to \$0.4 million compared to \$0.8 million in 2015. Two key ratios to monitor asset quality performance are net charge-offs/average loans and the allowance for loan and lease losses/nonperforming loans. At year-end 2016, these ratios were 0.06% and 93.3%, respectively, compared to 0.16% and 62.2% in 2015.

The specific allowance incorporates the results of measuring impaired loans. The formula allowance is calculated by applying loss factors to outstanding loans by type, excluding loans for which a specific allowance has been determined. Loss factors are based on management's determination of the amounts necessary for concentrations and changes in mix and volume of the loan portfolio, and consideration of historical loss experience.

The non-specific allowance is determined based upon management's evaluation of existing economic and business conditions affecting the key lending areas of the Company and other conditions, such as new loan products, credit quality trends, collateral values, unique industry conditions within portfolio segments that existed as of the balance sheet date, and the impact of those conditions on the collectability of the loan portfolio. Management reviews these conditions quarterly. The non-specific allowance is subject to a higher degree of uncertainty because it considers risk factors that may not be reflected in the historical loss factors.

Although management uses the best information available to make the determination of the adequacy of the ALLL at December 31, 2016, future adjustments could be necessary if circumstances or economic conditions differ substantially from the assumptions used in making the initial determinations. A downturn in the local economy could result in increased levels of nonperforming assets and charge-offs, increased loan loss provisions, and reductions in income. Additionally, as an integral part of the examination process, bank regulatory agencies periodically review a Bank's ALLL. The banking agencies could require the recognition of additions to the loan loss allowance based on their judgment of information available to them at the time of their examination.

The following table sets forth information concerning the Company's ALLL at the dates and for the periods presented.

(Dollars in thousands)	For the Years Ended December 31,		
	2016	2015	2014
Allowance balance at beginning of period	\$ 6,385	\$ 6,846	\$ 7,046
Loans charged off:			
Commercial and industrial	(237)	(280)	(237)
Real estate-construction	-	(385)	-
Real estate-mortgage:			
Residential	(414)	(425)	(671)
Commercial	(70)	(92)	(260)
Consumer installment	(22)	(15)	(44)
Total loans charged off	(743)	(1,197)	(1,212)
Recoveries of loans previously charged-off:			
Commercial and industrial	90	207	121
Real estate-construction	-	-	60
Real estate-mortgage:			
Residential	141	186	267
Commercial	140	5	40
Consumer installment	15	23	154
Total recoveries	386	421	642
Net loans charged off	(357)	(776)	(570)
Provision for loan losses	570	315	370
Allowance balance at end of period	<u>\$ 6,598</u>	<u>\$ 6,385</u>	<u>\$ 6,846</u>
Loans outstanding:			
Average	\$ 565,223	\$ 494,931	\$ 455,035
End of period	609,140	533,710	470,584
Ratio of allowance for loan and lease losses to loans outstanding at end of period	1.08%	1.20%	1.45%
Net charge-offs to average loans	0.06%	0.16%	0.13%

The following table illustrates the allocation of the Company's allowance for probable loan losses for each category of loan for each reported period. The allocation of the allowance to each category is not necessarily indicative of future loss in a particular category and does not restrict our use of the allowance to absorb losses in other loan categories.

	At December 31,					
	2016		2015		2014	
	Amount	Percent of Loans in Each Category to Total Loans	Amount	Percent of Loans in Each Category to Total Loans	Amount	Percent of Loans in Each Category to Total Loans
(Dollars in Thousands)						
<u>Type of Loans:</u>						
Commercial and industrial	\$ 448	10.0%	\$ 867	8.0%	\$ 642	12.9%
Real estate construction	172	3.9	276	4.2	868	6.4
Mortgage:						
Residential	2,818	44.5	3,139	43.6	3,703	48.4
Commercial	3,135	41.0	2,078	43.4	1,576	31.3
Consumer installment	25	0.7	25	0.9	57	1.0
Total	<u>\$ 6,598</u>	<u>100.0%</u>	<u>\$ 6,385</u>	<u>100.0%</u>	<u>\$ 6,846</u>	<u>100.0%</u>

Nonperforming assets. Nonperforming assets includes nonaccrual loans, troubled debt restructurings (TDRs), loans 90 days or more past due, assets purchased by EMORECO, OREO, and repossessed assets. A loan is classified as nonaccrual when, in the opinion of management, there are serious doubts about collectability of interest and principal. Accrual of interest is discontinued on a loan when management believes, after considering economic and business conditions, the borrower's financial condition is such that collection of principal and interest is doubtful. Payments received on nonaccrual loans are applied against principal.

TDRs are those loans which the Company, for economic or legal reasons related to a borrower's financial difficulties, grants a concession to the borrower that the Company would not otherwise consider. The Company has 28 TDRs with a total balance of \$2.7 million as of December 31, 2016 compared to 30 TDRs totaling \$3.1 million as of December 31, 2015. Nonperforming loans amounted to \$11.8 million or 1.9% of total loans and \$10.3 million or 1.9% of total loans at December 31, 2016 and December 31, 2015, respectively.

A major factor in determining the appropriateness of the ALLL is the type of collateral which secures the loans. Although this does not insure against all losses, the real estate provides substantial recovery, even in a distressed-sale and declining-value environment. The Bank's objective is to work with the borrower to minimize the burden of the debt service and to minimize the future loss exposure to the Company.

The following table summarizes nonperforming assets by category.

	2016	At December 31, 2015	2014
	(Dollars in Thousands)		
Loans accounted for on a nonaccrual basis:			
Commercial and industrial	\$ 454	\$ 1,450	\$ 365
Real estate - construction	-	130	587
Real estate-mortgage:			
Residential	4,034	4,122	5,438
Commercial	1,409	1,842	955
Consumer installment	6	1	2
Total nonaccrual loans	<u>5,903</u>	<u>\$ 7,545</u>	<u>7,347</u>
Troubled debt restructuring:			
Commercial and industrial	610	509	250
Real estate - construction	-	129	-
Real estate-mortgage:			
Residential	166	1,398	1,015
Commercial	311	680	265
Consumer installment	-	-	6
Total troubled debt restructuring	<u>1,087</u>	<u>2,716</u>	<u>1,536</u>
Accruing loans which are contractually past due 90 days or more:			
Commercial and industrial	-	-	-
Real estate - construction	-	-	-
Real estate-mortgage:			
Residential	-	2	165
Commercial	-	-	-
Consumer installment	-	-	-
Total accruing loans which are contractually past due 90 days or more	<u>-</u>	<u>2</u>	<u>165</u>
Total nonperforming loans	<u>6,990</u>	<u>10,263</u>	<u>9,048</u>
Other real estate owned	934	1,412	2,590
Total nonperforming assets	<u>\$ 7,924</u>	<u>11,675</u>	<u>\$ 11,638</u>
Total nonperforming loans to total loans	<u>1.16%</u>	<u>1.92%</u>	<u>1.92%</u>
Total nonperforming loans to total assets	<u>0.90%</u>	<u>1.40%</u>	<u>1.34%</u>
Total nonperforming assets to total assets	<u>1.02%</u>	<u>1.59%</u>	<u>1.72%</u>

Accrual of interest is discontinued on a loan when management believes, after considering economic and business conditions, the borrower's financial condition is such that collection of interest is doubtful. Payments received on nonaccrual loans are recorded as income or applied against principal according to management's judgment as to the collectability of principal.

A loan is considered impaired when it is probable the borrower will not repay the loan according to the original contractual terms of the loan agreement, including all troubled debt restructurings. Management has determined that first mortgage loans on one-to-four family properties and all consumer loans represent large groups of smaller-balance homogeneous loans that are to be collectively evaluated. Loans that experience insignificant payment delays, which are defined as 90 days or less, generally are not classified as impaired. A loan is not impaired during a period of delay in payment if the Company expects to collect all amounts due, including interest accrued at the contractual interest rate for the period of delay. Management evaluates all loans identified as impaired individually. The Company estimates credit losses on impaired loans based on the present value of expected cash flows, or the fair value of the underlying collateral if loan repayment is expected to come from the sale or operation of the collateral. Impaired loans, or portions thereof, are charged off when it is determined a realized loss has occurred. Until that time, an allowance for loan and lease loss is maintained for estimated losses.

Interest income that would have been recorded had these loans not been placed on nonaccrual status was \$309,000 in 2016; \$259,000 in 2015; and \$207,000 in 2014. Management is not aware of any trends or uncertainties related to any loans classified as doubtful or substandard that might have a material effect on earnings, liquidity, or capital resources.

Changes in Results of Operations

2016 Results Compared to 2015 Results

General The Company posted net income of \$6.4 million, compared to \$6.9 million for the year ended December 31, 2015. On a per share basis, 2016 earnings were \$3.03 per diluted share, representing a decrease from the \$3.39 per diluted share for the year ended December 31, 2015. The return on average equity for the year ended December 31, 2016, was 9.33% and the Company's return on average assets was 0.85%.

Net interest income Net interest income, which is the Company's largest revenue source, is the difference between interest income on earning assets and interest expense paid on liabilities. Net interest income is affected by the changes in interest rates and the composition of interest-earning assets and interest-bearing liabilities. Net interest income increased by \$1.0 million in 2016 to \$25.8 million compared to \$24.8 million for 2015. This increase is the result of a \$1.4 million increase in interest income with only a \$0.4 million increase in interest expense. Interest-earning assets averaged \$719.3 million during 2016, a year-over-year increase of \$48.5 million from \$670.8 million for 2015. The Company's average interest-bearing liabilities increased from \$529.4 million in 2015 to \$554.2 million in 2016.

The profit margin, or spread, on invested funds is a key performance indicator. The Company monitors two key performance indicators — net interest spread and net interest margin. The net interest spread represents the difference between the average rate earned on interest-earning assets and the average rate paid on interest-bearing liabilities. The net interest margin represents the overall profit margin: net interest income as a percentage of total interest-earning assets. This performance indicator gives effect to interest earned for all investable funds including the substantial volume of interest-free funds. For 2016 the net interest margin, measured on a fully taxable equivalent basis, decreased to 3.79%, compared to 3.94% in 2015.

Interest income Interest income increased \$1.4 million to \$30.0 million for 2016 which is attributable to a \$2.0 million increase in interest and fees on loans. This change was the result of an increase in the average balance of loans receivable, partially offset by a lower yield on the portfolio. The average balance of loans receivable increased by \$70.3 million or 14.2% to \$565.2 million for the year ended December 31, 2016 as compared to \$494.9 million for the year ended December 31, 2015. The loans receivable yield decreased to 4.55% for 2016, from 4.81% in 2015.

Interest on investment securities decreased \$0.6 million to \$4.0 million for 2016, compared to \$4.6 million for 2015. The average balance of investment securities decreased \$20.2 million to \$131.8 million for the year ended December 31, 2016 as compared to \$152.0 million for the year ended December 31, 2015. The investment securities yield increased 7 basis points to 4.18% for 2016, compared to 4.11% for 2015.

Interest expense Interest expense increased \$0.4 million or 9.7% to \$4.2 million for 2016, compared with \$3.8 million for 2015. This change in interest expense can be attributed to an increase in the average balance of interest-bearing liabilities. For the year ended December 31, 2016 the average balance of interest-bearing liabilities increased by \$24.8 million to \$554.2 million as compared to \$529.4 million for the year ended December 31, 2015. Interest incurred on deposits increased by \$0.2 million for the year from \$3.4 million in 2015 to \$3.6 million for year-end 2016. The change in deposit expense was due to an increase in the average balance as well as a 4 basis point increase during the year. Interest expense incurred on FHLB advances, repurchase agreements, junior subordinated debt and other borrowings declined 45.2% from 2015. The increase was due to a \$24.8 million increase in the average balance.

Loan Loss Provision The provision for loan losses is an operating expense recorded to maintain the related balance sheet allowance for loan and lease losses at an amount considered adequate to cover probable losses incurred in the normal course of lending. The provision for loan losses for the year ended December 31, 2016 was \$0.6 million compared to \$0.3 million in 2015. The loan loss provision is based upon management's assessment of a variety of factors, including types and amounts of nonperforming loans, historical loss experience, collectability of collateral values and guaranties, pending legal action for collection of loans and related guaranties, and current economic conditions. The loan loss provision reflects management's judgment of the current period cost-of-credit risk inherent in the loan portfolio. Although management believes the loan loss provision has been sufficient to maintain an adequate allowance for loan and lease losses, actual loan losses could exceed the amounts that have been charged to operations. The ratio of the allowance for loan and lease losses to total loans decreased to 1.08% of total loans at December 31, 2016 compared to the 1.20% at December 31, 2015.

Noninterest income Noninterest income decreased \$0.1 million or 2.1% to \$3.9 million for 2016 compared to \$4.0 million for 2015. The decrease is due to a decrease in earnings on bank-owned life insurance.

Noninterest expense Operating expenses increased \$0.8 million, or 4.0% to \$20.9 million for 2016 compared to \$20.1 million for 2015. Salaries and benefits and professional fees increased \$0.5 million, and \$0.2 million, or 5.1%, and 15.6%, respectively. The salaries increased as a result of the addition of key people and pay increases. The primary driver of increase in other expense was an increase in miscellaneous loan expense. Advertising expense increased as a result of strategic branding efforts. These were partially offset by an increase in gain on other real estate owned of \$0.4 million.

Provision for Income Taxes The provision for income taxes increased by \$0.3 million, or 22.0%, to \$1.9 million for 2016 from \$1.6 million for 2015. The Company's effective federal income tax rate in 2016 was 22.9% compared to 18.5% in 2015.

2015 Results Compared to 2014 Results

General The Company posted net income of \$6.9 million, compared to \$7.2 million for the year ended December 31, 2014. On a per share basis, 2015 earnings were \$3.39 per diluted share, representing a decrease from the \$3.50 per diluted share for the year ended December 31, 2014. The return on average equity for the year ended December 31, 2015, was 10.62% and the Company's return on average assets was 0.97%.

Net interest income Net interest income, which is the Company's largest revenue source, is the difference between interest income on earning assets and interest expense paid on liabilities. Net interest income is affected by the changes in interest rates and the composition of interest-earning assets and interest-bearing liabilities. Net interest income increased by \$1.0 million in 2015 to \$24.8 million compared to \$23.8 million for 2014. This increase is the result of a \$0.7 million increase in interest income and \$0.3 million decrease in interest expense. Interest-earning assets averaged \$670.8 million during 2015, a year-over-year increase of \$24.1 million from \$646.7 million for 2014. The Company's average interest-bearing liabilities increased from \$513.1 million in 2014 to \$529.4 million in 2015.

The profit margin, or spread, on invested funds is a key performance indicator. The Company monitors two key performance indicators — net interest spread and net interest margin. The net interest spread represents the difference between the average rate earned on interest-earning assets and the average rate paid on interest-bearing liabilities. The net interest margin represents the overall profit margin: net interest income as a percentage of total interest-earning assets. This performance indicator gives effect to interest earned for all investable funds including the substantial volume of interest-free funds. For 2015 the net interest margin, measured on a fully taxable equivalent basis, increased to 3.94%, compared to 3.93% in 2014.

Interest income Interest income increased \$0.7 million to \$28.6 million for 2015 which is attributable to a \$1.1 million increase in interest and fees on loans. This change was the result of an increase in the average balance of loans receivable, partially offset by a lower yield on the portfolio. The average balance of loans receivable increased by \$39.9 million or 8.8% to \$494.9 million for the year ended December 31, 2015 as compared to \$455.0 million for the year ended December 31, 2014. The loans receivable yield decreased to 4.81% for 2015, from 4.99% in 2014.

Interest on investment securities decreased \$0.4 million to \$4.6 million for 2015, compared to \$5.0 million for 2014. The average balance of investment securities decreased \$6.6 million to \$152.0 million for the year ended December 31, 2015 as compared to \$158.6 million for the year ended December 31, 2014. The investment securities yield slipped 7 basis points to 4.11% for 2015, compared to 4.18% for 2014.

Interest expense Interest expense decreased \$0.3 million or 6.1% to \$3.8 million for 2015, compared with \$4.1 million for 2014. This change in interest expense can be attributed to a 7 basis point decline in the rate paid on these liabilities, partially offset by an increase in the average balance of interest-bearing liabilities. For the year ended December 31, 2015 the average balance of interest-bearing liabilities increased by \$16.3 million to \$529.4 million as compared to \$513.1 million for the year ended December 31, 2014. Interest incurred on deposits declined by \$0.2 million for the year from \$3.6 million in 2014 to \$3.4 million for year-end 2015. The change in deposit expense was due to the declining average balance as well as a 6 basis point decline during the year. Interest expense incurred on FHLB advances, repurchase agreements, junior subordinated debt and other borrowings declined 9.8% from 2014. The decline was due to a 45 basis point decrease in the rate paid on these borrowings during the year.

Loan Loss Provision The provision for loan losses is an operating expense recorded to maintain the related balance sheet allowance for loan and lease losses at an amount considered adequate to cover probable losses incurred in the normal course of lending. The provision for loan losses for the year ended December 31, 2015 was \$0.3 million compared to \$0.4 million in 2014. The loan loss provision is based upon management's assessment of a variety of factors, including types and amounts of nonperforming loans, historical loss experience, collectability of collateral values and guaranties, pending legal action for collection of loans and related guaranties, and current economic conditions. The loan loss provision reflects management's

judgment of the current period cost-of-credit risk inherent in the loan portfolio. Although management believes the loan loss provision has been sufficient to maintain an adequate allowance for loan and lease losses, actual loan losses could exceed the amounts that have been charged to operations. The ratio of the allowance for loan and lease losses to total loans decreased to 1.20% of total loans at December 31, 2015 compared to the 1.45% at December 31, 2014.

Noninterest income Noninterest income increased \$0.4 million or 12.7% to \$4.0 million for 2015 compared to \$3.6 million for 2014. The increase is due to increase an increase in earnings on bank-owned life insurance.

Noninterest expense Operating expenses increased \$2.2 million, or 12.5% to \$20.1 million for 2015 compared to \$17.9 million for 2014. Salaries and benefits, other expense, and advertising expense increased \$0.9 million, \$0.6 million, and \$0.2 million, or 10.6%, 22.1%, and 47.7%, respectively. The salaries increased as a result of the addition of key people and pay increases. The primary driver of increase in other expense was an increase in miscellaneous loan expense. Advertising expense increased as a result of strategic branding efforts. These were partially offset by a decrease in loss on other real estate owned of \$0.2 million.

Provision for Income Taxes The provision for income taxes decreased by \$0.4 million, or 21.6%, to \$1.6 million for 2015 from \$2.0 million for 2014. The Company's effective federal income tax rate in 2015 was 18.5% compared to 21.7% in 2014.

Asset and Liability Management

The primary objective of the Company's asset and liability management function is to maximize the Company's net interest income while simultaneously maintaining an acceptable level of interest rate risk given the Company's operating environment, capital and liquidity requirements, performance objectives and overall business focus. The principal determinant of the exposure of the Company's earnings to interest rate risk is the timing difference between the re-pricing or maturity of interest-earning assets and the re-pricing or maturity of its interest-bearing liabilities. The Company's asset and liability management policies are designed to decrease interest rate sensitivity primarily by shortening the maturities of interest-earning assets while at the same time extending the maturities of interest-bearing liabilities. The Board of Directors of the Company continues to believe in a strong asset/liability management process in order to insulate the Company from material and prolonged increases in interest rates. Mortgage-backed securities generally increase the quality of the Company's assets by virtue of the insurance or guarantees that back them, are more liquid than individual mortgage loans and may be used to collateralize borrowings or other obligations of the Company.

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

Interest Rate Sensitivity Simulation Analysis

The Company utilizes income simulation modeling in measuring its interest rate risk and managing its interest rate sensitivity. The Asset and Liability Management Committee of the Company believes the various rate scenarios of the simulation modeling enables the Company to more accurately evaluate and manage the exposure of interest rate fluctuations on net interest income, the yield curve, various loan and mortgage-backed security prepayments, and deposit decay assumptions.

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

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

Net interest income simulation- Given a 200 basis point parallel gradual increase or decrease in market interest rates, net interest income may not change by more than 10% for a one-year period. Given a 100 basis point parallel gradual decrease in market interest rates, net interest income may not change by more than 8% for a one-year period.

Portfolio equity simulation- Portfolio equity is the net present value of the Company's existing assets and liabilities. Given a 200 basis point immediate and permanent increase in market interest rates, portfolio equity may not correspondingly decrease or increase by more than 20% of stockholders' equity. Given a 100 basis point immediate and permanent decrease in market interest rates, portfolio equity may not correspondingly decrease or increase by more than 10% of stockholders' equity.

The following table presents the simulated impact of a 200 basis point upward or 100 basis point downward shift of market interest rates on net interest income, and the change in portfolio equity. This analysis was done assuming the interest-earning asset and interest-bearing liability levels at December 31, 2016 remained constant. The impact of the market rate movements was developed by simulating the effects of rates changing gradually from the December 31, 2016 levels for net interest income, and portfolio equity. The impact of market rate movements was developed by simulating the effects of an immediate and permanent change in rates at December 31, 2016 for portfolio equity:

	<u>Increase 200 Basis Points</u>	<u>Decrease 100 Basis Points</u>
Net interest income - decrease	(2.1)%	(1.9)%
Portfolio equity - decrease	4.0%	(15.2)%

Liquidity and Capital Resources

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

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

The Company's liquid assets consist of cash and cash equivalents, which include investments in very short-term investments (i.e., federal funds sold), and investment securities classified as available for sale. The level of these assets is dependent on the Company's operating, investing, and financing activities during any given period. At December 31, 2016, cash and cash equivalents totaled \$32.5 million or 4.1% of total assets while investment securities classified as available for sale totaled \$114.4 million or 14.5% of total assets. Management believes that the liquidity needs of the Company are satisfied by the current balance of cash and cash equivalents, readily available access to traditional funding sources, FHLB advances, junior subordinated debt, and the portion of the investment and loan portfolios that mature within one year. These sources of funds will enable the Company to meet cash obligations and off-balance sheet commitments as they come due.

Operating activities provided net cash of \$7.8 million, \$7.2 million, and \$7.5 million for 2016, 2015, and 2014, respectively, generated principally from net income of \$6.4 million, \$6.9 million, and \$7.2 million in each of these respective periods.

Investing activities used \$45.9 million which consisted primarily of investment activity and loan originations. The cash usages primarily consisted of loan increases of \$76.2 million and investment purchases of \$1.7 million. Partially offsetting the usage are proceeds from repayments and maturities and proceeds from sale of securities of \$23.2 million and \$9.1 million, respectively. For the same period ended 2015, investing activities used \$59.4 million which consisted primarily of investment activity and loan originations. The cash usages primarily consisted of loan increases of \$63.9 million and investment purchases of \$21.9 million. Partially offsetting the usage are proceeds from repayments and maturities and proceeds from sale of securities of \$13.5 million and \$15.7 million, respectively. For the same period ended 2014, investing activities used \$26.7 million which consisted primarily of investment activity and loan originations. The cash usages primarily consisted of investment purchases of \$12.3 million and loan increases of \$36.2 million. Partially offsetting the usage are proceeds from repayments and maturities and proceeds from sale of securities of \$13.5 million and \$8.4 million, respectively.

Financing activities consist of the solicitation and repayment of customer deposits, borrowings and repayments and the payment of dividends. During 2016, net cash provided by financing activities totaled \$46.9 million, principally derived from increases in short-term borrowings and the issuance of common stock of \$32.5 million and \$11.2 million, respectively, and partially offset by \$2.3 million in cash dividends. During 2015, net cash provided by financing activities totaled \$50.4 million, principally derived from increases in deposit accounts and short-term borrowings of \$38.3 million and \$21.0 million, respectively, and partially offset by treasury stock purchase of \$6.8 million and \$2.2 million in cash dividends. During 2014, net cash provided by financing activities totaled \$18.7 million, principally derived from increases in deposit accounts and short-term borrowings of \$17.3 million and \$4.0 million, respectively, and partially offset by \$2.1 million in cash dividends.

Liquidity may be adversely affected by many circumstances, including unexpected deposit outflows and increased draws on lines of credit. Management monitors projected liquidity needs and determines the desirable level based in part on the Company's commitment to make loans and management's assessment of the Company's ability to generate funds. The Company anticipates having sufficient liquidity to satisfy estimated short and long-term funding needs.

Capital Resources. The Company's primary source of capital is retained earnings. Historically, the Company has generated net retained income to support normal growth and expansion. Management has developed a capital planning policy to not only ensure regulatory compliance but capital adequacy for future expansion.

Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters

The Company had approximately 1,057 stockholders of record as of December 31, 2016. The Company's common stock is traded and authorized for quotation on NASDAQ under the symbol "MBCN."

The following table shows the high and low bid prices of and cash dividends paid on the Company's common stock in 2016 and 2015, adjusted for stock splits and stock dividends. This information does not reflect retail mark-up, markdown or commissions, and does not necessarily represent actual transactions.

	High Bid		Low Bid		Cash Dividends per share
2016					
First Quarter	\$	34.39	\$	31.39	\$ 0.27
Second Quarter	\$	33.00	\$	31.19	\$ 0.27
Third Quarter	\$	34.25	\$	31.66	\$ 0.27
Fourth Quarter	\$	39.00	\$	33.50	\$ 0.27
2015					
First Quarter	\$	34.82	\$	31.50	\$ 0.26
Second Quarter	\$	33.65	\$	31.60	\$ 0.27
Third Quarter	\$	34.00	\$	30.20	\$ 0.27
Fourth Quarter	\$	34.75	\$	28.90	\$ 0.27

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

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

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013). Based on this assessment, management believes that, as of December 31, 2016, the Company's internal control over financial reporting was effective.

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

/s/ Thomas G. Caldwell

By: Thomas G. Caldwell
President and Chief Executive Officer
(Principal Executive Officer)

Date: March 15, 2017

/s/ Donald L. Stacy

By: Donald L. Stacy
Treasurer
(Principal Financial & Accounting Officer)

Date: March 15, 2017

Exhibit 21

Middlefield Banc Corp. Subsidiaries

- 1 The Middlefield Banking Company (“MBC”), 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.
- 2 On October 23, 2009 Middlefield received from the Federal Reserve Bank of Cleveland approval to establish an asset resolution subsidiary. Organized as an Ohio corporation under the name EMORECO, Inc. and wholly owned by Middlefield Banc Corp, the purpose of the asset resolution subsidiary is to maintain, manage, and ultimately dispose of nonperforming loans and real estate acquired by subsidiary banks as the result of borrower default on real estate-secured loans.



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements File No. 333-213889, effective November 22, 2016, on Form S-4 and Form S-4/A; File No. 333-213607, effective September 13, 2016, on Form S-3; File No. 333-153059, effective August 18, 2008, on Form S-8 and Form S-8POS; and File No. 333-183497, effective August 23, 2012, on Form S-3D and Form S-3DPOS, effective September 13, 2012, of Middlefield Banc Corp. of our report dated March 15, 2017, relating to our audit of the consolidated financial statements, which appears in the Annual Report to Shareholders, which is incorporated in this Annual Report on Form 10-K of Middlefield Banc Corp. for the year ended December 31, 2016.

S.R. Snodgrass, P.C.

Cranberry Township, Pennsylvania
March 15, 2017



Certification of Principal Executive Officer

I, Thomas G. Caldwell, certify that:

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

Date: March 15, 2017

/s/ Thomas G. Caldwell
Thomas G. Caldwell.
President and Chief Executive Officer



Certification of Principal Financial and Accounting Officer

I, Donald L. Stacy, certify that:

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

Date: March 15, 2017

/s/ Donald L. Stacy
Donald L. Stacy
Principal Financial and Accounting Officer



Exhibit 32

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

In connection with the Annual Report of Middlefield Banc Corp. (the “Company”) on Form 10-K for the period ending December 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), we, Thomas G. Caldwell, President, and Donald L. Stacy, Chief Financial Officer, certify, pursuant to 18 U.S.C., Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Thomas G. Caldwell
Thomas G. Caldwell
President and Chief Executive Officer

/s/ Donald L. Stacy
Donald L. Stacy
Principal Financial and Accounting Officer

Date: March 15, 2017

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

SHAREHOLDER INFORMATION

Corporate Headquarters

Middlefield Banc Corp.
15985 East High Street
P.O. Box 35
Middlefield, Ohio 44062
888.801.1666 • 440.632.1666
fax: 440.632.1700

Form 10-K and 10-Q Availability

A copy of Middlefield Banc Corp.'s Annual Report on Form 10-K and Quarterly Reports on 10-Q filed with the Securities and Exchange Commission will be furnished to any shareholder, free of charge, upon written or e-mail request to:

Donald L. Stacy

Senior Vice President,
Treasurer and CFO
Middlefield Banc Corp.
P.O. Box 35
Middlefield, Ohio 44062
or dstacy@middlefieldbank.com

Market Makers

The symbol for Middlefield Banc Corp. common stock is MBCN and the CUSIP is 596304204.

Sweney Cartwright & Co.

17 South High Street, Suite 300
Columbus, Ohio 43215
614.228.5391 • 800.334.7481
www.swencart.com

Boenning & Scattergood, Inc.

9922 Brewster Lane
Powell, Ohio 43065
866.326.8113
www.boenninginc.com

Keefe, Bruyette & Woods

787 Seventh Avenue
New York, New York 10019
800.342.5529

Notice of Annual Meeting

The Annual Meeting of Shareholders of Middlefield Banc Corp. will be held at 1:00 p.m. on Wednesday, May 10, 2017, at:

Sun Valley Banquet and Party Center
10000 Edwards Lane
Aurora, Ohio 44202

Transfer Agent and Registrar

American Stock Transfer & Trust Company

59 Maiden Lane
Plaza Level
New York, New York 10038
800.937.5449

Independent Auditors

S.R. Snodgrass, P.C.

2009 Mackenzie Way, Suite 340
Cranberry Township, Pennsylvania 16066
724.934.0344

Internet Information

Information on the Company and its subsidiary bank is available on the Internet at www.middlefieldbank.bank.

Dividend Payment Dates

Subject to action by the Board of Directors, Middlefield Banc Corp. will pay dividends in March, June, September, and December.

Dividend Reinvestment and Stock Purchase Plan

Shareholders may elect to reinvest their dividends in additional shares of Middlefield Banc Corp.'s common stock through the Company's Dividend Reinvestment Plan. To arrange automatic purchase of shares with quarterly dividend proceeds, please call 888.801.1666.

Direct Deposit of Dividends

The direct deposit program, which is offered at no charge, provides for automatic deposit of quarterly dividends directly to a checking or savings account with The Middlefield Banking Company. For information regarding this program, please call 888.801.1666.

Market for Common Equity and Related Stockholder Matters

Middlefield Banc Corp. had approximately 1,121 shareholders of record as of February 24, 2017. Our common stock trades on the NASDAQ Capital Market under the ticker symbol MBCN. The following table shows the high and low bid prices of and cash dividends paid on the Company's common stock during the periods indicated. The high and low bid prices are compiled from data available through NASDAQ. This information does not reflect retail mark-up, markdowns or commissions, and does not necessarily represent actual transactions.

	High Bid	Low Bid	Cash Dividends per share
2016			
First Quarter	\$ 34.39	\$ 31.43	\$ 0.27
Second Quarter	\$ 33.00	\$ 31.19	\$ 0.27
Third Quarter	\$ 34.25	\$ 31.66	\$ 0.27
Fourth Quarter	\$ 39.00	\$ 33.50	\$ 0.27
2015			
First Quarter	\$ 34.82	\$ 31.50	\$ 0.26
Second Quarter	\$ 33.65	\$ 31.60	\$ 0.27
Third Quarter	\$ 34.00	\$ 30.20	\$ 0.27
Fourth Quarter	\$ 34.75	\$ 28.90	\$ 0.27



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