

UMB FINANCIAL CORP  
Form 10-K  
February 23, 2017  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM 10-K**

(Mark One)

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

**For the fiscal year ended: December 31, 2016**

**OR**

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

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission file number: 000-04887**

**UMB FINANCIAL CORPORATION**  
**(Exact name of registrant as specified in its charter)**

**Missouri**  
**(State or other jurisdiction of incorporation or organization)**

**43-0903811**  
**(I.R.S. Employer Identification No.)**

**1010 Grand Boulevard, Kansas City, Missouri**  
**(Address of principal executive offices)**

**64106**  
**(Zip Code)**

**(Registrant's telephone number, including area code): (816) 860-7000**

**Securities Registered Pursuant to Section 12(b) of the Act:**

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
<b>Common Stock, \$1.00 Par Value</b>	<b>The NASDAQ Global Select Market</b>

**Securities Registered Pursuant to Section 12(g) of the Act: None**

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, 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 for 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 (§229.405 of this chapter) 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 the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check One):

Large accelerated filer	Accelerated filer
Non-accelerated filer    (Do not check if a smaller reporting company)	Smaller reporting company

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

As of June 30, 2016, the aggregate market value of common stock outstanding held by nonaffiliates of the registrant was approximately \$2,358,273,647 based on the closing price of the registrant's common stock on the NASDAQ Global Select Market on that date.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

<b>Class</b>	<b>Outstanding at February 16, 2017</b>
<b>Common Stock, \$1.00 Par Value</b>	<b>49,810,244</b>

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Company's Definitive Proxy Statement on Schedule 14A ( Proxy Statement ) to be delivered to shareholders in connection with the Annual Meeting of Shareholders to be held on April 25, 2017, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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

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**PART I**

**ITEM 1. BUSINESS**

**General**

UMB Financial Corporation (together with its consolidated subsidiaries, unless the context requires otherwise, the Company) is a diversified financial holding company that is headquartered in Kansas City, Missouri. The Company provides banking services, institutional investment management, and asset servicing to its customers in the United States and around the globe.

The Company was organized as a corporation under Missouri law in 1967 and is registered as a bank holding company under the Bank Holding Company Act of 1956, as amended (the BHCA) and a financial holding company under the Gramm-Leach-Bliley Act of 1999, as amended (the GLBA). The Company currently owns all of the outstanding stock of one national bank and several nonbank subsidiaries.

The Company's national bank, UMB Bank, National Association (the Bank), has its principal office in Missouri and also has branches in Arizona, Colorado, Illinois, Kansas, Nebraska, Oklahoma, and Texas. The Bank offers a full complement of banking products and other services to commercial, retail, government, and correspondent-bank customers, including a wide range of asset-management, trust, bank-card, and cash-management services.

The Company's significant nonbank subsidiaries include the following:

Scout Investments, Inc. (Scout) is an institutional asset-management company that is headquartered in Kansas City, Missouri. Scout offers domestic and international equity strategies through its Scout Asset Management Division and fixed income strategies through its Reams Asset Management Division.

UMB Fund Services, Inc. (UMBFS) is located in Milwaukee, Wisconsin, Chadds Ford, Pennsylvania, and Ogden, Utah, and provides fund accounting, transfer agency, and other services to mutual fund and alternative-investment groups.

On a full-time equivalent basis at December 31, 2016, the Company and its subsidiaries employed 3,688 persons.

**Business Segments**

The Company's products and services are grouped into three segments: Bank, Institutional Investment Management, and Asset Servicing.

These segments and their financial results are described in detail in (i) the section of Management's Discussion and Analysis of Financial Condition and Results of Operations entitled *Business Segments*, which can be found in Part II, Item 7, pages 34 through 37, of this report and (ii) Note 12, *Business Segment Reporting*, in the Notes to the Consolidated Financial Statements, which can be found in Part II, Item 8, pages 97 through 98 of this report.

**Competition**

The Company faces intense competition in each of its business segments and in all of the markets and geographic regions that the Company serves. Competition comes from both traditional and non-traditional financial-services providers, including banks, savings associations, finance companies, investment advisors, asset managers, mutual funds, private-equity firms, hedge funds, brokerage firms, mortgage-banking companies, credit-card companies, insurance companies, trust companies, securities processing companies, and credit unions. Recently, financial-technology (fintech) companies have been partnering more often with financial-services providers to compete with the Company for lending, payments, and other business. Many competitors may not be subject to the same kind or degree of supervision and regulation as the Company.

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Competition is based on a number of factors. Banking customers are generally influenced by convenience, rates and pricing, personal experience, quality and availability of products and other services, lending limits, transaction execution, and reputation. Investment advisory services compete primarily on returns, expenses, third-party ratings, and the reputation and performance of managers. Asset servicing competes primarily on price, quality of services, and reputation. The Company and its competitors all are impacted by the overall economy and health of the financial markets. The degree of impact will vary based on the basis of risk of each competitor and their approach to managing them.

Successfully competing in the Company's chosen markets and regions also depends on the Company's ability to attract, retain, and motivate talented employees, to invest in technology and infrastructure, and to innovate, all the while effectively managing its expenses. The Company expects that competition will likely intensify in the future.

## **Government Monetary and Fiscal Policies**

In addition to the impact of general economic conditions, the Company's business, results of operations, financial condition, capital, liquidity, and prospects are significantly affected by government monetary and fiscal policies that are announced or implemented in the United States and abroad.

A sizeable influence is exerted, in particular, by the policies of the Board of Governors of the Federal Reserve System (the FRB), which influences monetary and credit conditions in the economy in pursuit of maximum employment, stable prices, and moderate long-term interest rates. Among the FRB's policy tools are (1) open market operations (that is, purchases or sales of securities in the open market to adjust the supply of reserve balances in order to achieve targeted federal funds rates or to put pressure on longer-term interest rates in order to achieve more desirable levels of economic activity and job creation), (2) the discount rate charged on loans by the Federal Reserve Banks, (3) the level of reserves required to be held by depository institutions against specified deposit liabilities, (4) the interest paid or charged on balances maintained with the Federal Reserve Banks by depository institutions, including balances used to satisfy their reserve requirements, and (5) other deposit and loan facilities.

The FRB and its policies have a substantial impact on the availability and demand for loans and deposits, the rates and other aspects of pricing for loans and deposits, and the conditions in equity, fixed income, currency, and other markets in which the Company operates. Policies announced or implemented by other central banks around the world have a meaningful effect as well and sometimes may be coordinated with those of the FRB.

Tax and other fiscal policies, moreover, impact not only general economic conditions but also give rise to incentives or disincentives that affect how the Company and its customers prioritize objectives, operate businesses, and deploy resources.

## **Regulation and Supervision**

The Company is subject to regulatory frameworks in the United States at federal, State, and local levels. In addition, the Company is subject to the direct supervision of various government authorities charged with overseeing the kinds of financial activities conducted by its business segments.

This section summarizes some pertinent provisions of the principal laws and regulations that apply to the Company. The descriptions, however, are not complete and are qualified in their entirety by the full text and judicial or administrative interpretations of those laws and regulations and other laws and regulations that affect the Company.

### *Overview*

The Company is a bank holding company under the BHCA and a financial holding company under the GLBA. As a result, the Company including all of its businesses and operations in the United States and

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abroad are subject to the regulation, supervision, and examination of the FRB and to restrictions on permissible activities. This scheme of regulation, supervision, and examination is intended primarily for the protection and benefit of depositors and other customers of the Bank, the Deposit Insurance Fund (the DIF) of the Federal Deposit Insurance Corporation (the FDIC), the banking and financial systems as a whole, and the broader economy, not for the protection or benefit of the Company's shareholders or its non-deposit creditors.

Many of the Company's subsidiaries are also subject to separate or related forms of regulation, supervision, and examination: for example, (1) the Bank by the Office of the Comptroller of the Currency (the OCC) under the National Banking Acts, the FDIC under the Federal Deposit Insurance Act (the FDIA), and the Consumer Financial Protection Bureau (the CFPB) under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act); (2) Scout, Scout Distributors, LLC, UMBFS, UMB Distribution Services, LLC, UMB Financial Services, Inc., and Prairie Capital Management, LLC by the Securities and Exchange Commission (the SEC) and State regulatory authorities under federal and State securities laws, and UMB Distribution Services, LLC and UMB Financial Services, Inc. by the Financial Industry Regulatory Authority (FINRA); and (3) UMB Insurance, Inc. by State regulatory authorities under applicable State insurance laws. These schemes, like those overseen by the FRB, are designed to protect public or private interests that often are not aligned with those of the Company's shareholders or non-deposit creditors.

The FRB possesses extensive authorities and powers to regulate the conduct of the Company's businesses and operations. If the FRB were to take the position that the Company or any of its subsidiaries have violated any law or commitment or engaged in any unsafe or unsound practice, formal or informal corrective or enforcement actions could be taken by the FRB against the Company, its subsidiaries, and institution-affiliated parties (such as directors, officers, and agents). These enforcement actions could include an imposition of civil monetary penalties and could directly affect not only the Company, its subsidiaries, and institution-affiliated parties but also the Company's counterparties, shareholders, and creditors and its commitments, arrangements, or other dealings with them. The OCC has similarly expansive authorities and powers over the Bank and its subsidiaries, as does the CFPB over matters involving consumer financial laws. The SEC, FINRA, and other domestic or foreign government authorities also have an array of means at their disposal to regulate and enforce matters within their jurisdiction that could impact the Company's businesses and operations.

*Restrictions on Permissible Activities and Corporate Matters*

Bank holding companies and their subsidiaries, under the BHCA, are generally limited to the business of banking and to closely-related activities that are incident to banking.

As a bank holding company that has elected to become a financial holding company under the GLBA, the Company is also able directly or indirectly through its subsidiaries to engage in activities that are financial in nature, that are incidental to a financial activity, or that are complementary to a financial activity and do not pose a substantial risk to the safety or soundness of depository institutions or the financial system generally. Activities that are financial in nature include: (1) underwriting, dealing in, or making a market in securities, (2) providing financial, investment, or economic advisory services, (3) underwriting insurance, and (4) merchant banking.

The Company's ability to directly or indirectly engage in these banking and financial activities, however, is subject to conditions and other limits imposed by law or the FRB and, in some cases, requires the approval of the FRB or other government authorities. These conditions or other limits may arise due to the particular type of activity or, in other cases, may apply to the Company's business more generally. An example of the former is the substantial restrictions on the timing, amount, form, substance, interconnectedness, and management of the Company's merchant banking investments. An example of the latter is a condition that, in order for the Company to engage in broader financial

activities, its depository institutions must remain well capitalized and well managed under applicable banking laws and must receive at least a satisfactory rating under the Community Reinvestment Act (CRA).

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Under amendments to the BHCA promulgated by the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 and the Dodd-Frank Act, the Company may acquire banks outside of its home State of Missouri, subject to specified limits and may establish new branches in other States to the same extent as banks chartered in those States. Under the BHCA, however, the Company must procure the prior approval of the FRB and possibly other government authorities to directly or indirectly acquire ownership or control of five percent or more of any class of voting securities of, or substantially all of the assets of, an unaffiliated bank, savings association, or bank holding company. In deciding whether to approve any acquisition or branch, the FRB, the OCC, and other government authorities will consider public or private interests that may not be aligned with those of the Company's shareholders or non-deposit creditors. The FRB also has the power to require the Company to divest any depository institution that cannot maintain its well capitalized or well managed status.

The FRB maintains a targeted policy that requires a bank holding company to inform and consult with the staff of the FRB sufficiently in advance of (1) declaring and paying a dividend that could raise safety and soundness concerns (for example, a dividend that exceeds earnings in the period for which the dividend is being paid), (2) redeeming or repurchasing regulatory capital instruments when the holding company is experiencing financial weaknesses, or (3) redeeming or repurchasing common stock or perpetual preferred stock that would result in a net reduction as of the end of the quarter in the amount of those equity instruments outstanding compared with the beginning of the quarter in which the redemption or repurchase occurred.

*Requirements Affecting the Relationships among the Company, Its Subsidiaries, and Other Affiliates*

The Company is a legal entity separate and distinct from the Bank, Scout, UMBFS, and its other subsidiaries but receives the vast majority of its revenue in the form of dividends from those subsidiaries. Without the approval of the OCC, however, dividends payable by the Bank in any calendar year may not exceed the lesser of (1) the current year's net income combined with the retained net income of the two preceding years and (2) undivided profits. In addition, under the Basel III capital-adequacy standards described below under the heading *Capital-Adequacy Standards*, the Bank is currently required to maintain a capital conservation buffer in excess of its minimum risk-based capital ratios and will be restricted in declaring and paying dividends whenever the buffer is breached. The authorities and powers of the FRB, the OCC, and other government authorities to prevent any unsafe or unsound practice also could be employed to further limit the dividends that the Bank or the Company's other subsidiaries may declare and pay to the Company.

The Dodd-Frank Act codified the FRB's policy requiring a bank holding company like the Company to serve as a source of financial strength for its depository-institution subsidiaries and to commit resources to support those subsidiaries in circumstances when the Company might not otherwise elect to do so. The functional regulator of any nonbank subsidiary of the Company, however, may prevent that subsidiary from directly or indirectly contributing its financial support, and if that were to preclude the Company from serving as an adequate source of financial strength, the FRB may instead require the divestiture of depository-institution subsidiaries and impose operating restrictions pending such a divestiture.

A number of laws, principally Sections 23A and 23B of the Federal Reserve Act, and the FRB's Regulation W, also exist to prevent the Company and its nonbank subsidiaries from taking improper advantage of the benefits afforded to the Bank as a depository institution, including its access to federal deposit insurance and the discount window. These laws generally require the Bank and its subsidiaries to deal with the Company and its nonbank subsidiaries only on market terms and, in addition, impose restrictions on the Bank and its subsidiaries in directly or indirectly extending credit to or engaging in other covered transactions with the Company or its nonbank subsidiaries. The Dodd-Frank Act extended the restrictions to derivatives and securities lending transactions and expanded the restrictions for transactions involving hedge funds or private-equity funds that are owned or sponsored by the Company or its

nonbank subsidiaries.

In addition, under amendments to the BHCA set forth in the Dodd-Frank Act and commonly known as the Volcker Rule, the Company is subject to extensive limits on proprietary trading and on owning or sponsoring

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hedge funds and private-equity funds. The limits on proprietary trading are largely directed toward purchases or sales of financial instruments by a banking entity as principal primarily for the purpose of short-term resale, a benefit from actual or expected short-term price movements, or the realization of short-term arbitrage profits. The limits on owning or sponsoring hedge funds and private-equity funds are designed to ensure that banking entities generally maintain only small positions in managed or advised funds and are not exposed to significant losses arising directly or indirectly from them. The Volcker Rule also provides for increased capital charges, quantitative limits, rigorous compliance programs, and other restrictions on permitted proprietary trading and fund activities, including a prohibition on transactions with a covered fund that would constitute a covered transaction under Sections 23A and 23B of the Federal Reserve Act.

### *Additional Requirements under the Dodd-Frank Act*

On an annual basis, the Company and the Bank are required under the Dodd-Frank Act to conduct forward-looking, company-run stress tests as an aid to ensuring that each entity would have sufficient capital to absorb losses and support operations during adverse economic conditions. Summaries of stress-test results for the Company and the Bank are expected to be disclosed each year in the fall.

Several additional requirements under the Dodd-Frank Act and related regulations apply by their terms only to bank holding companies with consolidated assets of \$50 billion or more and systemically important nonbank financial companies. These requirements include enhanced prudential standards, submission to the comprehensive capital analysis and review, more stringent capital and liquidity requirements, stricter limits on leverage, early remediation requirements, resolution planning, single-counterparty exposure limits, increased liabilities for assessments to the FRB and the FDIC, and mandates imposed by the Financial Stability Oversight Council. While the Company and its subsidiaries are not expressly subject to these requirements, their imposition on global and super-regional institutions has resulted in heightened supervision of regional institutions like the Company by the FRB, the OCC, and other government authorities and in a more aggressive use of their extensive authorities and powers to regulate the Company's businesses and operations.

### *Capital-Adequacy Standards*

The FRB and the OCC have adopted risk-based capital and leverage guidelines that require the capital-to-assets ratios of bank holding companies and national banks, respectively, to meet specified minimum standards.

The risk-based capital ratios are based on a banking organization's risk-weighted asset amounts (RWAs), which are generally determined under the standardized approach applicable to the Company and the Bank by (1) assigning on-balance-sheet exposures to broad risk-weight categories according to the counterparty or, if relevant, the guarantor or collateral (with higher risk weights assigned to categories of exposures perceived as representing greater risk) and (2) multiplying off-balance-sheet exposures by specified credit conversion factors to calculate credit equivalent amounts and assigning those credit equivalent amounts to the relevant risk-weight categories. The leverage ratio, in contrast, is based on an institution's average on-balance-sheet exposures alone.

Prior to January 1, 2015, the Company and the Bank were subject to capital-adequacy standards that had originally been promulgated in 1989 and that are commonly known as Basel I. The Company and the Bank were required to maintain, under Basel I, a minimum total risk-based capital ratio of total qualifying capital to RWAs of 8.0%, a minimum tier 1 risk-based capital ratio of tier 1 capital to RWAs of 4.0%, and a minimum tier 1 leverage ratio of tier 1 capital to average on-balance-sheet exposures of 4.0%.

In July 2013, the FRB and the OCC issued comprehensive revisions to the capital-adequacy standards, commonly known as Basel III, to which the Company and the Bank began transitioning on January 1, 2015, with full compliance required by January 1, 2019. Basel III bolsters the quantity and quality of capital required under the capital-adequacy guidelines, in part, by (1) imposing a new minimum common-equity tier 1 risk-based capital ratio of 4.5%, (2) raising the minimum tier 1 risk-based capital ratio to 6.0%, (3) establishing a new capital conservation buffer of common-equity tier 1 capital to RWAs of 2.5%, (4) amending the definition of

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qualifying capital to be more conservative, and (5) limiting capital distributions and specified discretionary bonus payments whenever the capital conservation buffer is breached. Basel III also enhances the risk sensitivity of the standardized approach to determining a banking organization's RWAs.

The capital ratios for the Company and the Bank as of December 31, 2016, are set forth below:

	Tier 1 Leverage Ratio	Tier 1 Risk- Based Capital Ratio	Common Equity Tier 1 Capital Ratio	Total Risk-Based Capital Ratio
UMB Financial Corporation	9.09	11.80	11.80	12.87
UMB Bank, n.a.	8.24	10.73	10.73	11.36

These capital-to-assets ratios also play a central role in prompt corrective action (PCA), which is an enforcement framework used by the federal banking agencies to constrain the activities of banking organizations based on their levels of regulatory capital. Five categories have been established using thresholds for the total risk-based capital ratio, the tier 1 risk-based capital ratio, the common-equity tier 1 risk-based capital ratio, and the leverage ratio: well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized. While bank holding companies are not subject to the PCA framework, the FRB is empowered to compel a holding company to take measures such as the execution of financial or performance guarantees when prompt corrective action is required in connection with one of its depository-institution subsidiaries. At December 31, 2016, the Bank was well capitalized under the PCA framework.

Basel III includes a number of more rigorous provisions applicable only to banking organizations that are larger or more internationally active than the Company and the Bank. These include, for example, a supplementary leverage ratio incorporating off-balance-sheet exposures, a liquidity coverage ratio, and a net stable funding ratio. As with the Dodd-Frank Act, these standards may be informally applied or considered by the FRB and the OCC in their regulation, supervision, and examination of the Company and the Bank.

*Deposit Insurance and Related Matters*

The deposits of the Bank are insured by the FDIC in the standard insurance amount of \$250 thousand per depositor for each account ownership category. This insurance is funded through assessments on the Bank and other insured depository institutions. Under the Dodd-Frank Act, each institution's assessment base is determined based on its average consolidated total assets less average tangible equity and there is a scorecard method for calculating assessments that combines CAMELS ratings and specified forward-looking financial measures to determine each institution's risk to the DIF. The Dodd-Frank Act also requires the FDIC, in setting assessments, to offset the effect of increasing its reserve for the DIF on institutions with consolidated assets of less than \$10 billion. The result of this revised approach to deposit-insurance assessments is generally an increase in costs, on an absolute or relative basis, for institutions with consolidated assets of \$10 billion or more.

If an insured depository institution such as the Bank were to become insolvent or if other specified events were to occur relating to its financial condition or the propriety of its actions, the FDIC may be appointed as conservator or receiver for the institution. In that capacity, the FDIC would have the power (1) to transfer assets and liabilities of the institution to another person or entity without the approval of the institution's creditors, (2) to require that its claims process be followed and to enforce statutory or other limits on damages claimed by the institution's creditors, (3) to enforce the institution's contracts or leases according to their terms, (4) to repudiate or disaffirm the institution's

contracts or leases, (5) to seek to reclaim, recover, or recharacterize transfers of the institution's assets or to exercise control over assets in which the institution may claim an interest, (6) to enforce statutory or other injunctions, and (7) to exercise a wide range of other rights, powers, and authorities, including those that could impair the rights and interests of all or some of the institution's creditors. In addition, the administrative expenses of the conservator or receiver could be afforded priority over all or some of the claims of the institution's creditors, and under the FDIA, the claims of depositors (including the FDIC as subrogee of depositors) would enjoy priority over the claims of the institution's unsecured creditors.

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The FDIA also provides that an insured depository institution can be held liable for any loss incurred or expected to be incurred by the FDIC in connection with another commonly controlled insured depository institution that is in default or in danger of default. This cross-guarantee liability is generally superior in right of payment to claims of the institution's holding company and its affiliates.

*Other Regulatory and Supervisory Matters*

As a public company, the Company is subject to the Securities Act of 1933, as amended (the Securities Act), the Securities Exchange Act of 1934, as amended (the Exchange Act), the Sarbanes-Oxley Act of 2002, and other federal and State securities laws. In addition, because the Company's common stock is listed with The NASDAQ Stock Market LLC (NASDAQ), the Company is subject to the listing rules of that exchange.

The Currency and Foreign Transactions Reporting Act of 1970 (commonly known as the Bank Secrecy Act), the USA PATRIOT Act of 2001, and related laws require all financial institutions, including banks and broker-dealers, to establish a risk-based system of internal controls reasonably designed to prevent money laundering and the financing of terrorism. These laws include a variety of recordkeeping and reporting requirements (such as currency and suspicious activity reporting) as well as know-your-customer and due-diligence rules.

Under the CRA, the Bank has a continuing and affirmative obligation to help meet the credit needs of its local communities including low- and moderate-income neighborhoods consistent with safe and sound banking practices. The CRA does not create specific lending programs but does establish the framework and criteria by which the OCC regularly assesses the Bank's record in meeting these credit needs. The Bank's ratings under the CRA are taken into account by the FRB and the OCC when considering merger or other specified applications that the Company or the Bank may submit from time to time.

The Bank is subject as well to a vast array of consumer-protection laws, such as qualified-mortgage and other mortgage-related rules under the jurisdiction of the CFPB. Lending limits, restrictions on tying arrangements, limits on permissible interest-rate charges, and other laws governing the conduct of banking or fiduciary activities are also applicable to the Bank. In addition, the GLBA imposes on the Company and its subsidiaries a number of obligations relating to financial privacy.

**Statistical Disclosure**

The information required by Guide 3, Statistical Disclosure by Bank Holding Companies, has been included in Part II, Items 6, 7, and 7A, pages 21 through 58, of this report.

*Executive Officers of the Registrant.* The following are the executive officers of the Company, each of whom is appointed annually, and there are no arrangements or understandings between any of the executive officers and any other person pursuant to which such person was elected as an executive officer.

<b>Name</b>	<b>Age</b>	<b>Position with Registrant</b>
Anthony J. Fischer	58	Mr. Fischer was named the President of UMB Fund Services, Inc. in July 2014. Prior to that, he served UMB Fund Services Inc. as an Executive Vice President in charge of Business Development from March 2013 until June 2014 and as a Senior Vice President in Business Development from February 2008 through February 2013.

Michael D. Hagedorn      50      Mr. Hagedorn has served as Vice Chairman of the Company since October 2009 and was named President and Chief Executive Officer of the Bank in January 2014. Between March 2005 and January 2014, and then again from October 2015 until August 2016 on an interim basis, he served as Chief Financial Officer of the Company. In addition from October 2009 to January 2014, he served as Chief Administrative Officer of the Company. He previously served as Senior Vice President and Chief Financial Officer of Wells Fargo, Midwest Banking Group, from April 2001 to March 2005.

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<b>Name</b>	<b>Age</b>	<b>Position with Registrant</b>
Andrew J. Iseman	52	Mr. Iseman joined Scout as Chief Executive Officer in August 2010. From February 2009 to June 2010, he served as Chief Operating Officer of RK Capital Management. He was previously employed by Janus Capital Group from January 2003 to April 2008, most recently serving as its Executive Vice President from January 2008 to April 2008 and also as its Chief Operating Officer from May 2007 to April 2008.
Shannon A. Johnson	37	Ms. Johnson has served as Executive Vice President and Chief Human Resources Officer of the Company since April of 2015. Ms. Johnson's previous positions with the Company include Senior Vice President, Executive Director of Talent Management and Development, and Senior Vice President, Director of Talent Management. Ms. Johnson held these positions from May 2011 to April 2015, and December 2009 to May 2011, respectively.
J. Mariner Kemper	44	Mr. Kemper has served as the President of the Company since November 2015 and as the Chairman and Chief Executive Officer of the Company since May 2004. He served as the Chairman and Chief Executive Officer of the Bank between December 2012 and January 2014, and as the Chairman of UMB Bank Colorado, n.a. (a prior subsidiary of the Company) between 2000 and 2012. He was President of UMB Bank Colorado from 1997 to 2000. Mr. Kemper is the brother of Mr. Alexander C. Kemper, who currently serves on the Company's Board of Directors.
Kevin M. Macke	44	Mr. Macke has served as Executive Vice President and Director of Operations for the Bank since November 2015. In addition, beginning in January 2014 and ending in December 2015, Mr. Macke served as the Chief Financial Officer of the Bank. Prior to this time, Mr. Macke held several other positions within the Company or the Bank, including Director of Strategic Technology Initiatives with the Bank from November 2010 to January 2014, and Director of Financial Planning and Analysis with the Company from August 2005 to November 2010.
Jennifer M. Payne	40	Ms. Payne was named as Executive Vice President and Chief Risk Officer of the Company in January 2016. Prior to this time, she served the Company as Director of Corporate Risk Services and Director of Corporate Audit Services, from May 2012 to December 2015, and August 2005 to May 2012, respectively.
Ram Shankar	44	Mr. Shankar was named as Executive Vice President and Chief Financial Officer of the Company effective August 2016. From September 2011 until his employment with the Company commenced, he worked at First Niagara Financial Group, most recently serving as managing director where he headed financial planning and analysis and investor relations. Prior to that, Shankar spent time at FBR Capital Markets as a senior research analyst and at M&T Bank Corporation in the financial planning measurement and corporate finance/mergers and acquisitions group.

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<b>Name</b>	<b>Age</b>	<b>Position with Registrant</b>
John C. Pauls	52	Mr. Pauls has served as Executive Vice President and General Counsel of the Company and the Bank since June 2016. Mr. Pauls previously served as Senior Vice President and Legal Counsel and served as interim General Counsel beginning in April 2016 until he was appointed General Counsel in June 2016. He has been with UMB for over 22 years, having served as a top legal advisor for the Company and the Bank for over 15 years.
Christian R. Swett	57	Mr. Swett has served as Executive Vice President and Chief Credit Officer of the Company since January 2011. Prior to this, Mr. Swett was an Executive Vice President.
Thomas S. Terry	53	Mr. Terry has served as Executive Vice President and Chief Lending Officer of the Company since January 2011. Prior to this time, Mr. Terry served as Executive Vice President.
Brian J. Walker	45	Mr. Walker has served as Executive Vice President and Chief Accounting Officer of the Company since June 2007. He previously served as Chief Financial Officer of the Company from January 2014 to October 2015. From July 2004 to June 2007, he served as a Certified Public Accountant for KPMG LLP, where he worked primarily as an auditor for financial institutions.

The Company makes available free of charge on its website at [www.umb.com/investor](http://www.umb.com/investor), its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to such reports, as soon as reasonably practicable after it electronically files or furnishes such material with or to the SEC.

**ITEM 1A. RISK FACTORS**

Financial-services companies routinely encounter and address risks and uncertainties. In the following paragraphs, the Company describes some of the principal risks and uncertainties that could adversely affect its business, results of operations, financial condition (including capital and liquidity), or prospects or the value of or return on an investment in the Company. These risks and uncertainties, however, are not the only ones faced by the Company. Other risks and uncertainties that are not presently known to the Company, that it has failed to identify, or that it currently considers immaterial may adversely affect the Company as well. Except where otherwise noted, the risk factors address risks and uncertainties that may affect the Company as well as its subsidiaries. These risk factors should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations (which can be found in Part II, Item 7 of this report beginning on page 22) and the Notes to the Consolidated Financial Statements (which can be found in Part II, Item 8 of this report beginning on page 65).

**The levels of, or changes in, interest rates could affect the Company's business or performance.** The Company's business, results of operations, and financial condition are highly dependent on net interest income, which is the difference between interest income on earning assets (such as loans and investments) and interest expense on deposits and borrowings. Net interest income is significantly affected by market interest rates, which in turn are influenced by monetary and fiscal policies, general economic conditions, the regulatory environment, competitive pressures, and expectations about future changes in interest rates. The policies and regulations of the FRB, in particular, have a substantial impact on market interest rates. See "Government Monetary and Fiscal Policies" in Part I, Item 1 of this report beginning on page 4. The Company may be adversely affected by policies, regulations, or events that have the effect of altering the difference between long-term and short-term interest rates (commonly known as the yield curve),

depressing the interest rates associated with its earning assets to levels near the rates associated with its interest expense, or changing the spreads among different interest-rate indices. The Company's customers and counterparties also may be negatively impacted by the levels

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of, or changes in, interest rates, which could increase the risk of delinquency or default on obligations to the Company. The levels of, or changes in, interest rates, moreover, may have an adverse effect on the value of the Company's investment portfolio, which includes long-term municipal bonds with fixed interest rates, and other financial instruments, the return on or demand for loans, the prepayment speed of loans (including, without limitation, the pace of pay-downs expected or forecasted for commercial real estate and construction loans), the cost or availability of deposits or other funding sources, or the purchase or sale of investment securities. In addition, a rapid change in interest rates could result in interest expense increasing faster than interest income because of differences in the maturities of the Company's assets and liabilities. Further, if laws impacting taxation and interest rates materially change, or if new laws are enacted, certain of the Company's services and products, including municipal bonds, may be subject to less favorable tax treatment or otherwise adversely impacted. The level of, and changes in, market interest rates and, as a result, these risks and uncertainties are beyond the Company's control. The dynamics among these risks and uncertainties are also challenging to assess and manage. For example, while the highly accommodative monetary policy currently adopted by the FRB may benefit the Company to some degree by spurring economic activity among its customers, such a policy may ultimately cause the Company more harm by inhibiting its ability to grow or sustain net interest income. See **Quantitative and Qualitative Disclosures About Market Risk Interest Rate Risk** in Part II, Item 7A of this report beginning on page 51 for a discussion of how the Company monitors and manages interest-rate risk.

**Weak or deteriorating economic conditions, more liberal origination or underwriting standards, or financial or systemic shocks could increase the Company's credit risk and adversely affect its lending or other banking businesses and the value of its loans or investment securities.** The Company's business and results of operations depend significantly on general economic conditions. When those conditions are weak or deteriorating in any of the markets or regions where the Company operates, its business or performance could be adversely affected. The Company's lending and other banking businesses, in particular, are susceptible to weak or deteriorating economic conditions, which could result in reduced loan demand or utilization rates and at the same time increased delinquencies or defaults. These kinds of conditions also could dampen the demand for products and other services in the Company's investment-management, asset-servicing, insurance, brokerage, or related businesses. Increased delinquencies or defaults could result as well from the Company adopting more liberal origination or underwriting standards for extensions of credit or other dealings with its customers or counterparties. If delinquencies or defaults on the Company's loans or investment securities increase, their value and the income derived from them could be adversely affected, and the Company could incur administrative and other costs in seeking a recovery on its claims and any collateral. Weak or deteriorating economic conditions also may negatively impact the market value and liquidity of the Company's investment securities, and the Company may be required to record additional impairment charges if investment securities suffer a decline in value that is determined to be other-than-temporary. In addition, to the extent that loan charge-offs exceed estimates, an increase to the amount of provision expense related to the allowance for loan losses would reduce the Company's income. See **Quantitative and Qualitative Disclosures About Market Risk Credit Risk Management** in Part II, Item 7A of this report beginning on page 56 for a discussion of how the Company monitors and manages credit risk. A financial or systemic shock and a failure of a significant counterparty or a significant group of counterparties could negatively impact the Company, possibly to a severe degree, due to its role as a financial intermediary and the interconnectedness of the financial system.

**A meaningful part of the Company's loan portfolio is secured by real estate and, as a result, could be negatively impacted by deteriorating or volatile real-estate markets or associated environmental liabilities.** At December 31, 2016, 42.2 percent of the Company's aggregate loan portfolio comprised of commercial real-estate loans (representing 30.0 percent of the aggregate loan portfolio), construction real-estate loans (representing 7.0 percent of the aggregate loan portfolio), and residential real-estate loans (representing 5.2 percent of the aggregate loan portfolio) was primarily secured by interests in real estate predominantly located in the States where the Company

operates. Other credit extended by the Company may be secured in part by real estate as well. Real-estate values in the markets where this collateral is located may be different from, and in some instances worse than, real-estate values in other markets or in the United States as a whole and may be affected by general economic conditions and a variety of other factors outside of the control of the Company or

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its customers. Any deterioration or volatility in these real-estate markets could result in increased delinquencies or defaults, could adversely affect the value of the loans and the income to be derived from them, could give rise to unreimbursed recovery costs, and could reduce the demand for new or additional credit and related banking products and other services, all to the detriment of the Company's business and performance. In addition, if hazardous or toxic substances were found on any real estate that the Company acquires in foreclosure or otherwise, substantial liability may arise for compliance and remediation costs, personal injury, or property damage.

**Challenging business, economic, or market conditions could adversely affect the Company's fee-based banking, investment-management, asset-servicing, or other businesses.** The Company's fee-based banking, investment-management, asset-servicing, and other businesses are driven by wealth creation in the economy, robust market activity, monetary and fiscal stability, and positive investor, business, and consumer sentiment. Economic downturns, market disruptions, high unemployment or underemployment, unsustainable debt levels, depressed real-estate markets, or other challenging business, economic, or market conditions could adversely affect these businesses and their results. For example, if any of these conditions were to cause flows into or the fair value of assets held in the funds and accounts advised by Scout to weaken or decline, Scout's revenue could be negatively impacted. If the funds or other groups that are clients of UMBFS were to encounter similar difficulties, UMBFS's revenue also could suffer. The Company's bank-card revenue is driven primarily by transaction volumes in business and consumer spending that generate interchange fees, and any of these conditions could dampen those volumes. Other fee-based banking businesses that could be adversely affected include trading, asset management, custody, trust, and cash and treasury management.

**The Company's investment-management and asset-servicing businesses could be negatively impacted by declines in assets under management or administration or by shifts in the mix of assets under management or administration.** The revenues of Scout, Prairie Capital Management (PCM), and the Company's other investment-management businesses are highly dependent on advisory fee income. These businesses generally earn higher fees on equity-based or alternative investments and strategies and lower fees on fixed income investments and strategies. Advisory-fee income may be negatively impacted by an absolute decline in assets under management or by a shift in the mix of assets under management from equities or alternatives to fixed income. Such a decline or shift could be caused or influenced by any number of factors, such as underperformance in absolute or relative terms, loss of key advisers or other talent, changes in investing preferences or trends, market downturns or volatility, drops in investor confidence, reputational damage, increased competition, or general economic conditions. Any of these factors also could affect clients of UMBFS, and if this were to cause a decline in assets under administration at UMBFS or an adverse shift in the mix of those assets, the performance of UMBFS could suffer.

**To the extent that the Company continues to maintain a sizeable portfolio of available-for-sale investment securities, its income may be adversely affected and its reported equity more volatile.** As of December 31, 2016, the Company's securities portfolio totaled approximately \$7.7 billion, which represented approximately 37.2 percent of its total assets. Regulatory restrictions and the Company's investment policies generally result in the acquisition of securities with lower yields than loans. For the year-ended December 31, 2016, the weighted average yield of the Company's securities portfolio was 2.1 percent as compared to 3.9 percent for its loan portfolio. Accordingly, to the extent that the Company is unable to effectively deploy its funds to originate or acquire loans or other assets with higher yields than those of its investment securities, the Company's income may be negatively impacted. Additionally, approximately \$6.5 billion, or 84.1 percent, of the Company's investment securities are classified as available for sale and reported at fair value. Unrealized gains or losses on these securities are excluded from earnings and reported in other comprehensive income, which in turn affects the Company's reported equity. As a result, to the extent that the Company continues to maintain a significant portfolio of available-for-sale securities, its reported equity may experience greater volatility.

**The trading volume in the Company's common stock at times may be low, which could adversely affect liquidity and stock price.** Although the Company's common stock is listed for trading on the NASDAQ Global Select Market, the trading volume in the stock may at times be low and, in relative terms, less than that of

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other financial-services companies. A public trading market that is deep, liquid, and orderly depends on the presence in the marketplace of a large number of willing buyers and sellers and narrow bid-ask spreads. These market features, in turn, depend on a number of factors, such as the individual decisions of investors and general economic and market conditions, over which the Company has no control. During any period of lower trading volume in the Company's common stock, the share price could be more volatile, and the liquidity of the stock could suffer.

**The Company operates in a highly regulated industry, and its business or performance could be adversely affected by the legal, regulatory and supervisory frameworks applicable to it, changes in those frameworks, and other legal and regulatory risks and uncertainties.** The Company is subject to expansive legal and regulatory frameworks in the United States at the federal, State, and local levels and in the foreign jurisdictions where its business segments operate. In addition, the Company is subject to the direct supervision of government authorities charged with overseeing the kinds of financial activities conducted by its business segments. These legal, regulatory, and supervisory frameworks are often designed to protect public or private interests that differ from the interests of the Company's shareholders or non-deposit creditors. See "Regulation and Supervision" in Part I, Item 1 of this report beginning on page 4. In the wake of the recent global economic crisis, moreover, government scrutiny of all financial-services companies has been amplified, fundamental changes have been made to the banking, securities, and other laws that govern financial services (with the Dodd-Frank Act and Basel III being two of the more prominent examples), and a host of related business practices have been reexamined and reshaped. As a result, the Company expects to continue devoting increased time and resources to risk management, compliance, and regulatory change management. Risks also exist that government authorities could judge the Company's business or other practices as unsafe, unsound, or otherwise unadvisable and bring formal or informal corrective or enforcement actions against it, including fines or other penalties and directives to change its products or other services. For practical or other reasons, the Company may not be able to effectively defend itself against these actions, and they in turn could give rise to litigation by private plaintiffs. Further, if the laws, rules, and regulations affecting the Company become materially more restrictive, including any changes that would negatively impact the tax treatment of the Company, or its products and services, the Company may be adversely impacted. All of these and other regulatory risks and uncertainties could adversely affect the Company's reputation, business, results of operations, financial condition, or prospects.

**Regulatory or supervisory requirements, future growth, operating results, or strategic plans may prompt the Company to raise additional capital, but that capital may not be available at all or on favorable terms and, if raised, may be dilutive.** The Company is subject to safety-and-soundness and capital-adequacy standards under applicable law and to the direct supervision of government authorities. See "Regulation and Supervision" in Part I, Item 1 of this report beginning on page 4. If the Company is not or is at risk of not satisfying these standards or applicable supervisory requirements—whether due to inadequate operating results that erode capital, future growth that outpaces the accumulation of capital through earnings, or otherwise—the Company may be required to raise capital or limit originations of certain types of commercial and mortgage loans. If the Company is required to limit originations of certain types of commercial and mortgage loans, it would thereby reduce the amount of credit available to borrowers and limit opportunities to earn interest income from the loan portfolio. The Company also may be compelled to raise capital if regulatory or supervisory requirements change. In addition, the Company may elect to raise capital for strategic reasons even when it is not required to do so. The Company's ability to raise capital on favorable terms or at all will depend on general economic and market conditions, which are outside of its control, and on the Company's operating and financial performance. Accordingly, the Company cannot be assured of its ability to raise capital when needed or on favorable terms. An inability to raise capital when needed or on favorable terms could damage the performance and value of its business, prompt regulatory intervention, and harm its reputation, and if the condition were to persist for any appreciable period of time, its viability as a going concern could be threatened. If the Company is able to raise capital and does so by issuing common shares or convertible securities, the ownership interest of our existing shareholders could be diluted, and the market price of our common shares could decline.



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**The market price of the Company's common stock could be adversely impacted by banking, antitrust, or corporate laws that have or are perceived as having an anti-takeover effect.** Banking and antitrust laws, including associated regulatory-approval requirements, impose significant restrictions on the acquisition of direct or indirect control over any bank holding company, including the Company. Acquisition of ten percent or more of any class of voting stock of a bank holding company or depository institution, including shares of our common stock, generally creates a rebuttable presumption that the acquirer controls the bank holding company or depository institution. Also, a bank holding company must obtain the prior approval of the Federal Reserve before, among other things, acquiring direct or indirect ownership or control of more than 5 percent of the voting shares of any bank, including our bank.

In addition, a non-negotiated acquisition of control over the Company may be inhibited by provisions of the Company's restated articles of incorporation and bylaws that have been adopted in conformance with applicable corporate law, such as the ability to issue shares of preferred stock and to determine the rights, terms, conditions and privileges of such preferred stock without shareholder approval. If any of these restrictions were to operate or be perceived as operating to hinder or deter a potential acquirer for the Company, the market price of the Company's common stock could suffer.

**The Company's business relies on systems, employees, service providers, and counterparties, and failures or errors by any of them or other operational risks could adversely affect the Company.** The Company engages in a variety of businesses in diverse markets and relies on systems, employees, service providers, and counterparties to properly oversee, administer, and process a high volume of transactions. This gives rise to meaningful operational risk including the risk of fraud by employees or outside parties, unauthorized access to its premises or systems, errors in processing, failures of technology, breaches of internal controls or compliance safeguards, inadequate integration of acquisitions, human error, and breakdowns in business continuity plans. Significant financial, business, reputational, regulatory, or other harm could come to the Company as a result of these or related risks and uncertainties. For example, the Company could be negatively impacted if financial, accounting, data-processing, or other systems were to fail or not fully perform their functions. The Company also could be adversely affected if key personnel or a significant number of employees were to become unavailable due to a pandemic, natural disaster, war, act of terrorism, accident, or other reason. These same risks arise as well in connection with the systems and employees of the service providers and counterparties on whom the Company depends as well as their own third-party service providers and counterparties. See **Quantitative and Qualitative Disclosures About Market Risk** **Operational Risk** in Part II, Item 7A of this report beginning on page 58 for a discussion of how the Company monitors and manages operational risk.

**Cyber incidents and other security breaches at the Company, at its service providers or counterparties, or in the business community or markets may negatively impact the Company's business or performance.** In the ordinary course of its business, the Company collects, stores, and transmits sensitive, confidential, or proprietary data and other information, including intellectual property, business information, funds-transfer instructions, and the personally identifiable information of its customers and employees. The secure processing, storage, maintenance, and transmission of this information is critical to the Company's operations and reputation, and if any of this information were mishandled, misused, improperly accessed, lost, or stolen or if the Company's operations were disrupted, the Company could suffer significant financial, business, reputational, regulatory, or other damage. For example, despite security measures, the Company's information technology and infrastructure may be breached through cyber-attacks, computer viruses or malware, pretext calls, electronic phishing, or other means. These risks and uncertainties are rapidly evolving and increasing in complexity, and the Company's failure to effectively mitigate them could negatively impact its business and operations.

Service providers and counterparties also present a source of risk to the Company if their own security measures or other systems or infrastructure were to be breached or otherwise fail. Likewise, a cyber-attack or other security breach

affecting the business community, the markets, or parts of them may cycle or cascade through the financial system and adversely affect the Company or its service providers or counterparties. Many of these risks and uncertainties are beyond the Company's control.

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Even when an attempted cyber incident or other security breach is successfully avoided or thwarted, the Company may need to expend substantial resources in doing so, may be required to take actions that could adversely affect customer satisfaction or behavior, and may be exposed to reputational damage. If a breach were to occur, moreover, the Company could be exposed to contractual claims, regulatory actions, and litigation by private plaintiffs, and would additionally suffer reputational harm. Despite the Company's efforts to safeguard the integrity of systems and controls and to manage third-party risk, the Company may not be able to anticipate or implement effective measures to prevent all security breaches or all risks to the sensitive, confidential, or proprietary information that it or its service providers or counterparties collect, store, or transmit.

**The Company is heavily reliant on technology, and a failure or delay in effectively implementing technology initiatives or anticipating future technology needs or demands could adversely affect the Company's business or performance.** Like most financial-services companies, the Company significantly depends on technology to deliver its products and other services and to otherwise conduct business. To remain technologically competitive and operationally efficient, the Company invests in system upgrades, new solutions, and other technology initiatives. Many of these initiatives have a significant duration, are tied to critical systems, and require substantial internal and external resources. Although the Company takes steps to mitigate the risks and uncertainties associated with these initiatives, there is no guarantee that they will be implemented on time, within budget, or without negative operational or customer impact. The Company also may not succeed in anticipating its future technology needs, the technology demands of its customers, or the competitive landscape for technology. In addition, the Company relies upon the expertise and support of service providers to help implement, maintain and/or service certain of its core technology solutions. If the Company cannot effectively manage these service providers, the service parties fail to materially perform, or the Company was to falter in any of the other noted areas, its business or performance could be negatively impacted.

**Negative publicity outside of the Company's control, or its failure to successfully manage issues arising from its conduct or in connection with the financial-services industry generally, could damage the Company's reputation and adversely affect its business or performance.** The performance and value of the Company's business could be negatively impacted by any reputational harm that it may suffer. This harm could arise from negative publicity outside of its control or its failure to adequately address issues arising from its conduct or in connection with the financial-services industry generally. Risks to the Company's reputation could arise in any number of contexts—for example, continuing government responses to the recent global economic crisis, cyber incidents and other security breaches, mergers and acquisitions, lending or investment-management practices, actual or potential conflicts of interest, failures to prevent money laundering, and corporate governance.

**The Company faces intense competition from other financial-services and financial-services technology companies, and competitive pressures could adversely affect the Company's business or performance.** The Company faces intense competition in each of its business segments and in all of its markets and geographic regions, and the Company expects competitive pressures to intensify in the future—especially in light of legislative and regulatory initiatives arising out of the recent global economic crisis, technological innovations that alter the barriers to entry, current economic and market conditions, and government monetary and fiscal policies. Competition with financial-services technology companies, or technology companies partnering with financial-services companies, may be particularly intense, due to, among other things, differing regulatory environments. See "Competition" in Part I, Item 1 of this report beginning on page 3. Competitive pressures may drive the Company to take actions that the Company might otherwise eschew, such as lowering the interest rates or fees on loans or raising the interest rates on deposits in order to keep or attract high-quality customers. These pressures also may accelerate actions that the Company might otherwise elect to defer, such as substantial investments in technology or infrastructure. Whatever the reason, actions that the Company takes in response to competition may adversely affect its results of operations and financial condition. These consequences could be exacerbated if the Company is not successful in introducing new products

and other services, achieving market acceptance of its products and other services, developing and maintaining a strong customer base, or prudently managing expenses.

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**The Company's risk-management and compliance programs or functions may not be effective in mitigating risk and loss.** The Company maintains an enterprise risk-management program that is designed to identify, quantify, monitor, report, and control the risks that it faces. These include interest-rate risk, credit risk, liquidity risk, market risk, operational risk, reputational risk, and compliance risk. The Company also maintains a compliance program to identify, measure, assess, and report on its adherence to applicable law, policies, and procedures. While the Company assesses and improves these programs on an ongoing basis, there can be no assurance that its frameworks or models for risk management, compliance, and related controls will effectively mitigate risk and limit losses in its business. If conditions or circumstances arise that expose flaws or gaps in the Company's risk-management or compliance programs or if its controls break down, the performance and value of the Company's business could be adversely affected. The Company could be negatively impacted as well if, despite adequate programs being in place, its risk-management or compliance personnel are ineffective in executing them and mitigating risk and loss.

**Liquidity is essential to the Company and its business or performance could be adversely affected by constraints in, or increased costs for, funding.** The Company defines liquidity as the ability to fund increases in assets and meet obligations as they come due, all without incurring unacceptable losses. Banks are especially vulnerable to liquidity risk because of their role in the maturity transformation of demand or short-term deposits into longer-term loans or other extensions of credit. The Company, like other financial-services companies, relies to a significant extent on external sources of funding (such as deposits and borrowings) for the liquidity needed to conduct its business. A number of factors beyond the Company's control, however, could have a detrimental impact on the availability or cost of that funding and thus on its liquidity. These include market disruptions, changes in its credit ratings or the sentiment of its investors, the state of the regulatory environment and monetary and fiscal policies, declines in the value of its investment securities, the loss of substantial deposit relationships, financial or systemic shocks, significant counterparty failures, and reputational damage. Unexpected declines or limits on the dividends declared and paid by the Company's subsidiaries also could adversely affect its liquidity position. While the Company's policies and controls are designed to ensure that it maintains adequate liquidity to conduct its business in the ordinary course even in a stressed environment, there can be no assurance that its liquidity position will never become compromised. In such an event, the Company may be required to sell assets at a loss in order to continue its operations. This could damage the performance and value of its business, prompt regulatory intervention, and harm its reputation, and if the condition were to persist for any appreciable period of time, its viability as a going concern could be threatened. See "Quantitative and Qualitative Disclosures About Market Risk—Liquidity Risk" in Part II, Item 7A of this report beginning on page 57 for a discussion of how the Company monitors and manages liquidity risk.

**If the Company's subsidiaries are unable to make dividend payments or distributions to the Company, it may be unable to satisfy its obligations to counterparties or creditors or make dividend payments to its shareholders.** The Company is a legal entity separate and distinct from its bank and nonbank subsidiaries and depends on dividend payments and distributions from those subsidiaries to fund its obligations to counterparties and creditors and its dividend payments to shareholders. See "Regulation and Supervision—Requirements Affecting the Relationships among the Company, Its Subsidiaries, and Other Affiliates" in Part I, Item 1 of this report beginning on page 6. Any of the Company's subsidiaries, however, may be unable to make dividend payments or distributions to the Company, including as a result of a deterioration in the subsidiary's performance, investments in the subsidiary's own future growth, or regulatory or supervisory requirements. If any subsidiary were unable to remain viable as a going concern, moreover, the Company's right to participate in a distribution of assets would be subject to the prior claims of the subsidiary's creditors (including, in the case of the Bank, its depositors and the FDIC).

**An inability to attract, retain, or motivate qualified employees could adversely affect the Company's business or performance.** Skilled employees are the Company's most important resource, and competition for talented people is intense. Even though compensation is among the Company's highest expenses, it may not be able to locate and hire the best people, keep them with the Company, or properly motivate them to perform at a high level. Recent scrutiny of

compensation practices, especially in the financial-services industry, has made this

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only more difficult. In addition, some parts of the Company's business are particularly dependent on key personnel, including investment management, asset servicing, and commercial lending. If the Company were to lose and find itself unable to replace these personnel or other skilled employees or if the competition for talent drove its compensation costs to unsustainable levels, the Company's business, results of operations, and financial condition could be negatively impacted.

**The Company is subject to a variety of litigation and other proceedings, which could adversely affect its business or performance.** The Company is involved from time to time in a variety of judicial, alternative-dispute, and other proceedings arising out of its business or operations. The Company establishes reserves for claims when appropriate under generally accepted accounting principles, but costs often can be incurred in connection with a matter before any reserve has been created. The Company also maintains insurance policies to mitigate the cost of litigation and other proceedings, but these policies have deductibles, limits, and exclusions that may diminish their value or efficacy. Despite the Company's efforts to appropriately reserve for claims and insure its business and operations, the actual costs associated with resolving a claim may be substantially higher than amounts reserved or covered. Substantial legal claims, even if not meritorious, could have a detrimental impact on the Company's business, results of operations, and financial condition and could cause reputational harm.

**Changes in accounting standards could impact the Company's financial statements and reported earnings.** Accounting standard-setting bodies, such as the Financial Accounting Standards Board, periodically change the financial accounting and reporting standards that affect the preparation of the Company's Consolidated Financial Statements. These changes are beyond the Company's control and could have a meaningful impact on its Consolidated Financial Statements.

**The Company's selection of accounting methods, assumptions, and estimates could impact its financial statements and reported earnings.** To comply with generally accepted accounting principles, management must sometimes exercise judgment in selecting, determining, and applying accounting methods, assumptions, and estimates. This can arise, for example, in the determination of the allowance for loan losses, the calculation of deferred tax assets, the evaluation of goodwill for potential impairments, or the determination of the fair value of assets or liabilities. Furthermore, accounting methods, assumptions and estimates are part of acquisition purchase accounting and the calculation of the fair value of assets and liabilities that have been purchased, including credit-impaired loans. The judgments required of management can involve difficult, subjective, or complex matters with a high degree of uncertainty, and several different judgments could be reasonable under the circumstances and yet result in significantly different results being reported. See "Critical Accounting Policies and Estimates" in Part II, Item 7 of this report beginning on page 48. If management's judgments are later determined to have been inaccurate, the Company may experience unexpected losses that could be substantial.

**The Company's ability to successfully make opportunistic acquisitions is subject to significant risks, including the risk that government authorities will not provide the requisite approvals, the risk that integrating acquisitions may be more difficult, costly, or time consuming than expected, and the risk that the value of acquisitions may be less than anticipated.** The Company may make opportunistic acquisitions of other financial-services companies or businesses from time to time. These acquisitions may be subject to regulatory approval, and there can be no assurance that the Company will be able to obtain that approval in a timely manner or at all. Even when the Company is able to obtain regulatory approval, the failure of other closing conditions to be satisfied or waived could delay the completion of an acquisition for a significant period of time or prevent it from occurring altogether. Any failure or delay in closing an acquisition could adversely affect the Company's reputation, business, results of operations, financial condition, or prospects.

Additionally, acquisitions involve numerous risks and uncertainties, including lower-than-expected performance or higher-than-expected costs, difficulties related to integration, diversion of management's attention from other business activities, changes in relationships with customers or counterparties, and the potential loss of key employees. An acquisition also could be dilutive to the Company's current shareholders if its common stock were issued to fully or partially pay or fund the purchase price. The Company, moreover, may

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not be successful in identifying acquisition candidates, integrating acquired companies or businesses, or realizing the expected value from acquisitions. There is significant competition for valuable acquisition targets, and the Company may not be able to acquire other companies or businesses on attractive terms or at all. There can be no assurance that the Company will pursue future acquisitions, and the Company's ability to grow and successfully compete in its markets and regions may be impaired if it chooses not to pursue or is unable to successfully complete acquisitions.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

There are no unresolved comments from the staff of the SEC required to be disclosed herein as of the date of this report.

**ITEM 2. PROPERTIES**

The Company's headquarters building, the UMB Bank Building, is located at 1010 Grand Boulevard in downtown Kansas City, Missouri, and opened in July 1986. All 250,000 square feet is occupied by departments and customer service functions of the Bank, as well as offices of the Company.

Other main facilities of the Bank in downtown Kansas City, Missouri are located at 928 Grand Boulevard (185,000 square feet); 906 Grand Boulevard (140,000 square feet); and 1008 Oak Street (180,000 square feet). Both the 928 Grand and 906 Grand buildings house backroom support functions. The 928 Grand building also houses Scout. Additionally, within the 906 Grand building there is 8,000 square feet of space leased to several small tenants. The 928 Grand building underwent a major renovation during 2004 and 2005. The 928 Grand building is connected to the UMB Bank Building (1010 Grand) by an enclosed elevated pedestrian walkway. The 1008 Oak building, which opened during the second quarter of 1999, houses the Company's operations and data processing functions.

The Bank leases 52,000 square feet in the Hertz Building located in the heart of the commercial sector of downtown St. Louis, Missouri. This location has a full-service banking center and is home to some operational and administrative support functions. The Bank also leases 30,000 square feet on the first, second, third, and fifth floors of the 1670 Broadway building located in the financial district of downtown Denver, Colorado. The location has a full-service banking center and is home to additional operational and administrative support functions.

As of December 31, 2016, the Bank operated a total of 106 banking centers and three wealth management offices.

UMBFS leases 88,944 square feet at 235 West Galena Street in Milwaukee, Wisconsin, for its fund services operations headquarters. Additionally, UMBFS leases 37,300 square feet at 2225 Washington Boulevard in Ogden, Utah, and 6,302 square feet in 223 Wilmington West Chester Pike in Chadds Ford, Pennsylvania.

Additional information with respect to properties, premises and equipment is presented in Note 1, Summary of Significant Accounting Policies, and Note 8, Premises and Equipment, in the Notes to the Consolidated Financial Statements in Item 8, pages 67 and 89 of this report.

**ITEM 3. LEGAL PROCEEDINGS**

In the normal course of business, the Company and its subsidiaries are named defendants in various legal proceedings. In the opinion of management, after consultation with legal counsel, none of these proceedings are expected to have a

material effect on the financial position, results of operations, or cash flows of the Company.

**ITEM 4. *MINE SAFETY DISCLOSURES***

Not applicable.

**Table of Contents****PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

The Company's common stock is traded on the NASDAQ Global Select Stock Market under the symbol UMBF. As of February 16, 2017, the Company had 2,430 shareholders of record. Information regarding the Company's common stock for each quarterly period within the two most recent fiscal years is set forth in the table below.

Per Share	Three Months Ended			
	March 31	June 30	Sept 30	Dec 31
<b>2016</b>				
Dividend	\$0.245	\$ 0.245	\$ 0.245	\$ 0.255
Book value	39.38	40.44	40.86	39.51
Market price:				
High	53.89	58.89	61.24	81.11
Low	39.55	48.49	50.60	58.71
Close	51.63	53.21	59.45	77.12

Per Share	Three Months Ended			
	March 31	June 30	Sept 30	Dec 31
<b>2015</b>				
Dividend	\$ 0.235	\$ 0.235	\$ 0.235	\$ 0.245
Book value	36.76	37.68	38.56	38.34
Market price:				
High	57.32	58.84	58.44	54.87
Low	47.26	49.41	47.03	45.14
Close	52.89	57.02	50.81	46.55

Information concerning restrictions on the ability of the Company to pay dividends and the Company's subsidiaries to transfer funds to the Company is presented in Item 1, page 6 and Note 10, Regulatory Requirements, in the Notes to the Consolidated Financial Statements provided in Item 8, pages 92 and 93 of this report. Information concerning securities the Company issued under its equity compensation plans is contained in Item 12, pages 119 and 120 and in Note 11, Employee Benefits, in the Notes to the Consolidated Financial Statements provided in Item 8, pages 94 through 97 of this report.

**Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

The following table provides information about share repurchase activity by the Company during the quarter ended December 31, 2016:

**ISSUER PURCHASES OF EQUITY SECURITIES**

Period	Total Number of	Average Price	Total Number of Shares Purchased as	Maximum Number of Shares that May
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		<b>Shares Purchased</b>	<b>Paid per Share</b>	<b>Part of Publicly Announced Plans or Programs</b>	<b>Yet Be Purchased Under the Plans or Programs</b>
October 1	October 31, 2016	655	\$ 60.96	655	1,976,415
November 1	November 30, 2016	23,842	70.12	23,842	1,952,573
December 1	December 31, 2016	5,937	78.54	5,937	1,946,636
Total		30,434	\$ 71.57	30,434	

On April 26, 2016, the Company announced a plan to repurchase up to two million shares of common stock. This plan will terminate on April 25, 2017. The Company has not made any repurchases other than through this plan. All open market share purchases under the share repurchase plans are intended to be within the scope of Rule 10b-18 promulgated under the Exchange Act.

**Table of Contents****ITEM 6. SELECTED FINANCIAL DATA**

For a discussion of factors that may materially affect the comparability of the information below, please see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, pages 22 through 51, of this report.

**FIVE-YEAR FINANCIAL SUMMARY**

(in thousands except per share data)

As of and for the years ended December 31,

	2016	2015	2014	2013	2012
<b>EARNINGS</b>					
Interest income	\$ 523,031	\$ 430,681	\$ 363,871	\$ 348,341	\$ 339,685
Interest expense	27,708	18,614	13,816	15,072	19,629
Net interest income	495,323	412,067	350,055	333,269	320,056
Provision for loan losses	32,500	15,500	17,000	17,500	17,500
Noninterest income	476,075	466,454	498,688	491,833	458,122
Noninterest expense	731,894	703,736	665,680	623,204	589,669
Net income	158,801	116,073	120,655	133,965	122,717
<b>AVERAGE BALANCES</b>					
Assets	\$ 19,592,685	\$ 17,786,442	\$ 15,998,893	\$ 15,030,762	\$ 13,389,192
Loans and loans held for sale	9,992,874	8,425,107	6,975,338	6,221,318	5,251,278
Total investment securities	7,665,012	7,330,246	7,053,837	7,034,542	6,528,523
Interest-bearing due from banks	410,163	664,752	843,134	663,818	547,817
Deposits	15,338,741	14,078,290	12,691,273	11,930,318	10,521,658
Long-term debt	81,905	58,571	6,059	4,748	5,879
Shareholders' equity	1,983,749	1,805,856	1,599,765	1,337,107	1,258,284
<b>YEAR-END BALANCES</b>					
Assets	\$ 20,682,532	\$ 19,094,245	\$ 17,500,960	\$ 16,911,852	\$ 14,927,196
Loans and loans held for sale	10,545,662	9,431,350	7,466,418	6,521,869	5,690,626
Total investment securities	7,690,108	7,568,870	7,285,667	7,051,127	7,134,316
Interest-bearing due from banks	715,823	522,877	1,539,386	2,093,467	720,500
Deposits	16,570,614	15,092,752	13,616,859	13,640,766	11,653,365
Long-term debt	76,772	86,070	8,810	5,055	5,879
Shareholders' equity	1,962,384	1,893,694	1,643,758	1,506,065	1,279,345
<b>PER SHARE DATA</b>					
Earnings - basic	\$ 3.25	\$ 2.46	\$ 2.69	\$ 3.25	\$ 3.07
Earnings - diluted	3.22	2.44	2.65	3.20	3.04

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Cash dividends	0.99	0.95	0.91	0.87	0.83
Dividend payout ratio	30.46%	38.62%	33.83%	26.77%	27.04%
Book value	\$ 39.51	\$ 38.34	\$ 36.10	\$ 33.30	\$ 31.71
Market price					
High	81.11	58.84	68.27	65.44	52.61
Low	39.55	45.14	51.87	43.27	37.68
Close	77.12	46.55	56.89	64.28	43.82
Return on average assets	0.81%	0.65%	0.75%	0.89%	0.92%
Return on average equity	8.01	6.43	7.54	10.02	9.75
Average equity to average assets	10.12	10.15	10.00	8.90	9.40
Total risk-based capital ratio	12.87	12.80	14.04	14.43	11.92

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**ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

This Management's Discussion and Analysis highlights the material changes in the results of operations and changes in financial condition for each of the three years in the period ended December 31, 2016. It should be read in conjunction with the accompanying Consolidated Financial Statements, Notes to Consolidated Financial Statements, and other financial statistics appearing elsewhere in this Annual Report on Form 10-K. Results of operations for the periods included in this review are not necessarily indicative of results to be attained during any future period.

**CAUTIONARY NOTICE ABOUT FORWARD-LOOKING STATEMENTS**

From time to time the Company has made, and in the future will make, forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as believe, expect, anticipate, intend, estimate, project, outlook, forecast, target, trend, plan, goal, or other meaning or future-tense or conditional verbs such as may, will, should, would, or could. Forward-looking statements convey the Company's expectations, intentions, or forecasts about future events, circumstances, results, or aspirations.

This report, including any information incorporated by reference in this report, contains forward-looking statements. The Company also may make forward-looking statements in other documents that are filed or furnished with the SEC. In addition, the Company may make forward-looking statements orally or in writing to investors, analysts, members of the media, or others.

All forward-looking statements, by their nature, are subject to assumptions, risks, and uncertainties, which may change over time and many of which are beyond the Company's control. You should not rely on any forward-looking statement as a prediction or guarantee about the future. Actual future objectives, strategies, plans, prospects, performance, conditions, or results may differ materially from those set forth in any forward-looking statement. While no list of assumptions, risks, or uncertainties could be complete, some of the factors that may cause actual results or other future events, circumstances, or aspirations to differ from those in forward-looking statements include:

local, regional, national, or international business, economic, or political conditions or events;

changes in laws or the regulatory environment, including as a result of recent financial-services legislation or regulation;

changes in monetary, fiscal, or trade laws or policies, including as a result of actions by central banks or supranational authorities;

changes in accounting standards or policies;

shifts in investor sentiment or behavior in the securities, capital, or other financial markets, including changes in market liquidity or volatility or changes in interest or currency rates;

changes in spending, borrowing, or saving by businesses or households;

the Company's ability to effectively manage capital or liquidity or to effectively attract or deploy deposits;

changes in any credit rating assigned to the Company or its affiliates;

adverse publicity or other reputational harm to the Company;

changes in the Company's corporate strategies, the composition of its assets, or the way in which it funds those assets;

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the Company's ability to develop, maintain, or market products or services or to absorb unanticipated costs or liabilities associated with those products or services;

the Company's ability to innovate to anticipate the needs of current or future customers, to successfully compete in its chosen business lines, to increase or hold market share in changing competitive environments, or to deal with pricing or other competitive pressures;

changes in the credit, liquidity, or other condition of the Company's customers, counterparties, or competitors;

the Company's ability to effectively deal with economic, business, or market slowdowns or disruptions;

judicial, regulatory, or administrative investigations, proceedings, disputes, or rulings that create uncertainty for, or are adverse to, the Company or the financial-services industry;

the Company's ability to address stricter or heightened regulatory or other governmental supervision or requirements;

the Company's ability to maintain secure and functional financial, accounting, technology, data processing, or other operating systems or facilities, including its capacity to withstand cyber-attacks;

the adequacy of the Company's corporate governance, risk-management framework, compliance programs, or internal control over financial reporting, including its ability to control lapses or deficiencies in financial reporting or to effectively mitigate or manage operational risk;

the efficacy of the Company's methods or models in assessing business strategies or opportunities or in valuing, measuring, monitoring, or managing positions or risk;

the Company's ability to keep pace with changes in technology that affect the Company or its customers, counterparties, or competitors;

mergers or acquisitions, including the Company's ability to integrate acquisitions;

the adequacy of the Company's succession planning for key executives or other personnel;

the Company's ability to grow revenue, control expenses, or attract or retain qualified employees;

natural or man-made disasters, calamities, or conflicts, including terrorist events; or

other assumptions, risks, or uncertainties described in the Risk Factors (Item 1A), Management's Discussion and Analysis of Financial Condition and Results of Operations (Item 7), or the Notes to the Consolidated Financial Statements (Item 8) in this Annual Report on Form 10-K or described in any of the Company's annual, quarterly or current reports.

Any forward-looking statement made by the Company or on its behalf speaks only as of the date that it was made. The Company does not undertake to update any forward-looking statement to reflect the impact of events, circumstances, or results that arise after the date that the statement was made, except as required by applicable securities laws. You, however, should consult further disclosures (including disclosures of a forward-looking nature) that the Company may make in any subsequent Annual Report on Form 10-K, Quarterly Report on Form 10-Q, or Current Report on Form 8-K.

### ***Results of Operations***

#### **Overview**

The Company focuses on the following four core strategic objectives. Management believes these strategic objectives will guide its efforts to achieving its vision, to deliver the unparalleled customer experience, all the while seeking to improve net income and strengthen the balance sheet while undertaking prudent risk management.

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The first strategic objective is a focus to continuously improve operating efficiencies. The Company has recently focused on identifying efficiencies that simplify our organizational and reporting structures, streamline back office functions and take advantage of synergies and newer technologies among various platforms and distribution networks. During 2015, the Company identified a total of \$32.9 million in annualized savings related to the elimination of employee positions and business process improvements. At December 31, 2016, all but \$3 million of these savings had been recognized, which decelerated the growth rate of the Company's operating expenses. The remainder of such savings is expected to be phased in throughout 2017. In addition, the Company has and expects to continue identifying ongoing efficiencies through the normal course of business that, when combined with increased revenue, will contribute to improved operating leverage. During 2016, total revenue increased 10.6 percent, while noninterest expense increased 4.0 percent. As part of this initiative, the Company continues to invest in technological advances that it believes will help management drive operating leverage in the future through improved data analysis and automation. The Company also continues to evaluate core systems and will invest in enhancements that it believes will yield operating efficiencies.

The second strategic objective is a focus on net interest income through profitable loan and deposit growth and the optimization of the balance sheet. During 2016, we made progress on this strategy, as illustrated by an increase in net interest income of \$83.3 million, or 20.2 percent, from the previous year. The Company has continued to show increased net interest income in a historically low interest rate environment through the effects of increased volume and mix of average earning assets and a low cost of funds in its Consolidated Balance Sheets. In addition, on May 31, 2015 (the Acquisition Date), the Company acquired all of the outstanding common stock of Marquette Financial Companies (Marquette). Information related to the acquisition is set forth in Note 15, Acquisitions, in the Notes to the Consolidated Financial Statements, which can be found in Part II, Item 8, pages 101 through 103 of this report. The Marquette acquisition added earning assets with an acquired value of \$1.2 billion to the Company's Consolidated Balance Sheets. Average earning assets at December 31, 2016, increased \$1.8 billion, or 10.7 percent from December 31, 2015. The funding for these assets was driven primarily by a 17.6 percent increase in average interest-bearing liabilities. Average loan balances increased \$1.6 billion, or 18.6 percent compared to the same period in 2015. Net interest margin, on a tax-equivalent basis, increased 24 basis points compared to the same period in 2015.

The third strategic objective is to grow the Company's revenue from noninterest sources. The Company has continued to emphasize its diverse operations throughout all economic cycles. This strategy has provided revenue diversity, helping to reduce the impact of sustained low interest rates and position the Company to benefit in periods of growth. During 2016, noninterest income increased \$9.6 million, or 2.1 percent, to \$476.1 million for the year ended December 31, 2016, compared to the same period in 2015. This change is discussed in greater detail below under Noninterest income. The Company continues to emphasize its asset management, brokerage, bankcard services, healthcare services, institutional banking, and treasury management businesses. At December 31, 2016, noninterest income represented 49.0 percent of total revenues, compared to 53.1 percent at December 31, 2015.

The fourth strategic objective is a focus on capital management. The Company places a significant emphasis on maintaining a strong capital position, which management believes promotes investor confidence, provides access to funding sources under favorable terms, and enhances the Company's ability to capitalize on organic growth, new business development, and acquisition opportunities. The Company continues to maximize shareholder value through a mix of reinvesting in organic growth, evaluating acquisition opportunities that complement the strategies, increasing dividends over time, and appropriately utilizing a share repurchase program. At December 31, 2016, the Company had a total risk-based capital ratio of 12.87 percent and \$2.0 billion in total shareholders' equity, an increase of \$68.7 million, or 3.6 percent, compared to total shareholders' equity at December 31, 2015. The Company repurchased 323,058 shares of common stock at an average price of \$50.66 per share during 2016 and paid \$49.0 million in dividends, which represents a 6.6 percent increase compared to dividends paid during 2015.



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**Table of Contents****Earnings Summary**

The Company recorded consolidated net income of \$158.8 million for the year-ended December 31, 2016. This represents a 36.8 percent increase over 2015. Net income for 2015 was \$116.1 million, or a decrease of 3.8 percent compared to 2014. Basic earnings per share for the year ended December 31, 2016, were \$3.25 per share compared to \$2.46 per share in 2015, an increase of 32.1 percent. Basic earnings per share were \$2.69 per share in 2014, or a decrease of 8.6 percent from 2014 to 2015. Fully diluted earnings per share increased 32.0 percent from 2015 to 2016, and decreased 7.9 percent from 2014 to 2015.

The Company's net interest income increased to \$495.3 million in 2016 compared to \$412.1 million in 2015 and \$350.1 million in 2014. In total, a favorable volume variance coupled with a favorable rate variance, resulted in an \$83.3 million increase in net interest income in 2016, compared to 2015. See Table 2 on page 28. The favorable volume variance on earning assets was predominantly driven by the increase in average loan balances of \$1.6 billion, or 18.6 percent, for 2016 compared to the same period in 2015. Net interest margin, on a tax-equivalent basis, increased to 2.88 percent for 2016, compared to 2.64 percent for the same period in 2015. The Marquette acquisition added earning assets with an acquired value of \$1.2 billion primarily from loan balances with an acquired value of \$980.4 million at May 31, 2015. Marquette also added interest-bearing liabilities with an acquired value of \$910.8 million primarily from interest-bearing deposits of \$708.7 million at May 31, 2015. Despite the current low interest rate environment, the Company continues to see benefit from interest-free funds. The impact of this benefit increased one basis point compared to 2015 and is illustrated on Table 3 on page 29. The current economic environment has made it difficult to anticipate the future of the Company's margins. The magnitude and duration of this impact will be largely dependent upon the FRB's policy decisions and market movements. See Table 19 in Item 7A on page 52 for an illustration of the impact of an interest rate increase or decrease on net interest income as of December 31, 2016.

The Company had an increase of \$9.6 million, or 2.1 percent, in noninterest income in 2016, as compared to 2015, and a \$32.2 million, or 6.5 percent, decrease in 2015, compared to 2014. The increase in 2016 is primarily attributable to unrealized equity gains on alternative investments, increase in bank-owned and company-owned life insurance income, and brokerage income, partially offset by lower trust and securities processing income. The change in noninterest income in 2016 from 2015, and 2015 from 2014 is illustrated on Table 6 on page 32.

Noninterest expense increased in 2016 by \$28.2 million, or 4.0 percent, compared to 2015 and increased by \$38.1 million, or 5.7 percent, in 2015 compared to 2014. The increase in 2016 is primarily driven by an increase of \$26.3 million, or 6.5 percent, in salary and employee benefit expense. The increase in noninterest expense in 2016 from 2015, and 2015 from 2014 is illustrated on Table 7 on page 33.

**Net Interest Income**

Net interest income is a significant source of the Company's earnings and represents the amount by which interest income on earning assets exceeds the interest expense paid on liabilities. The volume of interest earning assets and the related funding sources, the overall mix of these assets and liabilities, and the interest rates paid on each affect net interest income. Table 2 summarizes the change in net interest income resulting from changes in volume and rates for 2016, 2015 and 2014.

Net interest margin, presented in Table 1 on page 26, is calculated as net interest income on a fully tax equivalent basis (FTE) as a percentage of average earning assets. Net interest income is presented on a tax-equivalent basis to adjust for the tax-exempt status of earnings from certain loans and investments, which are primarily obligations of state and local governments. A critical component of net interest income and related net interest margin is the

percentage of earning assets funded by interest-free sources. Table 3 analyzes net interest margin for the three years ended December 31, 2016, 2015 and 2014. Net interest income, average balance sheet amounts and the corresponding yields earned and rates paid for the years 2014 through 2016 are presented in Table 1 below.

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The following table presents, for the periods indicated, the average earning assets and resulting yields, as well as the average interest-bearing liabilities and resulting yields, expressed in both dollars and rates.

*Table 1***THREE YEAR AVERAGE BALANCE SHEETS/YIELDS AND RATES (tax-equivalent basis)***(in millions)*

	Average Balance	2016 Interest Income/ Expense (1)	Rate Earned/ Paid (1)	Average Balance	2015 Interest Income/ Expense (1)	Rate Earned/ Paid (1)
<b>ASSETS</b>						
Loans and loans held for sale (FTE) (2) (3)	\$ 9,992.9	\$ 386.3	3.87%	\$ 8,425.1	\$ 308.3	3.66%
Securities:						
Taxable	4,545.0	73.6	1.62	4,823.7	75.3	1.56
Tax-exempt (FTE)	3,077.6	88.3	2.87	2,473.8	67.3	2.72
Total securities	7,622.6	161.9	2.12	7,297.5	142.6	1.95
Federal funds sold and resell agreements	188.5	2.7	1.44	76.1	0.7	0.92
Interest-bearing	410.2	2.3	0.57	664.8	2.4	0.35
Other earning assets (FTE)	42.4	0.8	1.85	32.7	0.5	1.46
Total earning assets (FTE)	18,256.6	554.0	3.03	16,496.2	454.5	2.75
Allowance for loan losses	(85.2)			(77.9)		
Cash and due from banks	394.7			496.4		
Other assets	1,026.5			871.7		
Total assets	\$ 19,592.6			\$ 17,786.4		
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>						
Interest-bearing demand and savings deposits						
	\$ 8,267.6	\$ 11.4	0.14%	\$ 7,010.3	\$ 7.9	0.11%
Time deposits under \$250,000	601.4	3.3	0.55	700.9	3.9	0.56
Time deposits of \$250,000 or more	563.7	3.2	0.57	439.4	2.5	0.57
Total interest bearing deposits	9,432.7	17.9	0.19	8,150.6	14.3	0.18
Short-term debt	3.8			1.9		
Long-term debt	81.9	3.2	3.91	57.3	2.5	4.36
Federal funds purchased and repurchase agreements	2,005.6	6.6	0.33	1,590.8	1.8	0.11
Total interest bearing liabilities	11,524.0	27.7	0.24	9,800.6	18.6	0.19

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Noninterest bearing demand deposits	5,906.0		5,927.6
Other	178.9		252.3
Total	17,608.9		15,980.5
Total shareholders equity	1,983.7		1,805.9
Total liabilities and shareholders equity	\$ 19,592.6		\$ 17,786.4
Net interest income (FTE)		\$ 526.3	\$ 435.9
Net interest spread (FTE)		2.79%	2.56%
Net interest margin (FTE)		2.88%	2.64%

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- (1) Interest income and yields are stated on a fully tax-equivalent (FTE) basis, using a marginal tax rate of 35%. The tax-equivalent interest income and yields give effect to tax-exempt interest income net of the disallowance of interest expense, for federal income tax purposes related to certain tax-free assets. Rates earned/paid may not compute to the rates shown due to presentation in millions. The tax-equivalent interest income totaled \$31.0 million, \$23.8 million, and \$21.2 million in 2016, 2015, and 2014, respectively.
- (2) Loan fees are included in interest income. Such fees totaled \$13.3 million, \$11.4 million, and \$9.9 million in 2016, 2015, and 2014, respectively.
- (3) Loans on non-accrual are included in the computation of average balances. Interest income on these loans is also included in loan income.

**THREE YEAR AVERAGE BALANCE SHEETS/YIELDS AND RATES (tax-equivalent basis)***(in millions)*

	Average Balance	2014 Interest Income/ Expense (1)	Rate Earned/ Paid (1)
<b>ASSETS</b>			
Loans and loans held for sale (FTE) (2) (3)	\$ 6,975.3	\$ 245.3	3.52%
Securities:			
Taxable	4,898.8	76.2	1.56
Tax-exempt (FTE)	2,122.8	60.4	2.84
Total securities	7,021.6	136.6	1.94
Federal funds sold and resell agreements	48.9	0.2	0.53
Interest-bearing	843.2	2.5	0.30
Other earning assets (FTE)	32.2	0.5	1.46
Total earning assets (FTE)	14,921.2	385.1	2.58
Allowance for loan losses	(76.5)		
Cash and due from banks	435.3		
Other assets	718.9		
Total assets	\$ 15,998.9		
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>			
Interest-bearing demand and savings deposits	\$ 6,403.5	\$ 6.2	0.10%
Time deposits under \$250,000	549.6	3.0	0.55
Time deposits of \$250,000 or more	541.6	3.0	0.55
Total interest bearing deposits	7,494.7	12.2	0.16
Short-term debt			
Long-term debt	6.1		
Federal funds purchased and repurchase agreements	1,535.0	1.6	0.11

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Total interest bearing liabilities	9,035.8	13.8	0.15
Noninterest bearing demand deposits	5,196.5		
Other	166.8		
Total	14,399.1		
Total shareholders equity	1,599.8		
Total liabilities and shareholders equity	\$ 15,998.9		
Net interest income (FTE)		\$ 371.3	
Net interest spread (FTE)			2.43%
Net interest margin (FTE)			2.49%

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Table 2

**RATE-VOLUME ANALYSIS (in thousands)**

*This analysis attributes changes in net interest income either to changes in average balances or to changes in average interest rates for earning assets and interest-bearing liabilities. The change in net interest income that is due to both volume and interest rate has been allocated to volume and interest rate in proportion to the relationship of the absolute dollar amount of the change in each. All interest rates are presented on a tax-equivalent basis and give effect to tax-exempt interest income net of the disallowance of interest expense for federal income tax purposes, related to certain tax-free assets. The loan average balances and rates include nonaccrual loans.*

Average Volume		Average Rate		2016 vs. 2015	Increase (Decrease)			
2016	2015	2016	2015		Volume	Rate	Total	
				Change in interest earned on:				
\$ 9,992,874	\$ 8,425,107	3.87%	3.66%	Loans	\$ 59,847	\$ 18,102	\$ 77,949	
				Securities:				
4,545,013	4,823,710	1.62	1.56	Taxable	(4,450)	2,683	(1,767)	
3,077,562	2,473,811	2.87	2.72	Tax-exempt	11,330	2,588	13,918	
188,572	76,108	1.44	0.92	Federal funds and resell agreements	1,453	558	2,011	
410,163	664,752	0.57	0.35	Interest-bearing due from banks	(1,114)	1,099	(15)	
42,437	32,725	1.85	1.46	Other	134	120	254	
18,256,621	16,496,213	3.03	2.75	Total	67,200	25,150	92,350	
				Change in interest incurred on:				
9,432,720	8,150,588	0.19	0.18	Interest-bearing deposits	2,370	1,297	3,667	
2,005,631	1,590,776	0.33	0.11	Federal funds and repurchase agreements	573	4,166	4,739	
85,658	59,174	3.79	4.33	Trading securities	1,035	(347)	688	
\$11,524,009	\$ 9,800,538	0.24%	0.19%	Total	3,978	5,116	9,094	
					Net interest income	\$ 63,222	\$ 20,034	\$ 83,256

Average Volume		Average Rate		2015 vs. 2014	Increase (Decrease)		
2015	2014	2015	2014		Volume	Rate	Total
				Change in interest earned on:			
\$8,425,107	\$ 6,975,338	3.66%	3.52%	Loans	\$ 53,057	\$ 9,990	\$ 63,047
				Securities:			
4,823,710	4,898,826	1.56	1.56	Taxable	(1,173)	296	(877)
2,473,811	2,122,822	2.72	2.84	Tax-exempt	7,565	(3,176)	4,389
76,108	48,869	0.92	0.53	Federal funds and resell agreements	249	189	438

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664,752	843,134	0.35	0.30	Interest-bearing due from banks	(632)	463	(169)
32,725	32,189	1.46	1.46	Other	(14)	(4)	(18)
16,496,213	14,921,178	2.75	2.58	Total	59,052	7,758	66,810
				Change in interest incurred on:			
8,150,588	7,494,744	0.18	0.16	Interest-bearing deposits	1,148	879	2,027
1,590,776	1,535,038	0.11	0.11	Federal funds and repurchase agreements	63	106	169
59,174	6,059	4.33	(0.69)	Trading securities	2,298	304	2,602
\$9,800,538	\$ 9,035,841	0.19%	0.15%	Total	3,509	1,289	4,798
				Net interest income	\$ 55,543	\$ 6,469	\$ 62,012

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Table 3

**ANALYSIS OF NET INTEREST MARGIN (in thousands)**

	<b>2016</b>	<b>2015</b>	<b>2014</b>
Average earning assets	\$ 18,256,621	\$ 16,496,213	\$ 14,921,178
Interest-bearing liabilities	11,524,009	9,800,538	9,035,841
Interest-free funds	\$ 6,732,612	\$ 6,695,675	\$ 5,885,337
Free funds ratio (interest free funds to average earning assets)	36.88%	40.59%	39.44%
Tax-equivalent yield on earning assets	3.03%	2.75%	2.58%
Cost of interest-bearing liabilities	0.24	0.19	0.15
Net interest spread	2.79%	2.56%	2.43%
Benefit of interest-free funds	0.09	0.08	0.06
Net interest margin	2.88%	2.64%	2.49%

The Company experienced an increase in net interest income of \$83.3 million, or 20.2 percent, for the year-ended December 31, 2016, compared to 2015. This follows an increase of \$62.0 million, or 17.7 percent, for the year-ended December 31, 2015, compared to 2014. As noted above, the impact of the Marquette acquisition is included in these results. Average earning assets increased by \$1.8 billion, or 10.7 percent, compared to the same period in 2015. Net interest margin, on a tax-equivalent basis, increased to 2.88 percent for 2016 compared to 2.64 percent in 2015. As illustrated in Table 2, the 2016 and 2015 increases are primarily due to the favorable volume variances in earning assets.

The Company funds a significant portion of its balance sheet with noninterest-bearing demand deposits. Noninterest-bearing demand deposits represented 40.2 percent, 41.8 percent and 41.4 percent of total outstanding deposits at December 31, 2016, 2015 and 2014, respectively. As illustrated in Table 3, the impact from these interest-free funds was nine basis points in 2016, compared to eight basis points in 2015 and six basis points in 2014.

The Company has experienced an increase in net interest income during the 2016 due to a volume variance of \$63.0 million and a rate variance of \$20.2 million. The Marquette acquisition also influenced these variances as 2016 was the first full year of Marquette's earning assets being included in the Company's Consolidated Balance Sheets. The average rate on earning assets during 2016 has increased by 28 basis points, while the average rate on interest-bearing liabilities increased by five basis points, resulting in a 23 basis point increase in spread. The volume of loans has increased from an average of \$8.4 billion in 2015 to an average of \$10.0 billion in 2016. Loan-related earning assets tend to generate a higher spread than those earned in the Company's investment portfolio. By design, the Company's investment portfolio is moderate in duration and liquid in its composition of assets.

During 2017, approximately \$1.1 billion of available for sale securities are expected to have principal repayments. This includes approximately \$386 million which will have principal repayments during the first quarter

of 2017. The available for sale investment portfolio had an average life of 54.3 months, 44.8 months, and 43.6 months as of December 31, 2016, 2015, and 2014, respectively.

### **Provision and Allowance for Loan Losses**

The allowance for loan losses (ALL) represents management's judgment of the losses inherent in the Company's loan portfolio as of the balance sheet date. An analysis is performed quarterly to determine the appropriate balance of the ALL. The analysis reflects loan quality trends, including the levels of and trends related to non-accrual loans, past due loans, potential problem loans, criticized loans and net charge-offs or recoveries, among other factors. After the balance sheet analysis is performed for the ALL, the provision for loan losses is computed as the amount required to adjust the ALL to the appropriate level.

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Table 4 presents the components of the allowance by loan portfolio segment. The Company manages the ALL against the risk in the entire loan portfolio and therefore, the allocation of the ALL to a particular loan segment may change in the future. Management of the Company believes the present ALL is adequate considering the Company's loss experience, delinquency trends and current economic conditions. Future economic conditions and borrowers' ability to meet their obligations, however, are uncertainties which could affect the Company's ALL and/or need to change its current level of provision. For more information on loan portfolio segments and ALL methodology refer to Note 3, Loans and Allowance for Loan Losses, in the Notes to the Consolidated Financial Statements.

*Table 4***ALLOCATION OF ALLOWANCE FOR LOAN LOSSES (in thousands)**

*This table presents an allocation of the allowance for loan losses by loan portfolio segment, which represents the inherent probable loss derived by both quantitative and qualitative methods. The amounts presented are not necessarily indicative of actual future charge-offs in any particular category and are subject to change.*

Loan Category	December 31,				
	2016	2015	2014	2013	2012
Commercial	\$ 71,657	\$ 63,847	\$ 55,349	\$ 48,886	\$ 43,390
Real estate	10,569	8,220	10,725	15,342	15,506
Consumer	9,311	8,949	9,921	10,447	12,470
Leases	112	127	145	76	60
Total allowance	\$ 91,649	\$ 81,143	\$ 76,140	\$ 74,751	\$ 71,426

Table 5 presents a five-year summary of the Company's ALL. Also, please see Quantitative and Qualitative Disclosures About Market Risk Credit Risk Management on page 56 in this report for information relating to nonaccrual, past due, restructured loans, and other credit risk matters. For more information on loan portfolio segments and ALL methodology refer to Note 3, Loans and Allowance for Loan Losses, in the Notes to the Consolidated Financial Statements.

As illustrated in Table 5 below, the ALL increased as a percentage of total loans to 0.87 percent as of December 31, 2016, compared to 0.86 percent as of December 31, 2015. Based on the factors above, provision for loan loss totaled \$32.5 million for the year-ended December 31, 2016, which is an increase of \$17.0 million, or 109.7 percent, compared to the same period in 2015. This provision for loan losses totaled \$15.5 million and \$17.0 million for the years-ended December 31, 2015 and 2014, respectively.

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Table 5

**ANALYSIS OF ALLOWANCE FOR LOAN LOSSES (in thousands)**

	2016	2015	2014	2013	2012
Allowance-beginning of year	\$ 81,143	\$ 76,140	\$ 74,751	\$ 71,426	\$ 72,017
Provision for loan losses	32,500	15,500	17,000	17,500	17,500
Charge-offs:					
Commercial	(12,788)	(5,239)	(7,307)	(4,748)	(8,446)
Consumer					
Credit card	(8,436)	(8,555)	(10,104)	(10,531)	(11,148)
Other	(843)	(1,103)	(1,323)	(1,600)	(1,530)
Real estate	(6,756)	(214)	(259)	(775)	(932)
Total charge-offs	(28,823)	(15,111)	(18,993)	(17,654)	(22,056)
Recoveries:					
Commercial	3,596	1,824	848	867	1,136
Consumer					
Credit card	1,730	1,802	1,803	1,720	1,766
Other	518	667	687	815	1,035
Real estate	985	321	44	77	28
Total recoveries	6,829	4,614	3,382	3,479	3,965
Net charge-offs	(21,994)	(10,497)	(15,611)	(14,175)	(18,091)
Allowance-end of year	\$ 91,649	\$ 81,143	\$ 76,140	\$ 74,751	\$ 71,426
Average loans, net of unearned interest	\$ 9,986,151	\$ 8,423,997	\$ 6,974,246	\$ 6,217,240	\$ 5,243,264
Loans at end of year, net of unearned interest	10,540,383	9,430,761	7,465,794	6,520,512	5,686,749
Allowance to loans at year-end	0.87%	0.86%	1.02%	1.15%	1.26%
Allowance as a multiple of net charge-offs	4.17x	7.73x	4.88x	5.27x	3.95x
Net charge-offs to:					
Provision for loan losses	67.67%	67.72%	91.83%	81.00%	103.38%
Average loans	0.22	0.12	0.22	0.23	0.35

**Noninterest Income**

A key objective of the Company is the growth of noninterest income to provide a diverse source of revenue not directly tied to interest rates. Fee-based services are typically non-credit related and are not generally affected by fluctuations in interest rates. Noninterest income increased in 2016 by \$9.6 million, or 2.1 percent, compared to 2015 and decreased in 2015 by \$32.2 million, or 6.5 percent, compared to 2014. The increase in 2016 is primarily attributable to higher unrealized equity gains on alternative investments, increases in bank-owned and company-owned life insurance income, and brokerage income, offset by lower trust and securities processing income.

The decrease in 2015, compared to 2014, is primarily attributable to lower trust and securities processing income and unrealized equity losses on alternative investments, which was partially offset by an increase in gains on securities available for sale.

The Company's fee-based services offer multiple products and services to customers which management believes will more closely align to the customer's product demand with the Company. The Company is currently emphasizing fee-based services including trust and securities processing, bankcard, securities trading/brokerage and cash/treasury management. Management believes that it can offer these products and services both efficiently and profitably, as most have common platforms and support structures.

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Table 6

**SUMMARY OF NONINTEREST INCOME (in thousands)**

	Year Ended December 31,			Dollar Change		Percent Change	
	2016	2015	2014	16-15	15-14	16-15	15-14
Trust and securities processing	\$ 239,879	\$ 262,056	\$ 288,054	\$ (22,177)	\$ (25,998)	(8.5)%	(9.0)%
Trading and investment banking	21,422	20,218	19,398	1,204	820	6.0	4.2
Service charges on deposit accounts	86,662	86,460	85,299	202	1,161	0.2	1.4
Insurance fees and commissions	4,188	2,530	3,011	1,658	(481)	65.5	(16.0)
Brokerage fees	17,833	11,753	10,761	6,080	992	51.7	9.2
Bankcard fees	68,749	69,211	67,250	(462)	1,961	(0.7)	2.9
Gains on sales of securities available for sale, net	8,509	10,402	4,127	(1,893)	6,275	(18.2)	>100.0
Equity earnings (losses) on alternative investments	2,695	(12,188)	3,975	14,883	(16,163)	>100.0	(>100.0)
Other	26,138	16,012	16,813	10,126	(801)	63.2	(4.8)
<b>Total noninterest income</b>	<b>\$ 476,075</b>	<b>\$ 466,454</b>	<b>\$ 498,688</b>	<b>\$ 9,621</b>	<b>\$ (32,234)</b>	<b>2.1%</b>	<b>(6.5)%</b>

Noninterest income and the year-over-year changes in noninterest income are summarized in Table 6 above. The dollar change and percent change columns highlight the respective net increase or decrease in the categories of noninterest income in 2016 compared to 2015, and in 2015 compared to 2014.

Trust and securities processing income consists of fees earned on personal and corporate trust accounts, custody of securities services, trust investments and investment management services, and mutual fund assets servicing. This income category decreased by \$22.2 million, or 8.5 percent in 2016, compared to 2015, and decreased by \$26.0 million, or 9.0 percent in 2015, compared to 2014. The Company increased fee income from institutional and personal investment management services by \$1.8 million in 2016, compared to 2015, and \$5.3 million in 2015, compared to 2014. Increases of \$1.4 million and \$2.4 million were attributable to Marquette in 2016 and 2015, respectively. Fund administration and custody services fee income decreased by \$2.8 million in 2016, compared to 2015, and increased by \$2.9 million in 2015, compared to 2014. Advisory fee income from the Scout funds decreased \$22.9 million to \$33.1 million in 2016 compared to 2015 and decreased \$35.6 million in 2015 compared to 2014 due to changes in the underlying assets under management. During the period of December 31, 2015 to December 31, 2016 total Scout AUM increased from \$27.2 billion to \$27.3 billion, while during the period of December 31, 2014 to December 31, 2015 Scout AUM decreased from \$31.2 billion to \$27.2 billion. Additionally, the mix of AUM has shifted between the two periods from 78.5 percent fixed income and 21.5 percent equity as of December 31, 2015 to 82.8 percent fixed income and 17.2 percent equity as of December 31, 2016.

Brokerage fees increased \$6.1 million, or 51.7 percent, in 2016 compared to 2015 primarily due to an increase in 12b-1 income driven by an increase in interest rates.

Gains on sales of securities available for sale decreased \$1.9 million in 2016 compared to 2015 and increased by \$6.3 million in 2015 compared to 2014. The Company's goal in the management of its available-for-sale securities portfolio is to maximize return within the Company's parameters of liquidity goals, interest rate risk and credit risk. This can result in differences from period to period in the amount of realized gains.

Equity earnings on alternative investments increased \$14.9 million to an unrealized gain position in 2016 compared to a loss position in 2015 and decreased \$16.2 million in 2015 compared to 2014, primarily due to changes in the valuation of the underlying PCM fund investments.

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Noninterest expense increased in 2016 by \$28.2 million, or 4.0 percent, compared to 2015 and increased in 2015 by \$38.1 million, or 5.7 percent, compared to 2014. The main drivers of this increase from 2015 to 2016 were salaries and employee benefits expense, other noninterest expense, and equipment expense. The main drivers of this increase from 2014 to 2015 were salaries and employee benefits expense, equipment expense, and legal and professional expense. Table 7 below summarizes the components of noninterest expense and the respective year-over-year changes for each category.

Table 7

**SUMMARY OF NONINTEREST EXPENSE (in thousands)**

	Year Ended December 31,			Dollar Change		Percent Change	
	2016	2015	2014	16-15	15-14	16-15	15-14
Salaries and employee benefits	\$ 432,754	\$ 406,472	\$ 358,569	\$ 26,282	\$ 47,903	6.5%	13.4%
Occupancy, net	44,926	43,861	40,197	1,065	3,664	2.4	9.1
Equipment	67,271	63,533	53,609	3,738	9,924	5.9	18.5
Supplies and services	19,080	18,579	20,411	501	(1,832)	2.7	(9.0)
Marketing and business development	22,342	23,730	24,148	(1,388)	(418)	(5.8)	(1.7)
Processing fees	45,235	51,328	56,049	(6,093)	(4,721)	(11.9)	(8.4)
Legal and consulting	21,242	26,390	20,407	(5,148)	5,983	(19.5)	29.3
Bankcard	20,757	20,288	19,594	469	694	2.3	3.5
Amortization of other intangible assets	12,291	12,090	12,193	201	(103)	1.7	(0.8)
Regulatory fees	14,178	12,125	10,445	2,053	1,680	16.9	16.1
Contingency reserve			20,272		(20,272)		(100.0)
Other	31,818	25,340	29,786	6,478	(4,446)	25.6	(14.9)
<b>Total noninterest expense</b>	<b>\$ 731,894</b>	<b>\$ 703,736</b>	<b>\$ 665,680</b>	<b>\$ 28,158</b>	<b>\$ 38,056</b>	<b>4.0%</b>	<b>5.7%</b>

Salaries and employee benefits expense increased \$26.3 million, or 6.5 percent, in 2016 and \$47.9 million, or 13.4 percent, in 2015. The increase in both 2016 and 2015 is primarily due to higher employee base salaries, higher commissions and bonuses, and higher cost of benefits. The Marquette acquisition contributed \$8.2 million of increased salary and employee benefits expense in 2016 since it was the first full year of salary and benefits expense after the Marquette acquisition. From 2015 to 2016, base salaries increased by \$9.1 million, or 3.6 percent, commissions and bonuses increased by \$11.4 million, or 12.8 percent, and employee benefits increased by \$5.8 million, or 9.1 percent. Included within commission and bonuses expense in 2016 and 2015 is acquisition related severance expense of \$0.9 million and \$2.4 million, respectively, non-acquisition related expense of \$4.2 million and \$4.6 million, respectively.

Equipment expense increased \$3.7 million, or 5.9 percent and \$9.9 million, or 18.5 percent in 2016 and 2015, respectively. This increase is driven by increased computer hardware and software expenses for investments for regulatory requirements, cyber security and the ongoing modernization of our core systems in both years.

Legal and consulting expense decreased \$5.1 million, or 19.5 percent, in 2016 and increased \$6.0 million, or 29.3 percent in 2015. This decrease in 2016 and increase in 2015 were driven by \$4.8 million in legal and consulting expense related to the Marquette acquisition recognized in 2015.

Processing fees expense decreased \$6.1 million, or 11.9 percent, and \$4.7 million, or 8.4 percent in 2016 and 2015, respectively. This reduction is primarily driven by decreased fees paid by the advisor to distributors of the Scout Funds.

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A contingency reserve of \$20.3 million was recognized in the Company's Consolidated Statements of Income in 2014 due to a settlement agreement entered into on June 30, 2014, to resolve objections to its calculation of the earn-out amount owed to the sellers of PCM and a related incentive bonus calculation for the employees of PCM. Fair value adjustments subsequent to the settlement date were included in Other noninterest expense.

Other noninterest expense increased \$6.5 million, or 25.6 percent and decreased \$4.4 million, or 14.9 percent, in 2016 and 2015, respectively. The increase in 2016 was primarily driven by an increase of \$3.1 million in fair value adjustments to the contingent consideration liabilities on acquisitions and \$2.7 million of expense related to the buy-out and termination of certain marketing and referral agreements in the Company's institutional investment management business. The decrease in 2015 was primarily driven by fair value adjustments to the contingent consideration liabilities on acquisitions.

Total acquisition related expenses recognized in noninterest expense during 2016 totaled \$5.0 million, and in 2015 totaled \$9.8 million.

## **Income Taxes**

Income tax expense totaled \$48.2 million, \$43.2 million and \$45.4 million in 2016, 2015 and 2014, respectively. These amounts equate to effective rates of 23.3 percent, 27.1 percent and 27.3 percent for 2016, 2015 and 2014, respectively. The decrease from 2015 to 2016 is primarily attributable to an increase in federal tax credits and a larger portion of income earned from excludable life insurance policy gains. The decrease in the effective tax rate from 2014 to 2015 results from changes in the portion of income earned from tax-exempt municipal securities. Due to the early adoption of ASU No. 2016-09, all excess tax benefits related to share-based awards were recognized in income tax expense for the year ended December 31, 2016.

For further information on income taxes refer to Note 16, **Income Taxes**, in the Notes to the Consolidated Financial Statements.

## **Business Segments**

The Company has strategically aligned its operations into the following three reportable segments (collectively, the Business Segments): Bank, Institutional Investment Management, and Asset Servicing. Senior executive officers regularly evaluate business segment financial results produced by the Company's internal reporting system in deciding how to allocate resources and assess performance for individual Business Segments. Previously, the Company had the following four Business Segments: Bank, Institutional Investment Management, Asset Servicing, and Payment Solutions. In the first quarter of 2016, the Company merged the Payments Solutions segment into the Bank segment to better reflect how the core businesses, products and services are being evaluated by management currently. The Company's Payment Solutions leadership structure and financial performance assessments are now included in the Bank segment, and accordingly, the reportable segments were realigned to reflect these changes. The management accounting system assigns balance sheet and income statement items to each Business Segment using methodologies that are refined on an ongoing basis.

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Table 8

**Bank Operating Results**

	Year Ended		Dollar Change 16-15	Percent Change 16-15
	December 31, 2016	2015		
Net interest income	\$ 484,716	\$ 406,884	\$ 77,832	19.1%
Provision for loan losses	32,500	15,500	17,000	>100.0
Noninterest income	311,309	279,897	31,412	11.2
Noninterest expense	577,683	552,514	25,169	4.6
Income before taxes	185,842	118,767	67,075	56.5
Income tax expense	43,039	32,208	10,831	33.6
Net income	\$ 142,803	\$ 86,559	\$ 56,244	65.0%

Bank net income increased by \$56.2 million, or 65.0 percent, to \$142.8 million for the year ended December 31, 2016, compared to the same period in 2015. Net interest income increased \$77.8 million, or 19.1 percent, for the year ended December 31, 2016, compared to the same period in 2015, primarily driven by strong loan growth, a change in the Company's earning asset mix, higher loan yields, and the acquisition of Marquette. As of the Acquisition Date, Marquette added earning assets with an acquired value of \$1.2 billion primarily from loan balances with an acquired value of \$980.4 million. Provision for loan losses increased by \$17.0 million to adjust the related ALL to the appropriate level based on the inherent risk in the loan portfolio for this segment.

Noninterest income increased \$31.4 million, or 11.2 percent, over the same period in 2015 primarily driven by the following increases: unrealized gains on PCM equity method investments of \$14.9 million, brokerage and mutual fund income of \$6.1 million driven by an increase in 12b-1 fees, bank-owned and company-owned life insurance income of \$4.1 million, healthcare deposit service charges of \$3.5 million, trust and securities processing income of \$2.8 million, insurance and annuities income of \$1.7 million, and miscellaneous noninterest income of \$1.6 million due to increased gains on the sale of other assets in the current year. These increases were partially offset by decreases of \$1.9 million in gains on securities available for sale and \$1.0 million in commercial and consumer deposit service charges.

Noninterest expense increased \$25.2 million, or 4.6 percent, to \$577.7 million for the year ended December 31, 2016, compared to the same period in 2015. This increase was primarily driven by increases of \$19.7 million in salaries and benefits, \$1.7 million in regulatory fees, \$1.6 million in software and equipment expense, \$1.6 million in services and supplies, and \$1.0 million in amortization of intangibles. The increase in salaries and benefits is driven by increases of \$11.3 million in salary and wage expense, \$6.8 million of which is related to the acquisition of Marquette, \$5.4 million in bonus and commission expense, of which Marquette represented a decrease of \$0.4 million, and \$3.0 million in employee benefit expense, of which \$1.8 million is related to Marquette. The increase in employee benefit expense was driven, in part, by a \$1.6 million increase in the fair value of the Company's deferred compensation plan. Additionally, there was an increase in other noninterest expense of \$2.9 million, largely due to an increase of \$2.5 million in fair value adjustments to contingent consideration liabilities incurred in 2015, each being partially offset by a decline in operational losses in the comparative periods. These increases were partially offset by a decrease of \$1.8 million in legal and professional fees expense due to decreased acquisition costs related to Marquette in 2016 as compared to the prior period.



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Table 9

**Institutional Investment Management Operating Results**

	Year Ended December 31,		Dollar Change	Percent Change
	2016	2015	16-15	16-15
Net interest income	\$	\$	\$	%
Provision for loan losses				
Noninterest income	75,822	95,064	(19,242)	(20.2)
Noninterest expense	73,442	71,498	1,944	2.7
Income before taxes	2,380	23,566	(21,186)	(89.9)
Income tax expense	798	6,469	(5,671)	(87.7)
Net income	\$ 1,582	\$ 17,097	\$ (15,515)	(90.7)%

For the year ended December 31, 2016, Institutional Investment Management net income decreased \$15.5 million, or 90.7 percent, compared to the same period in 2015. Noninterest income decreased \$19.2 million, or 20.2 percent, due to a \$22.2 million decrease in advisory fees from the Scout Funds which was partially offset by an increase of \$0.6 million in advisory fees from separately managed accounts, both of which are driven by changes in AUM. During the period of December 31, 2015 to December 31, 2016 total Scout AUM increased from \$27.2 billion to \$27.3 billion, while during the period of December 31, 2014 to December 31, 2015 Scout AUM decreased from \$31.2 billion to \$27.2 billion. Additionally, the mix of AUM has shifted between the two periods from 78.5 percent fixed income and 21.5 percent equity as of December 31, 2015 to 82.8 percent fixed income and 17.2 percent equity as of December 31, 2016. The increase in noninterest expense of \$1.9 million, or 2.7 percent, as compared to the prior year was primarily driven by an increase of \$7.3 million in salaries and benefits expense driven by severance and increased incentives and increases in the fair value of the deferred compensation plan. Additionally, other noninterest expense increased \$3.3 million in 2016 due to a \$2.7 million buy-out and termination of certain marketing and referral agreements and \$0.6 million in fair value adjustments to contingent consideration liabilities incurred in 2015. These increases were offset by decreases of \$6.0 million in fees paid by the advisor to third-party distributors of the Scout Funds, \$1.3 million in technology, service and overhead expenses as compared to the prior year, and \$0.8 million in marketing and business development expense. Noninterest expense included \$4.5 million and \$5.8 million of services and overhead allocations in 2016 and 2015, respectively.

Table 10

**Asset Servicing Operating Results**

	Year Ended December 31,		Dollar Change	Percent Change
	2016	2015	16-15	16-15
Net interest income	\$ 10,607	\$ 5,183	\$ 5,424	>100.0%
Provision for loan losses				

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Noninterest income	88,944	91,493	(2,549)	(2.8)
Noninterest expense	80,769	79,724	1,045	1.3
Income before taxes	18,782	16,952	1,830	10.8
Income tax expense	4,366	4,535	(169)	(3.7)
Net income	\$ 14,416	\$ 12,417	\$ 1,999	16.1%

For the year ended December 31, 2016, Asset Servicing net income increased \$2.0 million, or 16.1 percent, to \$14.4 million as compared to the same period in 2015. Net interest income increased \$5.4 million compared to the same period last year due to an increase in deposits coupled with an overall increase in deposit funds transfer

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credit. Noninterest income decreased \$2.5 million, or 2.8 percent, largely due to decreased fund administration, fund transfer agency, and custody fees. As of December 31, 2016, assets under administration totaled \$188.7 billion compared to \$185.6 billion at December 31, 2015 and \$198.3 billion at December 31, 2014. For the year ended December 31, 2016, noninterest expense increased \$1.0 million, or 1.3 percent, as compared to the same period last year, primarily due to an increase of \$2.2 million in salary and benefits expense, which was partially offset by decreases of \$0.3 million in marketing and business development expense, \$0.3 million in processing fees, and \$0.3 million in legal and professional fees expense.

**Balance Sheet Analysis****Loans and Loans Held For Sale**

Loans represent the Company's largest source of interest income. Loan balances held for investment increased by \$1.1 billion, or 11.8 percent, in 2016. This increase was primarily driven by an increase of \$503.2 million, or 18.9 percent, in commercial real estate loans, \$325.2 million, or 78.1 percent, in construction real estate loans, and \$205.1 million, or 4.9 percent, in commercial loans.

Table 11

**ANALYSIS OF LOANS BY TYPE (in thousands)**

	<b>December 31,</b>				
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Commercial	\$ 4,410,806	\$ 4,205,736	\$ 3,814,009	\$ 3,301,503	\$ 2,873,694
Asset-based	225,878	219,244			
Factoring	139,902	90,686			
Commercial - credit card	146,735	125,361	115,709	103,270	104,320
Real estate - construction	741,804	416,568	256,006	152,875	78,486
Real estate - commercial	3,165,922	2,662,772	1,866,301	1,702,151	1,435,811
Leases	39,532	41,857	39,090	23,981	19,084
<b>Total business-related</b>	<b>8,870,579</b>	<b>7,762,224</b>	<b>6,091,115</b>	<b>5,283,780</b>	<b>4,511,395</b>
Real estate - residential	548,350	492,227	319,827	289,356	212,363
Real estate - HELOC	711,794	729,963	643,586	566,128	573,923
Consumer - credit card	270,098	291,570	310,296	318,336	334,518
Consumer - other	139,562	154,777	100,970	62,912	54,550
<b>Total consumer-related</b>	<b>1,669,804</b>	<b>1,668,537</b>	<b>1,374,679</b>	<b>1,236,732</b>	<b>1,175,354</b>
Loans before allowance and loans held for sale	10,540,383	9,430,761	7,465,794	6,520,512	5,686,749
Allowance for loan losses	(91,649)	(81,143)	(76,140)	(74,751)	(71,426)
<b>Net loans</b>	<b>10,448,734</b>	<b>9,349,618</b>	<b>7,389,654</b>	<b>6,445,761</b>	<b>5,615,323</b>
Loans held for sale	5,279	589	624	1,357	3,877

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Net loans and loans held for sale	\$ 10,454,013	\$ 9,350,207	\$ 7,390,278	\$ 6,447,118	\$ 5,619,200
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	<b>December 31,</b>				
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
As a % of total loans and loans held for sale					
Commercial	41.84%	44.60%	51.08%	50.63%	50.49%
Asset-based	2.14	2.32			
Factoring	1.33	0.96			
Commercial - credit card	1.39	1.33	1.55	1.58	1.83
Real estate construction	7.03	4.42	3.43	2.34	1.38
Real estate commercial	30.02	28.23	25.00	26.10	25.23
Leases	0.37	0.44	0.52	0.37	0.34
<b>Total business-related</b>	<b>84.12</b>	<b>82.30</b>	<b>81.58</b>	<b>81.02</b>	<b>79.27</b>
Real estate - residential	5.20	5.22	4.28	4.44	3.73
Real estate - HELOC	6.75	7.74	8.62	8.68	10.09
Consumer - credit card	2.56	3.09	4.16	4.88	5.88
Consumer - other	1.32	1.64	1.35	0.96	0.96
<b>Total consumer-related</b>	<b>15.83</b>	<b>17.69</b>	<b>18.41</b>	<b>18.96</b>	<b>20.66</b>
Loans held for sale	0.05	0.01	0.01	0.02	0.07
<b>Total loans and loans held for sale</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Included in Table 11 is a five-year breakdown of loans by type. Business-related loans continue to represent the largest segment of the Company's loan portfolio, comprising approximately 84.1 percent and 82.3 percent of total loans and loans held for sale at the end of 2016 and 2015, respectively.

Commercial loans represent the largest percent of total loans. Commercial loans at December 31, 2016 have increased \$205.1 million, or 4.9 percent, as compared to December 31, 2015, to 41.8 percent of total loans. Commercial loans represented 44.6 percent of total loans at December 31, 2015. Despite the Company increasing its capacity to lend through increased commitments during 2016, commercial line utilization has remained low.

As a percentage of total loans, commercial real estate and construction real estate loans now comprise 37.1 percent of total loans compared to 32.7 percent in 2015. Commercial real estate increased \$503.2 million, or 18.9 percent, and construction real estate loans increased \$325.2 million, or 78.1 percent, compared to 2015. Generally, these loans are made for working capital or expansion purposes and are primarily secured by real estate with a maximum loan-to-value of 80 percent. Most of these properties are owner-occupied and/or have other collateral or guarantees as security.

Asset based loans totaled \$225.9 million and represented 2.1 percent of total loans as of December 31, 2016. Factoring loans totaled \$139.9 million and represented 1.3 percent of total loans as of December 31, 2016.

Residential real estate increased \$56.1 million, or 11.4 percent, and represented 5.2 percent of total loans. HELOC loans decreased \$18.2 million, or 2.5 percent, and represent 6.8 percent of total loans.

Nonaccrual, past due and restructured loans are discussed under Quantitative and Qualitative Disclosure about Market Risk Credit Risk Management in Item 7A on page 56 of this report.

## **Investment Securities**

The Company's investment portfolio contains trading, available-for-sale (AFS), and held-to-maturity (HTM) securities as well as FRB stock, Federal Home Loan Bank (FHLB) stock, and other miscellaneous investments. Investment securities totaled \$7.7 billion as of December 31, 2016 and \$7.6 billion as of December 31, 2015 and comprised 40.1 percent and 43.0 percent of the Company's earning assets, respectively, as of those dates.

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The Company's AFS securities portfolio comprised 84.1 percent of the Company's investment securities portfolio at December 31, 2016, compared to 89.9 percent at year-end 2015. The Company's AFS securities portfolio provides liquidity as a result of the composition and average life of the underlying securities. This liquidity can be used to fund loan growth or to offset the outflow of traditional funding sources. The average life of the AFS securities portfolio increased from 44.8 months at December 31, 2015 to 54.3 months at December 31, 2016 due to portfolio mix changes, a strategic decision to invest in longer-term securities, and rising interest rates driving down prepayment speeds on mortgage-backed securities. In addition to providing a potential source of liquidity, the AFS securities portfolio can be used as a tool to manage interest rate sensitivity. The Company's goal in the management of its AFS securities portfolio is to maximize return within the Company's parameters of liquidity goals, interest rate risk and credit risk.

Management expects collateral pledging requirements for public funds, loan demand, and deposit funding to be the primary factors impacting changes in the level of AFS securities. There were \$5.7 billion of AFS securities pledged to secure U.S. Government deposits, other public deposits, certain trust deposits, derivative transactions, and repurchase agreements at December 31, 2016. Of this amount, securities with a market value of \$1.8 billion at December 31, 2016 were pledged at the Federal Reserve Discount Window but were unencumbered as of that date.

The Company's HTM securities portfolio consists of private placement bonds, which are issued primarily to refinance existing revenue bonds in the healthcare and education sectors. The HTM portfolio totaled \$1.1 billion as of December 31, 2016, an increase of \$448.8 million, or 67.3 percent, from December 31, 2015. The average life of the HTM portfolio was 89 months at December 31, 2016, compared to 81 months at December 31, 2015.

The securities portfolio generates the Company's second largest component of interest income. The AFS and HTM securities portfolios achieved an average yield on a tax-equivalent basis of 2.1 percent for 2016, compared to 2.0 percent in 2015, and 1.9 percent in 2014. Securities available for sale had a net unrealized loss of \$92.2 million at year-end, compared to a net unrealized loss of \$5.9 million the preceding year. This market value change primarily reflects the impact of mid and longer-term market interest rate increases as of December 31, 2016, compared to December 31, 2015. These amounts are reflected, on an after-tax basis, in the Company's Accumulated other comprehensive income (loss) in shareholders' equity, as an unrealized loss of \$57.5 million at year-end 2016, compared to an unrealized loss of \$3.7 million for 2015. The available-for-sale securities portfolio contains securities that have unrealized losses and are not deemed to be other-than-temporarily impaired (see the table of these securities in Note 4, "Securities," in the Notes to the Consolidated Financial Statements on page 84 of this document). The unrealized losses in the Company's investments in direct obligations of U.S. Treasury obligations, U.S. government agencies, federal agency mortgage-backed securities, municipal securities, and corporates were caused by changes in interest rates. The Company does not have the intent to sell these securities and does not believe it is more likely than not that the Company will be required to sell these securities before a recovery of fair value. The Company expects to recover its cost basis in the securities and does not consider these investments to be other-than-temporarily impaired at December 31, 2016.

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Included in Tables 12 and 13 are analyses of the cost, fair value and average yield (tax-equivalent basis) of securities available for sale and securities held to maturity.

*Table 12***SECURITIES AVAILABLE FOR SALE (in thousands)**

<b>December 31, 2016</b>	<b>Amortized Cost</b>	<b>Fair Value</b>
U.S. Treasury	\$ 95,315	\$ 93,826
U.S. Agencies	198,158	198,177
Mortgage-backed	3,773,090	3,711,699
State and political subdivisions	2,425,155	2,395,757
Corporates	66,997	66,875
Total	\$ 6,558,715	\$ 6,466,334

<b>December 31, 2015</b>	<b>Amortized Cost</b>	<b>Fair Value</b>
U.S. Treasury	\$ 350,354	\$ 349,779
U.S. Agencies	667,414	666,389
Mortgage-backed	3,598,115	3,572,446
State and political subdivisions	2,116,543	2,138,413
Corporates	80,585	79,922
Total	\$ 6,813,011	\$ 6,806,949

<b>December 31, 2014</b>	<b>Amortized Cost</b>	<b>Fair Value</b>
U.S. Treasury	\$ 519,484	\$ 519,460
U.S. Agencies	991,084	990,689
Mortgage-backed	3,276,009	3,277,604
State and political subdivisions	1,983,549	2,001,357
Corporates	124,096	122,826
Total	\$ 6,894,222	\$ 6,911,936

	<b>U.S. Treasury</b>	<b>Securities Weighted Average Yield</b>	<b>U.S. Agency</b>	<b>Securities Weighted Average Yield</b>
<b>December 31, 2016</b>	<b>Fair Value</b>	<b>Yield</b>	<b>Fair Value</b>	<b>Yield</b>
Due in one year or less	\$ 55,240	0.72%	\$ 181,209	0.83%

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Due after 1 year through 5 years	29,260	1.21	16,968	1.31
Due after 5 years through 10 years	9,326	1.48		
Due after 10 years				
<b>Total</b>	<b>\$ 93,826</b>	<b>0.95%</b>	<b>\$ 198,177</b>	<b>0.87%</b>

	<b>Mortgage-backed Securities</b>		<b>State and Political Subdivisions</b>	
	<b>Fair Value</b>	<b>Weighted Average Yield</b>	<b>Fair Value</b>	<b>Weighted Average Yield</b>
<b>December 31, 2016</b>				
Due in one year or less	\$ 21,906	3.00%	\$ 221,261	1.99%
Due after 1 year through 5 years	2,853,678	2.01	1,035,482	2.46
Due after 5 years through 10 years	812,041	1.98	853,368	2.83
Due after 10 years	24,074	3.18	285,646	3.05
<b>Total</b>	<b>\$ 3,711,699</b>	<b>2.02%</b>	<b>\$ 2,395,757</b>	<b>2.62%</b>

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	Corporates			
	Fair Value	Weighted Average Yield		
<b>December 31, 2016</b>				
Due in one year or less	\$ 53,205	1.09%		
Due after 1 year through 5 years	13,670	1.31		
Due after 5 years through 10 years				
Due after 10 years				
<b>Total</b>	<b>\$ 66,875</b>	<b>1.13%</b>		

  

	U.S. Treasury Securities		U.S. Agency Securities	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
<b>December 31, 2015</b>				
Due in one year or less	\$ 284,452	0.59%	\$ 416,993	0.60%
Due after 1 year through 5 years	65,327	0.85	246,298	0.92
Due after 5 years through 10 years			3,098	
Due after 10 years				
<b>Total</b>	<b>\$ 349,779</b>	<b>0.64%</b>	<b>\$ 666,389</b>	<b>0.72%</b>

  

	Mortgage-backed Securities		State and Political Subdivisions	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
<b>December 31, 2015</b>				
Due in one year or less	\$ 43,570	3.30%	\$ 296,543	1.69%
Due after 1 year through 5 years	3,130,350	2.02	894,275	2.46
Due after 5 years through 10 years	381,369	1.99	866,060	2.92
Due after 10 years	17,157	3.28	81,535	3.34
<b>Total</b>	<b>\$ 3,572,446</b>	<b>2.03%</b>	<b>\$ 2,138,413</b>	<b>2.57%</b>

  

	Corporates	
	Fair Value	Weighted Average Yield
<b>December 31, 2015</b>		
Due in one year or less	\$	%
Due after 1 year through 5 years	79,922	1.11
Due after 5 years through 10 years		
Due after 10 years		

Total	\$ 79,922	1.11%
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	U.S. Treasury Securities		U.S. Agency Securities	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
<b>December 31, 2014</b>				
Due in one year or less	\$ 82,990	0.29%	\$ 182,699	0.63%
Due after 1 year through 5 years	431,492	0.67	807,990	0.72
Due after 5 years through 10 years	4,978	1.75		
Due after 10 years				
<b>Total</b>	<b>\$ 519,460</b>	<b>0.62%</b>	<b>\$ 990,689</b>	<b>0.70%</b>

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	Mortgage-backed Securities		State and Political Subdivisions	
	Fair Value	Weighted Average Yield	Fair Value	Weighted Average Yield
<b>December 31, 2014</b>				
Due in one year or less	\$ 63,114	3.25%	\$ 343,741	1.98%
Due after 1 year through 5 years	2,567,443	2.06	868,959	2.40
Due after 5 years through 10 years	626,017	2.10	677,431	3.05
Due after 10 years	21,030	3.32	111,226	3.26
<b>Total</b>	<b>\$ 3,277,604</b>	<b>2.09%</b>	<b>\$ 2,001,357</b>	<b>2.58%</b>

	Corporates	
	Fair Value	Weighted Average Yield
<b>December 31, 2014</b>		
Due in one year or less	\$	%
Due after 1 year through 5 years	122,826	1.13
Due after 5 years through 10 years		
Due after 10 years		
<b>Total</b>	<b>\$ 122,826</b>	<b>1.13%</b>

Table 13

**SECURITIES HELD TO MATURITY (in thousands)**

			Weighted Average Yield/Average Maturity
	Amortized Cost	Fair Value	
<b>December 31, 2016</b>			
Due in one year or less	\$ 6,077	\$ 5,135	2.13%
Due after 1 year through 5 years	82,650	83,552	2.66
Due after 5 years through 10 years	341,741	347,574	2.21
Due over 10 years	685,464	669,766	2.59
<b>Total</b>	<b>\$ 1,115,932</b>	<b>\$ 1,106,027</b>	<b>2.48%</b>
<b>December 31, 2015</b>			
Due in one year or less	\$ 17,265	\$ 17,893	2.27%
Due after 1 year through 5 years	77,237	80,047	2.28
Due after 5 years through 10 years	370,631	384,117	2.52
Due over 10 years	201,973	209,322	2.00

Total	\$ 667,106	\$ 691,379	2.33%
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**December 31, 2014**

Due in one year or less	\$ 15	\$ 16	2.75%
Due after 1 year through 5 years	31,389	34,331	2.89
Due after 5 years through 10 years	165,062	180,531	2.68
Due over 10 years	81,588	89,234	2.92
Total	\$ 278,054	\$ 304,112	2.78%

**Table of Contents****FEDERAL RESERVE BANK STOCK AND OTHER SECURITIES (in thousands)**

	<b>Amortized Cost</b>	<b>Fair Value</b>
<b>2016</b>		
FRB and FHLB stock	\$ 33,262	\$ 33,262
Other securities marketable	4	9,952
Other securities non-marketable	24,272	25,092
Total Federal Reserve Bank stock and other	\$ 57,538	\$ 68,306
<b>2015</b>		
FRB and FHLB stock	\$ 33,215	\$ 33,215
Other securities marketable	5	7,164
Other securities non-marketable	23,855	24,819
Total Federal Reserve Bank stock and other	\$ 57,075	\$ 65,198
<b>2014</b>		
FRB stock	\$ 26,279	\$ 26,279
Other securities marketable		16,668
Other securities non-marketable	21,669	25,527
Total Federal Reserve Bank stock and other	\$ 47,948	\$ 68,474

Other marketable and non-marketable securities include PCM alternative investments in hedge funds and private equity funds, which are accounted for as equity-method investments. The fair value of other marketable securities includes alternative investment securities of \$10.0 million at December 31, 2016, compared to \$7.2 million at December 31, 2015. The fair value of other non-marketable securities includes the alternative investment securities fair value of \$2.0 million at December 31, 2016 and December 31, 2015.

**Other Earning Assets**

Federal funds transactions essentially are overnight loans between financial institutions, which allow for either the daily investment of excess funds or the daily borrowing of another institution's funds in order to meet short-term liquidity needs. The net borrowed position was \$418.9 million at December 31, 2016, and \$50.9 million at December 31, 2015.

The Bank buys and sells federal funds as agent for non-affiliated banks. Because the transactions are pursuant to agency arrangements, these transactions do not appear on the balance sheet and averaged \$224.8 million in 2016 and \$197.0 million in 2015.

At December 31, 2016, the Company held securities purchased under agreements to resell of \$323.4 million compared to \$157.7 million at December 31, 2015. The Company uses these instruments as short-term secured investments, in lieu of selling federal funds, or to acquire securities required for collateral purposes. Balances will fluctuate based on

the Company's liquidity and investment decisions as well as the Company's correspondent bank borrowing levels. These investments averaged \$180.7 million in 2016 and \$65.9 million in 2015.

The Company also maintains an active securities trading inventory. The average holdings in the securities trading inventory in 2016 were \$42.4 million, compared to \$32.7 million in 2015, and were recorded at market value. As discussed in "Quantitative and Qualitative Disclosures About Market Risk - Trading Account" in Part II, Item 7A on page 55, the Company offsets the trading account securities by the sale of exchange-traded financial futures contracts, with both the trading account and futures contracts marked to market daily.

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Interest-bearing due from banks totaled \$715.8 million as of December 31, 2016 compared to \$522.9 million as of December 31, 2015 and includes amounts due from the FRB and interest-bearing accounts held at other financial institutions. The amount due from the FRB totaled \$641.9 million and \$360.9 million at December 31, 2016 and 2015, respectively. The increase in the FRB balance from 2015 to 2016 is primarily due an increase in public fund and repurchase agreement balances. The interest-bearing accounts held at other financial institutions totaled \$74.0 million and \$162.0 million at December 31, 2016 and 2015, respectively.

**Deposits and Borrowed Funds**

Deposits represent the Company's primary funding source for its asset base. In addition to the core deposits garnered by the Company's retail branch structure, the Company continues to focus on its cash management services, as well as its asset management and mutual fund servicing segments in order to attract and retain additional core deposits. Deposits totaled \$16.6 billion at December 31, 2016 and \$15.1 billion at December 31, 2015, an increase of \$1.5 billion or 9.8 percent. Deposits averaged \$15.3 billion in 2016, and \$14.1 billion in 2015.

Noninterest-bearing demand deposits averaged \$5.9 billion in 2016 and 2015. These deposits represented 38.5 percent of average deposits in 2016, compared to 42.1 percent in 2015. The Company's large commercial customer base provides a significant source of noninterest-bearing deposits. Many of these commercial accounts do not earn interest; however, they receive an earnings credit to offset the cost of other services provided by the Company.

Table 14

**MATURITIES OF TIME DEPOSITS OF \$250,000 OR MORE (in thousands)**

	<b>December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
Maturing within 3 months	\$ 295,395	\$ 300,729	\$ 448,122
After 3 months but within 6 months	111,043	26,250	50,374
After 6 months but within 12 months	47,664	55,988	46,054
After 12 months	68,030	100,945	82,532
<b>Total</b>	<b>\$ 522,132</b>	<b>\$ 483,912</b>	<b>\$ 627,082</b>

Table 15

**ANALYSIS OF AVERAGE DEPOSITS (in thousands)**

	<b>December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>Amount</b>			
Noninterest-bearing demand	\$ 5,906,021	\$ 5,927,702	\$ 5,196,529
Interest-bearing demand and savings	8,267,634	7,010,302	6,403,504
Time deposits under \$250,000	601,383	700,916	549,690

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Total core deposits	14,775,038	13,638,920	12,149,723
Time deposits of \$250,000 or more	563,703	439,370	541,550
Total deposits	\$ 15,338,741	\$ 14,078,290	\$ 12,691,273
As a % of total deposits			
Noninterest-bearing demand	38.50%	42.11%	40.95%
Interest-bearing demand and savings	53.90	49.79	50.45
Time deposits under \$250,000	3.92	4.98	4.33
Total core deposits	96.32	96.88	95.73
Time deposits of \$250,000 or more	3.68	3.12	4.27
Total deposits	100.00%	100.00%	100.00%

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Repurchase agreements are transactions involving the exchange of investment funds by the customer for securities by the Company, under an agreement to repurchase the same issues at an agreed-upon price and date. Securities sold under agreements to repurchase and federal funds purchased totaled \$1.9 billion at December 31, 2016, and \$1.8 billion at December 31, 2015. These agreements averaged \$2.0 billion in 2016 and \$1.6 billion in 2015. The Company enters into these transactions with its downstream correspondent banks, commercial customers, and various trust, mutual fund and local government relationships.

The Company is a member bank with the FHLB of Des Moines, and through this relationship, the Company owns \$10.0 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company's borrowing capacity is dependent upon the amount of collateral the Company places at the FHLB. The Company had \$805.9 million of HELOC and residential real estate loans pledged at the FHLB at December 31, 2016. In December 2016, the FHLB issued two letters of credit totaling \$300.0 million on behalf of the Company to secure public fund deposits, both of which expired in January 2017. The letters of credit reduced the Company's borrowing capacity with the FHLB to \$505.9 million as of December 31, 2016. The Company had no outstanding advances at FHLB Des Moines as of December 31, 2016.

The Company acquired a relationship with the FHLB of San Francisco as part of the Marquette acquisition. The Company paid-off one \$5.0 million advance with the FHLB of San Francisco when it matured in 2016, which reduced the Company's short-term debt balance to zero. Additionally, during 2016, the Company pre-paid the remaining two advances with the FHLB of San Francisco totaling \$10.0 million, which was the primary driver of the long-term debt balance decrease of \$9.3 million from December 31, 2015 to December 31, 2016.

Table 16

**SHORT-TERM BORROWINGS (in thousands)**

	2016		2015		2014	
	Amount	Rate	Amount	Rate	Amount	Rate
At December 31:						
Federal funds purchased	\$ 419,843	0.50%	\$ 66,855	0.19%	\$ 42,048	0.06%
Repurchase agreements	1,437,094	0.45	1,751,207	0.30	1,983,084	0.19
Other			5,009	0.98		
Total	\$ 1,856,937	0.46%	\$ 1,823,071	0.30%	\$ 2,025,132	0.18%
Average for year:						
Federal funds purchased	\$ 439,062	0.60%	\$ 48,318	0.28%	\$ 41,269	0.07%
Repurchase agreements	1,566,569	0.30	1,542,459	0.11	1,493,769	0.11
Other	3,753	0.72	1,853	0.98		
Total	\$ 2,009,384	0.33%	\$ 1,592,630	0.11%	\$ 1,535,038	0.11%
Maximum month-end balance:						
Federal funds purchased	\$ 1,094,017		\$ 269,379		\$ 265,804	
Repurchase agreements	1,815,830		1,907,468		1,983,084	
Other			109,522			

Long-term debt totaled \$76.8 million at December 31, 2016. The majority of the Company's long-term debt was assumed from the acquisition of Marquette and consists of debt obligations payable to four unconsolidated trusts (Marquette Capital Trust I, Marquette Capital Trust II, Marquette Capital Trust III, and Marquette Capital Trust IV) that previously issued trust preferred securities. These long-term debt obligations had an aggregate contractual balance of \$103.1 million and had an aggregate fair value of \$65.5 million as of May 31, 2015 and a carrying value of \$67.3 million at December 31, 2016. The interest rate on the trust preferred securities issued by Marquette Capital Trust II was fixed at 6.30 percent per year until January 2016, and is currently a variable rate tied to the three-month London Interbank Offered Rate (LIBOR) rate plus 133 basis points. Interest rates on trust preferred securities issued by the remaining three trusts are tied to the three-month LIBOR rate with spreads ranging from 133 basis points to 160 basis points, and reset quarterly. The trust preferred securities have maturity dates ranging from January 2036 to September 2036. For further information on long-term debt refer to Note 9, Borrowed Funds, in the Notes to the Consolidated Financial Statements.

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**Table of Contents****Capital Resources and Liquidity**

The Company places a significant emphasis on the maintenance of a strong capital position, which it believes promotes investor confidence, provides access to funding sources under favorable terms, and enhances the Company's ability to capitalize on business growth and acquisition opportunities. Higher levels of liquidity, however, bear corresponding costs, measured in terms of lower yields on short-term, more liquid earning assets and higher expenses for extended liability maturities. The Company manages capital for each subsidiary based upon the subsidiary's respective risks and growth opportunities as well as regulatory requirements.

Total shareholders' equity was \$2.0 billion at December 31, 2016, compared to \$1.9 billion at December 31, 2015, an increase of \$68.7 million or 3.6 percent, compared to December 31, 2015.

The Company's Board of Directors (the Board) authorized, at its April 26, 2016 and April 28, 2015 meetings, the repurchase of up to two million shares of the Company's common stock during the twelve month periods following each of the meetings. During 2016 and 2015, the Company acquired 323,058 shares and 164,335 shares of its common stock, respectively. The Company has not made any repurchases other than through these plans.

Through the Company's relationship with the FHLB of Des Moines, the Company owns \$10.0 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company's borrowing capacity is dependent upon the amount of collateral the Company places at the FHLB. The Company's borrowing capacity with the FHLB was \$505.9 million as of December 31, 2016. The Company had no outstanding FHLB advances at FHLB of Des Moines as of December 31, 2016.

Risk-based capital guidelines established by regulatory agencies set minimum capital standards based on the level of risk associated with a financial institution's assets. The Company has implemented the Basel III regulatory capital rules adopted by the FRB. Basel III capital rules include a minimum ratio of common equity tier 1 capital to risk-weighted assets of 4.5 percent and a minimum tier 1 risk-based capital ratio of 6 percent. A financial institution's total capital is also required to equal at least 8 percent of risk-weighted assets. At least half of that 8 percent must consist of tier 1 core capital, and the remainder may be tier 2 supplementary capital. The Basel III regulatory capital rules include transitional periods for various components of the rules that require full compliance for the Company by January 1, 2019, including a capital conservation buffer requirement of 2.5 percent of risk-weighted assets for which the transitional period began on January 1, 2016.

The risk-based capital guidelines indicate the specific risk weightings by type of asset. Certain off-balance sheet items (such as standby letters of credit and binding loan commitments) are multiplied by credit conversion factors to translate them into balance sheet equivalents before assigning them specific risk weightings. The Company is also required to maintain a leverage ratio equal to or greater than 4 percent. The leverage ratio is tier 1 core capital to total average assets less goodwill and intangibles. The Company's capital position as of December 31, 2016 is summarized in the table below and exceeded regulatory requirements.

For further discussion of capital and liquidity, see the "Quantitative and Qualitative Disclosures about Market Risk Liquidity Risk" in Item 7A on pages 57 and 58 of this report.

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Table 17

**RISK-BASED CAPITAL (in thousands)**

This table computes risk-based capital in accordance with current regulatory guidelines. These guidelines as of December 31, 2016, excluded net unrealized gains or losses on securities available for sale from the computation of regulatory capital and the related risk-based capital ratios.

Risk-Weighted Assets	Risk-Weighted Category					Total
	0%	20%	50%	100%	150%	
Loans held for sale	\$	\$	\$ 5,279	\$	\$	\$ 5,279
Loans and leases	17,693	59,899	819,464	9,393,753	249,574	10,540,383
Securities available for sale	878,833	5,593,302	19,583	66,997		6,558,715
Securities held to maturity		16,946	1,098,986			1,115,932
Federal funds and resell agreements		910				910
Trading securities		1,619	9,295	28,622		39,536
Cash and due from banks	774,010	363,930				1,137,940
All other assets	24,712	18,617	24,074	816,363		883,766
Category totals	\$ 1,695,248	\$ 6,055,223	\$ 1,976,681	\$ 10,305,735	\$ 249,574	\$ 20,282,461
Risk-weighted totals		1,211,044	988,341	10,305,735	374,361	12,879,481
Off-balance-sheet items (3)		32,304	93,880	2,110,187	49,206	2,285,577
Total risk-weighted assets	\$	\$ 1,243,348	\$ 1,082,221	\$ 12,415,922	\$ 423,567	\$ 15,165,058

Regulatory Capital	Total
Shareholders equity	\$ 1,962,384
Less adjustments (1)	(172,803)
Common equity Tier 1/Tier 1 capital	1,789,581
Additional Tier 2 capital (2)	161,497
Total capital	\$ 1,951,078

Capital ratios	Company
Common Equity Tier 1 capital to risk-weighted assets	11.80%
Tier 1 capital to risk-weighted assets	11.80%
Total capital to risk-weighted assets	12.87%
Leverage ratio (Tier 1 capital to total average assets less adjustments (1))	9.09%

- (1) Adjustments include a portion of goodwill and intangibles as well as unrealized gains/losses on available-for-sale securities.
- (2) Includes the Company's ALLL (inclusive of the reserve for off-balance sheet arrangements) and trust preferred subordinated notes.
- (3) After credit conversion factor and risk weighting is applied.

*For further discussion of regulatory capital requirements, see Note 10, Regulatory Requirements within the Notes to Consolidated Financial Statements under Item 8 on pages 92 and 93.*

**Table of Contents****Commitments, Contractual Obligations and Off-balance Sheet Arrangements**

The Company's main off-balance sheet arrangements are loan commitments, commercial and standby letters of credit, futures contracts and forward exchange contracts, which have maturity dates rather than payment due dates. These commitments and contingent liabilities are not required to be recorded on the Company's balance sheet. Since commitments associated with letters of credit and lending and financing arrangements may expire unused, the amounts shown do not necessarily reflect the actual future cash funding requirements. See Table 18 below, as well as Note 14, "Commitments, Contingencies and Guarantees" in the Notes to Consolidated Financial Statements under Item 8 on pages 99 through 101 for detailed information and further discussion of these arrangements. Management does not anticipate any material losses from its off-balance sheet arrangements.

*Table 18***COMMITMENTS, CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET ARRANGEMENTS (in thousands)**

The table below details the contractual obligations for the Company as of December 31, 2016, and includes principal payments only. The Company has no capital leases or long-term purchase obligations

<b>Contractual Obligations</b>	<b>Total</b>	<b>Payments due by Period</b>			<b>More than 5 years</b>
		<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	
Fed funds purchased and repurchase agreements	\$ 1,856,937	\$ 1,856,937	\$	\$	\$
Long-term debt obligations	76,772	1,474	3,216	2,619	69,463
Operating lease obligations	77,595	11,338	20,165	15,108	30,984
Time deposits	1,135,721	836,787	231,567	51,407	15,960
<b>Total</b>	<b>\$ 3,147,025</b>	<b>\$ 2,706,536</b>	<b>\$ 254,948</b>	<b>\$ 69,134</b>	<b>\$ 116,407</b>

<b>Commitments, Contingencies and Guarantees</b>	<b>Total</b>	<b>Maturities due by Period</b>			<b>More than 5 years</b>
		<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	
Commitments to extend credit for loans (excluding credit card loans)	\$ 6,471,404	\$ 2,867,019	\$ 1,555,140	\$ 929,535	\$ 1,119,710
Commitments to extend credit under credit card loans	2,798,433	2,798,433			
Commercial letters of credit	1,098	1,098			
Standby letters of credit	376,617	275,051	69,953	31,538	75
Forward contracts	49,352	49,352			
Spot foreign exchange contracts	3,725	3,725			
<b>Total</b>	<b>\$ 9,700,629</b>	<b>\$ 5,994,678</b>	<b>\$ 1,625,093</b>	<b>\$ 961,073</b>	<b>\$ 1,119,785</b>

As of December 31, 2016, our total liabilities for unrecognized tax benefits were \$4.4 million. The Company cannot reasonably estimate the timing of the future payments of these liabilities. Therefore, these liabilities have been excluded from the table above. See Note 16, Income Taxes, in the Notes to the Consolidated Financial Statements for information regarding the liabilities associated with unrecognized tax benefits.

### **Critical Accounting Policies and Estimates**

Management's Discussion and Analysis of Financial Condition and Results of Operations discusses the Company's Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these Consolidated Financial

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Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgments, including those related to customers and suppliers, allowance for loan losses, bad debts, investments, financing operations, long-lived assets, taxes, other contingencies and litigation. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which have formed the basis for making such judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Under different assumptions or conditions, actual results may differ from the recorded estimates.

Management believes that the Company's critical accounting policies are those relating to: the allowance for loan losses, goodwill and other intangibles, revenue recognition, accounting for uncertainty in income taxes, and fair value measurements.

### **Allowance for Loan Losses**

The Company's allowance for loan losses represents management's judgment of the loan losses inherent in the loan portfolio. The allowance is reviewed quarterly, considering both quantitative and qualitative factors such as historical trends, internal ratings, migration analysis, current economic conditions, loan growth and individual impairment testing.

Larger commercial loans are individually reviewed for potential impairment. For these loans, if management deems it probable that the borrower cannot meet its contractual obligations with respect to payment or timing such loans are deemed to be impaired under current accounting standards. Such loans are then reviewed for potential impairment based on management's estimate of the borrower's ability to repay the loan given the availability of cash flows, collateral and other legal options. Any allowance related to the impairment of an individually impaired loan is based on the present value of discounted expected future cash flows, the fair value of the underlying collateral, or the fair value of the loan. Based on this analysis, some loans that are classified as impaired do not have a specific allowance as the discounted expected future cash flows or the fair value of the underlying collateral exceeds the Company's basis in the impaired loan.

The Company also maintains an internal risk grading system for other loans not subject to individual impairment. An estimate of the inherent loan losses on such risk-graded loans is based on a migration analysis which computes the net charge-off experience related to each risk category.

An estimate of inherent losses is computed on remaining loans based on the type of loan. Each type of loan is segregated into a pool based on the nature of such loans. This includes remaining commercial loans that have a low risk grade, as well as other homogenous loans. Homogenous loans include automobile loans, credit card loans and other consumer loans. Allowances are established for each pool based on the loan type using historical loss rates, certain statistical measures and loan growth.

An estimate of the total inherent loss is based on the above three computations. From this an adjustment can be made based on other factors management considers to be important in evaluating the probable losses in the portfolio such as general economic conditions, loan trends, risk management and loan administration and changes in internal policies. For more information on loan portfolio segments and ALL methodology refer to Note 3, Loans and Allowance for Loan Losses, in the Notes to the Consolidated Financial Statements.

### **Goodwill and Other Intangibles**

Goodwill is tested for impairment annually as of October 1 and more frequently whenever events or changes in circumstance indicate that it is more likely than not that the fair value of a reporting unit is less than its carrying value. To test goodwill for impairment, the Company performs a qualitative assessment of each reporting unit. If the

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Company determines, on the basis of qualitative factors, that the fair value of the reporting unit is more likely than not greater than the carrying amount, the two-step impairment test is not required. Otherwise, the Company compares the fair value of its reporting units to their carrying amounts to determine if impairment is indicated. If impairment is indicated, the implied fair value of the reporting unit's goodwill is compared to its carrying amount. An impairment loss is measured as the excess of the carrying value of a reporting unit's goodwill over its implied fair value. As a result of such impairment tests, the Company has not recognized an impairment charge.

For customer-based identifiable intangibles, the Company amortizes the intangibles over their estimated useful lives of up to 17 years. When facts and circumstances indicate potential impairment of amortizing intangible assets, the Company evaluates the fair value of the asset and compares it to the carrying value for possible impairment. For more information see *Goodwill and Other Intangibles* in Note 7 in the Notes to the Consolidated Financial Statements.

## **Revenue Recognition**

Revenue recognition includes the recording of interest on loans and securities and is recognized based on a rate multiplied by the principal amount outstanding and also includes the impact of the amortization of related premiums and discounts. Interest accrual is discontinued when, in the opinion of management, the likelihood of collection becomes doubtful, or the loan is past due for a period of ninety days or more unless the loan is both well-secured and in the process of collection. Other noninterest income is recognized as services are performed or revenue-generating transactions are executed.

## **Accounting for Uncertainty in Income Taxes**

The Company is subject to income taxes in the U.S. federal and various state jurisdictions. The calculation of tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in these jurisdictions. The Company records the financial statement effects of an income tax position when it is more likely than not, based on the technical merits, that it will be sustained upon examination. The estimate for any uncertain tax issue is based on management's best judgment. These estimates may change as a result of changes in tax laws and regulations, interpretations of law by taxing authorities, and income tax examinations among other factors. Due to the complexity of these uncertainties, the ultimate resolution may differ from the current estimate of the tax liabilities. These differences will be reflected as increases or decreases to Income tax expense in the period in which they are determined. See the discussion of *Liabilities Associated with Unrecognized Tax Benefits* under Note 16 in the Notes to the Consolidated Financial Statements.

## **Fair Value Measurements**

Fair value is measured in accordance with U.S. generally accepted accounting principles (GAAP), which defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Valuation techniques used to measure fair value include the market approach, income approach and cost approach. The market approach uses prices or relevant information generated by market transactions involving identical or comparable assets or liabilities. The income approach involves discounting future amounts to a single present amount and is based on current market expectations about those future amounts. The cost approach is based on the amount that currently would be required to replace the service capacity of the asset.

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U.S. GAAP establishes a fair value hierarchy, which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). An instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the instrument's fair value measurement. The three levels within the fair value hierarchy are described as follows:

*Level 1* - Quoted prices (unadjusted) in active markets for identical assets or liabilities that are available at the measurement date.

*Level 2* - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include: quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

*Level 3* - Unobservable inputs for the asset or liability for which there is little, if any, market activity at the measurement date. Unobservable inputs reflect assumptions about what market participants would use to price the asset or liability. The inputs are developed based on the best information available in the circumstances, which might include the Company's own financial data such as internally developed pricing models and discounted cash flow methodologies, as well as instruments for which the fair value determination requires significant management judgment.

The Company's fair value measurements involve various valuation techniques and models, which involve inputs that are observable, when available, and the most significant of which include available-for-sale, trading securities, and contingent consideration measured at fair value on a recurring basis.

Fair value pricing information obtained from third party data providers and pricing services for investment securities are reviewed for appropriateness on a periodic basis. The third party service providers are also analyzed to understand and evaluate the valuation methodologies utilized. This review includes an analysis of current market prices compared to pricing provided by the third party pricing service to assess the relative accuracy of the data provided.

## **ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK***

### **Risk Management**

Market risk is a broad term for the risk of economic loss due to adverse changes in the fair value of a financial instrument. These changes may be the result of various factors, including interest rates, foreign exchange prices, commodity prices, or equity prices. Financial instruments that are subject to market risk can be classified either as held for trading or held for purposes other than trading.

The Company is subject to market risk primarily through the effect of changes in interest rates of its assets held for purposes other than trading. The following discussion of interest rate risk, however, combines instruments held for trading and instruments held for purposes other than trading because the instruments held for trading represent such a small portion of the Company's portfolio that the interest rate risk associated with them is immaterial.

### **Interest Rate Risk**

In the banking industry, a major risk exposure is changing interest rates. To minimize the effect of interest rate changes to net interest income and exposure levels to economic losses, the Company manages its exposure to changes in interest rates through asset and liability management within guidelines established by its Asset Liability Committee (ALCO) and approved by the Board. The ALCO is responsible for approving and ensuring compliance with asset/liability management policies, including interest rate exposure. The Company's primary method for measuring and analyzing consolidated interest rate risk is the Net Interest Income Simulation

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Analysis. The Company also uses a Net Portfolio Value model to measure market value risk under various rate change scenarios and a gap analysis to measure maturity and repricing relationships between interest-earning assets and interest-bearing liabilities at specific points in time. On a limited basis, the Company uses hedges such as swaps and futures contracts to manage interest rate risk on certain loans, trading securities, trust preferred securities, and deposits. See further information in Note 17 Derivatives and Hedging Activities in the Notes to the Company's Consolidated Financial Statements.

Overall, the Company attempts to manage interest rate risk by positioning the balance sheet to maximize net interest income while maintaining an acceptable level of interest rate and credit risk, remaining mindful of the relationship among profitability, liquidity, interest rate risk and credit risk.

**Net Interest Income Modeling**

The Company's primary interest rate risk tool, the Net Interest Income Simulation Analysis, measures interest rate risk and the effect of interest rate changes on net interest income and net interest margin. This analysis incorporates all of the Company's assets and liabilities together with assumptions that reflect the current interest rate environment. Through these simulations, management estimates the impact on net interest income of a 300 basis point upward or a 100 basis point downward gradual change (e.g. ramp) and immediate change (e.g. shock) of market interest rates over a two year period. In ramp scenarios, rates change gradually for a one year period and remain constant in year two. In shock scenarios, rates change immediately and the change is sustained for the remainder of the two year scenario horizon. Assumptions are made to project rates for new loans and deposits based on historical analysis, management outlook and repricing strategies. Asset prepayments and other market risks are developed from industry estimates of prepayment speeds and other market changes. The results of these simulations can be significantly influenced by assumptions utilized and management evaluates the sensitivity of the simulation results on a regular basis.

Table 19 shows the net interest income percentage increase or decrease over the next twelve and twenty-four month periods as of December 31, 2016 and 2015 based on hypothetical changes in interest rates and a constant sized balance sheet with runoff being replaced.

*Table 19***MARKET RISK (unaudited)**

(basis points)	Hypothetical change in interest rate Year One		Rate Ramp Year Two	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
	Percentage change	Percentage change	Percentage change	Percentage change
300	2.2%	5.3%	7.8%	14.2%
200	1.2	3.1	5.0	8.7
100	0.2	1.0	2.1	3.7
Static (100)	N/A	N/A	N/A	N/A

**Hypothetical change in interest rate Rate Shock**

	Year One		Year Two	
	December 31, 2016 Percentage change	December 31, 2015 Percentage change	December 31, 2016 Percentage change	December 31, 2015 Percentage change
(basis points)				
300	7.3%	12.7%	11.7%	18.8%
200	4.6	8.1	7.6	12.2
100	2.0	3.4	3.5	5.6
Static				
(100)	N/A	N/A	N/A	N/A

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The Company is positioned to benefit from increases in interest rates. Net interest income is projected to increase in rising interest rate scenarios due to yields on earning assets increasing more due to changes in market rates than the cost of paying liabilities is projected to increase. The Company's ability to price deposits in a rising rate environment consistent with our history is a key assumption in these scenarios. Due to the already low interest rate environment, the Company did not include a 100 basis point falling scenario. There is little room for projected yields on liabilities to decrease.

## **Repricing Mismatch Analysis**

The Company also evaluates its interest rate sensitivity position in an attempt to maintain a balance between the amount of interest-bearing assets and interest-bearing liabilities which are expected to mature or reprice at any point in time. While a traditional repricing mismatch analysis (gap analysis) provides a snapshot of interest rate risk, it does not take into consideration that assets and liabilities with similar repricing characteristics may not, in fact, reprice at the same time or the same degree. Also, it does not necessarily predict the impact of changes in general levels of interest rates on net interest income.

Table 20 is a static gap analysis, which presents the Company's assets and liabilities, based on their repricing or maturity characteristics and reflecting principal amortization. Table 21 presents the break-out of fixed and variable rate loans by repricing or maturity characteristics for each loan class.

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Table 20

**INTEREST RATE SENSITIVITY ANALYSIS (in millions)**

	1-90 Days	91-180 Days	181-365 Days	Total	1-5 Years	Over 5 Years	Total
<b>December 31, 2016 Earning assets</b>							
Loans	\$ 5,687.9	\$ 417.5	\$ 654.8	\$ 6,760.2	\$ 2,900.9	\$ 884.6	\$ 10,545.7
Securities	512.7	332.9	439.1	1,284.7	3,107.5	3,258.4	7,650.6
Federal funds sold and resell agreements	324.3			324.3			324.3
Other	718.8	9.8	13.5	742.1	13.2		755.3
Total earning assets	\$ 7,243.7	\$ 760.2	\$ 1,107.4	\$ 9,111.3	\$ 6,021.6	\$ 4,143.0	\$ 19,275.9
% of total earning assets	37.6%	4.0%	5.7%	47.3%	31.2%	21.5%	100.0%
<b>Funding sources</b>							
Interest-bearing demand and savings	\$ 1,536.9	\$ 1,152.6	\$ 2,305.3	\$ 4,994.8	\$ 309.0	\$ 3,476.5	\$ 8,780.3
Time deposits	431.2	220.1	185.4	836.7	283.0	16.0	1,135.7
Federal funds purchased and repurchase agreements	1,856.9			1,856.9			1,856.9
Borrowed funds	67.3		0.1	67.4	1.7	7.7	76.8
Noninterest-bearing sources	4,307.4	96.0	177.3	4,580.7	689.8	2,155.7	7,426.2
Total funding sources	\$ 8,199.7	\$ 1,468.7	\$ 2,668.1	\$ 12,336.5	\$ 1,283.5	\$ 5,655.9	\$ 19,275.9
% of total earning assets	42.6%	7.6%	13.8%	64.0%	6.7%	29.3%	100.0%
Interest sensitivity gap	\$ (956.0)	\$ (708.5)	\$ (1,560.7)	\$ (3,225.2)	\$ 4,738.1	\$ (1,512.9)	
Cumulative gap	(956.0)	(1,664.5)	(3,225.2)	(3,225.2)	1,512.9		
As a % of total earning assets	(5.0)%	(8.6)%	(16.7)%	(16.7)%	7.8%	%	
Ratio of earning assets to funding	0.88	0.52	0.42	0.74	4.69	0.73	

sources

Cumulative ratio of  
earning

assets to funding  
sources

2016	0.88	0.83	0.74	0.74	1.11	1.00
2015	0.82	0.80	0.77	0.77	1.18	1.00

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Table 21

**Maturities and Sensitivities to Changes in Interest Rates**

This table details loan maturities by variable and fixed rates as of December 31, 2016 (in thousands):

	Due in one year or less	Due after one year through five years	Due after five years	Total
<b>Variable Rate</b>				
Commercial	\$ 2,789,791	\$ 26,973	\$ 152	\$ 2,816,916
Asset-based	225,878			225,878
Factoring	139,902			139,902
Commercial Credit Card	146,735			146,735
Real Estate Construction	624,386	4,495	1,181	630,062
Real Estate Commercial	765,683	153,834	2,996	922,513
Real Estate Residential	29,082	79,601	32,310	140,993
Real Estate HELOC	392,523	309,647	3	702,173
Consumer Credit Card	268,849	1,082		269,931
Consumer Other	66,954	623		67,577
Leases	39,532			39,532
<b>Total variable rate loans</b>	<b>5,489,315</b>	<b>576,255</b>	<b>36,642</b>	<b>6,102,212</b>
<b>Fixed Rate</b>				
Commercial	510,351	957,434	126,105	1,593,890
Asset-based				
Factoring				
Commercial Credit Card				
Real Estate Construction	39,809	46,982	24,951	111,742
Real Estate Commercial	599,739	1,164,504	479,166	2,243,409
Real Estate Residential	69,612	127,772	215,252	412,636
Real Estate HELOC	5,860	2,641	1,120	9,621
Consumer Credit Card			167	167
Consumer Other	45,483	25,353	1,149	71,985
Leases				
<b>Total fixed rate loans</b>	<b>1,270,854</b>	<b>2,324,686</b>	<b>847,910</b>	<b>4,443,450</b>
<b>Total loans and loans held for sale</b>	<b>\$ 6,760,169</b>	<b>\$ 2,900,941</b>	<b>\$ 884,552</b>	<b>\$ 10,545,662</b>

**Trading Account**

The Bank carries taxable governmental securities in a trading account that is maintained in accordance with Board-approved policy and procedures. The policy limits the amount and type of securities that can be carried in the trading account and requires compliance with any limits under applicable law and regulations, and mandates the use

of a value-at-risk methodology to manage price volatility risks within financial parameters. The risk associated with the carrying of trading securities is offset by the sale of exchange-traded financial futures contracts, with both the trading account and futures contracts marked to market daily. This account had a balance of \$39.5 million as of December 31, 2016, compared to \$29.6 million as of December 31, 2015.

The Company is subject to market risk primarily through the effect of changes in interest rates of its assets held for purposes other than trading. The discussion in Table 20 above of interest rate risk, however, combines instruments held for trading and instruments held for purposes other than trading, because the instruments held for trading represent such a small portion of the Company's portfolio that the interest rate risk associated with them is immaterial.

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### **Other Market Risk**

The Company has minimal foreign currency risk as a result of foreign exchange contracts. See Note 10, Commitments, Contingencies and Guarantees in the Notes to the Consolidated Financial Statements.

### **Credit Risk Management**

Credit risk represents the risk that a customer or counterparty may not perform in accordance with contractual terms. The Company utilizes a centralized credit administration function, which provides information on the Bank's risk levels, delinquencies, an internal ranking system and overall credit exposure. Loan requests are centrally reviewed to ensure the consistent application of the loan policy and standards. In addition, the Company has an internal loan review staff that operates independently of the Bank. This review team performs periodic examinations of the bank's loans for credit quality, documentation and loan administration. The respective regulatory authority of the Bank also reviews loan portfolios.

A primary indicator of credit quality and risk management is the level of nonperforming loans. Nonperforming loans include both nonaccrual loans and restructured loans on nonaccrual. The Company's nonperforming loans increased \$9.1 million to \$70.3 million at December 31, 2016, compared to December 31, 2015. This increase was primarily driven by the migration of two non-energy commercial credits during the third quarter of 2016. There was an immaterial amount of interest recognized on nonperforming loans during 2016, 2015, and 2014.

The Company had \$0.2 million and \$3.3 million of other real estate owned as of December 31, 2016 and 2015, respectively. Loans past due more than 90 days totaled \$3.4 million as of December 31, 2016, compared to \$7.3 million as of December 31, 2015.

A loan is generally placed on nonaccrual status when payments are past due 90 days or more and/or when management has considerable doubt about the borrower's ability to repay on the terms originally contracted. The accrual of interest is discontinued and recorded thereafter only when actually received in cash.

Certain loans are restructured to provide a reduction or deferral of interest or principal due to deterioration in the financial condition of the respective borrowers. The Company had \$52.5 million of restructured loans at December 31, 2016 and \$36.6 million at December 31, 2015.

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Table 22

**LOAN QUALITY (in thousands)**

	<b>December 31,</b>				
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Nonaccrual loans	\$ 41,765	\$ 45,589	\$ 18,660	\$ 19,305	\$ 16,376
Restructured loans on nonaccrual	28,494	15,563	8,722	11,401	11,727
<b>Total non-performing loans</b>	<b>70,259</b>	<b>61,152</b>	<b>27,382</b>	<b>30,706</b>	<b>28,103</b>
Other real estate owned	194	3,307	394	1,288	3,524
<b>Total non-performing assets</b>	<b>\$ 70,453</b>	<b>\$ 64,459</b>	<b>\$ 27,776</b>	<b>\$ 31,994</b>	<b>\$ 31,627</b>
Loans past due 90 days or more	\$ 3,365	\$ 7,324	\$ 3,830	\$ 3,218	\$ 3,554
Restructured loans accruing	24,013	21,029	583	665	752
Allowance for loans losses	91,649	81,143	76,140	74,751	71,426
<b>Ratios</b>					
Non-performing loans as a % of loans	0.67%	0.65%	0.37%	0.47%	0.49%
Non-performing assets as a % of loans plus other real estate owned	0.67	0.68	0.37	0.49	0.56
Non-performing assets as a % of total assets	0.34	0.34	0.16	0.19	0.21
Loans past due 90 days or more as a % of loans	0.03	0.08	0.05	0.05	0.06
Allowance for Loan Losses as a % of loans	0.87	0.86	1.02	1.15	1.26
Allowance for Loan Losses as a multiple of non-performing loans	1.30x	1.33x	2.78x	2.43x	2.54x

**Liquidity Risk**

Liquidity represents the Company's ability to meet financial commitments through the maturity and sale of existing assets or availability of additional funds. The Company believes that the most important factor in the preservation of liquidity is maintaining public confidence that facilitates the retention and growth of a large, stable supply of core deposits and wholesale funds. Ultimately, the Company believes public confidence is generated through profitable operations, sound credit quality and a strong capital position. The primary source of liquidity for the Company is regularly scheduled payments on and maturity of assets, which include \$6.5 billion of high-quality securities available for sale. The liquidity of the Company and the Bank is also enhanced by its activity in the federal funds market and by its core deposits. Additionally, management believes it can raise debt or equity capital on favorable terms in the future, should the need arise.

Another factor affecting liquidity is the amount of deposits and customer repurchase agreements that have pledging requirements. All customer repurchase agreements require collateral in the form of a security. The U.S. Government, other public entities, and certain trust depositors require the Company to pledge securities if their deposit balances are greater than the FDIC-insured deposit limitations. These pledging requirements affect liquidity risk in that the related security cannot otherwise be disposed due to the pledging restriction. At December 31, 2016, \$5.7 billion, or 88.6 percent, of the securities available-for-sale were pledged or used as collateral, compared to \$5.9 billion, or 86.7 percent, at December 31, 2015. However of these amounts, securities with a market value of \$1.8 billion at December 31, 2016 and \$1.6 billion at December 31, 2015 were pledged at the Federal Reserve Discount Window but

were unencumbered as of those dates.

The Company also has other commercial commitments that may impact liquidity. These commitments include unused commitments to extend credit, standby letters of credit and financial guarantees, and commercial letters of credit. The total amount of these commercial commitments at December 31, 2016 was \$9.6 billion. Since many of these commitments expire without being drawn upon, the total amount of these commercial commitments does not necessarily represent the future cash requirements of the Company.

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The Company's cash requirements consist primarily of dividends to shareholders, debt service, operating expenses, and treasury stock purchases. Management fees and dividends received from bank and non-bank subsidiaries traditionally have been sufficient to satisfy these requirements and are expected to be sufficient in the future. The Bank is subject to various rules regarding payment of dividends to the Company. For the most part, the Bank can pay dividends at least equal to its current year's earnings without seeking prior regulatory approval. The Company also uses cash to inject capital into the Bank and its non-Bank subsidiaries to maintain adequate capital as well as to fund strategic initiatives.

To enhance general working capital needs, the Company has a revolving line of credit with Wells Fargo Bank, N.A. which allows the Company to borrow up to \$75.0 million for general working capital purposes. The interest rate applied to borrowed balances will be at the Company's option, either 1.00 percent above LIBOR or 1.75 percent below the prime rate on the date of an advance. The Company pays a 0.3 percent unused commitment fee for unused portions of the line of credit. The Company had no advances outstanding at December 31, 2016.

The Company is a member bank of the FHLB. The Company owns \$10.0 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company has access to borrow up to \$505.9 million through advances at the FHLB of Des Moines, but had no outstanding FHLB Des Moines advances as of December 31, 2016.

## **Operational Risk**

Operational risk generally refers to the risk of loss resulting from the Company's operations, including those operations performed for the Company by third parties. This would include but is not limited to the risk of fraud by employees or persons outside the Company, the execution of unauthorized transactions by employees or others, errors relating to transaction processing, breaches of the internal control system and compliance requirements, and unplanned interruptions in service. This risk of loss also includes the potential legal or regulatory actions that could arise as a result of an operational deficiency, or as a result of noncompliance with applicable regulatory standards. Included in the legal and regulatory issues with which the Company must comply are a number of rules resulting from the enactment of the Sarbanes-Oxley Act of 2002, as amended.

The Company operates in many markets and relies on the ability of its employees and systems to properly process a high number of transactions. In the event of a breakdown in internal control systems, improper operation of systems or improper employee actions, the Company could suffer financial loss, face regulatory action and suffer damage to its reputation. In order to address this risk, management maintains a system of internal controls with the objective of providing proper transaction authorization and execution, safeguarding of assets from misuse or theft, and ensuring the reliability of financial and other data.

The Company maintains systems of internal controls that provide management with timely and accurate information about the Company's operations. These systems have been designed to manage operational risk at appropriate levels given the Company's financial strength, the environment in which it operates, and considering factors such as competition and regulation. The Company has also established procedures that are designed to ensure that policies relating to conduct, ethics and business practices are followed on a uniform basis. In certain cases, the Company has experienced losses from operational risk. Such losses have included the effects of operational errors that the Company has discovered and included as expense in the statement of income. While there can be no assurance that the Company will not suffer such losses in the future, management continually monitors and works to improve its internal controls, systems and corporate-wide processes and procedures.



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**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA  
REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Shareholders of

UMB Financial Corporation and Subsidiaries:

We have audited the accompanying consolidated balance sheets of UMB Financial Corporation and subsidiaries (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company'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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 the Company as of December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), UMB Financial Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 23, 2017 expressed an unqualified opinion on the effectiveness of UMB Financial Corporation's internal control over financial reporting.

/s/ KPMG LLP

Kansas City, Missouri

February 23, 2017

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**UMB FINANCIAL CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**

*(dollars in thousands, except share and per share data)*

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>ASSETS</b>		
Loans	\$ 10,540,383	\$ 9,430,761
Allowance for loan losses	(91,649)	(81,143)
Net loans	10,448,734	9,349,618
Loans held for sale	5,279	589
Securities:		
Available for sale	6,466,334	6,806,949
Held to maturity (fair value of \$1,106,027 and \$691,379, respectively)	1,115,932	667,106
Trading securities	39,536	29,617
Other securities	68,306	65,198
Total investment securities	7,690,108	7,568,870
Federal funds sold and securities purchased under agreements to resell	324,327	173,627
Interest-bearing due from banks	715,823	522,877
Cash and due from banks	422,117	458,217
Premises and equipment, net	289,007	281,471
Accrued income	99,045	90,127
Goodwill	228,396	228,346
Other intangibles, net	34,491	46,782
Other assets	425,205	373,721
Total assets	\$ 20,682,532	\$ 19,094,245
<b>LIABILITIES</b>		
Deposits:		
Noninterest-bearing demand	\$ 6,654,584	\$ 6,306,895
Interest-bearing demand and savings	8,780,309	7,529,972
Time deposits under \$250,000	613,589	771,973
Time deposits of \$250,000 or more	522,132	483,912
Total deposits	16,570,614	15,092,752
Federal funds purchased and repurchase agreements	1,856,937	1,818,062
Short-term debt		5,009
Long-term debt	76,772	86,070
Accrued expenses and taxes	172,967	161,245
Other liabilities	42,858	37,413

Total liabilities	18,720,148	17,200,551
<b>SHAREHOLDERS EQUITY</b>		
Common stock, \$1.00 par value; 80,000,000 shares authorized, 55,056,730 shares issued and 49,673,056 and 49,396,366 shares outstanding, respectively	55,057	55,057
Capital surplus	1,033,419	1,019,889
Retained earnings	1,142,887	1,033,990
Accumulated other comprehensive loss, net	(57,542)	(3,718)
Treasury stock, 5,383,674 and 5,660,364 shares, at cost, respectively	(211,437)	(211,524)
Total shareholders equity	1,962,384	1,893,694
Total liabilities and shareholders equity	\$ 20,682,532	\$ 19,094,245

See Notes to Consolidated Financial Statements.

**Table of Contents****UMB FINANCIAL CORPORATION****CONSOLIDATED STATEMENTS OF INCOME***(dollars in thousands, except share and per share data)*

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>INTEREST INCOME</b>			
Loans	\$ 386,274	\$ 308,325	\$ 245,278
Securities:			
Taxable interest	73,560	75,327	76,204
Tax-exempt interest	57,516	43,598	39,209
Total securities income	131,076	118,925	115,413
Federal funds and resell agreements	2,708	697	259
Interest-bearing due from banks	2,341	2,356	2,525
Trading securities	632	378	396
Total interest income	523,031	430,681	363,871
<b>INTEREST EXPENSE</b>			
Deposits	17,936	14,269	12,242
Federal funds and repurchase agreements	6,524	1,785	1,616
Other	3,248	2,560	(42)
Total interest expense	27,708	18,614	13,816
Net interest income	495,323	412,067	350,055
Provision for loan losses	32,500	15,500	17,000
Net interest income after provision for loan losses	462,823	396,567	333,055
<b>NONINTEREST INCOME</b>			
Trust and securities processing	239,879	262,056	288,054
Trading and investment banking	21,422	20,218	19,398
Service charges on deposit accounts	86,662	86,460	85,299
Insurance fees and commissions	4,188	2,530	3,011
Brokerage fees	17,833	11,753	10,761
Bankcard fees	68,749	69,211	67,250
Gains on sales of securities available for sale, net	8,509	10,402	4,127
Equity earnings (losses) on alternative investments	2,695	(12,188)	3,975
Other	26,138	16,012	16,813
Total noninterest income	476,075	466,454	498,688

**NONINTEREST EXPENSE**

Salaries and employee benefits	432,754	406,472	358,569
Occupancy, net	44,926	43,861	40,197
Equipment	67,271	63,533	53,609
Supplies and services	19,080	18,579	20,411
Marketing and business development	22,342	23,730	24,148
Processing fees	45,235	51,328	56,049
Legal and consulting	21,242	26,390	20,407
Bankcard	20,757	20,288	19,594
Amortization of other intangible assets	12,291	12,090	12,193
Regulatory fees	14,178	12,125	10,445
Contingency reserve			20,272
Other	31,818	25,340	29,786
<b>Total noninterest expense</b>	<b>731,894</b>	<b>703,736</b>	<b>665,680</b>
Income before income taxes	207,004	159,285	166,063
Income tax expense	48,203	43,212	45,408
Net income	\$ 158,801	\$ 116,073	\$ 120,655

**PER SHARE DATA**

Net income basic	\$ 3.25	\$ 2.46	\$ 2.69
Net income diluted	3.22	2.44	2.65
Weighted average shares outstanding basic	48,828,313	47,126,252	44,844,578
Weighted average shares outstanding diluted	49,277,055	47,579,334	45,445,283

See Notes to Consolidated Financial Statements.

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**UMB FINANCIAL CORPORATION**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

*(dollars in thousands)*

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
Net income	\$ 158,801	\$ 116,073	\$ 120,655
Other comprehensive (loss) income, net of tax:			
Unrealized (losses) gains on securities:			
Change in unrealized holding (losses) gains, net	(77,794)	(13,393)	74,147
Less: Reclassifications adjustment for net gains included in net income	(8,509)	(10,402)	(4,127)
Change in unrealized (losses) gains on securities during the period	(86,303)	(23,795)	70,020
Change in unrealized losses on derivative hedges	(516)	(10)	
Income tax benefit (expense)	32,995	9,081	(26,374)
Other comprehensive (loss) income	(53,824)	(14,724)	43,646
Comprehensive income	\$ 104,977	\$ 101,349	\$ 164,301

See Notes to Consolidated Financial Statements.

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## UMB FINANCIAL CORPORATION

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY

*(dollars in thousands, except per share data)*

	Common Stock	Capital Surplus	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Treasury Stock	Total
Balance January 1, 2014	\$ 55,057	\$ 882,407	884,630	(32,640)	(283,389)	1,506,065
Total comprehensive income			120,655	43,646		164,301
Dividends (\$0.91 per share)			(41,374)			(41,374)
Purchase of treasury stock					(5,741)	(5,741)
Issuance of equity awards		(2,338)			2,827	489
Recognition of equity based compensation		9,172				9,172
Net tax benefit related to equity compensation plans		1,880				1,880
Sale of treasury stock		596			340	936
Exercise of stock options		2,885			5,145	8,030
Balance December 31, 2014	\$ 55,057	\$ 894,602	\$ 963,911	\$ 11,006	\$ (280,818)	\$ 1,643,758
Total comprehensive income			116,073	(14,724)		101,349
Dividends (\$0.95 per share)			(45,994)			(45,994)
Purchase of treasury stock					(8,457)	(8,457)
Issuance of equity awards		(3,278)			3,737	459
Recognition of equity based compensation		10,292				10,292
Net tax benefit related to equity compensation plans		944				944
Sale of treasury stock		611			445	1,056
Exercise of stock options		4,083			6,467	10,550
Common stock issuance for acquisition		112,635			67,102	179,737
Balance December 31, 2015	\$ 55,057	\$ 1,019,889	\$ 1,033,990	\$ (3,718)	\$ (211,524)	\$ 1,893,694
Total comprehensive income			158,801	(53,824)		104,977
Dividends (\$0.99 per share)			(49,048)			(49,048)
Purchase of treasury stock					(16,367)	(16,367)
Issuance of equity awards		(3,011)			3,440	429
Recognition of equity based compensation		11,306				11,306

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Sale of treasury stock	480			616	1,096
Exercise of stock options	3,417			12,398	15,815
Cumulative effect adjustment (1)	1,338	(856)			482
Balance December 31, 2016	\$ 55,057	\$ 1,033,419	\$ 1,142,887	\$ (57,542)	\$ (211,437)
					\$ 1,962,384

(1) Related to the adoption of Accounting Standards Update No. 2016-09. See Note 2, New Accounting Pronouncements, for further detail.

See Notes to Consolidated Financial Statements.

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**UMB FINANCIAL CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

*(dollars in thousands)*

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>OPERATING ACTIVITIES</b>			
Net income	\$ 158,801	\$ 116,073	\$ 120,655
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for loan losses	32,500	15,500	17,000
Net accretion of premiums and discounts from acquisition	(2,303)	(2,727)	
Depreciation and amortization	54,556	52,751	46,355
Deferred income tax expense (benefit)	2,756	(4,848)	(11,456)
Net (increase) decrease in trading securities and other earning assets	(12,420)	10,258	(2,714)
Gains on sales of securities available for sale	(8,509)	(10,402)	(4,127)
Gains on sales of assets	(762)	(98)	(3,034)
Amortization of securities premiums, net of discount accretion	54,467	57,301	51,542
Originations of loans held for sale	(92,438)	(96,324)	(71,598)
Net gains on sales of loans held for sale	(1,774)	(1,331)	(1,137)
Proceeds from sales of loans held for sale	89,522	97,690	73,468
Equity based compensation	11,735	10,751	9,661
Net tax benefit related to equity compensation plans	1,073	944	1,880
Changes in:			
Accrued income	(8,918)	(7,075)	(1,081)
Accrued expenses and taxes	14,112	(4,503)	40,345
Other assets and liabilities, net	4,042	(22,055)	(20,100)
<b>Net cash provided by operating activities</b>	<b>296,440</b>	<b>211,905</b>	<b>245,659</b>
<b>INVESTING ACTIVITIES</b>			
Proceeds from maturities of securities held to maturity	48,539	59,775	25,270
Proceeds from sales of securities available for sale	951,264	946,045	413,955
Proceeds from maturities of securities available for sale	1,792,357	1,200,178	1,321,135
Purchases of securities held to maturity	(500,682)	(451,350)	(109,308)
Purchases of securities available for sale	(2,546,028)	(1,923,747)	(1,859,692)
Net increase in loans	(1,129,026)	(988,434)	(963,028)
Net increase in fed funds sold and resell agreements	(150,700)	(45,190)	(31,087)
Net decrease (increase) in interest bearing balances due from other financial institutions	88,009	34,473	(164,415)
Purchases of premises and equipment	(50,841)	(53,760)	(44,790)
Net cash activity from acquisitions and branch sales		95,351	(18,231)
Proceeds from sales of premises and equipment	1,760	1,069	5,212

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Purchases of bank-owned and company-owned life insurance	(7,095)	(204,647)	(6,000)
Net cash used in investing activities	(1,502,443)	(1,330,237)	(1,430,979)

**FINANCING ACTIVITIES**

Net increase in demand and savings deposits	1,598,026	894,667	174,718
Net decrease in time deposits	(119,315)	(352,622)	(178,294)
Net increase (decrease) in fed funds purchased and repurchase agreements	38,875	(207,070)	441,914
Net decrease in short-term debt	(5,000)	(112,133)	(107)
Proceeds from long-term debt	1,500	2,500	5,320
Repayment of long-term debt	(11,703)	(10,816)	(1,565)
Payment of contingent consideration on acquisitions	(3,031)	(21,494)	(13,725)
Cash dividends paid	(49,038)	(45,967)	(41,364)
Proceeds from exercise of stock options and sales of treasury shares	16,911	11,606	8,966
Purchases of treasury stock	(16,367)	(8,457)	(5,741)
Net cash provided by financing activities	1,450,858	150,214	390,122
Increase (decrease) in cash and cash equivalents	244,855	(968,118)	(795,198)
Cash and cash equivalents at beginning of year	819,112	1,787,230	2,582,428
Cash and cash equivalents at end of year	\$ 1,063,967	\$ 819,112	\$ 1,787,230

Supplemental disclosures:

Income taxes paid	\$ 44,076	\$ 47,086	\$ 61,228
Total interest paid	27,999	17,812	13,958
Transactions related to Marquette acquisition			
Assets acquired		1,312,174	
Liabilities assumed		1,151,025	

See Notes to Consolidated Financial Statements.

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS*****1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES***

UMB Financial Corporation is a bank holding company, which offers a wide range of banking and other financial services to its customers through its branches and offices in the states of Missouri, Kansas, Colorado, Illinois, Oklahoma, Texas, Arizona, Nebraska, Pennsylvania, South Dakota, Indiana, Utah, Minnesota, California, and Wisconsin. The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements. These estimates and assumptions also impact reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Following is a summary of the more significant accounting policies to assist the reader in understanding the financial presentation.

**Consolidation**

The Company and its wholly owned subsidiaries are included in the Consolidated Financial Statements (references hereinafter to the Company in these Notes to Consolidated Financial Statements include wholly owned subsidiaries). Intercompany accounts and transactions have been eliminated in consolidation.

**Revenue Recognition**

Interest on loans and securities is recognized based on rate times the principal amount outstanding. This includes the impact of amortization of premiums and discounts. Interest accrual is discontinued when, in the opinion of management, the likelihood of collection becomes doubtful. Other noninterest income is recognized as services are performed or revenue-generating transactions are executed.

**Cash and cash equivalents**

Cash and cash equivalents include Cash and due from banks and amounts due from the Federal Reserve Bank. Cash on hand, cash items in the process of collection, and amounts due from correspondent banks are included in Cash and due from banks. Amounts due from the Federal Reserve Bank are interest-bearing for all periods presented and are included in the Interest-bearing due from banks line on the Company's Consolidated Balance Sheets.

*This table provides a summary of cash and cash equivalents as presented on the Consolidated Statements of Cash Flows as of December 31, 2016 and 2015 (in thousands):*

	<b>Year Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
Due from the Federal Reserve	\$ 641,850	\$ 360,895
Cash and due from banks	422,117	458,217
<b>Cash and cash equivalents at end of year</b>	<b>\$ 1,063,967</b>	<b>\$ 819,112</b>

Also included in the Interest-bearing due from banks line, but not considered cash and cash equivalents are interest-bearing accounts held at other financial institutions, which totaled \$74.0 million and \$162.0 million at December 31, 2016 and 2015, respectively.

### **Loans and Loans Held for Sale**

Loans are classified by the portfolio segments of commercial, real estate, consumer, and leases. The portfolio segments are further disaggregated into the loan classes of commercial, asset-based, factoring, commercial credit card, real estate construction, real estate commercial, real estate residential, real estate HELOC, consumer credit card, consumer other, and leases.

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A loan is considered to be impaired when management believes it is probable that it will be unable to collect all principal and interest due according to the contractual terms of the loan. If a loan is impaired, the Company records a valuation allowance equal to the carrying amount of the loan in excess of the present value of the estimated future cash flows discounted at the loan's effective rate, based on the loan's observable market price or the fair value of the collateral if the loan is collateral dependent.

A loan is accounted for as a troubled debt restructuring when a concession had been granted to a debtor experiencing financial difficulties. The Company's modifications generally include interest rate adjustments, and amortization and maturity date extensions. These modifications allow the debtor short-term cash relief to allow them to improve their financial condition. Restructured loans are individually evaluated for impairment as part of the allowance for loan loss analysis.

Loans, including those that are considered to be impaired and restructured, are evaluated regularly by management. Loans are considered delinquent when payment has not been received within 30 days of its contractual due date. Loans are placed on non-accrual status when the collection of interest or principal is 90 days or more past due, unless the loan is adequately secured and in the process of collection. When a loan is placed on non-accrual status, any interest previously accrued but not collected is reversed against current income. Loans may be returned to accrual status when all the principal and interest amounts contractually due are brought current and future payments are reasonably assured. Interest payments received on non-accrual loans are applied to principal unless the remaining principal balance has been determined to be fully collectible.

The adequacy of the allowance for loan losses is based on management's continuing evaluation of the pertinent factors underlying the quality of the loan portfolio, including actual loan loss experience, current economic conditions, detailed analysis of individual loans for which full collectability may not be assured, determination of the existence and realizable value of the collateral and guarantees securing such loans. The actual losses, notwithstanding such considerations, however, could differ from the amounts estimated by management.

The Company maintains a reserve, separate from the allowance for loan losses, to address the risk of loss associated with loan contingencies, which is included in the Accrued expenses and taxes line item in the Consolidated Balance Sheets. In order to maintain the reserve for off-balance sheet items at an appropriate level, a provision to increase or reduce the reserve is included in the Company's Consolidated Statements of Income. The level of the reserve will be adjusted as needed to maintain the reserve at a specified level in relation to contingent loan risk. The risk of loss arising from un-funded loan commitments has been assessed by dividing the contingencies into pools of similar loan commitments and by applying two factors to each pool. The gross amount of contingent exposure is first multiplied by a potential use factor to estimate the degree to which the unused commitments might reasonably be expected to be used in a time of high usage. The resultant figure is then multiplied by a factor to estimate the risk of loss assuming funding of these loans. The potential loss estimates for each segment of the portfolio are added to arrive at a total potential loss estimate that is used to set the reserve.

Purchased loans are recorded at estimated fair value at the Acquisition Date with no carryover of the related allowance. Purchased loans are segregated between those considered to be performing, non-purchased credit impaired loans (Non-PCI), and those with evidence of credit deterioration, purchased credit impaired loans (PCI). Purchased loans are considered impaired if there is evidence of credit deterioration and if it is probable, at acquisition, that all contractually required payments will not be collected. See further information regarding the accounting for PCI loans in Note 3, Loans and Allowance for Loan Losses, on page 72.

Loans held for sale are carried at the lower of aggregate cost or market value. Loan fees (net of certain direct loan origination costs) on loans held for sale are deferred until the related loans are sold or repaid. Gains or losses on loan

sales are recognized at the time of sale and determined using the specific identification method.

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### **Securities**

Debt securities available for sale principally include U.S. Treasury and agency securities, Government Sponsored Entity (GSE) mortgage-backed securities, certain securities of state and political subdivisions, and corporates. Securities classified as available for sale are measured at fair value. Unrealized holding gains and losses are excluded from earnings and reported in Accumulated other comprehensive income (loss) (AOCI) until realized. Realized gains and losses on sales are computed by the specific identification method at the time of disposition and are shown separately as a component of noninterest income.

Securities held to maturity are carried at amortized historical cost based on management's intention, and the Company's ability to hold them to maturity. The Company classifies certain securities of state and political subdivisions as held to maturity.

Trading securities, acquired for subsequent sale to customers, are carried at fair value. Market adjustments, fees and gains or losses on the sale of trading securities are considered to be a normal part of operations and are included in trading and investment banking income.

### **Equity-method investments**

The Company accounts for certain other investments using equity-method accounting. For non-marketable equity-method investments, the Company's proportionate share of the income or loss is recognized on a one-quarter lag. When transparency in pricing exists, other investments are considered marketable equity-method investments. For marketable equity-method investments, the Company recognizes its proportionate share of income or loss as of the date of the Company's Consolidated Financial Statements.

### **Goodwill and Other Intangibles**

Goodwill is tested for impairment annually and more frequently whenever events or changes in circumstance indicate that it is more likely than not that the fair value of a reporting unit is less than its carrying value. To test goodwill for impairment, the Company performs a qualitative assessment of each reporting unit. If the Company determines, on the basis of qualitative factors, that the fair value of the reporting unit is more likely than not greater than the carrying amount, the two-step impairment test is not required. Otherwise, the Company compares the fair value of its reporting units to their carrying amounts to determine if an impairment is indicated. If an impairment is indicated, the implied fair value of the reporting unit's goodwill is compared to its carrying amount. An impairment loss is measured as the excess of the carrying value of a reporting unit's goodwill over its implied fair value. As a result of such impairment tests, the Company has not recognized an impairment charge.

No goodwill impairments were recognized in 2016, 2015, or 2014. Other intangible assets are amortized over a period of up to 17 years and are evaluated for impairment when events or circumstances dictate. No intangible asset impairments were recognized in 2016, 2015, or 2014. The Company does not have any indefinite lived intangible assets.

### **Premises and Equipment**

Premises and equipment are stated at cost less accumulated depreciation, which is computed primarily on the straight line method. Premises are depreciated over 15 to 40 year lives, while equipment is depreciated over lives of 3 to 20 years. Gains and losses from the sale of Premises and equipment are included in Other noninterest income.

**Impairment of Long-Lived Assets**

Long-lived assets, including Premises and equipment, are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset or group of assets may not be recoverable. The

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impairment review includes a comparison of future cash flows expected to be generated by the asset or group of assets to their current carrying value. If the carrying value of the asset or group of assets exceeds expected cash flows (undiscounted and without interest charges), an impairment loss is recognized to the extent the carrying value exceeds fair value. No impairments were recognized in 2016, 2015, or 2014.

**Income Taxes**

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are measured based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the periods in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date. The provision for deferred income taxes represents the change in the deferred income tax accounts during the year excluding the tax effect of the change in net unrealized gain (loss) on securities available for sale.

The Company records deferred tax assets to the extent these assets will more likely than not be realized. All available evidence is considered in making such determination, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies and recent financial operations. A valuation allowance is recorded for the portion of deferred tax assets that do not meet the more-likely-than-not threshold, and any changes to the valuation allowance are recorded in income tax expense.

The Company records the financial statement effects of an income tax position when it is more likely than not, based on the technical merits, that it will be sustained upon examination. A tax position that meets the more-likely-than-not recognition threshold is measured and recorded as the largest amount of tax benefit that is greater than 50 percent likely of being realized upon ultimate settlement with a taxing authority. Previously recognized tax positions are derecognized in the first period in which it is no longer more likely than not that the tax position will be sustained. The benefit associated with previously unrecognized tax positions are generally recognized in the first period in which the more-likely-than-not threshold is met at the reporting date, the tax matter is ultimately settled through negotiation or litigation or when the related statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired. The recognition, derecognition and measurement of tax positions are based on management's best judgment given the facts, circumstance and information available at the balance sheet date.

The Company recognizes accrued interest related to unrecognized tax benefits in interest expense and penalties in other noninterest expense. Accrued interest and penalties are included within the related liability lines in the Consolidated Balance Sheets. For the year ended December 31, 2016, the Company has recognized an immaterial amount in interest and penalties related to the unrecognized tax benefits.

**Derivatives**

The Company records all derivatives on the Consolidated Balance Sheets at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether the Company has elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Currently, four of the Company's derivatives are designated in qualifying hedging relationships. However, the remainder of the Company's derivatives are not designated in qualifying hedging relationships, as the derivatives are not used to manage risks within the Company's assets or liabilities. All changes in fair value of the Company's non-designated derivatives are recognized directly in earnings. Changes in fair value of the Company's fair value hedges are recognized directly in earnings. The effective portion of

changes in fair value of the Company's cash flow hedges are recognized in AOCI. The ineffective portion of changes in fair value of the cash flow hedges is recognized directly in the Company's Consolidated Statements of Income.

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**Table of Contents****Per Share Data**

Basic income per share is computed based on the weighted average number of shares of common stock outstanding during each period. Diluted year-to-date income per share includes the dilutive effect of 448,742, 453,082, and 600,705 shares issuable upon the exercise of stock options and nonvested restricted shares granted by the Company at December 31, 2016, 2015, and 2014, respectively.

Options issued under employee benefit plans to purchase 390,503, 455,998, and 249,368 shares of common stock were outstanding at December 31, 2016, 2015, and 2014, respectively, but were not included in the computation of diluted earnings per share because the options were anti-dilutive.

**Accounting for Stock-Based Compensation**

The Company measures the cost of employee services received in exchange for an award of equity instruments based on the fair value of the award on the date of the grant. The grant date fair value is estimated using either an option-pricing model which is consistent with the terms of the award or an observed market price, if such a price exists. Such cost is generally recognized over the vesting period during which an employee is required to provide service in exchange for the award and, in some cases, when performance metrics are met. In September 2016, the Company adopted Accounting Standards Update (ASU) No. 2016-09 with an effective date of January 1, 2016. As part of the adoption of this standard, the Company made an accounting policy election to account for forfeitures of stock-based compensation on an actual basis and discontinue the use of an estimated forfeiture approach. See further discussion of this ASU below in Note 2, *New Accounting Pronouncements*.

**2. NEW ACCOUNTING PRONOUNCEMENTS**

**Revenue Recognition** In May 2014, the Financial Accounting Standards Board (FASB) issued ASU No. 2014-09, *Revenue from Contracts with Customers*. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. In August 2015, the FASB issued ASU No. 2015-14, which deferred the effective date of ASU No. 2014-09 to annual reporting periods that begin after December 15, 2017. In March, April, and May 2016, the FASB issued implementation amendments to the May 2014 ASU (collectively, the *amended guidance*). The amended guidance affects any entity that enters into contracts with customers to transfer goods and services, unless those contracts are within the scope of other standards. The amended guidance specifically excludes interest income, as well as other revenues associated with financial assets and liabilities, including loans, leases, securities, and derivatives. The amended guidance permits the use of either the full retrospective approach or a modified retrospective approach. The Company plans to adopt the amended guidance using the modified retrospective approach on January 1, 2018. The Company is progressing through its process to implement the amended guidance. The Company has assessed its revenue streams to identify those contracts that are specifically excluded from the scope of the amended guidance and those that may be subject to the amended guidance. Subsequent to this initial scoping, the Company selected a representative sample of contracts from the in-scope revenue streams for review under the amended guidance (*key contracts*). The review of key contracts is in process. Upon completion of the review of the key contracts, the Company expects to group the remaining contracts based on the conclusions reached through the key contract review or to perform additional review of specific contracts that cannot be grouped. While progress has been made, the Company is currently evaluating the impact that the amended guidance will have on its Consolidated Financial Statements and related disclosures.

**Equity-Based Compensation** In June 2014, the FASB issued ASU No. 2014-12, *Accounting for Share-Based Payments When the Terms of an Award Provide that a Performance Target could be Achieved after the Requisite Service Period*. The amendment is intended to reduce diversity in practice by clarifying that a performance target that

affects vesting and that could be achieved after the requisite service period be treated as a performance condition. The amendments in this update were adopted on January 1, 2016. The adoption of this accounting pronouncement had no impact on the Company's Consolidated Financial Statements.

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**Going Concern** In November 2014, the FASB issued ASU No. 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern. The amendment addresses management's responsibility in regularly evaluating whether there is substantial doubt about a company's ability to continue as a going concern. The amendments in this update are effective for the annual period ending after December 15, 2016, and for annual and interim periods thereafter, although early adoption is permitted. The adoption of this accounting pronouncement had no impact on the Company's Consolidated Financial Statements.

**Derivatives and Hedging** In November 2014, the FASB issued ASU No. 2014-16, Determining Whether the Host Contract in a Hybrid Financial Instrument Issued in the Form of a Share is More Akin to Debt or to Equity. The amendment is intended to address how current U.S. GAAP should be interpreted in evaluating the economic characteristics and risks of a host contract in a hybrid financial instrument that is issued in the form of a share. The amendments in this update were adopted on January 1, 2016. The adoption of this accounting pronouncement had no impact on the Company's Consolidated Financial Statements.

**Consolidation** In February 2015, the FASB issued ASU No. 2015-02, Amendments to the Consolidation Analysis. The amendment substantially changes the way reporting entities are required to evaluate whether they should consolidate certain legal entities. All legal entities are subject to reevaluation under the new amendment. Specifically, the amendments modify the evaluation of whether limited partnerships and similar legal entities are variable interest entities (VIEs) or voting interest entities, eliminate the presumption that a general partner should consolidate a limited partnership, and affect the consolidation analysis of reporting entities that are involved with VIEs. The amendments in this update were adopted on January 1, 2016. The adoption of this accounting pronouncement had no impact on the Company's Consolidated Financial Statements.

**Financial Instruments** In January 2016, the FASB issued ASU No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities. The amendment is intended to address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this update are effective for interim and annual periods beginning after December 15, 2017. The standard requires the use of the cumulative effect transition method as of the beginning of the year of adoption. Except for certain provisions, early adoption is not permitted. The Company is currently evaluating the impact that this standard will have on its Consolidated Financial Statements.

**Leases** In February 2016, the FASB issued ASU No. 2016-02, Leases. The amendment changes the accounting treatment of leases, in that lessees will recognize most leases on-balance sheet. This will increase reported assets and liabilities, as lessees will be required to recognize a right-of-use asset along with a lease liability, measured on a discounted basis. Lessees are allowed to account for short-term leases (those with a term of twelve months or less) off-balance sheet. The amendments in this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The standard requires the use of the modified retrospective transition method. Early adoption is permitted. The Company is currently evaluating the impact that this standard will have on its Consolidated Financial Statements.

**Extinguishments of Liabilities** In March 2016, the FASB issued ASU No. 2016-04, Recognition of Breakage for Certain Prepaid Stored-Value Products. The amendment is intended to reduce the diversity in practice related to the recognition of breakage. Breakage refers to the portion of a prepaid stored-value product, such as a gift card, that goes unused wholly or partially for an indefinite period of time. This amendment requires that breakage be accounted for consistent with the breakage guidance within ASU No. 2014-09, Revenue from Contracts with Customers. The amendments in this update are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The standard permits the use of either the modified retrospective or full retrospective transition method. Early adoption is permitted. The Company is currently evaluating the effect that ASU No. 2016-04

will have on its Consolidated Financial Statements. The Company plans to adopt the standard using the modified retrospective approach. The Company will adopt ASU No. 2016-04 in conjunction with its adoption of ASU No. 2014-09.

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**Derivatives and Hedging** In March 2016, the FASB issued ASU No. 2016-05, Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships. The amendment is intended to clarify that the novation of a derivative contract that has been designated to be in a hedging relationship under Accounting Standards Codification (ASC) Topic 815 does not, in and of itself, represent a termination event for the derivative and does not require dedesignation of the hedging relationship. The amendments in this update are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The amendment permits the use of either a prospective or modified retrospective transition method. Early adoption is permitted. The adoption of this accounting pronouncement will have no impact on the Company's Consolidated Financial Statements.

**Equity-Based Compensation** In March 2016, the FASB issued ASU No. 2016-09, Improvements to Employee Share-Based Payment Accounting. The amendment is part of the FASB's simplification initiative and is intended to simplify the accounting around share-based payment award transactions. The amendments include changing the recording of excess tax benefits from being recognized as a part of surplus capital to being charged directly to the income statement, changing the classification of excess tax benefits within the statement of cash flows, and allowing companies to account for forfeitures on an actual basis, as well as tax withholding changes. The amendment requires different transition methods for various components of the standard. The amendments in this update are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early adoption is permitted.

In September 2016, the Company early adopted ASU No. 2016-09 with an effective date of January 1, 2016. As part of the adoption of this standard, the Company made an accounting policy election to account for forfeitures on an actual basis and discontinue the use of an estimated forfeiture approach. Additionally, the Company selected the retrospective transition method for the reclassification of the Net tax benefit related to equity compensation plans from the financing section to the operating section of the Company's Consolidated Statement of Cash Flows. The impact to the Company's Consolidated Statements of Income for adopting all provisions of the standard was an increase to net income of \$158 thousand for the three-month period ended March 31, 2016 and an increase to net income of \$220 thousand for the three-month period ended June 30, 2016. Upon adoption, the Company recorded a cumulative effect adjustment to the Company's Consolidated Balance Sheets of \$482 thousand as an increase to the opening balance of total equity. Prior period financial statements as of and for the three-month and year-to-date periods ended March 31, 2016 and June 30, 2016 are recast in Note 20, Summary of Operating Results By Quarter, and will be recast when presented in future filings.

**Credit Losses** In June 2016, the FASB issued ASU 2016-13, Measurement of Credit Losses on Financial Instruments. This update replaces the current incurred loss methodology for recognizing credit losses with a current expected credit loss model, which requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. This amendment broadens the information that an entity must consider in developing its expected credit loss estimates. Additionally, the update amends the accounting for credit losses for available-for-sale debt securities and purchased financial assets with a more-than-insignificant amount of credit deterioration since origination. This update requires enhanced disclosures to help investors and other financial statement users better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of a company's loan portfolio. The amendments in this update are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption in fiscal years beginning after December 15, 2018 is permitted. The amendment requires the use of the modified retrospective approach for adoption. The Company is currently evaluating the impact that this standard will have on its Consolidated Financial Statements.

**Statement of Cash Flows** In August 2016, the FASB issued ASU 2016-15, Classification of Certain Receipts and Cash Payments. This amendment adds to and clarifies existing guidance regarding the classification of certain cash

receipts and payments in the statement of cash flows with the intent of reducing diversity in practice with respect to eight types of cash flows. The amendments in this update require full retrospective adoption and

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are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the impact that this standard will have on its Consolidated Statement of Cash Flows.

**3. LOANS AND ALLOWANCE FOR LOAN LOSSES****Loan Origination/Risk Management**

The Company has certain lending policies and procedures in place that are designed to minimize the level of risk within the loan portfolio. Diversification of the loan portfolio manages the risk associated with fluctuations in economic conditions. Authority levels are established for the extension of credit to ensure consistency throughout the Company. It is necessary that policies, processes and practices implemented to control the risks of individual credit transactions and portfolio segments are sound and adhered to. The Company maintains an independent loan review department that reviews and validates the credit risk program on a continual basis. Management regularly evaluates the results of the loan reviews. The loan review process complements and reinforces the risk identification and assessment decisions made by lenders and credit personnel, as well as the Company's policies and procedures.

Commercial loans are underwritten after evaluating and understanding the borrower's ability to operate profitably and prudently expand its business. Commercial loans are made based on the identified cash flows of the borrower and on the underlying collateral provided by the borrower. The cash flows of the borrower, however, may not be as expected and the collateral securing these loans may fluctuate in value. Most commercial loans are secured by the assets being financed or other business assets such as accounts receivable or inventory and may incorporate a personal guarantee. In the case of loans secured by accounts receivable, the availability of funds for the repayment of these loans may be substantially dependent on the ability of the borrower to collect amounts from its customers. Commercial credit cards are generally unsecured and are underwritten with criteria similar to commercial loans including an analysis of the borrower's cash flow, available business capital, and overall credit-worthiness of the borrower.

Asset-based loans are offered primarily in the form of revolving lines of credit to commercial borrowers that do not generally qualify for traditional bank financing. Asset-based loans are underwritten based primarily upon the value of the collateral pledged to secure the loan, rather than on the borrower's general financial condition as traditionally reflected by cash flow, balance sheet strength, operating results, and credit bureau ratings. The Company utilizes pre-loan due diligence techniques, monitoring disciplines, and loan management practices common within the asset-based lending industry to underwrite and manage loans with these borrowers.

Factoring loans provide working capital through the purchase and/or financing of accounts receivable to borrowers in the transportation industry and to commercial borrowers that do not generally qualify for traditional bank financing.

Commercial real estate loans are subject to underwriting standards and processes similar to commercial loans, in addition to those of real estate loans. These loans are viewed primarily as cash flow loans and secondarily as loans secured by real estate. Commercial real estate lending typically involves higher loan principal amounts, and the repayment of these loans is largely dependent on the successful operation of the property securing the loan or the business conducted on the property securing the loan. The Company requires an appraisal of the collateral be made at origination and on an as-needed basis, in conformity with current market conditions and regulatory requirements. The underwriting standards address both owner and non-owner occupied real estate.

Construction loans are underwritten using feasibility studies, independent appraisal reviews, sensitivity analysis or absorption and lease rates and financial analysis of the developers and property owners. Construction loans are based upon estimates of costs and value associated with the complete project. Construction loans often



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involve the disbursement of substantial funds with repayment substantially dependent on the success of the ultimate project. Sources of repayment for these types of loans may be pre-committed permanent loans, sales of developed property or an interim loan commitment from the Company until permanent financing is obtained. These loans are closely monitored by on-site inspections and are considered to have higher risks than other real estate loans due to their repayment being sensitive to interest rate changes, governmental regulation of real property, economic conditions, and the availability of long-term financing.

Underwriting standards for residential real estate and home equity loans are based on the borrower's loan-to-value percentage, collection remedies, and overall credit history.

Consumer loans are underwritten based on the borrower's repayment ability. The Company monitors delinquencies on all of its consumer loans and leases and periodically reviews the distribution of FICO scores relative to historical periods to monitor credit risk on its credit card loans. The underwriting and review practices combined with the relatively small loan amounts that are spread across many individual borrowers, minimizes risk. Consumer loans and leases that are 90 days past due or more are considered non-performing.

Credit risk is a potential loss resulting from nonpayment of either the primary or secondary exposure. Credit risk is mitigated with formal risk management practices and a thorough initial credit-granting process including consistent underwriting standards and approval process. Control factors or techniques to minimize credit risk include knowing the client, understanding total exposure, analyzing the client and debtor's financial capacity, and monitoring the client's activities. Credit risk and portions of the portfolio risk are managed through concentration considerations, average risk ratings, and other aggregate characteristics.

The loan portfolio is comprised of loans originated by the Company and purchased loans in connection with the Company's acquisition of Marquette on May 31, 2015. The purchased loans were recorded at estimated fair value at the Acquisition Date with no carryover of the related allowance. The purchased loans were segregated between those considered to be performing, Non-PCI, and those with evidence of credit deterioration, PCI. Purchased loans are considered impaired if there is evidence of credit deterioration and if it is probable, at acquisition, that all contractually required payments will not be collected.

At Acquisition Date, gross loans from the Marquette acquisition had a fair value of \$980.4 million split between Non-PCI loans totaling \$972.6 million and PCI loans totaling \$7.8 million. The gross contractually required principal and interest payments receivable for the Non-PCI loans and PCI loans totaled \$983.9 million and \$9.3 million, respectively.

The fair value estimates for purchased loans are based on expected prepayments and the amount and timing of discounted expected principal, interest and other cash flows. Credit discounts representing the principal losses expected over the life of the loan are also a component of the initial fair value. In determining the Acquisition Date fair value of PCI loans, and in subsequent accounting, the Company generally aggregated purchased commercial, real estate, and consumer loans into pools of loans with common risk characteristics.

The difference between the fair value of Non-PCI loans and contractual amounts due at the Acquisition Date is accreted into income over the estimated life of the loans. Contractual amounts due represent the total undiscounted amount of all uncollected principal and interest payments.

## **Loans accounted for under ASC Topic 310-30**

The excess of PCI loans' contractual amounts due over the amount of undiscounted cash flows expected to be collected is referred to as the non-accretable difference. The non-accretable difference, which is neither accreted into income nor recorded on the Consolidated Balance Sheets, reflects estimated future credit losses and uncollectible contractual interest expected to be incurred over the life of the PCI loans. The excess cash flows expected to be collected over the carrying amount of PCI loans is referred to as the accretable yield. This amount

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is accreted into interest income over the remaining life of the purchased loans or pools using the level yield method. The accretable yield is affected by changes in interest rate indices for variable rate loans, changes in prepayment speed assumptions, and changes in expected principal and interest payments over the estimated lives of the PCI loans.

Each quarter the Company evaluates the remaining contractual amounts due and estimates cash flows expected to be collected over the life of the PCI loans. Contractual amounts due may increase or decrease for a variety of reasons, for example, when the contractual terms of the loan agreement are modified, when interest rates on variable rate loans change, or when principal and/or interest payments are received. Cash flows expected to be collected on PCI loans are estimated by incorporating several key assumptions similar to the initial estimate of fair value. These key assumptions include probability of default, loss given default, and the amount of actual prepayments after the acquisition date. Prepayments affect the estimated lives of loans and could change the amount of interest income, and possibly principal, expected to be collected. In re-forecasting future estimated cash flows, credit loss expectations are adjusted as necessary. The adjustments are based, in part, on actual loss severities recognized for each loan type, as well as changes in the probability of default. For periods in which estimated cash flows are not reforecasted, the prior reporting period's estimated cash flows are adjusted to reflect the actual cash received and credit events that transpired during the current reporting period.

Increases in expected cash flows of PCI loans subsequent to the Acquisition Date are recognized prospectively through adjustments of the yield on the loans or pools over their remaining lives, while decreases in expected cash flows are recognized as impairment through a provision for loan losses and an increase in the allowance.

The PCI loans are accounted for in accordance with ASC Topic 310-30, *Loans and Debt Securities Purchased with Deteriorated Credit Quality*. At December 31, 2016, the net recorded carrying amount of loans accounted for under ASC 310-30 was \$800 thousand and the contractual amount due was \$977 thousand.

*Below is the composition of the net book value for the PCI loans accounted for under ASC 310-30 at December 31, 2016 (in thousands):*

PCI Loans:	<b>At December 31, 2016</b>	
Contractually required principal and interest	\$	977
Non-accretable difference		(152)
Accretable yield		(25)
 Loans accounted for under ASC 310-30	 \$	 800

**Table of Contents****Loan Aging Analysis**

This table provides a summary of loan classes and an aging of past due loans at December 31, 2016 and 2015 (in thousands):

		December 31, 2016						
		30-89 Days Past Due and Accruing	Greater than 90 Days Past Due and Accruing	Non- Accrual Loans	Total Past Due	PCI Loans	Current	Total Loans
<b>Loans</b>								
Commercial:								
Commercial		\$ 3,285	\$ 49	\$ 35,777	\$ 39,111	\$	\$ 4,371,695	\$ 4,410,806
Asset-based							225,878	225,878
Factoring							139,902	139,902
Commercial	credit card	612	10	8	630		146,105	146,735
Real estate:								
Real estate	construction	3		181	184		741,620	741,804
Real estate	commercial	1,303	1,004	16,423	18,730		3,147,192	3,165,922
Real estate	residential	1,034	6	1,344	2,384		545,966	548,350
Real estate	HELOC	588		4,736	5,324		706,470	711,794
Consumer:								
Consumer	credit card	2,228	2,115	475	4,818		265,280	270,098
Consumer	other	1,061	181	11,315	12,557	800	126,205	139,562
Leases							39,532	39,532
Total loans		\$ 10,114	\$ 3,365	\$ 70,259	\$ 83,738	\$ 800	\$ 10,455,845	\$ 10,540,383

		December 31, 2016				
		30-89 Days Past Due	Greater than 90 Days Past Due	Current	Total Loans	
<b>PCI Loans</b>						
Commercial:						
Commercial		\$	\$	\$	\$	
Asset-based						
Factoring						
Commercial	credit card					
Real estate:						
Real estate	construction					
Real estate	commercial					

Real estate residential				
Real estate HELOC				
Consumer:				
Consumer credit card				
Consumer other	87		713	800
Leases				
Total PCI loans	\$ 87	\$	\$ 713	\$ 800

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December 31, 2015

	30-89 Days Past Due and Accruing	Greater than 90 Days Past Due and Accruing	Non-Accrual Loans	Total Past Due	PCI Loans	Current	Total Loans
<b>Commercial:</b>							
Commercial	\$ 5,821	\$ 2,823	\$ 43,841	\$ 52,485	\$	\$ 4,153,251	\$ 4,205,736
Asset-based						219,244	219,244
Factoring						90,686	90,686
Commercial credit card	614	24	13	651		124,710	125,361
<b>Real estate:</b>							
Real estate construction	1,828	548	331	2,707		413,861	416,568
Real estate commercial	2,125	1,630	9,578	13,333	1,055	2,648,384	2,662,772
Real estate residential	612	35	800	1,447		490,780	492,227
Real estate HELOC	129		3,524	3,653		726,310	729,963
<b>Consumer:</b>							
Consumer credit card	2,256	2,089	468	4,813		286,757	291,570
Consumer other	5,917	175	2,597	8,689	2,001	144,087	154,777
Leases						41,857	41,857
<b>Total loans</b>	<b>\$ 19,302</b>	<b>\$ 7,324</b>	<b>\$ 61,152</b>	<b>\$ 87,778</b>	<b>\$ 3,056</b>	<b>\$ 9,339,927</b>	<b>\$ 9,430,761</b>

December 31, 2015

	30-89 Days Past Due	Greater than 90 Days Past Due	Current	Total Loans
<b>PCI Loans</b>				
<b>Commercial:</b>				
Commercial	\$	\$	\$	\$
Asset-based				
Factoring				
Commercial credit card				
<b>Real estate:</b>				
Real estate construction				
Real estate commercial		1,055		1,055
Real estate residential				
Real estate HELOC				
<b>Consumer:</b>				
Consumer credit card				
Consumer other	58	105	1,838	2,001
Leases				

Total PCI loans	\$ 58	\$ 1,160	\$ 1,838	\$ 3,056
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Loans are considered past due or delinquent when the contractual principal or interest due in accordance with the terms of the loan agreement remains unpaid after the due date of the scheduled payment. Non-accrual loans include troubled debt restructurings on non-accrual status. Loan delinquency for all loans is shown in the tables above at December 31, 2016 and December 31, 2015, respectively. Non-PCI loans that become nonperforming subsequent to acquisition are put on nonaccrual status and reported as nonperforming or past due using the same criteria applied to the originated loan portfolio.

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The Company has ceased the recognition of interest on loans with a carrying value of \$70.3 million and \$61.2 million at December 31, 2016 and 2015, respectively. Restructured loans totaled \$52.5 million and \$36.6 million at December 31, 2016 and 2015, respectively. Loans 90 days past due and still accruing interest amounted to \$3.4 million and \$7.3 million at December 31, 2016 and 2015, respectively. There was an immaterial amount of interest recognized on impaired loans during 2016, 2015, and 2014.

The Company sold residential real estate loans with proceeds of \$89.5 million, \$97.7 million, and \$73.5 million in the secondary market without recourse during the periods ended December 31, 2016, 2015, and 2014, respectively.

## **Credit Quality Indicators**

As part of the on-going monitoring of the credit quality of the Company's loan portfolio, management tracks certain credit quality indicators including trends related to the risk grading of specified classes of loans, net charge-offs, non-performing loans, and general economic conditions.

The Company utilizes a risk grading matrix to assign a rating to each of its commercial, commercial real estate, and construction real estate loans. The loan rankings are summarized into the following categories: Non-watch list, Watch, Special Mention, and Substandard. Any loan not classified in one of the categories described below is considered to be a Non-watch list loan. A description of the general characteristics of the loan ranking categories is as follows:

**Watch** This rating represents credit exposure that presents higher than average risk and warrants greater than routine attention by Company personnel due to conditions affecting the borrower, the Borrower's industry or the economic environment. These conditions have resulted in some degree of uncertainty that results in higher than average credit risk.

**Special Mention** This rating reflects a potential weakness that deserves management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or the institution's credit position at some future date. The rating is not adversely classified and does not expose an institution to sufficient risk to warrant adverse classification.

**Substandard** This rating represents an asset inadequately protected by the current sound worth and paying capacity of the borrower or of the collateral pledged, if any. Assets so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. Loans in this category are characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected. Loss potential, while existing in the aggregate amount of substandard assets, does not have to exist in individual assets classified substandard. This category may include loans where the collection of full principal is doubtful or remote.

All other classes of loans are generally evaluated and monitored based on payment activity. Non-performing loans include restructured loans on non-accrual and all other non-accrual loans.



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Total	\$ 146,735	\$ 125,361	\$ 548,350	\$ 492,227	\$ 711,794	\$ 729,963
	<b>Consumer</b>	<b>credit card</b>	<b>Consumer</b>	<b>other</b>	<b>Leases</b>	
	<b>December 31,</b>	<b>December 31,</b>	<b>December 31,</b>	<b>December 31,</b>	<b>December 31,</b>	<b>December 31,</b>
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>
Performing	\$ 269,623	\$ 291,102	\$ 127,447	\$ 152,180	\$ 39,532	\$ 41,857
Non-performing	475	468	11,315	2,597		
Total	\$ 270,098	\$ 291,570	\$ 138,762	\$ 154,777	\$ 39,532	\$ 41,857

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*This table provides an analysis of the credit risk profile of each loan class accounted for under ASC 310-30 at December 31, 2016 and December 31, 2015 (in thousands):*

**Credit Exposure****Credit Risk Profile by Risk Rating****PCI Loans**

	<b>Real estate commercial</b>	
	<b>December 31, 2016</b>	<b>December 31, 2015</b>
Non-watch list	\$	\$
Watch		
Special Mention		
Substandard		1,055
Total	\$	\$ 1,055

**Credit Risk Profile Based on Payment Activity****PCI Loans**

	<b>Consumer other</b>	
	<b>December 31, 2016</b>	<b>December 31, 2015</b>
Performing	\$ 800	\$ 2,001
Non-performing		
Total	\$ 800	\$ 2,001

**Allowance for Loan Losses**

The allowance for loan losses is a reserve established through a provision for loan losses charged to expense, which represents management's judgment of inherent probable losses within the Company's loan portfolio as of the balance sheet date. The allowance is necessary to reserve for estimated loan losses and risks inherent in the loan portfolio. Accordingly, the methodology is based on historical loss trends. The Company's process for determining the appropriate level of the allowance for loan losses is designed to account for credit deterioration as it occurs. The provision for probable loan losses reflects loan quality trends, including the levels of and trends related to non-accrual loans, past due loans, potential problem loans, criticized loans and net charge-offs or recoveries, among other factors.

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. Portions of the allowance may be allocated for specific loans; however, the entire allowance is available for any loan that, in management's judgment, should be charged off. While management utilizes its best judgment and information available, the adequacy of the allowance is dependent upon a variety of factors beyond the Company's control, including, among other things, the performance of the Company's loan portfolio, the economy, changes in interest rates and changes in the regulatory environment.

The Company's allowance for loan losses consists of specific valuation allowances and general valuation allowances based on historical loan loss experience for similar loans with similar characteristics and trends, general economic conditions and other qualitative risk factors both internal and external to the Company.

The allowances established for probable losses on specific loans are based on a regular analysis and evaluation of impaired loans. Loans are classified based on an internal risk grading process that evaluates the obligor's ability to

repay, the underlying collateral, if any, and the economic environment and industry in which the borrower operates. When a loan is considered impaired, the loan is analyzed to determine the need, if any, to specifically allocate a portion of the allowance for loan losses to the loan. Specific valuation allowances are determined by analyzing the borrower's ability to repay amounts owed, collateral deficiencies, the relative risk ranking of the loan and economic conditions affecting the borrower's industry.

General valuation allowances are calculated based on the historical loss experience of specific types of loans including an evaluation of the time span and volume of the actual charge-off. The Company calculates historical loss ratios for pools of similar loans with similar characteristics based on the proportion of actual charge-offs

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experienced to the total population of loans in the pool. The historical loss ratios are updated based on actual charge-off experience. A valuation allowance is established for each pool of similar loans based upon the product of the historical loss ratio, time span to charge-off, and the total dollar amount of the loans in the pool. The Company's pools of similar loans include similarly risk-graded groups of commercial loans, commercial real estate loans, commercial credit card, home equity loans, consumer real estate loans and consumer and other loans. The Company also considers a loan migration analysis for criticized loans. This analysis includes an assessment of the probability that a loan will move to a loss position based on its risk rating. The consumer credit card pool is evaluated based on delinquencies and credit scores. In addition, a portion of the allowance is determined by a review of qualitative factors by management.

Generally, the unsecured portion of a commercial or commercial real estate loan is charged-off when, after analyzing the borrower's financial condition, it is determined that the borrower is incapable of servicing the debt, little or no prospect for near term improvement exists, and no realistic and significant strengthening action is pending. For collateral dependent commercial or commercial real estate loans, an analysis is completed regarding the Company's collateral position to determine if the amounts due from the borrower are in excess of the calculated current fair value of the collateral. Specific allocations of the allowance for loan losses are made for any collateral deficiency. If a collateral deficiency is ultimately deemed to be uncollectible, the amount is charged-off. Revolving commercial loans (such as commercial credit cards) which are past due 90 cumulative days are classified as a loss and charged off.

Generally, a consumer loan, or a portion thereof, is charged-off in accordance with regulatory guidelines which provide that such loans be charged-off when the Company becomes aware of the loss, such as from a triggering event that may include but is not limited to new information about a borrower's intent and ability to repay the loan, bankruptcy, fraud, or death. However, the charge-off timeframe should not exceed the specified delinquency time frames, which state that closed-end retail loans (such as real estate mortgages, home equity loans and consumer installment loans) that become past due 120 cumulative days and open-end retail loans (such as home equity lines of credit and consumer credit cards) that become past due 180 cumulative days are classified as a loss and charged-off.

**ALLOWANCE FOR LOAN LOSSES AND RECORDED INVESTMENT IN LOANS**

*This table provides a rollforward of the allowance for loan losses by portfolio segment for the year ended December 31, 2016 (in thousands):*

	Year Ended December 31, 2016				Total
	Commercial	Real estate	Consumer	Leases	
<b>Allowance for loan losses:</b>					
Beginning balance	\$ 63,847	\$ 8,220	\$ 8,949	\$ 127	\$ 81,143
Charge-offs	(12,788)	(6,756)	(9,279)		(28,823)
Recoveries	3,596	985	2,248		6,829
Provision	17,002	8,120	7,393	(15)	32,500
Ending Balance	\$ 71,657	\$ 10,569	\$ 9,311	\$ 112	\$ 91,649
Ending Balance: individually evaluated for impairment	\$ 7,866	\$ 68	\$	\$	\$ 7,934
Ending Balance: collectively evaluated for impairment	63,791	10,501	9,311	112	83,715

## Ending Balance: PCI Loans

**Loans:**

Ending Balance: loans	\$ 4,923,321	\$ 5,167,870	\$ 409,660	\$ 39,532	\$ 10,540,383
Ending Balance: individually evaluated for impairment	74,351	13,314			87,665
Ending Balance: collectively evaluated for impairment	4,848,970	5,154,556	408,860	39,532	10,451,918
Ending Balance: PCI Loans			800		800

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*This table provides a rollforward of the allowance for loan losses by portfolio segment for the year ended December 31, 2015 (in thousands):*

	Year Ended December 31, 2015				
	Commercial	Real estate	Consumer	Leases	Total
<b>Allowance for loan losses:</b>					
Beginning balance	\$ 55,349	\$ 10,725	\$ 9,921	\$ 145	\$ 76,140
Charge-offs	(5,239)	(214)	(9,658)		(15,111)
Recoveries	1,824	321	2,469		4,614
Provision	11,913	(2,612)	6,217	(18)	15,500
Ending Balance	\$ 63,847	\$ 8,220	\$ 8,949	\$ 127	\$ 81,143
Ending Balance: individually evaluated for impairment	\$ 5,668	\$ 196	\$	\$	\$ 5,864
Ending Balance: collectively evaluated for impairment	58,179	8,024	8,949	127	75,279
Ending Balance: PCI Loans					
<b>Loans:</b>					
Ending Balance: loans	\$ 4,641,027	\$ 4,301,530	\$ 446,347	\$ 41,857	\$ 9,430,761
Ending Balance: individually evaluated for impairment	68,004	7,747	2,574		78,325
Ending Balance: collectively evaluated for impairment	4,573,023	4,292,728	441,772	41,857	9,349,380
Ending Balance: PCI Loans		1,055	2,001		3,056

*This table provides a rollforward of the allowance for loan losses by portfolio segment for the year ended December 31, 2014 (in thousands):*

	Year Ended December 31, 2014				
	Commercial	Real estate	Consumer	Leases	Total
<b>Allowance for loan losses:</b>					
Beginning balance	\$ 48,886	\$ 15,342	\$ 10,447	\$ 76	\$ 74,751
Charge-offs	(7,307)	(259)	(11,427)		(18,993)
Recoveries	848	44	2,490		3,382
Provision	12,922	(4,402)	8,411	69	17,000
Ending Balance	\$ 55,349	\$ 10,725	\$ 9,921	\$ 145	\$ 76,140
Ending Balance: individually evaluated for impairment	\$ 972	\$ 935	\$	\$	\$ 1,907
Ending Balance: collectively evaluated for impairment	54,377	9,790	9,921	145	74,233
<b>Loans:</b>					
Ending Balance: loans	\$ 3,929,718	\$ 3,085,720	\$ 411,266	\$ 39,090	\$ 7,465,794

Ending Balance: individually evaluated for impairment	17,060	10,243	1		27,304
Ending Balance: collectively evaluated for impairment	3,912,658	3,075,477	411,265	39,090	7,438,490

**Table of Contents****Impaired Loans**

*This table provides an analysis of impaired loans by class for the year ended December 31, 2016 (in thousands):*

	Unpaid Principal Balance	Recorded Investment with No Allowance	As of December 31, 2016			
			Recorded Investment with Allowance	Total Recorded Investment	Related Allowance	Average Recorded Investment
Commercial:						
Commercial	\$ 80,405	\$ 43,260	\$ 31,091	\$ 74,351	\$ 7,866	\$ 69,776
Asset-based						
Factoring						
Commercial credit card						
Real estate:						
Real estate construction	510	181	113	294	68	405
Real estate commercial	18,107	12,303	487	12,790		8,956
Real estate residential	231	230		230		520
Real estate HELOC						79
Consumer:						
Consumer credit card						
Consumer other						1,981
Leases						
<b>Total</b>	<b>\$ 99,253</b>	<b>\$ 55,974</b>	<b>\$ 31,691</b>	<b>\$ 87,665</b>	<b>\$ 7,934</b>	<b>\$ 81,717</b>

*This table provides an analysis of impaired loans by class for the year ended December 31, 2015 (in thousands):*

	Unpaid Principal Balance	Recorded Investment with No Allowance	As of December 31, 2015			
			Recorded Investment with Allowance	Total Recorded Investment	Related Allowance	Average Recorded Investment
Commercial:						
Commercial	\$ 72,739	\$ 40,648	\$ 27,356	\$ 68,004	\$ 5,668	\$ 41,394
Asset-based						
Factoring						
Commercial credit card						
Real estate:						
Real estate construction	782	331	118	449	42	802
Real estate commercial	7,117	4,891	1,275	6,166	154	7,768
Real estate residential	1,054	939		939		1,433
Real estate HELOC	214	193		193		162
Consumer:						

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Consumer credit card						
Consumer other	2,574	2,574		2,574		1,795
Leases						
Total	\$ 84,480	\$ 49,576	\$ 28,749	\$ 78,325	\$ 5,864	\$ 53,354

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*This table provides an analysis of impaired loans by class for the year ended December 31, 2014 (in thousands):*

	<b>As of December 31, 2014</b>					
	<b>Unpaid Principal Balance</b>	<b>Recorded Investment with No Allowance</b>	<b>Recorded Investment with Allowance</b>	<b>Total Recorded Investment</b>	<b>Related Allowance</b>	<b>Average Recorded Investment</b>
<b>Commercial:</b>						
Commercial	\$ 21,758	\$ 13,928	\$ 3,132	\$ 17,060	\$ 972	\$ 16,022
Commercial credit card						
<b>Real estate:</b>						
Real estate construction	1,540	983		983		939
Real estate commercial	9,546	4,454	3,897	8,351	935	11,298
Real estate residential	1,083	909		909		1,006
Real estate HELOC						
<b>Consumer:</b>						
Consumer credit card						
Consumer other	1	1		1		12
Leases						
<b>Total</b>	<b>\$ 33,928</b>	<b>\$ 20,275</b>	<b>\$ 7,029</b>	<b>\$ 27,304</b>	<b>\$ 1,907</b>	<b>\$ 29,277</b>

**Troubled Debt Restructurings**

A loan modification is considered a troubled debt restructuring (TDR) when a concession had been granted to a debtor experiencing financial difficulties. The Company's modifications generally include interest rate adjustments, principal reductions, and amortization and maturity date extensions. These modifications allow the debtor short-term cash relief to allow them to improve their financial condition. The Company's restructured loans are individually evaluated for impairment and evaluated as part of the allowance for loan loss as described above in the Allowance for Loan Losses section of this note.

Purchased loans restructured after acquisition are not considered or reported as TDRs if the loans evidenced credit deterioration as of the Acquisition Date and are accounted for in pools. For the year ended December 31, 2016, no purchased loans were modified as TDRs after the Acquisition Date.

The Company had \$780 thousand and \$582 thousand in commitments to lend to borrowers with loan modifications classified as TDRs as of December 31, 2016 and December 31, 2015, respectively. The Company monitors loan payments on an on-going basis to determine if a loan is considered to have a payment default. Determination of payment default involves analyzing the economic conditions that exist for each customer and their ability to generate positive cash flows during the loan term. During the year ended December 31, 2016, there were no TDRs with payment defaults. There was an immaterial amount of interest recognized on loans classified as TDRs during 2016 and 2015.



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This table provides a summary of loans restructured by class during the years ended December 31, 2016 and 2015 (in thousands):

	Year Ended December 31, 2016		Year Ended December 31, 2015	
	Pre-Modification Number Outstanding of Recorded Contracts Investment	Post-Modification Outstanding Recorded Investment	Pre-Modification Number Outstanding of Recorded Contracts Investment	Post-Modification Outstanding Recorded Investment
<b>Troubled Debt Restructurings</b>				
Commercial:				
Commercial	3	\$ 24,778	21	\$ 32,473
Asset-based				
Factoring				
Commercial credit card				
Real estate:				
Real estate construction				
Real estate commercial			1	261
Real estate residential			1	121
Real estate HELOC				
Consumer:				
Consumer credit card				
Consumer other				
Leases				
Total	3	\$ 24,778	23	\$ 32,855

**4. SECURITIES****Securities Available for Sale**

This table provides detailed information about securities available for sale at December 31, 2016 and 2015 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<b>2016</b>				
U.S. Treasury	\$ 95,315	\$ 37	\$ (1,526)	\$ 93,826
U.S. Agencies	198,158	67	(48)	198,177
Mortgage-backed	3,773,090	7,069	(68,460)	3,711,699
State and political subdivisions	2,425,155	7,391	(36,789)	2,395,757
Corporates	66,997	5	(127)	66,875
Total	\$ 6,558,715	\$ 14,569	\$ (106,950)	\$ 6,466,334

<b>2015</b>	<b>Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Fair Value</b>
U.S. Treasury	\$ 350,354	\$ 1	\$ (576)	\$ 349,779
U.S. Agencies	667,414	7	(1,032)	666,389
Mortgage-backed	3,598,115	12,420	(38,089)	3,572,446
State and political subdivisions	2,116,543	23,965	(2,095)	2,138,413
Corporates	80,585		(663)	79,922
<b>Total</b>	<b>\$ 6,813,011</b>	<b>\$ 36,393</b>	<b>\$ (42,455)</b>	<b>\$ 6,806,949</b>

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The following table presents contractual maturity information for securities available for sale at December 31, 2016 (in thousands):

	Amortized Cost	Fair Value
Due in 1 year or less	\$ 510,800	\$ 510,915
Due after 1 year through 5 years	1,098,157	1,095,380
Due after 5 years through 10 years	877,697	862,694
Due after 10 years	298,971	285,646
<b>Total</b>	<b>2,785,625</b>	<b>2,754,635</b>
Mortgage-backed securities	3,773,090	3,711,699
<b>Total securities available for sale</b>	<b>\$ 6,558,715</b>	<b>\$ 6,466,334</b>

Securities may be disposed of before contractual maturities due to sales by the Company or because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

Proceeds from the sales of securities available for sale were \$951.3 million, \$946.0 million, and \$414.0 million for 2016, 2015, and 2014, respectively. Securities transactions resulted in gross realized gains of \$8.5 million for 2016, \$10.5 million for 2015, and \$4.1 million for 2014. The gross realized losses were \$1 thousand for 2016, \$100 thousand for 2015, and \$11 thousand for 2014.

Securities available for sale with a fair value of \$5.7 billion at December 31, 2016, and \$5.9 billion at December 31, 2015, were pledged to secure U.S. Government deposits, other public deposits, certain trust deposits, derivative transactions, and repurchase agreements. Of this amount, securities with a fair value of \$1.8 billion at December 31, 2016 and \$1.6 billion at December 31, 2015 were pledged at the Federal Reserve Discount Window but were unencumbered as of those dates.

The following table shows the Company's available for sale investments' gross unrealized losses and fair value, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, at December 31, 2016 and 2015 (in thousands).

<b>2016</b>	Less than 12 months		12 months or more		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<b>Description of Securities</b>						
U.S. Treasury	\$ 48,678	\$ (1,526)	\$	\$	\$ 48,678	\$ (1,526)
U.S. Agencies	103,979	(34)	9,989	(14)	113,968	(48)
Mortgage-backed	2,735,868	(55,035)	269,637	(13,425)	3,005,505	(68,460)
State and political subdivisions	1,748,922	(36,639)	8,565	(150)	1,757,487	(36,789)
Corporates	41,966	(90)	17,982	(37)	59,948	(127)
	<b>\$ 4,679,413</b>	<b>\$ (93,324)</b>	<b>\$ 306,173</b>	<b>\$ (13,626)</b>	<b>\$ 4,985,586</b>	<b>\$ (106,950)</b>

Total temporarily-impaired debt  
securities available for sale

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<b>2015</b>	<b>Less than 12 months</b>		<b>12 months or more</b>		<b>Total</b>	
	<b>Fair Value</b>	<b>Unrealized Losses</b>	<b>Fair Value</b>	<b>Unrealized Losses</b>	<b>Fair Value</b>	<b>Unrealized Losses</b>
<b>Description of Securities</b>						
U.S. Treasury	\$ 344,556	\$ (576)	\$	\$	\$ 344,556	\$ (576)
U.S. Agencies	615,993	(1,032)			615,993	(1,032)
Mortgage-backed	2,056,316	(21,013)	426,959	(17,076)	2,483,275	(38,089)
State and political subdivisions	479,197	(1,316)	60,324	(779)	539,521	(2,095)
Corporates	29,126	(183)	50,796	(480)	79,922	(663)
Total temporarily-impaired debt securities available for sale	\$ 3,525,188	\$ (24,120)	\$ 538,079	\$ (18,335)	\$ 4,063,267	\$ (42,455)

The unrealized losses in the Company's investments in U.S. treasury obligations, U.S. government agencies, GSE mortgage-backed securities, municipal securities, and corporates were caused by changes in the interest rate environment. The Company does not have the intent to sell these securities and does not believe it is more likely than not that the Company will be required to sell these securities before a recovery of amortized cost. The Company expects to recover its cost basis in the securities and does not consider these investments to be other-than-temporarily impaired at December 31, 2016.

**Securities Held to Maturity**

The following table shows the Company's held to maturity investments' amortized cost, fair value, and gross unrealized gains and losses at December 31, 2016 and net unrealized gains, aggregated by maturity category, at December 31, 2015, respectively (in thousands).

<b>2016</b>	<b>Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Fair Value</b>
<b>State and political subdivisions:</b>				
Due in 1 year or less	\$ 6,077	\$ 5	\$ (947)	\$ 5,135
Due after 1 year through 5 years	82,650	2,376	(1,474)	83,552
Due after 5 years through 10 years	341,741	8,854	(3,021)	347,574
Due after 10 years	685,464	15,717	(31,415)	669,766
Total state and political subdivisions	\$ 1,115,932	\$ 26,952	\$ (36,857)	\$ 1,106,027

<b>2015</b>	<b>Amortized Cost</b>	<b>Net Unrealized Gains</b>	<b>Fair Value</b>
<b>State and political subdivisions:</b>			
Due in 1 year or less	\$ 17,265	\$ 628	\$ 17,893
Due after 1 year through 5 years	77,237	2,810	80,047
Due after 5 years through 10 years	370,631	13,486	384,117

Due after 10 years	201,973	7,349	209,322
Total state and political subdivisions	\$ 667,106	\$ 24,273	\$ 691,379

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.

There were no sales of securities held to maturity during 2016, 2015, or 2014.

The unrealized losses in the Company's held to maturity portfolio were caused by changes in the interest rate environment. The underlying bonds are subject to a risk-ranking process similar to the Company's loan portfolio and evaluated for impairment if deemed necessary. The Company does not have the intent to sell these

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securities and does not believe it is more likely than not that the Company will be required to sell these securities before a recovery of amortized cost. The Company expects to recover its cost basis in the securities and does not consider these investments to be other-than-temporarily impaired as of December 31, 2016.

**Trading Securities**

The net unrealized gains on trading securities at December 31, 2016, 2015, and 2014 were \$233 thousand, \$8 thousand, and \$101 thousand, respectively. Net unrealized gains/losses were included in trading and investment banking income on the Consolidated Statements of Income.

**Other Securities**

The table below provides detailed information for Federal Reserve Bank stock and Federal Home Loan Bank stock and other securities at December 31, 2016 and 2015 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<b>2016</b>				
FRB and FHLB stock	\$ 33,262	\$	\$	\$ 33,262
Other securities marketable	4	9,948		9,952
Other securities non-marketable	24,272	820		25,092
Total Federal Reserve Bank stock and other	\$ 57,538	\$ 10,768	\$	\$ 68,306
<b>2015</b>				
FRB and FHLB stock	\$ 33,215	\$	\$	\$ 33,215
Other securities marketable	5	7,159		7,164
Other securities non-marketable	23,855	964		24,819
Total Federal Reserve Bank stock and other	\$ 57,075	\$ 8,123	\$	\$ 65,198

Investment in FRB stock is based on the capital structure of the investing bank, and investment in FHLB stock is mainly tied to the level of borrowings from the FHLB. These holdings are carried at cost. Other marketable and non-marketable securities include PCM alternative investments in hedge funds and private equity funds, which are accounted for as equity-method investments. The fair value of other marketable securities includes alternative investment securities of \$10.0 million at December 31, 2016 and \$7.2 million at December 31, 2015. The fair value of other non-marketable securities includes alternative investment securities of \$2.0 million at December 31, 2016 and 2015. Unrealized gains or losses on alternative investments are recognized in the Equity earnings on alternative investments line of the Company's Consolidated Statements of Income.

**5. SECURITIES PURCHASED UNDER AGREEMENTS TO RESELL**

The Company regularly enters into agreements for the purchase of securities with simultaneous agreements to resell (resell agreements). The agreements permit the Company to sell or repledge these securities. Resell agreements were \$323.4 million and \$157.7 million at December 31, 2016 and 2015, respectively. The Company obtains possession of

collateral with a market value equal to or in excess of the principal amount loaned under resell agreements.

**6. LOANS TO OFFICERS AND DIRECTORS**

Certain executive officers and directors of the Company and the Bank, including companies in which those persons are principal holders of equity securities or are general partners, borrow in the normal course of business from the Bank. All such loans have been made on substantially the same terms, including interest rates and collateral, as those prevailing at the same time for comparable transactions with unrelated parties. In addition, all

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such loans are current as to repayment terms. In 2016, the composition of the Bank board of directors changed, with membership of the Bank board mirroring membership of the Company's board. This change resulted in a significant reduction of the number of loans to officers and directors, totaling \$501.4 million for the year-ended December 31, 2016.

For the years 2016 and 2015, an analysis of activity with respect to such aggregate loans to related parties appears below (in thousands):

	<b>Year Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
Balance beginning of year	\$ 710,085	\$ 541,507
New loans	125,868	462,914
Repayments	(13,148)	(294,336)
Other reductions	(501,413)	
Balance end of year	\$ 321,392	\$ 710,085

**7. GOODWILL AND OTHER INTANGIBLES**

Changes in the carrying amount of goodwill for the years ended December 31, 2016 and December 31, 2015 by operating segment are as follows (in thousands):

	<b>Bank</b>	<b>Institutional Investment Management</b>	<b>Asset Servicing</b>	<b>Total</b>
Balances as of January 1, 2016	\$ 161,341	\$ 47,529	\$ 19,476	\$ 228,346
Acquisition of Marquette	50			50
Balances as of December 31, 2016	\$ 161,391	\$ 47,529	\$ 19,476	\$ 228,396
Balances as of January 1, 2015	\$ 142,753	\$ 47,529	\$ 19,476	\$ 209,758
Acquisition of Marquette	18,588			18,588
Balances as of December 31, 2015	\$ 161,341	\$ 47,529	\$ 19,476	\$ 228,346

Following are the intangible assets that continue to be subject to amortization as of December 31, 2016 and 2015 (in thousands):

<b>As of December 31, 2016</b>		
<b>Gross Carrying Amount</b>	<b>Accumulated Amortization</b>	<b>Net Carrying Amount</b>

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Core deposit intangible assets	\$ 47,527	\$ 39,040	\$ 8,487
Customer relationships	107,460	81,832	25,628
Other intangible assets	4,198	3,822	376
Total intangible assets	\$ 159,185	\$ 124,694	\$ 34,491

**As of December 31, 2015**

Core deposit intangible assets	\$ 36,497	\$ 33,613	\$ 2,884
Core deposit intangible-Marquette acquisition	11,030	1,838	9,192
Customer relationships	104,560	73,496	31,064
Customer relationship-Marquette acquisition	2,900	338	2,562
Other intangible assets	3,247	2,841	406
Other intangible assets-Marquette acquisition	951	277	674
Total intangible assets	\$ 159,185	\$ 112,403	\$ 46,782

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Amortization expense for the years ended December 31, 2016, 2015, and 2014 was \$12.3 million, \$12.1 million and \$12.2 million, respectively. The following table discloses the estimated amortization expense of intangible assets in future years (in thousands):

For the year ending December 31, 2017	\$ 10,180
For the year ending December 31, 2018	7,202
For the year ending December 31, 2019	5,822
For the year ending December 31, 2020	4,487
For the year ending December 31, 2021	3,101

**8. PREMISES AND EQUIPMENT**

*Premises and equipment consisted of the following (in thousands):*

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
Land	\$ 45,634	\$ 46,430
Buildings and leasehold improvements	325,510	316,988
Equipment	150,955	138,127
Software	178,527	157,847
<b>Total</b>	<b>700,626</b>	<b>659,392</b>
Accumulated depreciation	(288,956)	(268,864)
Accumulated amortization	(122,663)	(109,057)
 Premises and equipment, net	 \$ 289,007	 \$ 281,471

Premises and equipment depreciation and amortization expenses were \$42.3 million in 2016, \$40.7 million in 2015, and \$34.2 million in 2014. Rental and operating lease expenses were \$15.1 million in 2016, \$14.6 million in 2015, and \$12.0 million in 2014.

*Minimum future rental commitments as of December 31, 2016, for all non-cancelable operating leases are as follows (in thousands):*

2017	\$ 11,338
2018	10,593
2019	9,572
2020	8,738
2021	6,370
Thereafter	30,984
<b>Total</b>	<b>\$ 77,595</b>



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The components of the Company's short-term and long-term debt are as follows (in thousands):

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>Short-term debt:</b>		
Federal Home Loan Bank 0.98% due 2016	\$	\$ 5,009
<b>Total short-term debt</b>		<b>5,009</b>
<b>Long-term debt:</b>		
<b>Trust Preferred Securities:</b>		
Marquette Capital Trust I subordinated debentures 1.65% due 2036	16,356	16,062
Marquette Capital Trust II subordinated debentures 6.30% due 2036	17,020	16,741
Marquette Capital Trust III subordinated debentures 2.09% due 2036	6,705	6,598
Marquette Capital Trust IV subordinated debentures 2.11% due 2036	27,174	26,757
Federal Home Loan Bank 1.88% due 2018		7,088
Federal Home Loan Bank 2.74% due 2020		3,104
Kansas Equity Fund IV, L.P. 0% due 2017	2	29
Kansas Equity Fund V, L.P. 0% due 2017	7	63
Kansas Equity Fund VI, L.P. 0% due 2017	23	110
Kansas Equity Fund IX, L.P. 0% due 2023	202	271
Kansas Equity Fund X, L.P. 0% due 2021	272	338
Kansas City Equity Fund 2008, L.L.C. 0% due 2016		10
Kansas City Equity Fund 2009, L.L.C. 0% due 2017	10	144
St. Louis Equity Fund 2007 L.L.C. 0% due 2016	13	13
St. Louis Equity Fund 2008 L.L.C. 0% due 2016		10
St. Louis Equity Fund 2009 L.L.C. 0% due 2017	95	245
St. Louis Equity Fund 2012 L.L.C. 0% due 2020	243	322
St. Louis Equity Fund 2013 L.L.C. 0% due 2021	1,168	1,465
St. Louis Equity Fund 2014 L.L.C. 0% due 2022	1,507	1,814
St. Louis Equity Fund 2015, L.L.C. 0% due 2023	908	1,000
MHEG Community Fund 41, L.P. 0% due 2024	815	920
MHEG Community Fund 43, L.P. 0% due 2026	1,362	1,482
MHEG Community Fund 45, L.P. 0% due 2027	1,409	1,484
MHEG Community Fund 47, L.P. 0% due 2028	1,481	
<b>Total long-term debt</b>	<b>76,772</b>	<b>86,070</b>
<b>Total borrowed funds</b>	<b>\$ 76,772</b>	<b>\$ 91,079</b>

Aggregate annual repayments of long-term debt at December 31, 2016, are as follows (in thousands):

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2017	\$ 1,474
2018	1,580
2019	1,636
2020	1,463
2021	1,156
Thereafter	69,463
Total	\$ 76,772

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The Company assumed long-term debt obligations with an aggregate balance of \$103.1 million and an aggregate fair value of \$65.5 million as of the Acquisition Date payable to four unconsolidated trusts (Marquette Capital Trust I, Marquette Capital Trust II, Marquette Capital Trust III, and Marquette Capital Trust IV) that previously issued trust preferred securities. The interest rate on the trust preferred securities issued by Marquette Capital Trust II was fixed at 6.30 percent until January 2016, and is reset each quarter at a variable rate tied to the three-month LIBOR plus 133 basis points thereafter. Interest rates on trust preferred securities issued by the remaining three trusts are tied to the three-month LIBOR rate with spreads ranging from 133 basis points to 160 basis points and reset quarterly. The trust preferred securities have maturity dates ranging from January 2036 to September 2036.

The Company is a member bank of the FHLB of Des Moines. Through this relationship, the Company purchased \$10.0 million of FHLB stock and has access to additional liquidity and funding sources through FHLB advances. The Company's borrowing capacity is dependent upon the amount of collateral the Company places at the FHLB. On December 12, 2016 and December 16, 2016, the FHLB issued 30-day letters of credit of \$200.0 million and \$100.0 million, respectively, on behalf of the Company to secure public fund deposits, both of which expired in January 2017. The letters of credit reduced the Company's borrowing capacity with the FHLB from \$805.9 million to \$505.9 million as of December 31, 2016. The Company had no outstanding FHLB advances at FHLB of Des Moines as of December 31, 2016.

The Company acquired a relationship with the FHLB of San Francisco as part of the Marquette acquisition. The Company paid off \$15.0 million of FHLB of San Francisco advances during the third quarter of 2016 and had no outstanding advances at FHLB of San Francisco as of December 31, 2016.

The Company has a revolving line of credit with Wells Fargo Bank, N.A. which allows the Company to borrow up to \$75.0 million for general working capital purposes. The interest rate applied to borrowed balances will be at the Company's option either 1.00 percent above LIBOR or 1.75 percent below the prime rate on the date of an advance. The Company pays 0.3 percent unused commitment fee for unused portions of the line of credit. The Company currently has no outstanding balance on this line of credit.

The Company enters into sales of securities with simultaneous agreements to repurchase (repurchase agreements). The Company utilizes repurchase agreements to facilitate the needs of customers and to facilitate secured short-term funding needs. Repurchase agreements are stated at the amount of cash received in connection with the transaction. The Company monitors collateral levels on a continuous basis and may be required to provide additional collateral based on the fair value of the underlying securities. Securities pledged as collateral under repurchase agreements are maintained with the Company's safekeeping agents. The amounts received under these agreements represent short-term borrowings. The amount outstanding at December 31, 2016, was \$1.4 billion (with accrued interest payable of \$80 thousand). The amount outstanding at December 31, 2015, was \$1.8 billion (with accrued interest payable of \$39 thousand).

*The carrying amounts and market values of the securities and the related repurchase liabilities and weighted average interest rates of the repurchase liabilities (grouped by maturity of the repurchase agreements) were as follows as of December 31, 2016 (in thousands):*

	Securities Market Value	Repurchase Liabilities	Weighted Average Interest Rate
<b>Maturity of the Repurchase Liabilities</b>			
On Demand	\$ 1	\$ 1	0.01%

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2 to 30 days	1,398,106	1,436,493	0.45
Over 90 Days	608	600	0.00
Total	\$ 1,398,715	\$ 1,437,094	0.45%

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The table below presents the remaining contractual maturities of repurchase agreements outstanding at December 31, 2016, in addition to the various types of marketable securities that have been pledged as collateral for these borrowings (in thousands).

	As of December 31, 2016			
	Remaining Contractual Maturities of the Agreements			
	On Demand	2-29 days	Over 90 Days	Total
<b>Repurchase agreements, secured by:</b>				
U.S. Treasury	\$	\$ 7,136	\$	\$ 7,136
U.S. Agency	1	1,429,357	600	1,429,958
Total repurchase agreements	\$ 1	\$ 1,436,493	\$ 600	\$ 1,437,094

**10. REGULATORY REQUIREMENTS**

Payment of dividends by the Bank to the parent company is subject to various regulatory restrictions. For national banks, the governing regulatory agency must approve the declaration of any dividends generally in excess of the sum of net income for that year and retained net income for the preceding two years.

The Bank maintains a reserve balance with the Federal Reserve Bank as required by law. During 2016, this amount averaged \$297.4 million, compared to \$489.3 million in 2015.

Through December 31, 2014, the Company and the Bank were subject to capital-adequacy standards that had originally been promulgated in 1989 and that were commonly known as Basel I. Under Basel I, total qualifying capital is divided into two tiers: more loss-absorbent tier 1 capital and less loss-absorbent tier 2 capital. The maximum amount of tier 2 capital that was able to be included in a banking organization's qualifying total capital was limited to 100% of its tier 1 capital. Under Basel I, for all periods ending December 31, 2014 and prior, the Company and the Bank had been required to maintain, a minimum total risk-based capital ratio of total qualifying capital to RWAs of 8.0%, a minimum tier 1 risk-based capital ratio of tier 1 capital to RWAs of 4.0%, and a minimum tier 1 leverage ratio of tier 1 capital to average on-balance-sheet exposures of 4.0%.

In July 2013, the FRB approved a final rule to implement in the United States the Basel III regulatory capital reforms from the Basel Committee on Banking Supervision and certain changes required by the Dodd-Frank Act. The final rule included a new minimum ratio of common equity tier 1 capital to risk-weighted assets of 4.5% and a common equity tier 1 capital conservation buffer of 2.5% of risk-weighted assets. The final rule also adjusted the methodology for calculating risk-weighted assets to enhance risk sensitivity. Beginning January 1, 2015, the Company was required to be compliant with revised minimum regulatory capital ratios and began the transitional period for definitions of regulatory capital and regulatory capital adjustments and deductions established under the final rule. Compliance with the risk-weighted asset calculations was required on January 1, 2015 and the Company is in compliance with the increased capital standards.

At December 31, 2016, the Company is required to have minimum common equity tier 1, tier 1, and total capital ratios of 4.5%, 6.0% and 8.0%, respectively. The Company's actual ratios at that date were 11.80%, 11.80% and 12.87%, respectively. The Company is required to have a minimum leverage ratio of 4.0%, and the leverage ratio at December 31, 2016, was 9.09%.

As of December 31, 2016, the most recent notification from the OCC categorized the Bank as well capitalized under the regulatory framework for prompt corrective action. To be categorized as well-capitalized the Bank must maintain total risk-based, tier 1 risk-based, common equity tier 1, and tier 1 leverage ratios of 10.0%, 8.0%, 6.5%, and 5.0%, respectively. There are no conditions or events that have occurred since the receipt of the most recent notification that management believes have changed the Bank's categorization.

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In addition, under amendments to the BHCA introduced by the Dodd-Frank Act and commonly known as the Volcker Rule, the Company and its subsidiaries are subject to extensive limits on proprietary trading and on owning or sponsoring hedge funds and private-equity funds. The limits on proprietary trading are largely focused on purchases or sales of financial instruments by a banking entity as principal primarily for the purpose of short-term resale, benefitting from actual or expected short-term price movements, or realizing short-term arbitrage profits. The limits on owning or sponsoring hedge funds and private-equity funds are designed to ensure that banking entities generally maintain only small positions in managed or advised funds and are not exposed to significant losses arising directly or indirectly from them. The Volcker Rule also provides for increased capital charges, quantitative limits, rigorous compliance programs, and other restrictions on permitted proprietary trading and fund activities, including a prohibition on transactions with a covered fund that would constitute a covered transaction under Sections 23A and 23B of the Federal Reserve Act. The fund activities of the Company and its subsidiaries are in conformance with the Volcker Rule, which became effective July 21, 2015.

*Actual capital amounts as well as required and well-capitalized common equity tier 1, tier 1, total and tier 1 leverage ratios as of December 31, for the Company and the Bank are as follows (in thousands):*

	<b>2016</b>					
	<b>Actual</b>		<b>For Capital Adequacy Purposes</b>		<b>To Be Well Capitalized Under Prompt Corrective Action Provisions</b>	
	<b>Amount</b>	<b>Ratio</b>	<b>Amount</b>	<b>Ratio</b>	<b>Amount</b>	<b>Ratio</b>
<b>Common Equity Tier 1 Capital:</b>						
UMB Financial Corporation	\$ 1,789,581	11.80%	\$ 682,428	4.50%	\$ N/A	N/A%
UMB Bank, n. a.	1,613,024	10.73	676,357	4.50	976,960	6.50
<b>Tier 1 Capital:</b>						
UMB Financial Corporation	1,789,581	11.80	909,903	6.00	N/A	N/A
UMB Bank, n. a.	1,613,024	10.73	901,809	6.00	1,202,412	8.00
<b>Total Capital:</b>						
UMB Financial Corporation	1,951,078	12.87	1,213,205	8.00	N/A	N/A
UMB Bank, n. a.	1,707,265	11.36	1,202,412	8.00	1,503,016	10.00
<b>Tier 1 Leverage:</b>						
UMB Financial Corporation	1,789,581	9.09	787,604	4.00	N/A	N/A
UMB Bank, n. a.	1,613,024	8.24	782,638	4.00	978,297	5.00
<b>2015</b>						
<b>Common Equity Tier 1 Capital:</b>						
UMB Financial Corporation	\$ 1,664,815	11.74%	\$ 638,108	4.50%	\$ N/A	N/A%
UMB Bank, n. a.	1,491,833	10.63	631,765	4.50	912,549	6.50
<b>Tier 1 Capital:</b>						
UMB Financial Corporation	1,681,222	11.86	850,810	6.00	N/A	N/A
UMB Bank, n. a.	1,491,833	10.63	842,353	6.00	1,123,138	8.00
<b>Total Capital:</b>						
UMB Financial Corporation	1,814,705	12.80	1,134,413	8.00	N/A	N/A
UMB Bank, n. a.	1,575,697	11.22	1,123,138	8.00	1,403,922	10.00
<b>Tier 1 Leverage:</b>						

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UMB Financial Corporation	1,681,222	9.08	740,918	4.00	N/A	N/A
UMB Bank, n. a.	1,491,833	8.13	734,229	4.00	917,786	5.00

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The Company has a discretionary noncontributory profit sharing plan, which features an employee stock ownership plan. This plan is for the benefit of substantially all eligible officers and employees of the Company and its subsidiaries. The Company has accrued and anticipates making a discretionary payment of \$1.5 million in March 2017, for 2016. A \$1.5 million contribution was paid in 2016, for 2015. A \$2.0 million contribution was paid in 2015, for 2014.

The Company has a qualified 401(k) profit sharing plan that permits participants to make contributions by salary deduction. The Company made a matching contribution to this plan of \$6.4 million in 2016, for 2015 and \$5.7 million in 2015, for 2014. The Company anticipates making a matching contribution of \$7.0 million in March 2017, for 2016.

The Company recognized \$2.1 million, \$2.2 million, and \$2.0 million in expense related to outstanding stock options and \$9.2 million, \$8.1 million, and \$7.2 million in expense related to outstanding restricted stock grants for the years ended December 31, 2016, 2015, and 2014, respectively. The Company had \$4.7 million of unrecognized compensation expense related to the outstanding options and \$18.6 million of unrecognized compensation expense related to outstanding restricted stock grants at December 31, 2016.

**2002 Incentive Stock Option Plan**

On April 18, 2002, the shareholders of the Company approved the 2002 Incentive Stock Options Plan (the 2002 Plan), which provides incentive options to certain key employees to receive up to 2 million common shares of the Company. All options that are issued under the 2002 Plan terminate after 10 years (except for any option granted to a person holding more than 10 percent of the Company's stock, in which case the option terminates after five years). All options issued prior to 2005, under the 2002 Plan, could not be exercised until at least four years and 11 months after the date they are granted. Options issued in 2006, 2007, and 2008 under the 2002 Plan, have a vesting schedule of 50 percent after three years; 75 percent after four years and 100 percent after four years and 11 months. Except under circumstances of death, disability or certain retirements, the options cannot be exercised after the grantee has left the employment of the Company or its subsidiaries. The exercise period for an option may be accelerated upon the optionee's qualified disability, retirement or death. All options expire at the end of the exercise period. Prior to 2006, the Company made no recognition in the Company's Consolidated Balance Sheets of the options until such options were exercised and no amounts applicable thereto were reflected in net income as all options were granted at strike prices at the then current fair value of the underlying shares. For options granted after January 1, 2006, compensation expense is recognized on unvested options outstanding. Options are granted at exercise prices of no less than 100 percent of the fair market value of the underlying shares based on the fair value of the option at date of grant. On January 25, 2011, the Board amended and froze the 2002 Plan such that no shares of Company stock shall thereafter be available for grants under the 2002 Plan. Existing awards granted under the 2002 Plan will continue in accordance with their terms under the 2002 Plan. The 2002 Plan expired without modification on April 17, 2012.

*The table below discloses the information relating to option activity in 2016, under the 2002 Plan:*

		<b>Weighted Average Remaining Contractual Term</b>	<b>Aggregate Intrinsic Value</b>
<b>Number of Shares</b>	<b>Weighted Average Price Per Share</b>		

**Stock Options Under the 2002 Plan**

Outstanding - December 31, 2015	180,436	\$	38.61		
Granted					
Expired	(9,203)		37.46		
Exercised	(79,772)		37.56		
Outstanding - December 31, 2016	91,461	\$	39.63	1.4	\$ 3,428,895
Exercisable - December 31, 2016	91,461	\$	39.63	1.4	\$ 3,428,895

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No options were granted under the 2002 Plan during 2016, 2015, or 2014. The total intrinsic value of options exercised during the year ended December 31, 2016, 2015, and 2014 was \$2.3 million, \$1.1 million, and \$2.0 million, respectively. As of December 31, 2016, there was no unrecognized compensation cost related to the nonvested options.

**Long-Term Incentive Compensation Plan**

At the April 26, 2005, shareholders meeting, the shareholders of the Company approved the UMB Financial Corporation Long-Term Incentive Compensation Plan (LTIP) which became effective as of January 1, 2005. The LTIP permits the issuance to selected officers of the Company service-based restricted stock grants, performance-based restricted stock grants and non-qualified stock options. Service-based restricted stock grants contain a service requirement. The performance-based restricted grants contain performance and service requirements. The non-qualified stock option grants contain a service requirement.

At the April 23, 2013 shareholders meeting, the shareholders of the Company approved amendments to the LTIP Plan, including increasing the number of shares of the Company's stock reserved for issuance under the Plan from 5.25 million shares to 7.44 million shares. Additionally, the shareholders approved increasing the maximum benefits any one eligible employee may receive under the plan during any one fiscal year from \$1 million to \$2 million taking into account the value of all stock options and restricted stock received.

The service-based restricted stock grants contain a service requirement with varying vesting schedules. The majority of these grants issued prior to 2016 utilize a vesting schedule in which 50 percent of the shares vest after three years of service, 75 percent after four years of service and 100 percent after five years of service. The majority of these grants issued in 2016 utilize a vesting schedule in which 50 percent of the shares vest after two years of service, 75 percent after three years of service and 100 percent after four years of service. Certain other grants utilize vesting schedules in which the grants vest ratably over the requisite service period or contain a three-year cliff vesting.

The performance-based restricted stock grants contain a service and a performance requirement. The performance requirement is based on a predetermined performance requirement over a three year period. The service requirement portion is a three year cliff vesting. If the performance requirement is not met, the participants do not receive the shares.

The dividends on service and performance-based restricted stock grants are treated as two separate transactions. First, cash dividends are paid on the restricted stock. Those cash dividends are then paid to purchase additional shares of restricted stock. Dividends earned as additional shares of restricted stock have the same terms as the associated grant. The dividends paid on the stock are recorded as a reduction to retained earnings (similar to all dividend transactions).

*The table below discloses the status of the service-based restricted shares during 2016:*

	Number of Shares	Weighted Average Grant Date Fair Value
<b>Service-Based Restricted Stock</b>		
Nonvested - December 31, 2015	534,619	\$ 50.95
Granted	188,921	48.57

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Canceled	(49,058)		50.56
Vested	(149,967)		48.82
Nonvested - December 31, 2016	524,515	\$	50.74

As of December 31, 2016, there was \$16.0 million of unrecognized compensation cost related to the nonvested shares. The cost is expected to be recognized over a period of 2.7 years. Total fair value of shares vested during the year ended December 31, 2016, 2015, and 2014 was \$7.4 million, \$7.2 million, and \$5.6 million, respectively.

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The table below discloses the status of the performance-based restricted shares during 2016:

	Number of Shares	Weighted Average Grant Date Fair Value
<b>Performance-Based Restricted Stock</b>		
Nonvested - December 31, 2015	101,934	\$ 51.27
Granted	62,725	47.68
Canceled	(22,507)	50.36
Vested	(23,466)	45.58
Nonvested - December 31, 2016	118,686	\$ 50.67

As of December 31, 2016, there was \$2.6 million of unrecognized compensation cost related to the nonvested shares. The cost is expected to be recognized over a period of 1.8 years. Total fair value of shares vested during the years ended December 31, 2016, 2015 and 2014, was \$1.0 million, \$1.9 million and \$2.3 million, respectively.

The non-qualified stock options carry a service requirement and grants issued prior to 2016 will vest 50 percent after three years, 75 percent after four years and 100 percent after five years, while grants issued in 2016 will vest 50 percent after two years, 75 percent after three years and 100 percent after four years.

The table below discloses the information relating to non-qualified option activity in 2016 under the LTIP:

	Number of Shares	Weighted Average Price Per Share	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
<b>Stock Options Under the LTIP</b>				
Outstanding - December 31, 2015	1,339,747	\$ 45.73		
Granted	244,076	47.68		
Canceled	(88,183)	50.93		
Expired	(17,037)	45.46		
Exercised	(314,754)	40.72		
Outstanding - December 31, 2016	1,163,849	\$ 47.10	6.3	\$ 34,937,533
Exercisable - December 31, 2016	407,366	\$ 40.86	3.8	\$ 14,772,695

The Company uses the Black-Scholes pricing model to determine the fair value of its options. The assumptions for stock-based awards in the past three years utilized in the model are shown in the table below.

	2016	2015	2014
<b>Black-Scholes pricing model:</b>			
Weighted average fair value of the granted option	\$ 9.90	\$ 11.95	\$ 13.03
Weighted average risk-free interest rate	1.30%	1.62%	1.77%
Expected option life in years	6.25	6.25	6.25
Expected volatility	25.71%	26.73%	24.87%
Expected dividend yield	2.02%	1.74%	1.53%

The expected option life is derived from historical exercise patterns and represents the amount of time that options granted are expected to be outstanding. The expected volatility is based on historical volatilities of the Company's stock. The risk-free interest rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

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The weighted average grant-date fair value of options granted during the years 2016, 2015, and 2014 was \$9.90, \$11.95, and \$13.03, respectively. The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014, was \$5.8 million, \$2.6 million and \$3.7 million, respectively. As of December 31, 2016, there was \$4.7 million of unrecognized compensation cost related to the nonvested options. The cost is expected to be recognized over a period of 2.7 years.

Cash received from options exercised under all share based compensation plans was \$15.8 million, \$10.5 million, and \$8.0 million for the years ended December 31, 2016, 2015, and 2014, respectively. The tax benefit realized for stock options exercised was \$1.1 million in 2016. This 2016 tax benefit was recognized in the Company's Consolidated Statements of Income due to the Company's adoption of ASU No. 2016-09 with an effective date of January 1, 2016. See further discussion of this ASU in Note 2, New Accounting Pronouncements. The tax benefit realized for stock options exercised was \$0.9 million in 2015 and \$1.9 million in 2014, both of which were recognized in the Company's Consolidated Statements of Changes in Shareholder's Equity.

The Company has no specific policy to repurchase common shares to mitigate the dilutive impact of options; however, the Company has historically made adequate discretionary repurchases of common shares in an amount that exceeds stock option exercise activity. See a description of the Company's share repurchase plan in Note 13, Common Stock and Earnings Per Share, in the Notes to the Consolidated Financial Statements provided in Item 8, page 99 of this report.

**12. BUSINESS SEGMENT REPORTING**

The Company has strategically aligned its operations into the following three reportable segments (collectively, Business Segments): Bank, Institutional Investment Management, and Asset Servicing. Business segment financial results produced by the Company's internal management reporting system are evaluated regularly by senior executive officers in deciding how to allocate resources and assess performance for individual Business Segments. Previously, the Company had the following four Business Segments: Bank, Institutional Investment Management, Asset Servicing, and Payment Solutions. In the first quarter of 2016, the Company merged the Payments Solutions segment into the Bank segment to better reflect how the core businesses, products and services are being evaluated by management currently. The Company's Payment Solutions leadership structure and financial performance assessments are now included in the Bank segment, and accordingly, the reportable segments were realigned to reflect these changes. For comparability purposes, amounts in all periods are based on methodologies in effect at December 31, 2016. Previously reported results have been reclassified to conform to the current organizational structure.

The following summaries provide information about the activities of each segment:

The *Bank* provides a full range of banking services to commercial, retail, government and correspondent bank customers through the Company's branches, call center, internet banking, and ATM network. Services include traditional commercial and consumer banking, treasury management, leasing, foreign exchange, merchant bankcard, wealth management, brokerage, insurance, capital markets, investment banking, corporate trust, and correspondent banking.

*Institutional Investment Management* provides equity and fixed income investment strategies in the intermediary and institutional markets via mutual funds, traditional separate accounts and sub-advisory relationships.

*Asset Servicing* provides services to the asset management industry, supporting a range of investment products, including mutual funds, alternative investments and managed accounts. Services include fund administration, fund accounting, investor services, transfer agency, distribution, marketing, custody, alternative investment services,

managed account services, and collective and multiple-series trust services.

**Table of Contents****BUSINESS SEGMENT INFORMATION**

*Line of business/segment financial results were as follows (in thousands):*

	<b>Year Ended December 31, 2016</b>			
	<b>Bank</b>	<b>Institutional Investment Management</b>	<b>Asset Servicing</b>	<b>Total</b>
Net interest income	\$ 484,716	\$	\$ 10,607	\$ 495,323
Provision for loan losses	32,500			32,500
Noninterest income	311,309	75,822	88,944	476,075
Noninterest expense	577,683	73,442	80,769	731,894
Income before taxes	185,842	2,380	18,782	207,004
Income tax expense	43,039	798	4,366	48,203
Net income	\$ 142,803	\$ 1,582	\$ 14,416	\$ 158,801
Average assets	\$ 18,314,000	\$ 61,000	\$ 1,218,000	\$ 19,593,000

	<b>Year Ended December 31, 2015</b>			
	<b>Bank</b>	<b>Institutional Investment Management</b>	<b>Asset Servicing</b>	<b>Total</b>
Net interest income	\$ 406,884	\$	\$ 5,183	\$ 412,067
Provision for loan losses	15,500			15,500
Noninterest income	279,897	95,064	91,493	466,454
Noninterest expense	552,514	71,498	79,724	703,736
Income before taxes	118,767	23,566	16,952	159,285
Income tax expense	32,208	6,469	4,535	43,212
Net income	\$ 86,559	\$ 17,097	\$ 12,417	\$ 116,073
Average assets	\$ 16,732,000	\$ 69,000	\$ 985,000	\$ 17,786,000

	<b>Year Ended December 31, 2014</b>			
	<b>Bank</b>	<b>Institutional Investment Management</b>	<b>Asset Servicing</b>	<b>Total</b>
Net interest income	\$ 344,604	\$	\$ 5,451	\$ 350,055
Provision for loan losses	17,000			17,000
Noninterest income	278,624	131,258	88,806	498,688
Noninterest expense	498,047	92,077	75,556	665,680
Income before taxes	108,181	39,181	18,701	166,063

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Income tax expense	31,884	10,094	3,430	45,408
Net income	\$ 76,297	\$ 29,087	\$ 15,271	\$ 120,655
Average assets	\$ 14,524,000	\$ 73,000	\$ 1,402,000	\$ 15,999,000

**Table of Contents****13. COMMON STOCK AND EARNINGS PER SHARE**

The following table summarizes the share transactions for the three years ended December 31, 2016 (in thousands, except for share data):

	<b>Shares Issued</b>	<b>Shares in Treasury</b>
Balance December 31, 2013	55,056,730	(9,835,493)
Purchase of Treasury Stock		(130,197)
Sale of Treasury Stock		15,320
Issued for stock options & restricted stock		425,828
Balance December 31, 2014	55,056,730	(9,524,542)
Common stock issuance for acquisition		3,470,478
Purchase of Treasury Stock		(225,894)
Sale of Treasury Stock		19,695
Issued for stock options & restricted stock		599,899
Balance December 31, 2015	55,056,730	(5,660,364)
Purchase of Treasury Stock		(399,677)
Sale of Treasury Stock		21,036
Issued for stock options & restricted stock		655,331
Balance December 31, 2016	55,056,730	(5,383,674)

As noted in the table above, in 2015, the Company issued 3.5 million shares to the owners of Marquette for the purchase of all of the outstanding shares of Marquette. The owners of Marquette as of the close of business on the Acquisition Date received 9.2295 shares of the Company's common stock for each share of Marquette common stock owned on that date. The market value of the shares of the Company's common stock issued at the effective time of the merger was approximately \$179.7 million, based on the closing price of the Company's stock of \$51.79 per share on May 29, 2015.

The Board approved a plan to repurchase up to 2 million shares of common stock annually at its 2013, 2014, 2015 and 2016 meetings. All open market share purchases under the share repurchase plans are intended to be within the scope of Rule 10b-18 promulgated under the Exchange Act. Rule 10b-18 provides a safe harbor for purchases in a given day if the Company satisfies the manner, timing and volume conditions of the rule when purchasing its own common shares. The Company has not made any repurchases other than through these plans.

Basic earnings per share are computed by dividing income available to common shareholders by the weighted average number of shares outstanding during the year. Diluted earnings per share gives effect to all potential common shares that were outstanding during the year.

*The shares used in the calculation of basic and diluted earnings per share, are shown below:*

**For the Years Ended December 31,**

	<b>2016</b>	<b>2015</b>	<b>2014</b>
Weighted average basic common shares outstanding	48,828,313	47,126,252	44,844,578
Dilutive effect of stock options and restricted stock	448,742	453,082	600,705
Weighted average diluted common shares outstanding	49,277,055	47,579,334	45,445,283

#### **14. COMMITMENTS, CONTINGENCIES AND GUARANTEES**

In the normal course of business, the Company is a party to financial instruments with off-balance-sheet risk in order to meet the financing needs of its customers and to reduce its own exposure to fluctuations in interest

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rates. These financial instruments include commitments to extend credit, commercial letters of credit, standby letters of credit, and futures contracts. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the Consolidated Balance Sheets. The contract or notional amount of those instruments reflects the extent of involvement the Company has in particular classes of financial instruments.

The Company's exposure to credit loss in the event of nonperformance by the other party to the financial instruments for commitments to extend credit, commercial letters of credit, and standby letters of credit is represented by the contract or notional amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as it does for on-balance-sheet instruments.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the agreement. These conditions generally include, but are not limited to, each customer being current as to repayment terms of existing loans and no deterioration in the customer's financial condition. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. The interest rate is generally a variable rate. If the commitment has a fixed interest rate, the rate is generally not set until such time as credit is extended. For credit card customers, the Company has the right to change or terminate terms or conditions of the credit card account at any time. Since a large portion of the commitments and unused credit card lines are never actually drawn upon, the total commitment amount does not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on an individual basis. The amount of collateral obtained, if deemed necessary by the Company upon extension of credit, is based on management's credit evaluation. Collateral pledged by customers varies but may include accounts receivable, inventory, real estate, plant and equipment, stock, securities and certificates of deposit.

Commercial letters of credit are issued specifically to facilitate trade or commerce. Under the terms of a commercial letter of credit, as a general rule, drafts will be drawn when the underlying transaction is consummated as intended.

Standby letters of credit are conditional commitments issued by the Company payable upon the non-performance of a customer's obligation to a third party. The Company issues standby letters of credit for terms ranging from three months to five years. The Company generally requires the customer to pledge collateral to support the letter of credit. The maximum liability to the Company under standby letters of credit at December 31, 2016 and 2015, was \$376.6 million and \$360.5 million, respectively. As of December 31, 2016 and 2015, standby letters of credit totaling \$67.4 million and \$63.1 million, respectively, were with related parties to the Company.

The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities. The Company holds collateral supporting those commitments when deemed necessary. Collateral varies but may include such items as those described for commitments to extend credit.

Futures contracts are contracts for delayed delivery of securities or money market instruments in which the seller agrees to make delivery at a specified future date, of a specified instrument, at a specified yield. Risks arise from the possible inability of counterparties to meet the terms of their contracts and from movement in securities values and interest rates. Instruments used in trading activities are carried at market value and gains and losses on futures contracts are settled in cash daily. Any changes in the market value are recognized in trading and investment banking income.

The Company uses contracts to offset interest rate risk on specific securities held in the trading portfolio. As of December 31, 2016 and 2015, there were no notional amounts outstanding for these contracts. Open futures contract positions average notional amount was \$0.4 million and \$2.0 million during the years ended December 31, 2016 and 2015, respectively. Net futures activity resulted in losses of \$142 thousand and gains of \$35 thousand and losses of

\$319 thousand for 2016, 2015, and 2014, respectively. The Company controls the credit risk of its futures contracts through credit approvals, limits and monitoring procedures.

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The Company also enters into foreign exchange contracts on a limited basis. For operating purposes, the Company maintains certain balances in foreign banks. Foreign exchange contracts are purchased on a monthly basis to avoid foreign exchange risk on these foreign balances. The Company will also enter into foreign exchange contracts to facilitate foreign exchange needs of customers. The Company will enter into a contract to buy or sell a foreign currency at a future date only as part of a contract to sell or buy the foreign currency at the same future date to a customer. During 2016, contracts to purchase and to sell foreign currency averaged approximately \$40.5 million compared to \$89.6 million during 2015. The net gains on these foreign exchange contracts for 2016, 2015 and 2014 were \$1.6 million, \$1.8 million and \$1.7 million, respectively.

With respect to group concentrations of credit risk, most of the Company's business activity is with customers in the states of Missouri, Kansas, Colorado, Oklahoma, Nebraska, Arizona, Illinois, and Texas. At December 31, 2016, the Company did not have any significant credit concentrations in any particular industry.

*The following table summarizes the Company's off-balance sheet financial instruments as described above.*

<i>(in thousands)</i>	<b>Contract or Notional Amount December 31,</b>	
	<b>2016</b>	<b>2015</b>
Commitments to extend credit for loans (excluding credit card loans)	\$ 6,471,404	\$ 6,671,794
Commitments to extend credit under credit card loans	2,798,433	2,986,581
Commercial letters of credit	1,098	11,541
Standby letters of credit	376,617	360,468
Forward contracts	49,352	75,611
Spot foreign exchange contracts	3,725	10,391

**15. ACQUISITIONS**

On May 31, 2015, the Company acquired all of the outstanding common shares of Marquette. Marquette was a privately-held financial services company with a portfolio of businesses and operated thirteen branches in Arizona and Texas, two national commercial specialty-lending businesses focused on asset-based lending and accounts receivable factoring, as well as an asset-management firm. As a result of the acquisition, the Company expects to increase its presence in Arizona and Texas and supplement the Company's commercial-banking services with factoring and asset-based lending businesses. As of the close of trading on the Acquisition Date, the beneficial owners of Marquette received 9.2295 shares of the Company's common stock for each share of Marquette common stock owned at that date (approximately 3.47 million shares total). The market value of the Company's common stock issued at the effective time of the merger was approximately \$179.7 million, based on the closing stock price of the Company's common stock of \$51.79 per share on May 29, 2015. The transaction was accounted for using the acquisition method of accounting in accordance with FASB ASC Topic 805, *Business Combinations*. Accordingly, the purchase price was allocated based on the estimated fair market values of the assets and liabilities acquired.

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The following table summarizes the net assets acquired (at fair value) and consideration transferred for Marquette (*in thousands, except for per share data*):

	<b>Fair Value May 31, 2015</b>
<b><u>Assets</u></b>	
Loans	\$ 980,404
Investment securities	177,694
Cash and due from banks	95,351
Premises and equipment, net	11,508
Identifiable intangible assets	14,881
Other assets	32,336
<b>Total assets acquired</b>	<b>1,312,174</b>
<b><u>Liabilities</u></b>	
Noninterest-bearing deposits	226,161
Interest-bearing deposits	708,675
Short-term debt	112,133
Long-term debt	89,971
Other liabilities	14,135
<b>Total liabilities assumed</b>	<b>1,151,075</b>
Net identifiable assets acquired	161,099
Preliminary goodwill	18,638
<b>Net assets acquired</b>	<b>\$ 179,737</b>
<b><u>Consideration:</u></b>	
Company's common shares issued	3,470
Purchase price per share of the Company's common stock	\$ 51.79
<b>Fair value of total consideration transferred</b>	<b>\$ 179,737</b>

In the acquisition, the Company purchased \$980.4 million of loans at fair value. All non-performing loans and select other classified loan relationships considered by management to be credit impaired are accounted for pursuant to ASC Topic 310-30, as previously discussed within Note 3, Loans and Allowance for Loan Losses.

The Company assumed long-term debt obligations with an aggregate balance of \$103.1 million and an aggregate fair value of \$65.5 million as of the Acquisition Date payable to four unconsolidated trusts (Marquette Capital Trust I, Marquette Capital Trust II, Marquette Capital Trust III, and Marquette Capital Trust IV) that previously issued trust preferred securities. The interest rate on the trust preferred securities issued by Marquette Capital Trust II was fixed at 6.30 percent until January 2016, and is reset each quarter at a variable rate tied to the three-month LIBOR plus 133 basis points thereafter. Interest rates on trust preferred securities issued by the remaining three trusts are tied to the three-month LIBOR rate with spreads ranging from 133 basis points to 160 basis points and reset quarterly. The trust preferred securities have maturity dates ranging from January 2036 to September 2036.

The amount of goodwill arising from the acquisition reflects the Company's increased market share and related synergies that are expected to result from combining the operations of UMB and Marquette. All of the goodwill was assigned to the Bank segment. In accordance with ASC 350, *Intangibles-Goodwill and Other*, goodwill will not be amortized but will be subject to at least an annual impairment test. As the Company acquired tax deductible goodwill in excess of the amount reported in the Consolidated Financial Statements, the goodwill is expected to be deductible for tax purposes. The fair value of the acquired identifiable intangible assets of \$14.9 million was comprised of a core deposit intangible of \$11.0 million, customer lists of \$2.9 million and non-compete agreements of \$1.0 million.

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The results of Marquette are included in the results of the Company subsequent to the Acquisition Date. For the year ended December 31, 2016, acquisition expenses recognized in Noninterest expense in the Company's Consolidated Statements of Income totaled \$4.8 million. This total included \$896 thousand of severance in Salaries and employee benefits and \$1.7 million in Legal and consulting fees. For the year ended December 31, 2015, acquisition expenses recognized in Noninterest expense totaled \$9.8 million. This total included \$2.4 million of severance in Salaries and employee benefits and \$4.8 million in Legal and consulting fees.

**16. INCOME TAXES**

Income taxes as set forth below produce effective income tax rates of 23.3 percent in 2016, 27.1 percent in 2015, and 27.3 percent in 2014. These percentages are computed by dividing Income tax expense by Income before income taxes from the Consolidated Statements of Income.

*Income tax expense includes the following components (in thousands):*

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>Current tax</b>			
Federal	\$ 43,619	\$ 44,469	\$ 54,560
State	1,828	3,591	2,304
Total current tax expense	45,447	48,060	56,864
<b>Deferred tax</b>			
Federal	2,332	(3,697)	(11,448)
State	424	(1,151)	(8)
Total deferred tax expense (benefit)	2,756	(4,848)	(11,456)
Total tax expense	\$ 48,203	\$ 43,212	\$ 45,408

*The reconciliation between the income tax expense and the amount computed by applying the statutory federal tax rate of 35% to income before income taxes is as follows (in thousands):*

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
Statutory federal income tax expense	\$ 72,451	\$ 55,750	\$ 58,122
Tax-exempt interest income	(20,196)	(15,405)	(13,861)
Tax-exempt life insurance related income	(3,405)	(932)	(443)
State and local income taxes, net of federal tax benefits	1,462	1,599	1,403
Federal tax credits, net of amortization of LIHTC <sup>(1)</sup> benefits	(2,480)	(688)	(623)
Other	371	2,888	810
Total tax expense	\$ 48,203	\$ 43,212	\$ 45,408

(1) Low income housing tax credits

In preparing its tax returns, the Company is required to interpret tax laws and regulations to determine its taxable income. Periodically, the Company is subject to examinations by various taxing authorities that may give rise to differing interpretations of these laws. Upon examination, agreement of tax liabilities between the Company and the multiple tax jurisdictions in which the Company files tax returns may ultimately be different. The Company is currently not under federal audit by the Internal Revenue Service. The Company is in the examination process with one state taxing authority for tax years 2012, 2013 and 2014. The Company believes the aggregate amount of any additional liabilities that may result from this examination, if any, will not have a material adverse effect on the financial condition, results of operations, or cash flows of the Company.

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Deferred income taxes result from differences between the carrying value of assets and liabilities measured for financial reporting and the tax basis of assets and liabilities for income tax return purposes.

*The significant components of deferred tax assets and liabilities are reflected in the following table (in thousands):*

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>Deferred tax assets:</b>		
Net unrealized loss on securities available for sale	\$ 34,998	\$ 2,198
Loans, principally due to allowance for loan losses	40,564	35,400
Stock-based compensation	7,824	7,363
Accrued expenses	37,263	33,012
Intangibles		2,432
Miscellaneous	4,587	4,196
Total deferred tax assets before valuation allowance	125,236	84,601
Valuation allowance	(2,860)	(2,850)
Total deferred tax assets	122,376	81,751
 <b>Deferred tax liabilities:</b>		
Land, buildings and equipment	(31,335)	(25,143)
Original issue discount	(4,507)	(4,328)
Partnership investments	(3,776)	(3,933)
Trust preferred securities	(13,780)	(14,209)
Intangibles	(3,623)	
Miscellaneous	(7,148)	(6,651)
Total deferred tax liabilities	(64,169)	(54,264)
Net deferred tax asset	\$ 58,207	\$ 27,487

The Company had various state net operating loss carryforwards of approximately \$0.7 million as of December 31, 2016. These net operating losses expire at various times between 2017 and 2036. The Company has a full valuation allowance for these state net operating losses as they are not expected to be realized. In addition, the Company has a valuation allowance of \$2.2 million to reduce certain other state deferred tax assets to the amount of tax benefit management believes it will more likely than not realize.

The net deferred tax asset at December 31, 2016 and December 31, 2015 is included in the Other assets line of the Company's Consolidated Balance Sheets.

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction and various states. With few exceptions, the Company is no longer subject to U.S. federal, state and local income tax examinations by tax authorities for tax years prior to 2013 in the jurisdictions in which it files.

**Liabilities Associated With Unrecognized Tax Benefits**

The gross amount of unrecognized tax benefits totaled \$4.4 million and \$4.7 million at December 31, 2016 and 2015, respectively. The total amount of unrecognized tax benefits, net of associated deferred tax benefit, that would impact the effective tax rate, if recognized, would be \$2.9 million and \$3.0 million at December 31, 2016 and December 31, 2015, respectively. The unrecognized tax benefits related to state tax positions that have a corresponding federal tax benefit. While it is expected that the amount of unrecognized tax benefits will change in the next twelve months, the Company does not expect this change to have a material adverse impact on the financial condition, results of operations, or cash flows of the Company.

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A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
Unrecognized tax benefits - opening balance	\$ 4,680	\$ 4,025
Gross decreases - tax positions in prior period	(269)	(31)
Gross increases - current-period tax positions	924	1,193
Lapse of statute of limitations	(960)	(507)
<b>Unrecognized tax benefits - ending balance</b>	<b>\$ 4,375</b>	<b>\$ 4,680</b>

**17. DERIVATIVES AND HEDGING ACTIVITIES****Risk Management Objective of Using Derivatives**

The Company is exposed to certain risks arising from both its business operations and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Company manages economic risks, including interest rate, liquidity, and credit risk, primarily by managing the amount, sources, and duration of its assets and liabilities. Specifically, the Company enters into derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the values of which are determined by interest rates. The Company's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company's known or expected cash receipts and its known or expected cash payments principally related to certain fixed rate assets and liabilities. The Company also has interest rate derivatives that result from a service provided to certain qualifying customers and, therefore, are not used to manage interest rate risk of the Company's assets or liabilities. The Company has entered into an offsetting position for each of these derivative instruments with a matching instrument from another financial institution in order to minimize its net risk exposure resulting from such transactions.

**Fair Values of Derivative Instruments on the Consolidated Balance Sheets**

The table below presents the fair value of the Company's derivative financial instruments as of December 31, 2016 and 2015. The Company's derivative assets and derivative liabilities are located within Other Assets and Other Liabilities, respectively, on the Company's Consolidated Balance Sheets.

This table provides a summary of the fair value of the Company's derivative assets and liabilities as of December 31, 2016 and December 31, 2015 (in thousands):

	<b>Derivative Assets</b>		<b>Derivative Liabilities</b>	
	<b>December 31,</b>		<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>
<b>Fair value</b>				
Interest Rate Products:				

Derivatives not designated as hedging instruments	\$ 10,555	\$ 11,700	\$ 10,581	\$ 11,921
Derivatives designated as hedging instruments	318	603	748	337
<b>Total</b>	<b>\$ 10,873</b>	<b>\$ 12,303</b>	<b>\$ 11,329</b>	<b>\$ 12,258</b>

### **Fair Value Hedges of Interest Rate Risk**

The Company is exposed to changes in the fair value of certain of its fixed rate assets and liabilities due to changes in the benchmark interest rate, LIBOR. Interest rate swaps designated as fair value hedges involve either making fixed rate payments to a counterparty in exchange for the Company receiving variable rate payments, or

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making variable rate payments to a counterparty in exchange for the Company receiving fixed rate payments, over the life of the agreements without the exchange of the underlying notional amount. As of December 31, 2016, the Company had two interest rate swaps with a notional amount of \$15.8 million that were designated as fair value hedges of interest rate risk associated with the Company's fixed rate loan assets and brokered time deposits.

For derivatives designated and that qualify as fair value hedges, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in earnings. The Company includes the gain or loss on the hedged items in the same line item as the offsetting loss or gain on the related derivatives. During the year ended December 31, 2016, the Company recognized net gains of \$5 thousand in other noninterest expense related to hedge ineffectiveness. The Company recognized no net gains or losses related to hedge ineffectiveness during the year ended December 31, 2015.

**Cash Flow Hedges of Interest Rate Risk**

The Company is exposed to changes in the fair value of certain of its variable-rate liabilities due to changes in the benchmark interest rate, LIBOR. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount. As of December 31, 2016, the Company had two interest rate swaps with a notional amount of \$51.5 million that were designated as cash flow hedges of interest rate risk associated with the Company's variable rate subordinated debentures issued by Marquette Capital Trusts III and IV. For derivatives designated and that qualify as cash flow hedges, the effective portion of changes in fair value is recorded in AOCI and is subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. The ineffective portion of the change in fair value of the derivatives is recognized directly into earnings gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in earnings. During the years ended December 31, 2016 and 2015, the Company recognized net losses of \$516 thousand and \$10 thousand, respectively, in AOCI for the effective portion of the change in fair value of these cash flow hedges. During the years ended December 31, 2016 and 2015, the Company did not record any hedge ineffectiveness in earnings. Amounts reported in AOCI related to derivatives will be reclassified to Interest expense as interest payments are received or paid on the Company's derivatives. The Company does not expect to reclassify any amounts from AOCI to Interest expense during the next 12 months as the Company's derivatives are effective after December 2018. As of December 31, 2016, the Company is hedging its exposure to the variability in future cash flows for forecasted transactions over a maximum period of 19.75 years.

**Non-designated Hedges**

The remainder of the Company's derivatives are not designated in qualifying hedging relationships. Derivatives not designated as hedges are not speculative and result from a service the Company provides to certain customers, which the Company implemented in 2010. The Company executes interest rate swaps with commercial banking customers to facilitate their respective risk management strategies. Those interest rate swaps are simultaneously offset by interest rate swaps that the Company executes with a third party, such that the Company minimizes its net risk exposure resulting from such transactions. As the interest rate swaps associated with this program do not meet hedge accounting requirements, changes in the fair value of both the customer swaps and the offsetting swaps are recognized directly in earnings. As of December 31, 2016, the Company had 54 interest rate swaps with an aggregate notional amount of \$633.9 million related to this program. During the years ended December 31, 2016 and 2015, the Company recognized net gains of \$195 thousand and net losses of \$110 thousand, respectively, related to changes in the fair value of these swaps.



**Table of Contents****Effect of Derivative Instruments on the Consolidated Statements of Income and Consolidated Statements of Comprehensive Income**

This table provides a summary of the amount of gain or loss recognized in other noninterest expense in the Consolidated Statements of Income related to the Company's derivative asset and liability as of December 31, 2016 and December 31, 2015 (*in thousands*):

	<b>Amount of Gain (Loss) Recognized For the Year Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>Interest Rate Products</b>		
Derivatives not designated as hedging instruments	\$ 195	\$ (110)
<b>Total</b>	<b>\$ 195</b>	<b>\$ (110)</b>
<b>Interest Rate Products</b>		
Derivatives designated as fair value hedging instruments		
Fair value adjustments on derivatives	\$ (181)	\$ (234)
Fair value adjustments on hedged items	186	234
<b>Total</b>	<b>\$ 5</b>	<b>\$</b>

This table provides a summary of the amount of gain or loss recognized in AOCI in the Consolidated Statements of Comprehensive Income related to the Company's derivative asset and liability as of December 31, 2016 and December 31, 2015 (*in thousands*):

	<b>Amount of Loss Recognized in Other Comprehensive Income on Derivatives (Effective Portion) For the Year Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>Derivatives in Cash Flow Hedging Relationships</b>		
<b>Interest rate products</b>		
Derivatives designed as cash flow hedging instruments	\$ (516)	\$ (10)
<b>Total</b>	<b>\$ (516)</b>	<b>\$ (10)</b>

**Credit-risk-related Contingent Features**

The Company has agreements with certain of its derivative counterparties that contain a provision where if the Company defaults on any of its indebtedness, including default where repayment of the indebtedness has not been accelerated by the lender, then the Company could also be declared in default on its derivative obligations.

As of December 31, 2016, the termination value of derivatives in a net liability position, which includes accrued interest, related to these agreements was \$9.0 million. The Company has minimum collateral posting thresholds with certain of its derivative counterparties and has not yet reached its minimum collateral posting threshold under these agreements. If the Company had breached any of these provisions at December 31, 2016, it could have been required to settle its obligations under the agreements at the termination value.

**18. DISCLOSURES ABOUT FAIR VALUE OF FINANCIAL INSTRUMENTS**

The following table presents information about the Company's assets measured at fair value on a recurring basis as of December 31, 2016, and indicates the fair value hierarchy of the valuation techniques utilized by the Company to determine such fair value.

Fair values determined by Level 1 inputs utilize quoted prices in active markets for identical assets and liabilities that the Company has the ability to access. Fair values determined by Level 2 inputs utilize inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.

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Level 2 inputs include quoted prices for similar assets or liabilities in active markets, and inputs other than quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals. Level 3 inputs are unobservable inputs for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability. In certain cases, the inputs used to measure fair value may fall into different levels of the hierarchy. In such cases, the fair value is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

*Assets and liabilities measured at fair value on a recurring basis as of December 31, 2016 and 2015 (in thousands):*

Description	Fair Value Measurement at Reporting Date Using			
	December 31, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
U.S. Treasury	\$	\$	\$	\$
U.S. Agencies	1,306		1,306	
Mortgage-backed	313		313	
State and political subdivisions	9,295		9,295	
Trading - other	28,622	28,495	127	
Trading securities	39,536	28,495	11,041	
U.S. Treasury	93,826	93,826		
U.S. Agencies	198,177		198,177	
Mortgage-backed	3,711,699		3,711,699	
State and political subdivisions	2,395,757		2,395,757	
Corporates	66,875	66,875		
Available for sale securities	6,466,334	160,701	6,305,633	
Company-owned life insurance	41,333		41,333	
Bank-owned life insurance	209,686		209,686	
Derivatives	10,873		10,873	
<b>Total</b>	<b>\$ 6,767,762</b>	<b>\$ 189,196</b>	<b>\$ 6,578,566</b>	<b>\$</b>
<b>Liabilities</b>				
Deferred compensation	\$ 42,797	\$ 42,797	\$	\$
Derivatives	11,329		11,329	
<b>Total</b>	<b>\$ 54,126</b>	<b>\$ 42,797</b>	<b>\$ 11,329</b>	<b>\$</b>



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Description	Fair Value Measurement at Reporting Date Using				
	December 31, 2015	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>					
U.S. Treasury	\$ 400	\$	400	\$	\$
U.S. Agencies	1,309			1,309	
Mortgage-backed					
State and political subdivisions	10,200			10,200	
Trading - other	17,708		17,708		
Trading securities	29,617		18,108	11,509	
U.S. Treasury	349,779		349,779		
U.S. Agencies	666,389			666,389	
Mortgage-backed	3,572,446			3,572,446	
State and political subdivisions	2,138,413			2,138,413	
Corporates	79,922		79,922		
Available for sale securities	6,806,949		429,701	6,377,248	
Company-owned life insurance	31,205			31,205	
Bank-owned life insurance	202,991			202,991	
Derivatives	12,303			12,303	
<b>Total</b>	<b>\$ 7,083,065</b>	<b>\$</b>	<b>447,809</b>	<b>\$ 6,635,256</b>	<b>\$</b>
<b>Liabilities</b>					
Deferred compensation	\$ 32,937	\$	32,937	\$	\$
Contingent consideration liability	17,718				17,718
Derivatives	12,258			12,258	
<b>Total</b>	<b>\$ 62,913</b>	<b>\$</b>	<b>32,937</b>	<b>\$ 12,258</b>	<b>\$ 17,718</b>

The following table reconciles the beginning and ending fair value of balances of the contingent consideration liability (in thousands):

	December 31,	
	2016	2015
Beginning balance	\$ 17,718	\$ 53,411
Payment of contingent consideration on acquisitions	(17,784)	(32,685)
Income from fair value adjustments		(3,008)
Expense from fair value adjustments	66	

Ending balance	\$	\$ 17,718
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**Valuation methods for instruments measured at fair value on a recurring basis**

The following methods and assumptions were used to estimate the fair value of each class of financial instruments measured on a recurring basis:

**Trading Securities** Fair values for trading securities (including financial futures), are based on quoted market prices where available. If quoted market prices are not available, fair value is estimated using quoted market prices for similar securities.

**Securities Available for Sale** Fair values are based on quoted market prices or dealer quotes, if available. If a quoted market price is not available, fair value is estimated using quoted market prices for similar securities.

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Prices are provided by third-party pricing services and are based on observable market inputs. On an annual basis, the Company compares a sample of these prices to other independent sources for the same securities. Additionally, throughout the year if securities are sold, comparisons are made between the pricing services prices and the market prices at which the securities were sold. Variances are analyzed, and, if appropriate, additional research is conducted with the third-party pricing services. Based on this research, the pricing services may affirm or revise their quoted price. No significant adjustments have been made to the prices provided by the pricing services. The pricing services also provide documentation on an ongoing basis that includes reference data, inputs and methodology by asset class, which is reviewed to ensure that security placement within the fair value hierarchy is appropriate.

**Company-owned Life Insurance** Fair value is equal to the cash surrender value of the life insurance policies.

**Bank-owned Life Insurance** Fair value is equal to the cash surrender value of the life insurance policies.

**Derivatives** Fair values are determined using valuation techniques including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves, foreign exchange rates, and implied volatilities. The Company incorporates credit valuation adjustments to appropriately reflect both its own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative contracts for the effect of nonperformance risk, the Company has considered the impact of netting and any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

**Deferred Compensation** Fair values are based on quoted market prices or dealer quotes.

**Contingent Consideration** The fair value of contingent consideration liabilities are derived from a discounted cash flow model of future contingent payments. The valuation of these liabilities are estimated by a collaborative effort of the Company's mergers and acquisitions group, business unit management, and the corporate accounting group. These future contingent payments are calculated based on probability-weighted estimates of future cash flows from each acquisition over the term of the contingent consideration arrangement. In order to determine the fair value estimate for contingent consideration, the present value of probability-weighted cash flow is calculated using the applicable discount rate. Potential valuation adjustments are made as future income and expense projections for each acquisition are made which affect the calculation of the related contingent consideration payment. These adjustments are recorded through noninterest expense.

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Assets measured at fair value on a non-recurring basis as of December 31, 2016 and 2015 (in thousands):

**Fair Value Measurement at December 31, 2016**

Description	December 31, 2016	Using			Total (Losses) Recognized During the Twelve Months Ended December 31
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Impaired loans	\$ 23,757	\$	\$	\$ 23,757	\$ (2,070)
Other real estate owned	89			89	
<b>Total</b>	<b>\$ 23,846</b>	<b>\$</b>	<b>\$</b>	<b>\$ 23,846</b>	<b>\$ (2,070)</b>

**Fair Value Measurement at December 31, 2015**

Description	December 31, 2015	Using			Total Gains Recognized During the Twelve Months Ended December 31
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Impaired loans	\$ 22,885	\$	\$	\$ 22,885	\$ (3,957)
Other real estate owned	3,269			3,269	
<b>Total</b>	<b>\$ 26,154</b>	<b>\$</b>	<b>\$</b>	<b>\$ 26,154</b>	<b>\$ (3,957)</b>

**Valuation methods for instruments measured at fair value on a nonrecurring basis**

The following methods and assumptions were used to estimate the fair value of each class of financial instruments measured on a non-recurring basis:

**Impaired loans** While the overall loan portfolio is not carried at fair value, adjustments are recorded on certain loans to reflect write-downs that are based on the external appraisal value of the underlying collateral. The external

appraisals are generally based on recent sales of comparable properties which are then adjusted for the unique characteristics of the property being valued. In the case of non-real estate collateral, reliance is placed on a variety of sources, including external estimates of value and judgments based on the experience and expertise of internal specialists within the Company's property management group and the Company's credit department. The valuation of the impaired loans is reviewed on a quarterly basis. Because many of these inputs are not observable, the measurements are classified as Level 3.

**Other real estate owned** Other real estate owned consists of loan collateral which has been repossessed through foreclosure. This collateral is comprised of commercial and residential real estate and other non-real estate property, including auto, recreational and marine vehicles. Other real estate owned is recorded as held for sale initially at the lower of the loan balance or fair value of the collateral. The initial valuation of the foreclosed property is obtained through an appraisal process similar to the process described in the impaired loans paragraph above. Subsequent to foreclosure, valuations are reviewed quarterly and updated periodically, and the assets may be marked down further, reflecting a new cost basis. Fair value measurements may be based upon appraisals, third-party price opinions, or internally developed pricing methods and those measurements are classified as Level 3.

**Goodwill** Valuation of goodwill to determine impairment is performed annually, or more frequently if there is an event or circumstance that would indicate impairment may have occurred. The process involves calculations

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to determine the fair value of each reporting unit on a stand-alone basis. A combination of formulas using current market multiples, based on recent sales of financial institutions within the Company's geographic marketplace, is used to estimate the fair value of each reporting unit. That fair value is compared to the carrying amount of the reporting unit, including its recorded goodwill. Impairment is considered to have occurred if the fair value of the reporting unit is lower than the carrying amount of the reporting unit. The fair value of the Company's common stock relative to its computed book value per share is also considered as part of the overall evaluation. These measurements are classified as Level 3.

Fair value disclosures require disclosure of the fair value of financial assets and financial liabilities, including those financial assets and financial liabilities that are not measured and reported at fair value on a recurring basis or non-recurring basis. The estimated fair value of the Company's financial instruments at December, 31, 2016 and 2015 are as follows (*in thousands*):

	<b>Fair Value Measurement at December 31, 2016 Using</b>				
	<b>Carrying</b>	<b>Quoted</b>	<b>Significant</b>	<b>Significant</b>	<b>Total</b>
	<b>Amount</b>	<b>Prices</b>	<b>Other</b>	<b>Unobservable</b>	<b>Estimated</b>
		<b>in Active</b>	<b>Inputs</b>	<b>Inputs</b>	<b>Fair Value</b>
		<b>Markets for</b>	<b>(Level 2)</b>	<b>(Level</b>	
		<b>Identical</b>	<b>(Level 2)</b>	<b>3)</b>	
		<b>Assets</b>	<b>(Level 2)</b>	<b>(Level</b>	
		<b>(Level 1)</b>	<b>(Level 2)</b>	<b>3)</b>	
<b>FINANCIAL ASSETS</b>					
Cash and short-term investments	\$ 1,462,267	\$ 1,138,850	\$ 323,417	\$	\$ 1,462,267
Securities available for sale	6,466,334	160,701	6,305,633		6,466,334
Securities held to maturity	1,115,932		1,106,068		1,106,068
Trading securities	39,536	28,495	11,041		39,536
Other securities	68,306		68,306		68,306
Loans (exclusive of allowance for loan loss)	10,545,662		10,572,292		10,572,292
Derivatives	10,873		10,873		10,873
<b>FINANCIAL LIABILITIES</b>					
Demand and savings deposits	15,434,893	15,434,893			15,434,893
Time deposits	1,135,721		1,135,721		1,135,721
Other borrowings	1,856,937	419,843	1,437,094		1,856,937
Long-term debt	76,772		77,025		77,025
Derivatives	11,329		11,329		11,329
<b>OFF-BALANCE SHEET ARRANGEMENTS</b>					
Commitments to extend credit for loans					5,603,807
Commercial letters of credit					142,383
Standby letters of credit					2,526,859

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	<b>Fair Value Measurement at December 31, 2015 Using</b>				
	<b>Carrying Amount</b>	<b>Quoted Prices in Active Markets for Identical Assets (Level 1)</b>	<b>Significant Other Observable Inputs (Level 2)</b>	<b>Significant Unobservable Inputs (Level 3)</b>	<b>Total Estimated Fair Value</b>
<b>FINANCIAL ASSETS</b>					
Cash and short-term investments	\$ 1,154,721	\$ 997,031	\$ 157,690	\$	\$ 1,154,721
Securities available for sale	6,806,949	429,701	6,377,248		6,806,949
Securities held to maturity	667,106		691,379		691,379
Trading securities	29,617	18,108	11,509		29,617
Other securities	65,198		65,198		65,198
Loans (exclusive of allowance for loan loss)	9,431,350		9,452,121		9,452,121
Derivatives	12,303		12,303		12,303
<b>FINANCIAL LIABILITIES</b>					
Demand and savings deposits	13,836,867	13,836,867			13,836,867
Time deposits	1,255,885		1,255,885		1,255,885
Other borrowings	1,823,071	66,855	1,756,216		1,823,071
Long-term debt	86,070		86,379		86,379
Derivatives	12,258		12,258		12,258
<b>OFF-BALANCE SHEET ARRANGEMENTS</b>					
Commitments to extend credit for loans					4,925,820
Commercial letters of credit					200,550
Standby letters of credit					2,550,928

**Cash and short-term investments** The carrying amounts of cash and due from banks, federal funds sold and resell agreements are reasonable estimates of their fair values.

**Securities held to maturity** Fair value of held-to-maturity securities are estimated by discounting the future cash flows using current market rates.

**Other securities** Amount consists of FRB and FHLB stock held by the Company, PCM equity-method investments, and other miscellaneous investments. The fair value of FRB and FHLB stock is considered to be the carrying value as no readily determinable market exists for these investments because they can only be redeemed with the FRB or FHLB. The fair value of PCM marketable equity-method investments are based on quoted market prices used to estimate the value of the underlying investment. For non-marketable equity-method investments, the Company's proportionate share of the income or loss is recognized on a one-quarter lag based on the valuation of the underlying investments.

**Loans** Fair values are estimated for portfolios with similar financial characteristics. Loans are segregated by type, such as commercial, real estate, consumer, and credit card. Each loan category is further segmented into fixed and variable interest rate categories. The fair value of loans is estimated by discounting the future cash flows using the current rates at which similar loans would be made to borrowers with similar credit ratings and for the same remaining maturities.

**Demand and savings deposits** The fair value of demand deposits and savings accounts is the amount payable on demand at December 31, 2016 and 2015.

**Time deposits** The fair value of fixed-maturity certificates of deposit is estimated by discounting the future cash flows using the rates that are currently offered for deposits of similar remaining maturities.

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**Other borrowings** The carrying amounts of federal funds purchased, repurchase agreements and other short-term debt are reasonable estimates of their fair value because of the short-term nature of their maturities.

**Long-term debt** Rates currently available to the Company for debt with similar terms and remaining maturities are used to estimate fair value of existing debt.

**Other off-balance sheet instruments** The fair value of loan commitments and letters of credit are determined based on the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreement and the present creditworthiness of the counterparties. Neither the fees earned during the year on these instruments nor their fair value at year-end are significant to the Company's consolidated financial position.

**19. PARENT COMPANY FINANCIAL INFORMATION****UMB FINANCIAL CORPORATION****BALANCE SHEETS (in thousands)**

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>ASSETS</b>		
Investment in subsidiaries:		
Banks	\$ 1,662,326	\$ 1,596,292
Non-banks	214,633	214,181
Total investment in subsidiaries	1,876,959	1,810,473
Goodwill on purchased affiliates	5,011	5,011
Cash	65,254	74,432
Securities available for sale and other	90,759	79,635
Total assets	\$ 2,037,983	\$ 1,969,551
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Long-term debt	\$ 67,256	\$ 66,158
Accrued expenses and other	8,343	9,699
Total liabilities	75,599	75,857
Shareholders' equity	1,962,384	1,893,694
Total liabilities and shareholders' equity	\$ 2,037,983	\$ 1,969,551

**Table of Contents****STATEMENTS OF INCOME AND COMPREHENSIVE INCOME (in thousands)**

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>INCOME</b>			
Dividends and income received from subsidiaries	\$ 54,000	\$ 27,913	\$ 31,000
Service fees from subsidiaries	43,150	44,350	35,206
Other	4,207	891	2,504
<b>Total income</b>	<b>101,357</b>	<b>73,154</b>	<b>68,710</b>
<b>EXPENSE</b>			
Salaries and employee benefits	38,198	41,019	33,556
Other	20,436	22,051	17,037
<b>Total expense</b>	<b>58,634</b>	<b>63,070</b>	<b>50,593</b>
Income before income taxes and equity in undistributed earnings of subsidiaries	42,723	10,084	18,117
Income tax benefit	(6,085)	(5,301)	(5,227)
Income before equity in undistributed earnings of subsidiaries	48,808	15,385	23,344
Equity in undistributed earnings of subsidiaries:			
Banks	119,551	95,942	94,833
Non-Banks	(9,558)	4,746	2,478
<b>Net income</b>	<b>\$ 158,801</b>	<b>\$ 116,073</b>	<b>\$ 120,655</b>
Other comprehensive (loss) income	(53,824)	(14,724)	43,646
<b>Comprehensive income</b>	<b>\$ 104,977</b>	<b>\$ 101,349</b>	<b>\$ 164,301</b>

**STATEMENTS OF CASH FLOWS (in thousands)**

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>OPERATING ACTIVITIES</b>			
Net income	\$ 158,801	\$ 116,073	\$ 120,655
Adjustments to reconcile net income to cash provided by operating activities:			
Equity in earnings of subsidiaries	(163,993)	(128,601)	(128,311)
Dividends received from subsidiaries	54,000	27,913	31,000
Depreciation and amortization	457	332	154
Equity based compensation	11,735	10,751	9,661
Net tax benefit related to equity compensation plans	1,073	944	1,880
Changes in other assets and liabilities, net	(11,717)	220	(9,071)
<b>Net cash provided by operating activities</b>	<b>50,356</b>	<b>27,632</b>	<b>25,968</b>

**INVESTING ACTIVITIES**

Net capital investment in subsidiaries	(10,006)	(16,513)	(24,200)
Net cash activity from acquisition		24,962	
Net (increase) decrease in securities available for sale	(1,034)	211	6,397
Net cash (used in) provided by investing activities	(11,040)	8,660	(17,803)

**FINANCING ACTIVITIES**

Cash dividends paid	(49,038)	(45,967)	(41,364)
Proceeds from exercise of stock options and sales of treasury stock	16,911	11,606	8,966
Purchases of treasury stock	(16,367)	(8,457)	(5,741)
Net cash used in financing activities	(48,494)	(42,818)	(38,139)
Net decrease in cash	(9,178)	(6,526)	(29,974)
Cash and cash equivalents at beginning of period	74,432	80,958	110,932
Cash and cash equivalents at end of period	\$ 65,254	\$ 74,432	\$ 80,958

**Table of Contents****20. SUMMARY OF OPERATING RESULTS BY QUARTER (unaudited) (in thousands except per share data)**

<b>2016</b>	<b>Three Months Ended</b>			
	<b>March 31</b> <sup>(1)</sup>	<b>June 30</b> <sup>(1)</sup>	<b>Sept 30</b>	<b>Dec 31</b>
Interest income	\$ 124,086	127,897	132,038	139,010
Interest expense	6,194	6,687	7,273	7,554
Net interest income	117,892	121,210	124,765	131,456
Provision for loan losses	5,000	7,000	13,000	7,500
Noninterest income	116,350	121,447	121,948	116,330
Noninterest expense	180,444	185,343	179,783	186,324
Income tax expense	12,395	12,796	11,984	11,028
Net income	\$ 36,403	37,518	41,946	42,934

<b>2015</b>	<b>March 31</b>	<b>June 30</b>	<b>Sept 30</b>	<b>Dec 31</b>
Interest income	\$ 93,953	\$ 101,884	\$ 115,229	\$ 119,615
Interest expense	3,595	4,524	5,334	5,161
Net interest income	90,358	97,360	109,895	114,454
Provision for loan losses	3,000	5,000	2,500	5,000
Noninterest income	125,207	119,550	109,098	112,599
Noninterest expense	164,413	171,964	185,279	182,080
Income tax expense	14,387	9,732	8,763	10,330
Net income	\$ 33,765	\$ 30,214	\$ 22,451	\$ 29,643

<b>Per Share</b> <b>2016</b>	<b>Three Months Ended</b>			
	<b>March 31</b> <sup>(1)</sup>	<b>June 30</b> <sup>(1)</sup>	<b>Sept 30</b>	<b>Dec 31</b>
Net income - basic	\$ 0.75	0.77	0.86	0.88
Net income - diluted	0.75	0.77	0.85	0.87
Dividend	0.245	0.245	0.245	0.255
Book value	39.38	40.44	40.86	39.51

<b>Per Share</b> <b>2015</b>	<b>March 31</b>	<b>June 30</b>	<b>Sept 30</b>	<b>Dec 31</b>
Net income - basic	\$ 0.75	\$ 0.65	\$ 0.46	\$ 0.61
Net income - diluted	0.74	0.65	0.46	0.60
Dividend	0.235	0.235	0.235	0.245
Book value	36.76	37.68	38.56	38.34

- (1) During the third quarter of 2016, the Company early adopted ASU No. 2016-09 with an effective date of January 1, 2016. As part of the adoption of this standard, the Company made an accounting policy election to account for stock compensation forfeitures on an actual basis and discontinue the use of an estimated forfeiture approach. This change required a modified retrospective adoption, via a cumulative effect adjustment and recasting of first quarter and second quarter 2016 operating results. The impact of this adoption was an increase to net income of \$158 thousand and \$220 thousand for the first and second quarters, respectively. Additionally, basic and diluted net income per share increased \$0.01 for both periods.

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**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

**ITEM 9A. CONTROLS AND PROCEDURES**

**Disclosure Controls and Procedures** At the end of the period covered by this report on Form 10-K, the Company's Chief Executive Officer and Chief Financial Officer have each evaluated the effectiveness of the Company's Disclosure Controls and Procedures (as defined in Rule 13a-15(e) of the Exchange Act) and have concluded that the Company's Disclosure Controls and Procedures were effective as of the end of the period covered by this report on Form 10-K.

**Management's Report on Internal Control Over Financial Reporting** Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) promulgated under the Exchange Act. Under the supervision and with the participation of management, including the Chief Executive Officer and Chief Financial Officer of the Company, and effected by the Board, management and other personnel, an evaluation of the effectiveness of internal control over financial reporting was conducted based on the criteria established by the Committee of Sponsoring Organizations of the Treadway Commission's *Internal Control - Integrated Framework (2013)*. Because this assessment was conducted to meet the reporting requirements of Section 112 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA), it included controls over the preparation of the schedules equivalent to the basic financial statements in accordance with the instructions for the Consolidated Financial Statements for Bank Holding Companies (Form FR Y-9C).

Based on the evaluation under the framework in *Internal Control - Integrated Framework (2013)*, the Company's Chief Executive Officer and Chief Financial Officer have each concluded that internal control over financial reporting was effective at the end of the period covered by this report on Form 10-K. KPMG LLP, the independent registered public accounting firm that audited the financial statements included within this report, has issued an attestation report on the effectiveness of internal control over financial reporting at the end of the period covered by this report. KPMG LLP's attestation report is set forth below.

**Changes in Internal Control Over Financial Reporting** As a result of the acquisition of Marquette, we continue to integrate certain business processes and systems of Marquette. Accordingly, certain changes have been made and will continue to be made to our internal control over financial reporting until such time as this integration is complete. Other than the changes noted above, there have been no other changes in the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, such controls during the last quarter of the period covered by this report.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Shareholders of

UMB Financial Corporation:

We have audited UMB Financial Corporation's (the Company) internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit 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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because management's assessment and our audit were conducted to also meet the reporting requirements of Section 112 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA), management's assessment and our audit of the Company's internal control over financial reporting included controls over the preparation of the schedules equivalent to the basic financial statements in accordance with the instructions to the Consolidated Financial Statements for Bank Holding Companies (Form FR Y-9 C). A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of UMB Financial Corporation and subsidiaries as of December 31, 2016 and

2015, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and our report dated February 23, 2017 expressed an unqualified opinion on those consolidated financial statements.

*/s/ KPMG LLP*

Kansas City, Missouri

February 23, 2017

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**ITEM 9B. OTHER INFORMATION**

None.

**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by this item relating to executive officers is included in Part I of this Annual Report on Form 10-K (pages 9 through 11) under the caption Executive Officers of the Registrants.

The information required by this item regarding Directors is incorporated herein by reference to information to be included under the caption Proposal #1: Election of Directors of the Company's Proxy Statement for the Annual Meeting of Shareholders to be held on April 25, 2017 (the 2017 Annual Meeting of Shareholders), which will be provided to shareholders within 120 days after December 31, 2016.

The information required by this item regarding the Audit Committee and the Audit Committee financial experts is incorporated herein by reference to information to be included under the caption Corporate Governance Committees of the Board of Directors Audit Committee of the Company's Proxy Statement for the 2017 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2016.

The information required by this item concerning Section 16(a) beneficial ownership reporting compliance is incorporated herein by reference to information to be included under the caption Section 16(a) Beneficial Ownership Reporting Compliance of the Company's Proxy Statement for the 2017 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2016.

The Company has adopted a code of ethics that applies to all directors, officers and employees, including its chief executive officer, chief financial officer and chief accounting officer. You can find the Company's code of ethics on its website by going to the following address: [www.umb.com/aboutumb/investorrelations](http://www.umb.com/aboutumb/investorrelations). The Company will post any amendments to the code of ethics, as well as any waivers that are required to be disclosed, under the rules of either the SEC or NASDAQ. A copy of the code of ethics will be provided, at no charge, to any person requesting the same, by written notice sent to the Company's Corporate Secretary, 6<sup>th</sup> floor, 1010 Grand Blvd., Kansas City, Missouri 64106.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated herein by reference to information to be included under the Executive Compensation section of the Company's Proxy Statement for the 2017 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2016.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

*Security Ownership of Certain Beneficial Owners*

The information required by this item is incorporated herein by reference to the Company's 2017 Proxy Statement to information to be included under the caption Stock Ownership - Principal Shareholders, which will be provided to shareholders within 120 days after December 31, 2016.

*Security Ownership of Management*

The information required by this item is incorporated herein by reference to the Company's Proxy Statement for the 2017 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2016, under the caption "Stock Beneficially Owned by Directors and Nominees and Executive Officers."

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The following table summarizes shares authorized for issuance under the Company's equity compensation plans.

<b>Plan Category</b>	<b>Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)</b>	<b>Weighted average exercise price of outstanding options, warrants and rights (b)</b>	<b>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)</b>
Equity compensation plans approved by security holders			
2002 Incentive Stock Option Plan	91,461	\$ 39.63	None
2005 Long Term Incentive Plan	1,163,849	47.10	4,849,245
Equity compensation plans not approved by security holders	None	None	None
<b>Total</b>	<b>1,255,310</b>	<b>\$ 46.56</b>	<b>4,849,245</b>

For additional information concerning the Company's equity compensation plans, see Note 11, Employee Benefits, in the Notes to the Consolidated Financial Statements provided in Item 8, pages 94 through 97 of this report.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by this item is incorporated herein by reference to the information to be provided under the captions Corporate Governance - Certain Transactions and Corporate Governance Director Independence of the Company's Proxy Statement for the 2017 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2016.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this item is incorporated herein by reference to the information to be provided under the caption Proposal #2: Ratification of Selection of Independent Public Accountants of the Company's Proxy Statement for the 2017 Annual Meeting of Shareholders, which will be provided to shareholders within 120 days after December 31, 2016.

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**PART IV**

**ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

**Consolidated Financial Statements and Financial Statement Schedules**

The following Consolidated Financial Statements of the Company are included in item 8 of this Annual Report on Form 10-K.

Consolidated Balance Sheets as of December 31, 2016 and 2015

Consolidated Statements of Income for the Three Years Ended December 31, 2016

Consolidated Statements of Comprehensive Income for the Three Years Ended December 31, 2016

Consolidated Statements of Cash Flows for the Three Years Ended December 31, 2016

Consolidated Statements of Changes in Shareholders' Equity for the Three Years Ended December 31, 2016

Notes to Consolidated Financial Statements

Independent Auditors' Report

Condensed Consolidated Financial Statements for the parent company only may be found in Item 8 above. All other schedules have been omitted because the required information is presented in the Consolidated Financial Statements or in the notes thereto, the amounts involved are not significant or the required subject matter is not applicable.

**Exhibits**

The following Exhibit Index lists the Exhibits to Form 10-K:

- 3.1 Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006 and filed with the Commission on May 9, 2006).
- 3.2 Bylaws, amended as of October 28, 2014 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K and filed with the Commission on November 3, 2014).
- 4 Description of the Registrant's common stock in Amendment No. 1 on Form 8 to its General Form for Registration of Securities on Form 10 dated March 5, 1993. The following portions of those documents define some of the rights of the holders of the Registrant's common stock, par value \$1.00 per share: Articles III (authorized shares), X (amendment of the Bylaws) and XI (amendment of the Articles of Incorporation) of the Articles of Incorporation and Articles II (shareholder meetings), Sections 2 (number and classes of directors) and 3 (election and removal of directors) of Article III, Section 1 (stock certificates) of Article VII and Section 4 (indemnification) of Article IX of the By-laws.

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- 10.1 2002 Incentive Stock Option Plan, amended and restated as of April 22, 2008 (incorporated by reference to Appendix B of the Company's Proxy Statement for the Company's April 22, 2008 Annual Meeting filed with the Commission on March 17, 2008).
- 10.2 UMB Financial Corporation Long-Term Incentive Compensation Plan amended and restated as of April 23, 2013 (incorporated by reference to Appendix A of the Company's Proxy Statement for the Company's April 23, 2013 Annual Meeting filed with the Commission on March 13, 2013).
- 10.3 Deferred Compensation Plan, dated as of April 20, 1995 (incorporated by reference to Exhibit 10.6 to the Company's Form 10-K filed on March 12, 2003).
- 10.4 UMBF 2005 Short-Term Incentive Plan (incorporated by reference to Exhibit 10.7 to the Company's Form 10-K for December 31, 2004 and filed with the Commission on March 14, 2005).

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10.5	Scout Investments Retention and Annual Performance Program (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on December 12, 2012).
10.6	Annual Variable Pay Plan Scout Investments/Leadership, January 1, 2014 – December 31, 2014 for Andrew Iseman (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on February 14, 2014).
10.7	Annual Variable Pay Plan UMB Fund Services/Leadership, January 1, 2014-December 31, 2014 for John Zader (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on February 14, 2014).
10.8	Employment offer letter between the Company and Jennifer Payne dated December 11, 2016 (incorporated by reference to Exhibit 10.11 to Company's Form 10-K filed on February 25, 2016).
10.9	Form of 2016 Performance-Based Restricted Stock Award Agreement for the UMB Financial Corporation Long-Term Incentive Compensation Plan (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10Q filed with the Commission on August 2, 2016).
10.10	Form of 2016 Service-Based Restricted Stock Award Agreement for the UMB Financial Corporation Long-Term Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10Q filed with the Commission on August 2, 2016).
10.11	Form of 2016 Stock Option Award Agreement for the UMB Financial Corporation Long-Term Incentive Compensation Plan (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10Q filed with the Commission on August 2, 2016).
10.12	Employment offer letter between the Company and John Pauls dated June 1, 2016 (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10Q filed with the Commission on August 2, 2016).
10.13	Employment Offer Letter for Ram Shankar (incorporated by reference to Exhibit 99.3 to the Company's Current Report on Form 8-K filed with the Commission on July 26, 2016).
10.14	Relocation Assistance Agreement for Ram Shankar (incorporated by reference to Exhibit 99.4 to the Company's Current Report on Form 8-K filed with the Commission on July 26, 2016).
21.1	Subsidiaries of the Registrant filed herewith.
23.1	Consent of Independent Auditors – KPMG LLP filed herewith.
24.1	Power of Attorney filed herewith.
31.1	CEO Certification pursuant to Section 302 of the Sarbanes-Oxley Act filed herewith.
31.2	CFO Certification pursuant to Section 302 of the Sarbanes-Oxley Act filed herewith.
32.1	CEO Certification pursuant to Section 906 of the Sarbanes-Oxley Act filed herewith.
32.2	CFO Certification pursuant to Section 906 of the Sarbanes-Oxley Act filed herewith.
101.INS	XBRL Instance filed herewith.
101.SCH	XBRL Taxonomy Extension Schema filed herewith.
101.CAL	XBRL Taxonomy Extension Calculation filed herewith.
101.DEF	XBRL Taxonomy Extension Definition filed herewith.

101.LAB XBRL Taxonomy Extension Labels filed herewith.

101.PRE XBRL Taxonomy Extension Presentation filed herewith.

**ITEM 16. FORM 10-K SUMMARY**

None.

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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, as of February 23, 2017.

UMB FINANCIAL CORPORATION

/s/ J. Mariner Kemper

J. Mariner Kemper

Chairman of the Board,  
Chief Executive Officer

/s/ Ram Shankar

Ram Shankar

Chief Financial Officer

/s/ Brian J. Walker

Brian J. Walker

Chief Accounting Officer

Date: February 23, 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 on the date indicated.

Robin C. Beery Robin C. Beery	Director	Nancy K. Buese Nancy K. Buese	Director
Kevin C. Gallagher Kevin C. Gallagher	Director	Terrence P. Dunn Terrence P. Dunn	Director
Alexander C. Kemper	Director	Gregory M. Graves	Director

Alexander C. Kemper		Gregory M. Graves	
Thomas D. Sanders Thomas D. Sanders	Director	Kris A. Robbins Kris A. Robbins	Director
Paul Uhlmann III Paul Uhlmann III	Director	L. Joshua Sosland L. Joshua Sosland	Director
Timothy R. Murphy Timothy R. Murphy	Director	Leroy J. Williams Leroy J. Williams	Director
		/s/ J. Mariner Kemper J. Mariner Kemper Attorney-in-Fact for each director	Director, Chairman of the Board, Chief Executive Officer