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

FORM 10-K

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

For the fiscal year ended
December 31, 2017

Commission file number: 1-11302

Exact name of Registrant as specified in its charter:

Ohio	**34-6542451**
State or other jurisdiction of incorporation or organization:	**IRS Employer Identification Number:**
127 Public Square, Cleveland, Ohio	**44114-1306**
Address of Principal Executive Offices:	**Zip Code:**

(216) 689-3000
Registrant's Telephone Number, including area code:

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of each class	**Name of each exchange on which registered**
Common Shares, $1 par value	New York Stock Exchange
Depositary Shares (each representing a 1/40th interest in a share of Fixed-to-Floating Rate Perpetual Non-Cumulative Preferred Stock, Series E)	New York Stock Exchange

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 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 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

The aggregate market value of voting stock held by nonaffiliates of the Registrant was $20,477,922,563 (based on the June 30, 2017, closing price of KeyCorp Common Shares of $18.74 as reported on the New York Stock Exchange). As of February 20, 2018, there were 1,060,687,384 Common Shares outstanding.

Certain specifically designated portions of KeyCorp's definitive Proxy Statement for its 2018 Annual Meeting of Shareholders are incorporated by reference into Part III of this Form 10-K.

Forward-looking Statements

From time to time, we have made or will make forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements do not relate strictly to historical or current facts. Forward-looking statements usually can be identified by the use of words such as “goal,” “objective,” “plan,” “expect,” “assume,” “anticipate,” “intend,” “project,” “believe,” “estimate,” or other words of similar meaning. Forward-looking statements provide our current expectations or forecasts of future events, circumstances, results or aspirations. Our disclosures in this report contain forward-looking statements. We may also make forward-looking statements in other documents filed with or furnished to the SEC. In addition, we may make forward-looking statements orally to analysts, investors, representatives of the media and others.

Forward-looking statements, by their nature, are subject to assumptions, risks, and uncertainties, many of which are outside of our control. Our actual results may differ materially from those set forth in our forward-looking statements. There is no assurance that any list of risks and uncertainties or risk factors is complete. Factors that could cause our actual results to differ from those described in forward-looking statements include, but are not limited to:

- deterioration of commercial real estate market fundamentals;
- defaults by our loan counterparties or clients;
- adverse changes in credit quality trends;
- declining asset prices;
- our concentrated credit exposure in commercial and industrial loans;
- the extensive regulation of the U.S. financial services industry;
- changes in accounting policies, standards, and interpretations;
- operational or risk management failures by us or critical third parties;
- breaches of security or failures of our technology systems due to technological or other factors and cybersecurity threats;
- negative outcomes from claims or litigation;
- failure or circumvention of our controls and procedures;
- the occurrence of natural or man-made disasters, conflicts, or terrorist attacks, or other adverse external events;
- evolving capital and liquidity standards under applicable regulatory rules;
- disruption of the U.S. financial system;
- our ability to receive dividends from our subsidiary, KeyBank;
- unanticipated changes in our liquidity position, including but not limited to, changes in our access to or the cost of funding and our ability to secure alternative funding sources;
- downgrades in our credit ratings or those of KeyBank;
- a reversal of the U.S. economic recovery due to financial, political or other shocks;
- our ability to anticipate interest rate changes and manage interest rate risk;
- deterioration of economic conditions in the geographic regions where we operate;
- the soundness of other financial institutions;
- tax reform and other changes in tax laws, including the impact of the TCJ Act;
- our ability to attract and retain talented executives and employees and to manage our reputational risks;
- our ability to timely and effectively implement our strategic initiatives;
- increased competitive pressure;
- our ability to adapt our products and services to industry standards and consumer preferences;
- unanticipated adverse effects of strategic partnerships or acquisitions and dispositions of assets or businesses;
- our ability to realize the anticipated benefits of the First Niagara merger; and
- our ability to develop and effectively use the quantitative models we rely upon in our business planning.

Any forward-looking statements made by us or on our behalf speak only as of the date they are made, and we do not undertake any obligation to update any forward-looking statement to reflect the impact of subsequent events or circumstances. Before making an investment decision, you should carefully consider all risks and uncertainties disclosed in our SEC filings, including this report on Form 10-K and our subsequent reports on Forms 10-Q and 8-K and our registration statements under the Securities Act of 1933, as amended, all of which are or will upon filing be accessible on the SEC’s website at www.sec.gov and on our website at www.key.com/ir.

KEYCORP

2017 FORM 10-K ANNUAL REPORT
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PART I

ITEM 1. BUSINESS

Overview

KeyCorp, organized in 1958 under the laws of the State of Ohio, is headquartered in Cleveland, Ohio. We are a BHC under the BHCA and one of the nation's largest bank-based financial services companies, with consolidated total assets of approximately $137.7 billion at December 31, 2017. KeyCorp is the parent holding company for KeyBank National Association ("KeyBank"), its principal subsidiary, through which most of our banking services are provided. Through KeyBank and certain other subsidiaries, we provide a wide range of retail and commercial banking, commercial leasing, investment management, consumer finance, commercial mortgage servicing and special servicing, and investment banking products and services to individual, corporate, and institutional clients through two major business segments: Key Community Bank and Key Corporate Bank.

As of December 31, 2017, these services were provided across the country through KeyBank's 1,197 full-service retail banking branches and a network of 1,572 ATMs in 15 states, as well as additional offices, online and mobile banking capabilities, and a telephone banking call center. Additional information pertaining to our two business segments is included in the "Line of Business Results" section in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this report, and in Note 25 ("Line of Business Results") of the Notes to Consolidated Financial Statements presented in Item 8. Financial Statements and Supplementary Data, which are incorporated herein by reference. KeyCorp and its subsidiaries had an average of 18,415 full-time equivalent employees for 2017.

In addition to the customary banking services of accepting deposits and making loans, our bank and its trust company subsidiary offer personal and institutional trust custody services, securities lending, personal financial and planning services, access to mutual funds, treasury services, personal property and casualty insurance, and international banking services. Through our bank, trust company, and registered investment adviser subsidiaries, we provide investment management services to clients that include large corporate and public retirement plans, foundations and endowments, high-net-worth individuals, and multi-employer trust funds established for providing pension or other benefits to employees. Key Community Bank also purchases retail auto sales contracts via a network of auto dealerships. The auto dealerships finance the sale of automobiles as the initial lender and then assign the contracts to us pursuant to dealer agreements.

We provide other financial services — both within and outside of our primary banking markets — through various nonbank subsidiaries. These services include community development financing, securities underwriting, investment banking and capital markets products, and brokerage. We also provide merchant services to businesses.

KeyCorp is a legal entity separate and distinct from its banks and other subsidiaries. Accordingly, the right of KeyCorp, its security holders, and its creditors to participate in any distribution of the assets or earnings of its banks and other subsidiaries is subject to the prior claims of the creditors of such banks and other subsidiaries, except to the extent that KeyCorp's claims in its capacity as a creditor may be recognized.

We derive the majority of our revenues within the United States from customers domiciled in the United States. Revenue from foreign countries and external customers domiciled in foreign countries was immaterial to our consolidated financial statements.

Important Terms Used in this Report

As used in this report, references to "Key," "we," "our," "us" and similar terms refer to the consolidated entity consisting of KeyCorp and its subsidiaries. KeyCorp refers solely to the parent holding company, and KeyBank refers solely to KeyCorp's subsidiary bank, KeyBank National Association. KeyBank (consolidated) refers to the consolidated entity consisting of KeyBank and its subsidiaries.

The acronyms and abbreviations identified in Part II, Item 7. "Terminology" hereof are used throughout this report, particularly in the Notes to Consolidated Financial Statements as well as in Management's Discussion and Analysis of Financial Condition and Results of Operations. You may find it helpful to refer to that section as you read this report.

Demographics

We have two major business segments: Key Community Bank and Key Corporate Bank.

Key Community Bank serves individuals and small to mid-sized businesses by offering a variety of deposit and investment, lending, mortgage and home equity, credit card, and personalized wealth management products and business advisory services. Key Community Bank offers personal property and casualty insurance, such as home, auto, renters, watercraft, and umbrella policies. Key Community Bank also purchases retail auto sales contracts via a network of auto dealerships. These products and services are provided through our relationship managers and specialists working in our 15-state branch network, which is organized into ten internally defined geographic regions: Washington, Oregon/Alaska, Rocky Mountains, Indiana/Northwest Ohio/Michigan, Central/Southwest Ohio, East Ohio/Western Pennsylvania, Atlantic, Western New York, Eastern New York and New England. In addition, some of these product capabilities are delivered by Key Corporate Bank to clients of Key Community Bank.

Key Corporate Bank is a full-service corporate and investment bank focused principally on serving the needs of middle market clients in seven industry sectors: consumer, energy, healthcare, industrial, public sector, real estate, and technology. Key Corporate Bank delivers a broad suite of banking and capital markets products to its clients, including syndicated finance, debt and equity capital markets, commercial payments, equipment finance, commercial mortgage banking, derivatives, foreign exchange, financial advisory, and public finance. Key Corporate Bank is also a significant servicer of commercial mortgage loans and a significant special servicer of CMBS. Key Corporate Bank delivers many of its product capabilities to clients of Key Community Bank.

Further information regarding the products and services offered by our Key Community Bank and Key Corporate Bank segments is included in this report in Note 25 (“Line of Business Results”).

Additional Information

The following financial data is included in this report in Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, and Item 8. Financial Statements and Supplementary Data, and is incorporated herein by reference as indicated below:

Our executive offices are located at 127 Public Square, Cleveland, Ohio 44114-1306, and our telephone number is (216) 689-3000. Our website is www.key.com, and the investor relations section of our website may be reached through www.key.com/ir. We make available free of charge, on or through the investor relations section of our website, annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as well as proxy statements, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Also posted on our website, and available in print upon request from any shareholder to our Investor Relations Department, are the charters for our Audit Committee, Compensation and Organization Committee, Executive Committee, Nominating and Corporate Governance Committee, and Risk Committee; our Corporate Governance Guidelines; the Code of Ethics for our directors,

officers, and employees; our Standards for Determining Independence of Directors; our policy for Review of Transactions Between KeyCorp and Its Directors, Executive Officers and Other Related Persons; and our Statement of Political Activity. Within the time period required by the SEC and the NYSE, we will post on our website any amendment to the Code of Ethics and any waiver applicable to any senior executive officer or director. We also make available a summary of filings made with the SEC of statements of beneficial ownership of our equity securities filed by our directors and officers under Section 16 of the Exchange Act. The "Regulatory Disclosures and Filings" tab of the investor relations section of our website includes public disclosures concerning our annual and mid-year stress-testing activities under the Dodd-Frank Act and our quarterly regulatory capital disclosures under the third pillar of Basel III.

Information contained on or accessible through our website or any other website referenced in this report is not part of this report. References to websites in this report are intended to be inactive textual references only.

Shareholders may obtain a copy of any of the above-referenced corporate governance documents by writing to our Investor Relations Department at Investor Relations, KeyCorp, 127 Public Square, Mailcode OH-01-27-0737, Cleveland, Ohio 44114-1306; by calling (216) 689-4221; or by sending an e-mail to investor_relations@keybank.com.

Competition

The market for banking and related financial services is highly competitive. Key competes with other providers of financial services, such as BHCs, commercial banks, savings associations, credit unions, mortgage banking companies, finance companies, mutual funds, insurance companies, investment management firms, investment banking firms, broker-dealers, and other local, regional, national, and global institutions that offer financial services. Some of our competitors are larger and may have more financial resources, while some of our competitors enjoy fewer regulatory constraints and may have lower cost structures. The financial services industry has become more competitive as technology advances have lowered barriers to entry, enabling more companies, including nonbank companies, to provide financial services. Technological advances may diminish the importance of depository institutions and other financial institutions. Mergers and acquisitions have also led to increased concentration in the banking industry, placing added competitive pressure on Key's core banking products and services as we see competitors enter some of our markets or offer similar products. We compete by offering quality products and innovative services at competitive prices, and by maintaining our product and service offerings to keep pace with customer preferences and industry standards.

Executive Officers of KeyCorp

KeyCorp's executive officers are principally responsible for making policy for KeyCorp, subject to the supervision and direction of the Board. All executive officers are subject to annual election at the annual organizational meeting of the Board held each May.

Set forth below are the names and ages of the executive officers of KeyCorp as of December 31, 2017, the positions held by each at KeyCorp during the past five years, and the year each first became an executive officer of KeyCorp. On January 23, 2018, William Hartmann retired and Mark Midkiff replaced him as KeyCorp's Chief Risk Officer. Because Messrs. Buffie, Kimble, and Midkiff have been employed at KeyCorp for less than five years, information is being provided concerning their prior business experience. There are no family relationships among the directors or the executive officers.

Amy G. Brady (51) - Ms. Brady is KeyCorp's Chief Information Officer, serving in that role since May 2012. Ms. Brady has been an executive officer of KeyCorp since she joined in 2012.

Craig A. Buffie (57) - Mr. Buffie served as KeyCorp's Chief Human Resources Officer from February 2013 until March 2016, when he stepped out of the Chief Human Resources Officer position to focus on the integration efforts related to the First Niagara merger. He resumed his role as Chief Human Resources Officer and an executive officer of KeyCorp in January 2017. Prior to joining KeyCorp, Mr. Buffie was employed for 27 years with Bank of America (a financial services institution), where he served in numerous human resources positions, including as a human resources executive for technology and operations for consumer and small business, as well as for its corporate and investment bank. Most recently, he was Head of Home Loan Originations for Bank of America.

Edward J. Burke (61) - Mr. Burke has been the Co-President, Commercial and Private Banking of Key Community Bank since April 2014 and an executive officer of KeyCorp since May 2014. From 2005 until his election as Co-President, Mr. Burke was an Executive Vice President of KeyBank and head of KeyBank Real Estate Capital and Key Community Development Lending.

Robert A. DeAngelis (56) - Mr. DeAngelis has been the Director of Quality and Productivity Management since June 2017. From March 2016 to June 2017, he served as Transition Program Executive and was dedicated to the integration efforts related to KeyCorp's merger with First Niagara. From November 2011 to March 2016, Mr. DeAngelis was the Director of the Enterprise Program Management Office for KeyCorp. Prior to that, he served as the Consumer Segment Executive. Mr. DeAngelis has been an executive officer of KeyCorp since June 2017 and was also previously an executive officer of KeyCorp from March 2013 to March 2016.

Dennis A. Devine (46) - Mr. Devine has been the Co-President, Consumer and Small Business of Key Community Bank since April 2014 and an executive officer of KeyCorp since May 2014. From 2012 to 2014, Mr. Devine served as Executive Vice President of KeyBank in various roles, including as head of the Consumer & Small Business Segment and head of Integrated Channels and Community Bank Strategy for Key Community Bank.

Trina M. Evans (53) - Ms. Evans has been the Director of Corporate Center for KeyCorp since August 2012, partnering with Key's executive leadership team and Board to ensure alignment of strategy, objectives, priorities, and messaging across Key. Prior to this role, Ms. Evans was the Chief Administrative Officer for Key Community Bank and the Director of Client Experience for KeyBank. During her career with KeyCorp, she has served in a variety of senior management roles associated with the call center, internet banking, retail banking, distribution management, and information technology. She became an executive officer of KeyCorp in March 2013.

Christopher M. Gorman (57) - In 2017, Mr. Gorman became President of Banking and Vice Chairman of KeyCorp. From 2016 to 2017, he served as Merger Integration Executive responsible for leading the integration efforts related to KeyCorp's merger with First Niagara. Prior to that, Mr. Gorman was the President of Key Corporate Bank from 2010 to 2016. He previously served as a KeyCorp Senior Executive Vice President and head of Key National Banking during 2010. Mr. Gorman was an Executive Vice President of KeyCorp (2002 to 2010) and served as President of KeyBanc Capital Markets Inc. (2003 to 2010). He became an executive officer of KeyCorp in 2010.

Paul N. Harris (59) - Mr. Harris has been the General Counsel and Secretary of KeyCorp since 2003 and an executive officer of KeyCorp since 2004.

William L. Hartmann (64) - Mr. Hartmann has been the Chief Risk Officer of KeyCorp since July 2012. Mr. Hartmann joined KeyCorp in 2010 as its Chief Credit Officer. Mr. Hartmann became an executive officer of KeyCorp in 2012. On January 23, 2018, Mr. Hartmann retired from his position as Chief Risk Officer and as an executive officer of KeyCorp.

Donald R. Kimble (57) - Mr. Kimble has been the Chief Financial Officer of KeyCorp since June 2013. In 2017, Mr. Kimble was also named Vice Chairman of KeyCorp. Prior to joining KeyCorp, Mr. Kimble served as Chief Financial Officer of Huntington Bancshares Inc., a bank holding company headquartered in Columbus, Ohio, after joining the company in August 2004, and also served as its Controller from August 2004 to November 2009. Mr. Kimble was also President and a director of Huntington Preferred Capital, Inc., a publicly-traded company, from August 2004 until May 2013. Mr. Kimble became an executive officer upon joining KeyCorp in June 2013.

Angela G. Mago (52) - Ms. Mago became Co-Head of Key Corporate Bank in 2016. She also serves as Head of Real Estate Capital for Key, a role she has held since 2014. From 2011 to 2014, Ms. Mago was Head of Key's Commercial Mortgage Group. She became an executive officer of KeyCorp in 2016.

Mark W. Midkiff (56) - Mr. Midkiff became Chief Risk Officer of KeyCorp and an executive officer of KeyCorp in January 2018. Prior to joining KeyCorp, he served as the Deputy Chief Credit Officer of BB&T. He also previously served as Chief Risk Officer of MUFG Union Bank and later as Chief Risk Officer of GE Capital.

Beth E. Mooney (62) - Ms. Mooney has been the Chairman and Chief Executive Officer of KeyCorp since 2011, and an executive officer of KeyCorp since 2006. Prior to becoming Chairman and Chief Executive Officer, she served in a variety of roles with KeyCorp, including President and Chief Operating Officer and Vice Chair and head of Key Community Bank. She has been a director of AT&T, a publicly-traded telecommunications company, since 2013.

Andrew J. Paine III (48) - Mr. Paine became Co-Head of Key Corporate Bank in 2016. He also serves as President of KeyBanc Capital Markets Inc., a role he has held since 2013. From 2010 to 2013, Mr. Paine was the Co-Head of KeyBanc Capital Markets Inc. He became an executive officer of KeyCorp in 2016.

Kevin T. Ryan (56) - Mr. Ryan has been the Chief Risk Review Officer and General Auditor of KeyCorp since 2007. He became an executive officer of KeyCorp in 2016.

Douglas M. Schosser (47) - Mr. Schosser has been the Chief Accounting Officer and an executive officer of KeyCorp since May 2015. Prior to becoming the Chief Accounting Officer, Mr. Schosser served as an Integration Manager at KeyCorp. From 2010 to 2014, he served as the Chief Financial Officer of Key Corporate Bank.

Supervision and Regulation

The regulatory framework applicable to BHCs and banks is intended primarily to protect consumers, the DIF, taxpayers and the banking system as a whole, rather than to protect the security holders and creditors of financial services companies. Comprehensive reform of the legislative and regulatory environment for financial services companies occurred in 2010 and remains ongoing. We cannot predict changes in applicable laws, regulations or regulatory agency policies, but any such changes may materially affect our business, financial condition, results of operations, or access to liquidity or credit.

Overview

Federal law establishes a system of regulation under which the Federal Reserve is the umbrella regulator for BHCs, while their subsidiaries are principally regulated by prudential or functional regulators: (i) the OCC for national banks and federal savings associations; (ii) the FDIC for state non-member banks and savings associations; (iii) the Federal Reserve for state member banks; (iv) the CFPB for consumer financial products or services; (v) the SEC and FINRA for securities broker/dealer activities; (vi) the SEC, CFTC, and NFA for swaps and other derivatives; and (vii) state insurance regulators for insurance activities. Certain specific activities, including traditional bank trust and fiduciary activities, may be conducted in a bank without the bank being deemed a “broker” or a “dealer” in securities for purposes of securities functional regulation.

Under the BHCA, BHCs generally may not directly or indirectly own or control more than 5% of the voting shares, or substantially all of the assets, of any bank, without prior approval from the Federal Reserve. In addition, BHCs are generally prohibited from engaging in commercial or industrial activities. However, a BHC that satisfies certain requirements regarding management, capital adequacy, and Community Reinvestment Act performance may elect to be treated as a Financial Holding Company (“FHC”) for purposes of federal law, and as a result may engage in a substantially broader scope of activities that are considered to be financial in nature or complementary to those activities. KeyCorp has elected to be treated as a FHC and, as such, is authorized to engage in securities underwriting and dealing, insurance agency and underwriting, and merchant banking activities. In addition, the Federal Reserve has permitted FHCs, like KeyCorp, to engage in the following activities, under the view that they are complementary to a financial activity: physical commodities trading activities, energy management services, and energy tolling, among others.

Under federal law, a BHC also must serve as a source of financial strength to its subsidiary depository institution(s) by providing financial assistance in the event of financial distress. This support may be required when the BHC does not have the resources to, or would prefer not to, provide it. Certain loans by a BHC to a subsidiary bank are subordinate in right of payment to deposits in, and certain other indebtedness of, the subsidiary bank. In addition, federal law provides that in the bankruptcy of a BHC, any commitment by the BHC to a federal bank regulatory agency to maintain the capital of a subsidiary bank will be assumed by the bankruptcy trustee and entitled to priority of payment.

The Dodd-Frank Act created the FSOC to overlay the U.S. supervisory framework for BHCs, insured depository institutions, and other financial service providers, by serving as a systemic risk oversight body. Specifically, the FSOC is authorized to: (i) identify risks to U.S. financial stability that could arise from the material financial distress or failure, or ongoing activities, of large, interconnected SIFIs, or that could arise outside the financial services marketplace; (ii) promote market discipline by eliminating expectations that the U.S. government will shield shareholders, creditors, and counterparties from losses in the event of failure; and (iii) respond to emerging threats to the stability of the U.S. financial system. The FSOC is responsible for facilitating regulatory coordination; information collection and sharing; designating nonbank financial companies for consolidated supervision by the

Federal Reserve; designating systemic financial market utilities and systemic payment, clearing, and settlement activities requiring prescribed risk management standards and heightened federal regulatory oversight; recommending stricter standards for SIFIs; and, together with the Federal Reserve, determining whether action should be taken to break up firms that pose a grave threat to U.S. financial stability.

As an FHC, KeyCorp is subject to regulation, supervision, and examination by the Federal Reserve under the BHCA. Our national bank subsidiaries and their subsidiaries are subject to regulation, supervision and examination by the OCC. At December 31, 2017, we operated one full-service, FDIC-insured national bank subsidiary, KeyBank, and one national bank subsidiary that is limited to fiduciary activities. The FDIC also has certain, more limited regulatory, supervisory and examination authority over KeyBank and KeyCorp under the FDIA and the Dodd-Frank Act.

We have other financial services subsidiaries that are subject to regulation, supervision and examination by the Federal Reserve, as well as other state and federal regulatory agencies and self-regulatory organizations. Because KeyBank engages in derivative transactions, in 2013 it provisionally registered as a swap dealer with the CFTC and became a member of the NFA, the self-regulatory organization for participants in the U.S. derivatives industry. Our securities brokerage and asset management subsidiaries are subject to supervision and regulation by the SEC, FINRA, and state securities regulators, and our insurance subsidiaries are subject to regulation by the insurance regulatory authorities of the states in which they operate. Our other nonbank subsidiaries are subject to laws and regulations of both the federal government and the various states in which they are authorized to do business.

Regulatory capital requirements

Background

KeyCorp and KeyBank are subject to regulatory capital requirements that are based largely on the work of an international group of supervisors known as the Basel Committee on Banking Supervision ("Basel Committee"). The Basel Committee is responsible for establishing international bank supervisory standards for implementation in member jurisdictions, to enhance and align bank regulation on a global scale and promote financial stability.

The regulatory capital framework developed by the Basel Committee and implemented in the United States is a predominately risk-based capital framework that establishes minimum capital requirements based on the amount of regulatory capital a banking organization maintains relative to the amount of its total assets, adjusted to reflect credit risk ("risk-weighted assets"). Each banking organization subject to this regulatory capital framework is required to satisfy certain minimum risk-based capital measures (e.g., a tier 1 risk-based capital ratio requirement of tier 1 capital to total risk-weighted assets), and in the United States, a minimum leverage ratio requirement of tier 1 capital to average total on-balance sheet assets, which serves as a backstop to the risk-based measures.

A capital instrument is assigned to one of two tiers based on the relative strength and ability of that instrument to absorb credit losses on a going concern basis. Capital instruments with relatively robust loss-absorption capacity are assigned to tier 1, while other capital instruments with relatively less loss-absorption capacity are assigned to tier 2. A banking organization's total capital equals the sum of its tier 1 and tier 2 capital.

The Basel Committee also developed a market risk capital framework (that also has been implemented in the United States) to address the substantial exposure to market risk faced by banking organizations with significant trading activity and augment the credit risk-based capital requirements described above. For example, the minimum total risk-based capital ratio requirement for a banking organization subject to the market risk capital rule equals the ratio of the banking organization's total capital to the sum of its credit risk-weighted assets and market risk-weighted assets. Only KeyCorp is subject to the market risk capital rule, as KeyBank does not engage in substantial trading activity.

Basel III

To address deficiencies in the international regulatory capital standards identified during the 2007-2009 global financial crisis, in 2010 the Basel Committee released comprehensive revisions to the international regulatory capital framework, commonly referred to as "Basel III." The Basel III revisions are designed to strengthen the quality and quantity of regulatory capital, in part through the introduction of a Common Equity Tier 1 capital requirement; provide more comprehensive and robust risk coverage, particularly for securitization exposures, equities, and off-balance sheet positions; and address pro-cyclicality concerns through the implementation of capital

buffers. The Basel Committee also released a series of revisions to the market risk capital framework to address deficiencies identified during its initial implementation (e.g., arbitrage opportunities between the credit risk-based and market risk capital rules) and in connection with the global financial crisis.

In July 2013, the U.S. banking agencies adopted a final rule to implement Basel III with an effective date of January 1, 2015, and a multi-year transition period ending on December 31, 2018 ("Regulatory Capital Rules"). Consistent with the international framework, the Regulatory Capital Rules further restrict the type of instruments that may be recognized in tier 1 and tier 2 capital (including the phase out of trust preferred securities from tier 1 capital for BHCs above a certain asset threshold, like KeyCorp); establish a minimum Common Equity Tier 1 capital ratio requirement of 4.5% and capital buffers to absorb losses during periods of financial stress while allowing an institution to provide credit intermediation as it would during a normal economic environment; and refine several of the methodologies used for determining risk-weighted assets. The Regulatory Capital Rules provide additional requirements for large banking organizations with over $250 billion in total consolidated assets or $10 billion in foreign exposure, but those additional requirements do not apply to KeyCorp or KeyBank. Accordingly, for purposes of the Regulatory Capital Rules, KeyCorp and KeyBank are treated as "standardized approach" banking organizations.

Under the Regulatory Capital Rules, standardized approach banking organizations are required to meet the minimum capital and leverage ratios set forth in the following table. At December 31, 2017, Key had an estimated Common Equity Tier 1 Capital Ratio of 10.05% under the fully phased-in Regulatory Capital Rules. Also at December 31, 2017, based on the fully phased-in Regulatory Capital Rules, Key estimates that its capital and leverage ratios, after adjustment for market risk, would be as set forth in the following table.

Estimated Ratios vs. Minimum Capital Ratios Calculated Under the Fully Phased-In Regulatory Capital Rules

Ratios (including Capital conservation buffer)	Key December 31, 2017 Pro Forma	Minimum January 1, 2015	Phase-in Period	Minimum January 1, 2019
Common Equity Tier 1 [(a)]	10.05%	4.5%	None	4.5%
Capital conservation buffer [(b)]		—	1/1/16 - 1/1/19	2.5
Common Equity Tier 1 + Capital conservation buffer		4.5	1/1/16 - 1/1/19	7.0
Tier 1 Capital	10.90	6.0	None	6.0
Tier 1 Capital + Capital conservation buffer		6.0	1/1/16 - 1/1/19	8.5
Total Capital	12.83	8.0	None	8.0
Total Capital + Capital conservation buffer		8.0	1/1/16 - 1/1/19	10.5
Leverage [(c)]	9.68	4.0	None	4.0

(a) See Figure 4 entitled "GAAP to Non-GAAP Reconciliations," which presents the computation of Common Equity Tier 1 under the fully-phased in regulatory capital rules.
(b) Capital conservation buffer must consist of Common Equity Tier 1 capital. As a standardized approach banking organization, KeyCorp is not subject to the countercyclical capital buffer of up to 2.5% imposed upon an advanced approaches banking organization under the Regulatory Capital Rules.
(c) As a standardized approach banking organization, KeyCorp is not subject to the 3% supplemental leverage ratio requirement, which became effective January 1, 2018.

Revised prompt corrective action framework

The federal prompt corrective action framework established under the FDIA groups FDIC-insured depository institutions into one of five prompt corrective action capital categories: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized," and "critically undercapitalized." In addition to implementing the Basel III capital framework in the U.S., the Regulatory Capital Rules also revised the prompt corrective action capital category threshold ratios applicable to FDIC-insured depository institutions such as KeyBank, with an effective date of January 1, 2015. The Revised Prompt Corrective Action Framework table below identifies the capital category threshold ratios for a "well capitalized" and an "adequately capitalized" institution under the Prompt Corrective Action Framework.

"Well Capitalized" and "Adequately Capitalized" Capital Category Ratios under Revised Prompt Corrective Action Framework

Prompt Corrective Action	Capital Category	
Ratio	Well Capitalized [(a)]	Adequately Capitalized
Common Equity Tier 1 Risk-Based	6.5%	4.5%
Tier 1 Risk-Based	8.0	6.0
Total Risk-Based	10.0	8.0
Tier 1 Leverage [(b)]	5.0	4.0

(a) A "well capitalized" institution also must not be subject to any written agreement, order or directive to meet and maintain a specific capital level for any capital measure.
(b) As a standardized approach banking organization, KeyBank is not subject to the 3% supplemental leverage ratio requirement, which became effective January 1, 2018.

We believe that, as of December 31, 2017, KeyBank (consolidated) satisfied the risk-based and leverage capital requirements necessary to be considered "well capitalized" for purposes of the revised prompt corrective action framework. However, investors should not regard this determination as a representation of the overall financial condition or prospects of KeyBank because the prompt corrective action framework is intended to serve a limited supervisory function. Moreover, it is important to note that the prompt corrective action framework does not apply to BHCs, like KeyCorp.

Recent regulatory capital-related developments

On September 27, 2017, the federal banking agencies issued a joint proposal to simplify certain aspects of the Regulatory Capital Rules for standardized approach banking organizations (the "Simplification Proposal"), including Key. In anticipation of the Simplification Proposal, on August 22, 2017, the agencies issued a proposal to extend the current capital treatment for certain items that are part of the Simplification Proposal and also subject to the multi-year transition period for the Regulatory Capital Rules, which ends on December 31, 2018 (the "Transitions Proposal"). The Transitions Proposal was published as a final rule in the Federal Register on November 21, 2017, and is expected to alleviate the burden that would have resulted from the continued phase-in of those capital requirements as the agencies seek public comment on and work to finalize the Simplification Proposal.

The Simplification Proposal would amend the Regulatory Capital Rules by: (1) replacing the definition for "high volatility commercial real estate" exposures with a simpler definition called, "high volatility acquisition, development, or construction" ("HVADC") exposures, and requiring a banking organization to assign a 130 percent risk weight to HVADC exposures; (2) simplifying the thresholds deductions for mortgage servicing assets, temporary difference deferred tax assets that are not realizable through carryback, and investments in the capital of unconsolidated financial institutions, together with revisions to the risk-weight treatment for investments in the capital of unconsolidated financial institutions; and (3) simplifying the limitations on the amount of a third-party minority interest in a consolidated subsidiary that is includable in regulatory capital. These revisions would apply only to standardized approach banking organizations.

The Simplification Proposal also sets forth clarifying revisions to miscellaneous sections of the Regulatory Capital Rules. If the Simplification Proposal is adopted in its current form as final, it would likely have a neutral-to-low impact on Key's capital requirements, but it would meaningfully alleviate the compliance burden associated with the Regulatory Capital Rules. Comments on the Simplification Proposal were due December 26, 2017.

In December 2017, the Basel Committee released its final revisions to Basel III. The revisions seek to restore credibility in the calculation of risk-weighted assets ("RWAs") and improve the comparability of regulatory capital ratios across banking organizations by: (1) enhancing the robustness and risk-sensitivity of the standardized approach for credit risk, credit valuation adjustment, and operational risk; (2) constraining the use of internal models by placing limits on certain inputs used to calculate capital requirements under the internal ratings-based approach for credit risk (used by advanced approaches banking organizations) and removing the ability to use an internal model for purposes of determining the capital charge for credit valuation adjustment ("CVA") risk and operational risk; (3) introducing a leverage ratio buffer to further limit the leverage of global systemically-important banks; and (4) replacing the existing Basel II output floor with a more robust, risk-sensitive floor based on the Basel III standardized approach.

The U.S. federal banking agencies released a statement announcing their support for the Basel Committee's efforts, but cautioned that they will consider how to appropriately incorporate these revisions into the Regulatory Capital Rules, and that any proposed changes based on the Basel Committee revisions would be subject to notice-and-comment rulemaking. In view of the prohibition under the Dodd-Frank Act on the use of credit ratings in federal regulation, there is some uncertainty as to whether or how the agencies would implement the ratings-based aspects of the Basel Committee revisions to Basel III, as well as any other aspect of the Basel Committee revisions that permit the U.S. agencies to exercise home-country discretion, for example, due to differences in accounting or market practices, and legal requirements.

Liquidity requirements

KeyCorp is subject to regulatory liquidity requirements based on international liquidity standards established by the Basel Committee in 2010, and subsequently revised between 2013 and 2014 (as revised, the "Basel III liquidity framework"). The Basel III liquidity framework establishes quantitative standards designed to ensure that a banking organization is appropriately positioned, from a balance sheet perspective, to satisfy its short- and long-term funding needs.

To address short-term liquidity risk, the Basel III liquidity framework established a liquidity coverage ratio ("Basel III LCR"), calculated as the ratio of a banking organization's high-quality liquid assets to its total net cash outflows over 30 consecutive calendar days. In addition, to address long-term liquidity risk, the Basel III liquidity framework established a net stable funding ratio ("Basel III NSFR"), calculated as the ratio of the amount of stable funding available to a banking organization to its required amount of stable funding. Banking organizations must satisfy minimum Basel III LCR and NSFR requirements of at least 100%.

In October 2014, the federal banking agencies published a final rule to implement the Basel III LCR for U.S. banking organizations (the "Liquidity Coverage Rules"). Consistent with the Basel III LCR, the U.S. Liquidity Coverage Rules establish a minimum LCR for certain internationally active bank and nonbank financial companies (excluding KeyCorp), and a modified version of the LCR ("Modified LCR") for BHCs and other depository institution holding companies with over $50 billion in consolidated assets that are not internationally active (including KeyCorp). KeyBank will not be subject to the LCR or the Modified LCR under the Liquidity Coverage Rules unless the OCC affirmatively determines that application to KeyBank is appropriate in light of KeyBank's asset size, level of complexity, risk profile, scope of operations, affiliation with foreign or domestic covered entities, or risk to the financial system.

Under the Liquidity Coverage Rules, KeyCorp must calculate a Modified LCR on a monthly basis, and is required to satisfy a minimum Modified LCR requirement of 100%. At December 31, 2017, KeyCorp's Modified LCR was above 100%. In the future, KeyCorp may change the composition of our investment portfolio, increase the size of the overall investment portfolio, and modify product offerings to enhance or optimize our liquidity position.

In December 2016, the Federal Reserve adopted a final rule to implement public disclosure requirements for the LCR and Modified LCR. Under the final rule, each calendar quarter KeyCorp must publicly disclose certain quantitative information regarding its Modified LCR calculation, together with a discussion of the factors that have a significant effect on its Modified LCR. That discussion may include the main drivers of the Modified LCR; changes in the Modified LCR over time and the cause(s) of such changes; the composition of eligible high-quality liquid assets; concentration of funding sources; derivative exposures and potential capital calls; any currency mismatch; and the centralized liquidity management function of the organization and its interaction with other functional areas. KeyCorp must comply with these disclosure requirements for the calendar quarter beginning October 1, 2018, and subsequent quarters.

The federal banking agencies commenced implementation of the Basel III NSFR in the United States in April and May 2016, with the release of a proposed rule to implement a minimum net stable funding ratio ("NSFR") requirement for certain internationally active banking organizations (excluding KeyCorp) and a modified version of the minimum NSFR requirement ("Modified NSFR") for BHCs and other depository institution holding companies with over $50 billion in consolidated assets that are not internationally active (including KeyCorp), together with quarterly public disclosure requirements. The proposed rule would require banking organizations to satisfy a minimum NSFR requirement of 1.0 on an ongoing basis. However, banking organizations subject to the Modified NSFR (like KeyCorp) would be required to maintain a lower minimum amount of available stable funding, equal to 70% of the required stable funding under the NSFR. The comment period for the NPR expired on August 5, 2016. If the proposed NSFR requirement is adopted as a final rule, then similar to actions taken in connection with the implementation of the Liquidity Coverage Rules, KeyCorp may adjust its balance sheet or modify product offerings to enhance its liquidity position.

Capital planning and stress testing

The Federal Reserve's capital plan rule requires each U.S.-domiciled, top-tier BHC with total consolidated assets of at least $50 billion (like KeyCorp) to develop and maintain a written capital plan supported by a robust internal capital adequacy process. The capital plan must be submitted annually to the Federal Reserve for supervisory review in connection with its annual CCAR (described below). The supervisory review includes an assessment of

many factors, including KeyCorp's ability to maintain capital above each minimum regulatory capital ratio on a pro forma basis under expected and stressful conditions throughout the planning horizon. KeyCorp is also subject to the Federal Reserve's supervisory expectations for capital planning and capital positions as a large, noncomplex BHC, as set forth in a Federal Reserve guidance document issued on December 18, 2015 ("SR Letter 15-19"). Under SR Letter 15-19, the Federal Reserve identifies its core capital planning expectations regarding governance; risk management; internal controls; capital policy; capital positions; incorporating stressful conditions and events; and estimating impact on capital positions for large and noncomplex firms building upon the capital planning requirements under its capital plan and stress test rules. SR Letter 15-19 also provides detailed supervisory expectations on such a firm's capital planning processes.

The Federal Reserve's annual CCAR is an intensive assessment of the capital adequacy of large U.S. BHCs and of the practices these BHCs use to assess their capital needs. The Federal Reserve expects BHCs subject to CCAR to have and maintain regulatory capital in an amount that is sufficient to withstand a severely adverse operating environment and, at the same time, be able to continue operations, maintain ready access to funding, meet obligations to creditors and counterparties, and provide credit intermediation.

As part of the annual CCAR, the Federal Reserve conducts an annual supervisory stress test on KeyCorp, pursuant to which the Federal Reserve projects revenue, expenses, losses, and resulting post-stress capital levels and regulatory capital ratios under conditions that affect the U.S. economy or the financial condition of KeyCorp, including supervisory baseline, adverse, and severely adverse scenarios, that are determined annually by the Federal Reserve. KeyCorp filed its 2017 CCAR capital plan on April 5, 2017. The 2017 CCAR results, which included the annual supervisory stress test methodology and certain firm-specific results for the participating covered companies (including KeyCorp), were publicly released by the Federal Reserve on June 28, 2017. That same day, the Federal Reserve announced that it did not object to our 2017 capital plan.

KeyCorp and KeyBank must also conduct their own company-run stress tests to assess the impact of stress scenarios (including supervisor-provided baseline, adverse, and severely adverse scenarios and, for KeyCorp, one KeyCorp-defined baseline scenario and at least one KeyCorp-defined stress scenario) on their consolidated earnings, losses, and capital over a nine-quarter planning horizon, taking into account their current condition, risks, exposures, strategies, and activities. While KeyBank must only conduct an annual stress test, KeyCorp must conduct both an annual and a mid-cycle stress test. KeyCorp and KeyBank are required to report the results of their annual stress tests to the Federal Reserve and OCC. KeyCorp is required to report the results of its mid-cycle stress test to the Federal Reserve. KeyCorp and KeyBank published the results of their company-run annual stress test on June 22, 2017. KeyCorp published the results of its company-run mid-cycle stress test on October 26, 2017. Summaries of the results of these company-run stress tests are disclosed each year under the "Regulatory Disclosures and Filings" tab of Key's Investor Relations website: http://www.key.com/ir.

Recent developments in capital planning and stress testing

On January 30, 2017, the Federal Reserve released a final rule to revise the capital plan and stress test rules as they apply to large, noncomplex BHCs and U.S. intermediaries of foreign banks. Under the final rule, a large noncomplex BHC is one with total consolidated assets of more than $50 billion but less than $250 billion, and nonbank assets of less than $75 billion ("covered BHCs"). This includes KeyCorp.

The final rule provides relief from the compliance requirements associated with the Federal Reserve's capital plan and stress test rules. Specifically, the final rule relieves covered BHCs from the qualitative assessment portion of the Federal Reserve's CCAR program and modifies the reporting requirements for these organizations by reducing the reporting requirements applicable to covered BHCs under the FR Y-14A and raising the materiality thresholds for specific portfolio reporting requirements. Going forward, the Federal Reserve will assess the capital planning practices of covered BHCs in a manner similar to existing supervisory programs, which typically include the distribution of a first day letter in advance of the start date of the review, standard communication during the exam, lead time to meet requests for additional information, and sufficient time frames to address the findings of the review.

The final rule also limits the amount of capital a covered BHC is authorized to distribute in excess of the amount set forth in its capital plan without Federal Reserve approval (the "de minimis exception"), and establishes a one-quarter blackout period during which a BHC is not permitted to submit a notice to use the de minimis exception or seek prior approval to make a capital distribution in an amount that exceeds the de minimis exception level. If exigent circumstances arise during the blackout period that require a capital distribution, a covered BHC may

resubmit its capital plan and request expedited review from the Federal Reserve; however, the Federal Reserve is not required to expedite the review process.

The final rule also requires covered BHCs to measure nonbank assets on a monthly basis and report the average throughout the quarter to the Federal Reserve on a quarterly basis beginning March 31, 2017.

The final rule became effective 30 days after publication in the Federal Register, and therefore, the relief provided under the final rule from the qualitative assessment portion of the CCAR program was effective for the 2017 CCAR cycle.

On December 7, 2017, the Federal Reserve released for public comment a package of proposals that would increase the transparency of its stress test program while maintaining the Federal Reserve's ability to test the resilience of the nation's largest, most complex banks. The proposals responded to public and industry calls for more transparency around the CCAR program.

One of the proposals, titled "Enhanced Disclosure of the Models Used in the Federal Reserve's Supervisory Stress Tests," sets forth a process for the release of more information regarding the models used by the Federal Reserve to estimate hypothetical losses in stress tests, including as applied in the CCAR context. For the first time, this would make the following information available to the public: (1) a range of loss rates, estimated using Federal Reserve models, for loans held by CCAR firms; (2) portfolios of hypothetical loans with loss rates estimated by Federal Reserve models; and (3) more detailed descriptions of the Federal Reserve's models, such as certain equations and key variables that influence the results of those models.

The Federal Reserve was also seeking comment on a proposed Stress Testing Policy Statement. The Policy Statement describes the principles, policies, and procedures that guide the development, implementation and validation of the Federal Reserve's supervisory stress test models, and would complement the Federal Reserve's Policy Statement on Scenario Design (discussed below).

Finally, the Federal Reserve is proposing to amend its Policy Statement on the Scenario Design Framework for Stress Testing. The proposed amendments would (1) clarify when the Federal Reserve may adopt a change in the unemployment rate in the severely adverse scenario of less than four percentage points; (2) institute a counter-cyclical guide for the change in the house price index in the severely adverse scenario; (3) and provide notice that the Federal Reserve plans to incorporate wholesale funding costs for banking organizations in the scenarios. The Federal Reserve would continue to use the Policy Statement to develop the macroeconomic scenarios and additional scenario components that are used in the supervisory and company-run stress tests conducted under the Federal Reserve's stress tests rules. Comments on these proposals were due January 22, 2018.

Dividend restrictions

Federal law and regulation impose limitations on the payment of dividends by our national bank subsidiaries, like KeyBank. Historically, dividends paid by KeyBank have been an important source of cash flow for KeyCorp to pay dividends on its equity securities and interest on its debt. Dividends by our national bank subsidiaries are limited to the lesser of the amounts calculated under an earnings retention test and an undivided profits test. Under the earnings retention test, without the prior approval of the OCC, a dividend may not be paid if the total of all dividends declared by a bank in any calendar year is in excess of the current year's net income combined with the retained net income of the two preceding years. Under the undivided profits test, a dividend may not be paid in excess of a bank's undivided profits. Moreover, under the FDIA, an insured depository institution may not pay a dividend if the payment would cause it to be less than "adequately capitalized" under the prompt corrective action framework or if the institution is in default in the payment of an assessment due to the FDIC. Similarly, under the Regulatory Capital Rules, a banking organization that fails to satisfy the minimum capital conservation buffer requirement will be subject to certain limitations, which include restrictions on capital distributions. For more information about the payment of dividends by KeyBank to KeyCorp, please see Note 4 ("Restrictions on Cash, Dividends, and Lending Activities") in this report.

FDIA, Resolution Authority and Financial Stability

Deposit insurance and assessments

The DIF provides insurance coverage for domestic deposits funded through assessments on insured depository institutions like KeyBank. The amount of deposit insurance coverage for each depositor's deposits is $250,000 per depository.

The FDIC must assess the premium based on an insured depository institution's assessment base, calculated as its average consolidated total assets minus its average tangible equity. KeyBank's current annualized premium assessments can range from $.025 to $.45 for each $100 of its assessment base. The rate charged depends on KeyBank's performance on the FDIC's "large and highly complex institution" risk-assessment scorecard, which includes factors such as KeyBank's regulatory rating, its ability to withstand asset and funding-related stress, and the relative magnitude of potential losses to the FDIC in the event of KeyBank's failure.

As required under the Dodd-Frank Act, in March 2015, the FDIC approved a final rule to impose a surcharge on the quarterly deposit insurance assessments of insured depository institutions having total consolidated assets of at least $10 billion (like KeyBank). The surcharge is 4.5 cents per $100 of the institution's assessment base (after making certain adjustments). The final rule became effective on July 1, 2016. As of July 1, 2016, KeyBank must pay a surcharge to assist in bringing the reserve ratio to the statutory minimum of 1.35%. Surcharges will continue through the quarter that the DIF reserve ratio reaches or exceeds 1.35%, but not later than December 31, 2018. If the reserve ratio does not reach 1.35% by December 31, 2018 (provided it is at least 1.15%), the FDIC will impose a shortfall assessment on March 31, 2019, on insured depository institutions with total consolidated assets of $10 billion or more (like KeyBank).

In December 2016, the FDIC issued a final rule that imposes recordkeeping requirements on insured depository institutions with two million or more deposit accounts (including KeyBank), to facilitate rapid payment of insured deposits to customers if such an institution were to fail. The rule requires those insured depository institutions to: (i) maintain complete and accurate data on each depositor's ownership interest by right and capacity for all of the institution's deposit accounts; and (ii) develop the capability to calculate the insured and uninsured amounts for each deposit owner within 24 hours of failure. The FDIC will conduct periodic testing of compliance with these requirements, and institutions subject to the rule must submit to the FDIC a certification of compliance, signed by the KeyBank CEO, and deposit insurance coverage summary report on or before the mandatory compliance date and annually thereafter. The final rule became effective on April 1, 2017, with a mandatory compliance date of April 1, 2020.

Conservatorship and receivership of insured depository institutions

Upon the insolvency of an insured depository institution, the FDIC will be appointed as receiver or, in rare circumstances, conservator for the insolvent institution under the FDIA. In an insolvency, the FDIC may repudiate or disaffirm any contract to which the institution is a party if the FDIC determines that performance of the contract would be burdensome and that disaffirming or repudiating the contract would promote orderly administration of the institution's affairs. If the contractual counterparty made a claim against the receivership (or conservatorship) for breach of contract, the amount paid to the counterparty would depend upon, among other factors, the receivership (or conservatorship) assets available to pay the claim and the priority of the claim relative to others. In addition, the FDIC may enforce most contracts entered into by the insolvent institution, notwithstanding any provision that would terminate, cause a default, accelerate or give other rights under the contract solely because of the insolvency, the appointment of the receiver (or conservator), or the exercise of rights or powers by the receiver (or conservator). The FDIC may also transfer any asset or liability of the insolvent institution without obtaining approval or consent from the institution's shareholders or creditors. These provisions would apply to obligations and liabilities of KeyCorp's insured depository institution subsidiaries, such as KeyBank, including obligations under senior or subordinated debt issued to public investors.

Receivership of certain SIFIs

The Dodd-Frank Act created a new resolution regime, as an alternative to bankruptcy, known as the "orderly liquidation authority" ("OLA") for certain SIFIs, including BHCs and their affiliates. Under the OLA, the FDIC would generally be appointed as receiver to liquidate and wind down a failing SIFI. The determination that a SIFI should be placed into OLA receivership is made by the U.S. Treasury Secretary, who must conclude that the SIFI is in default or in danger of default and that the SIFI's failure poses a risk to the stability of the U.S. financial system. This determination must come after supermajority recommendations by the Federal Reserve and the FDIC, and consultation between the U.S. Treasury Secretary and the President.

If the FDIC is appointed as receiver under the OLA, its powers and the rights and obligations of creditors and other relevant parties would be determined exclusively under the OLA. The powers of a receiver under the OLA are generally based on the FDIC's powers as receiver for insured depository institutions under the FDIA. Certain provisions of the OLA were modified to reduce disparate treatment of creditors' claims between the U.S. Bankruptcy Code and the OLA. However, substantial differences between the two regimes remain, including the FDIC's right to disregard claim priority in some circumstances, the use of an administrative claims procedure under OLA to determine creditors' claims (rather than a judicial procedure in bankruptcy), the FDIC's right to transfer claims to a bridge entity, and limitations on the ability of creditors to enforce contractual cross-defaults against potentially viable affiliates of the entity in receivership. OLA liquidity would be provided through credit support from the U.S. Treasury and assessments made, first, on claimants against the receivership that received more in the OLA resolution than they would have received in ordinary liquidation (to the full extent of the excess), and second, if necessary, on SIFIs like KeyCorp utilizing a risk-based methodology.

In December 2013, the FDIC published a notice for comment regarding its "single point of entry" resolution strategy under the OLA. This strategy involves the appointment of the FDIC as receiver for the SIFI's top-level U.S. holding company only, while permitting the operating subsidiaries of the failed holding company to continue operations uninterrupted. As receiver, the FDIC would establish a bridge financial company for the failed holding company and would transfer the assets and a very limited set of liabilities of the receivership estate. The claims of unsecured creditors and other claimants in the receivership would be satisfied by the exchange of their claims for the securities of one or more new holding companies emerging from the bridge company. The FDIC has not taken any subsequent regulatory action relating to this resolution strategy under OLA since the comment period ended in March 2014.

Depositor preference

The FDIA provides that, in the event of the liquidation or other resolution of an insured depository institution, the claims of its depositors (including claims of its depositors that have subrogated to the FDIC) and certain claims for administrative expenses of the FDIC as receiver have priority over other general unsecured claims. If an insured depository institution fails, insured and uninsured depositors, along with the FDIC, will be placed ahead of unsecured, nondeposit creditors, including the institution's parent BHC and subordinated creditors, in order of priority of payment.

Resolution and recovery plans

BHCs with at least $50 billion in total consolidated assets, like KeyCorp, are required to periodically submit to the Federal Reserve and FDIC a plan discussing how the company could be rapidly and orderly resolved if the company failed or experienced material financial distress. Insured depository institutions with at least $50 billion in total consolidated assets, like KeyBank, are also required to submit a resolution plan to the FDIC. These plans are due annually, usually by December 31 of each year. For 2015, these resolution plans, the third required from KeyCorp and KeyBank, were submitted on December 1, 2015. KeyCorp and KeyBank were not required to submit resolution plans for 2016 because the FDIC and Federal Reserve deferred such requirement (for 38 firms, including KeyCorp) until December 2017 and the FDIC deferred such requirement (for a number of insured depository institutions, including KeyBank) until July 1, 2018. The Federal Reserve and FDIC make available on their websites the public sections of resolution plans for the companies, including KeyCorp and KeyBank, after they are submitted. The public section of the resolution plans of KeyCorp and KeyBank is available at http://www.federalreserve.gov/bankinforeg/resolution-plans.htm and https://www.fdic.gov/regulations/reform/resplans/.

On September 28, 2016, the OCC released final guidelines that establish standards for recovery planning by certain large OCC-regulated institutions, including KeyBank. The guidelines require such institutions to establish a

comprehensive framework for evaluating the financial effects of severe stress events, and recovery actions an institution may pursue to remain a viable, going concern during a period of severe financial stress. Under the final guidelines, an institution's recovery plan must include triggers to alert the institution of severe stress events, escalation procedures, recovery options, and a process for periodic review and approval by senior management and the board of directors. The recovery plan should be tailored to the complexity, scope of operations, and risk profile of the institution. Because KeyBank had average total consolidated assets of greater than $100 billion but less than $750 billion as reported on KeyBank's Consolidated Reports of Condition and Income for the four most recent consecutive quarters as of January 1, 2017, it was required to be in compliance with the guidelines no later than January 1, 2018. We believe that KeyBank is in compliance with the guidelines.

The Bank Secrecy Act

The BSA requires all financial institutions (including banks and securities broker-dealers) to, among other things, maintain a risk-based system of internal controls reasonably designed to prevent money laundering and the financing of terrorism. It includes a variety of recordkeeping and reporting requirements (such as cash and suspicious activity reporting) as well as due diligence and know-your-customer documentation requirements. Key has established and maintains an anti-money laundering program to comply with the BSA's requirements.

Other Regulatory Developments under the Dodd-Frank Act

Consumer Financial Protection Bureau

Title X of the Dodd-Frank Act created the CFPB, a consumer financial services regulator with supervisory authority over banks and their affiliates with assets of more than $10 billion, like Key, to carry out federal consumer protection laws. The CFPB also regulates financial products and services sold to consumers and has rulemaking authority with respect to federal consumer financial laws. Any new regulatory requirements promulgated by the CFPB or modifications in the interpretations of existing regulations could require changes to Key's consumer-facing businesses. The Dodd-Frank Act also gives the CFPB broad data collecting powers for fair lending for both small business and mortgage loans, as well as extensive authority to prevent unfair, deceptive and abusive practices.

Volcker Rule

The Volcker Rule implements Section 619 of the Dodd-Frank Act, which prohibits "banking entities," such as KeyCorp, KeyBank and their affiliates and subsidiaries, from owning, sponsoring, or having certain relationships with hedge funds and private equity funds (referred to as "covered funds") and engaging in short-term proprietary trading of financial instruments, including securities, derivatives, commodity futures and options on these instruments.

The Volcker Rule excepts certain transactions from the general prohibition against proprietary trading, including transactions in government securities (e.g., U.S. Treasuries or any instruments issued by the GNMA, FNMA, FHLMC, a Federal Home Loan Bank, or any state or a political division of any state, among others); transactions in connection with underwriting or market-making activities; and, transactions as a fiduciary on behalf of customers. A banking entity may also engage in risk-mitigating hedging activity if it can demonstrate that the hedge reduces or mitigates a specific, identifiable risk or aggregate risk position of the entity. The banking entity is required to conduct an analysis supporting its hedging strategy and the effectiveness of the hedges must be monitored and, if necessary, adjusted on an ongoing basis. Banking entities with more than $50 billion in total consolidated assets and liabilities, like Key, that engage in permitted trading transactions are required to implement enhanced compliance programs, to regularly report data on trading activities to the regulators, and to provide a CEO attestation that the entity's compliance program is reasonably designed to comply with the Volcker Rule.

Although the Volcker Rule became effective on April 1, 2014, the Federal Reserve exercised its unilateral authority to extend the compliance deadline until July 21, 2017, with respect to covered funds. In addition, on December 12, 2016, the Federal Reserve released additional guidelines regarding how banking entities may seek an extension of the conformance period for certain legacy covered fund investments. Under the Dodd-Frank Act, the Federal Reserve is authorized to provide a banking entity up to an additional five years to conform legacy investments (i.e., contractual commitments of a banking organization on or before May 1, 2010, to make an investment) in "illiquid" covered funds.

Key does not anticipate that the proprietary trading restrictions in the Volcker Rule will have a material impact on its business, but it may be required to divest certain fund investments as discussed in more detail under the heading "Other investments" in Item 7 of this report. On January 13, 2017, Key filed for an additional extension for illiquid funds, to retain certain indirect investments until the earlier of the date on which the investment is conformed or is expected to mature or July 21, 2022. The application for an extension was approved on February 14, 2017. As of December 31, 2017, we have not committed to a plan to sell these investments. Therefore, these investments continue to be valued using the net asset value per share methodology.

Enhanced prudential standards and early remediation requirements

Under the Dodd-Frank Act, the Federal Reserve must impose enhanced prudential standards and early remediation requirements upon BHCs, like KeyCorp, with at least $50 billion in total consolidated assets. Prudential standards must include enhanced risk-based capital requirements and leverage limits, liquidity requirements, risk-management and risk committee requirements, resolution plan requirements, credit exposure report requirements, single counterparty credit limits ("SCCL"), supervisory and company-run stress test requirements and, for certain financial companies, a debt-to-equity limit. Early remediation requirements must include limits on capital distributions, acquisitions, and asset growth in early stages of financial decline and capital restoration plans, capital raising requirements, limits on transactions with affiliates, management changes, and asset sales in later stages of financial decline, which are to be triggered by forward-looking indicators including regulatory capital and liquidity measures.

The resolution plan requirements applicable to KeyCorp were implemented by a joint final rule adopted by the Federal Reserve and FDIC in 2011. That same year, the Federal Reserve issued a proposal to implement the stress test, early remediation, and SCCL requirements. However, when that proposal was adopted as a final rule in 2012, it included only the stress test requirements and not the SCCL or early remediation requirements.

In March 2014, the Federal Reserve published a final rule to implement certain of the enhanced prudential standards required under the Dodd-Frank Act, including: (1) the incorporation of the Regulatory Capital Rules through the Federal Reserve's previously finalized rules on capital planning and stress tests; (2) liquidity requirements relating to cash flow projections, a contingency funding plan, liquidity risk limits, monitoring liquidity risks (with respect to collateral, legal entities, currencies, business lines, and intraday exposures), liquidity stress testing, and a liquidity buffer; (3) the risk management framework, the risk committee, and the chief risk officer as well as the corporate governance requirements as they relate to liquidity risk management, including the requirements that apply to the board of directors, the risk committee, senior management, and the independent review function; and (4) a 15-to-1 debt-to-equity limit for companies that the FSOC determines pose a "grave threat" to U.S. financial stability. KeyCorp was required to comply with the final rule starting on January 1, 2015.

In March 2016, the Federal Reserve issued an NPR proposing to establish a minimum SCCL for BHCs with total consolidated assets of $50 billion or more, like KeyCorp. This proposal would implement a provision in the Dodd-Frank Act and replaces proposals on this subject issued by the Federal Reserve in 2011 and 2012. Under the proposal, a covered BHC (including KeyCorp) would not be allowed to have an aggregate net credit exposure to any unaffiliated counterparty that exceeds 25% of the consolidated capital stock and surplus of the covered BHC. Global systemically-important banks and certain other large BHCs (excluding KeyCorp) would be subject to stricter limits under the proposal. A covered BHC such as KeyCorp would be required to comply with the proposed limits and quarterly reporting to show such compliance starting two years after the effective date of a final rule. The comment period for the NPR expired on June 3, 2016. KeyCorp does not expect to be materially impacted by this proposal if it is adopted as a final rule. The Federal Reserve has taken no further action on the early remediation requirements proposed in 2011.

Bank transactions with affiliates

Federal banking law and regulation imposes qualitative standards and quantitative limitations upon certain transactions by a bank with its affiliates, including the bank's parent BHC and certain companies the parent BHC may be deemed to control for these purposes. Transactions covered by these provisions must be on arm's-length terms, and cannot exceed certain amounts that are determined with reference to the bank's regulatory capital. Moreover, if the transaction is a loan or other extension of credit, it must be secured by collateral in an amount and quality expressly prescribed by statute, and if the affiliate is unable to pledge sufficient collateral, the BHC may be required to provide it. These provisions significantly restrict the ability of KeyBank to fund its affiliates, including

KeyCorp, KBCM, and KeyCorp's nonbanking subsidiaries engaged in making merchant banking investments (and certain companies in which these subsidiaries have invested).

Provisions added by the Dodd-Frank Act expanded the scope of: (1) the definition of affiliate to include any investment fund having any bank or BHC-affiliated company as an investment adviser; (2) credit exposures subject to the prohibition on the acceptance of low-quality assets or securities issued by an affiliate as collateral, the quantitative limits, and the collateralization requirements to now include credit exposures arising out of derivative, repurchase agreement, and securities lending/borrowing transactions; and (3) transactions subject to quantitative limits to now also include credit collateralized by affiliate-issued debt obligations that are not securities. In addition, these provisions require that a credit extension to an affiliate remain secured in accordance with the collateral requirements at all times that it is outstanding, rather than the previous requirement of only at the inception or upon material modification of the transaction. These provisions also raise significantly the procedural and substantive hurdles required to obtain a regulatory exemption from the affiliate transaction requirements. While these provisions became effective on July 21, 2012, the Federal Reserve has not yet issued a proposed rule to implement them.

Supervision and governance

On August 3, 2017, the Federal Reserve published an NPR to align its supervisory rating system for large financial institutions, including KeyCorp, with the post-crisis supervisory programs for these firms (the "LFI Rating System"). If adopted in final form, the LFI Rating System would provide a supervisory evaluation of whether an institution possesses sufficient operational strength and resilience to maintain safe and sound operations through a range of conditions, and assess an institution's capital planning and positions, liquidity risk management and positions, and governance and controls. Institutions subject to the LFI Rating System would be rated using the following scale: Satisfactory, Satisfactory Watch, Deficient-1, and Deficient-2, with the Satisfactory Watch rating intended to be used as a transitory rating to allow an institution time to remediate a concern identified during the supervisory evaluation.

The governance and controls component of the LFI Rating System is the subject of two separate, but related proposals: (1) proposed guidance regarding supervisory expectations for boards of directors of large financial institutions; and (2) proposed guidance regarding core principles for effective senior management, business management, and independent risk management and controls for large financial institutions. The proposed guidance regarding supervisory expectations for boards of directors identifies the attributes of effective boards of directors that would be used by an examiner to evaluate an institution's governance and controls. The proposal also clarifies that for all institutions supervised by the Federal Reserve, most supervisory findings should be communicated to the organization's senior management for corrective action and not its board of directors. In addition, the proposal identifies existing supervisory expectations for boards of directors set forth in Federal Reserve SR Letters that could be eliminated or revised. The Federal Reserve extended the comment period for the proposed LFI Rating System and the guidance regarding supervisory expectations for boards of directors until February 15, 2018.

On January 4, 2018, the Federal Reserve released the final component of the proposed LFI Rating System — the proposed guidance regarding core principles for effective senior management, business management, and independent risk management and controls for large financial institutions. This guidance would support the supervisory evaluation under the governance and controls component of the LFI Rating System, together with the above-mentioned guidance regarding the effectiveness of a firm's board of directors. In general, the guidance proposes core principles for effective senior management, business line management, and the independent risk management and control function. The guidance encourages firms to establish a governance structure with appropriate levels of independence and stature, by appointing a Chief Risk Officer and a Chief Audit Officer. Finally, the guidance emphasizes the importance of independent risk management, internal controls, and internal audit, and establishes principles that firms should use to establish or augment those management and control frameworks. Comments on this proposal are due by March 15, 2018.

ERISA fiduciary standard

In April 2016, the Department of Labor published final rules and amendments to certain prohibited transaction exemptions regarding which service providers would be regarded as fiduciaries under ERISA for making investment advice recommendations to: (i) certain retirement plan fiduciaries, participants or beneficiaries, and (ii) owners or beneficiaries of individual retirement accounts and health savings accounts, among other retirement plans. The purpose of the rules is to place fiduciary obligations, rather than the lesser legal obligations that currently apply, on these service providers. Accordingly, the rules subject any financial institution making recommendations for either the purchase or sale of investments in or rollover of the respective retirement plan to certain fiduciary obligations

under ERISA, such as an impartial conduct standard and not selling certain investment products whose compensation may raise a conflict of interest for the advisor without entering into a contract providing certain disclosures and legal remedies to the customer. Under the Department of Labor's original rules, the impartial standard requirement for financial institutions and their advisors was to become effective April 10, 2017. However, in response to a Presidential Order, the Department of Labor extended the effective date to June 9, 2017. The contract provisions were to be in place by January 1, 2018. However, on November 29, 2017, the Department of Labor extended the applicability of the contract rules until July 1, 2019, while it continues to review requested comments concerning whether to modify, further delay, or rescind these rules in whole or in part.

ITEM 1A. RISK FACTORS

As a financial services organization, we are subject to a number of risks inherent in our transactions and present in the business decisions we make. Described below are the primary risks and uncertainties that if realized could have a material and adverse effect on our business, financial condition, results of operations or cash flows, and our access to liquidity. The risks and uncertainties described below are not the only risks we face.

Our ERM program incorporates risk management throughout our organization to identify, understand, and manage the risks presented by our business activities. Our ERM program identifies Key's major risk categories as: credit risk, compliance risk, operational risk, liquidity risk, market risk, reputation risk, strategic risk, and model risk. These risk factors, and other risks we may face, are discussed in more detail in other sections of this report.

I. Credit Risk

We have concentrated credit exposure in commercial and industrial loans, commercial real estate loans, and commercial leases.

As of December 31, 2017, approximately 73% of our loan portfolio consisted of commercial and industrial loans, commercial real estate loans, including commercial mortgage and construction loans, and commercial leases. These types of loans are typically larger than residential real estate loans and consumer loans, and have a different risk profile. The deterioration of a larger loan or a group of these loans could cause a significant increase in nonperforming loans, which could result in net loss of earnings from these loans, an increase in the provision for loan and lease losses, and an increase in loan charge-offs.

Should the fundamentals of the commercial real estate market deteriorate, our financial condition and results of operations could be adversely affected.

The strong recovery in commercial real estate over the past several years, in particular the multifamily property sector, has contributed to a surge in investment and development activity. As a result, property values are elevated and oversupply is a concern in certain markets. Substantial deterioration in property market fundamentals could have an impact on our portfolio, with a large portion of our clients active in real estate and specifically multifamily real estate. A correction in the real estate markets could impact the ability of borrowers to make debt service payments on loans. A portion of our commercial real estate loans are construction loans. Typically these properties are not fully leased at loan origination; the borrower may require additional leasing through the life of the loan to provide cash flow to support debt service payments. If property market fundamentals deteriorate sharply, the execution of new leases could slow, compromising the borrower's ability to cover the debt service payments.

We are subject to the risk of defaults by our loan counterparties and clients.

Many of our routine transactions expose us to credit risk in the event of default of our counterparty or client. Our credit risk may be exacerbated when the collateral held cannot be realized upon or is liquidated at prices insufficient to recover the full amount of the loan or derivative exposure due to us. In deciding whether to extend credit or enter into other transactions, we may rely on information furnished by or on behalf of counterparties and clients, including financial statements, credit reports and other information. We may also rely on representations of those counterparties, clients, or other third parties as to the accuracy and completeness of that information. The inaccuracy of that information or those representations affects our ability to accurately evaluate the default risk of a counterparty or client. Given the Dodd-Frank legislative mandate to centrally clear eligible derivative contracts, we rely on central clearing counterparties to remain open and operationally viable at all times. The possibility of a large member failure or a cybersecurity breach could result in a disruption in this market.

Various factors may cause our allowance for loan and lease losses to increase.

We maintain an ALLL (a reserve established through a provision for loan and lease losses charged to expense) that represents our estimate of losses based on our evaluation of risks within our existing portfolio of loans. The level of the allowance reflects our ongoing evaluation of industry concentrations; specific credit risks; loan and lease loss experience; current loan portfolio quality; present economic, political and regulatory conditions; and incurred losses inherent in the current loan portfolio. The determination of the appropriate level of the ALLL inherently involves a degree of subjectivity and requires that we make significant estimates of current credit risks and current trends, all of which may undergo material changes. Changes in economic conditions affecting borrowers, the softening of certain economic indicators that we are more susceptible to, such as unemployment and real estate values, new information regarding existing loans, identification of additional problem loans and other factors, both within and outside of our control, may indicate the need for an increase in the ALLL. Bank regulatory agencies periodically review our ALLL and, based on judgments that can differ somewhat from those of our own management, may necessitate an increase in the provision for loan and lease losses or the recognition of further loan charge-offs. In addition, if charge-offs outpace the estimate in our current methodology used to establish our ALLL (i.e., if the loan and lease allowance is inadequate), we will need additional loan and lease loss provisions to increase the ALLL, which would decrease our net income and capital.

Declining asset prices could adversely affect us.

During the Great Recession, the volatility and disruption that the capital and credit markets experienced reached extreme levels. This severe market disruption led to the failure of several substantial financial institutions, which caused the credit markets to constrain and also caused a widespread liquidation of assets. These asset sales, along with asset sales by other leveraged investors, including some hedge funds, rapidly drove down prices and valuations across a wide variety of traded asset classes. Asset price deterioration has a negative effect on the valuation of certain of the asset categories represented on our balance sheet, and reduces our ability to sell assets at prices we deem acceptable. Although the recovery has been in place for some time, a new recession would likely reverse recent positive trends in asset prices.

II. Compliance Risk

We are subject to extensive government regulation and supervision.

As a financial services institution, we are subject to extensive federal and state regulation and supervision, which previously increased in recent years due to the implementation of the Dodd-Frank Act and other financial reform initiatives. Banking regulations are primarily intended to protect depositors' funds, the DIF, consumers, taxpayers, and the banking system as a whole, not our debtholders or shareholders. These regulations increase our costs and affect our lending practices, capital structure, investment practices, dividend policy, ability to repurchase our common shares, and growth, among other things.

KeyBank has faced scrutiny from our bank supervisors in the examination process and aggressive enforcement of regulations at the federal and state levels, particularly due to KeyBank's and KeyCorp's status as covered institutions under the Dodd-Frank Act's heightened prudential standards and regulations, including its provisions designed to protect consumers from financial abuse. Although many parts of the Dodd-Frank Act are now in effect, other parts continue to be implemented, as well as other significant regulations which have been enacted with upcoming effective dates. As a result, some uncertainty remains as to the aggregate impact upon Key of the Dodd-Frank Act and other significant regulations.

Changes to existing statutes, regulations or regulatory policies or their interpretation or implementation could affect us in substantial and unpredictable ways. These changes may subject us to additional costs and increase our litigation risk should we fail to appropriately comply. Such changes may also limit the types of financial services and products we may offer, affect the investments we make, and change the manner in which we operate.

Additionally, federal banking law grants substantial enforcement powers to federal banking regulators. This enforcement authority includes, among other things, the ability to assess civil money penalties, to issue cease and desist or removal orders and to initiate injunctive actions against banking organizations and affiliated parties. These enforcement actions may be initiated for violations of laws and regulations, for practices determined to be unsafe or unsound, or for practices or acts that are determined to be unfair, deceptive, or abusive.

For more information, see “Supervision and Regulation” in Item 1 of this report.

Changes in accounting policies, standards, and interpretations could materially affect how we report our financial condition and results of operations.

The FASB periodically changes the financial accounting and reporting standards governing the preparation of Key’s financial statements. Additionally, those bodies that establish and/or interpret the financial accounting and reporting standards (such as the FASB, SEC, and banking regulators) may change prior interpretations or positions on how these standards should be applied. These changes can be difficult to predict and can materially affect how Key records and reports its financial condition and results of operations. In some cases, Key could be required to retroactively apply a new or revised standard, resulting in changes to previously reported financial results.

III. Operational Risk

We are subject to a variety of operational risks.

In addition to the other risks discussed in this section, we are subject to operational risk, which represents the risk of loss resulting from human error, inadequate or failed internal processes, internal controls, systems, and external events. Operational risk includes the risk of fraud by employees, clerical and record-keeping errors, nonperformance by vendors, threats to cybersecurity, and computer/telecommunications malfunctions. Operational risk also encompasses compliance and legal risk, which is the risk of loss from violations of, or noncompliance with, laws, rules, regulations, prescribed practices or ethical standards, as well as the risk of our noncompliance with contractual and other obligations. We are also exposed to operational risk through our outsourcing arrangements, and the effect that changes in circumstances or capabilities of our outsourcing vendors can have on our ability to continue to perform operational functions necessary to our business, such as certain loan processing functions. For example, breakdowns or failures of our vendors’ systems or employees could be a source of operational risk to us. Resulting losses from operational risk could take the form of explicit charges, increased operational costs, harm to our reputation, inability to secure insurance, litigation, regulatory intervention or sanctions or foregone business opportunities.

Our information systems may experience an interruption or breach in security.

We rely heavily on communications, information systems (both internal and provided by third parties) and the internet to conduct our business. Our business is dependent on our ability to process and monitor large numbers of daily transactions in compliance with legal, regulatory, and internal standards and specifications. In addition, a significant portion of our operations relies heavily on the secure processing, storage and transmission of personal and confidential information, such as the personal information of our customers and clients. These risks may increase in the future as we continue to increase mobile payments and other internet-based product offerings and expand our internal usage of web-based products and applications.

In the event of a failure, interruption, or breach of our information systems, we may be unable to avoid impact to our customers. Such a failure, interruption, or breach could result in legal liability, remediation costs, regulatory action, or reputational harm. Other U.S. financial service institutions and companies have reported breaches, some severe, in the security of their websites or other systems and several financial institutions, including Key, experienced significant distributed denial-of-service attacks, some of which involved sophisticated and targeted attacks intended to disable or degrade service, or sabotage systems. Other potential attacks have attempted to obtain unauthorized access to confidential information, hold for ransom, or alter or destroy data, often through the introduction of computer viruses or malware, phishing, cyberattacks, and other means. To date, none of these efforts has had a material adverse effect on our business or operations. Such security attacks can originate from a wide variety of sources, including persons who are involved with organized crime or who may be linked to terrorist organizations or hostile foreign governments. Those same parties may also attempt to fraudulently induce employees, customers, or other users of our systems to disclose sensitive information in order to gain access to our data or that of our customers or clients. Our security systems may not be able to protect our information systems from similar attacks due to the rapid evolution and creation of sophisticated cyberattacks. We are also subject to the risk that our employees may intercept and transmit unauthorized confidential or proprietary information. An interception, misuse or mishandling of personal, confidential, or proprietary information being sent to or received from a customer or third party could result in legal liability, remediation costs, regulatory action, and reputational harm.

We rely on third parties to perform significant operational services for us.

Third parties perform significant operational services on our behalf. These third parties are subject to similar risks as Key relating to cybersecurity, breakdowns or failures of their own systems or employees. One or more of these third parties may experience a cybersecurity event or operational disruption and, if any such event does occur, it may not be adequately addressed, either operationally or financially, by such third party. Certain of these third parties may have limited indemnification obligations or may not have the financial capacity to satisfy their indemnification obligations. Financial or operational difficulties of a third party could also impair our operations if those difficulties interfere with such third party's ability to serve us. Additionally, some of our outsourcing arrangements are located overseas and, therefore, are subject to risks unique to the regions in which they operate. If a critical third party is unable to meet our needs in a timely manner or if the services or products provided by such third party are terminated or otherwise delayed and if we are not able to develop alternative sources for these services and products quickly and cost-effectively, it could have a material adverse effect on our business. Additionally, regulatory guidance adopted by federal banking regulators related to how banks select, engage and manage their third parties affects the circumstances and conditions under which we work with third parties and the cost of managing such relationships.

We are subject to claims and litigation, which could result in significant financial liability and/or reputational risk.

From time to time, customers, vendors, or other parties may make claims and take legal action against us. We maintain reserves for certain claims when deemed appropriate based upon our assessment that a loss is probable, estimable, and consistent with applicable accounting guidance. At any given time we have a variety of legal actions asserted against us in various stages of litigation. Resolution of a legal action can often take years. Whether any particular claims and legal actions are founded or unfounded, if such claims and legal actions are not resolved in our favor, they may result in significant financial liability and adversely affect how the market perceives us and our products and services as well as impact customer demand for those products and services.

We are also involved, from time to time, in other reviews, investigations, and proceedings (both formal and informal) by governmental and self-regulatory agencies regarding our business, including, among other things, accounting and operational matters, certain of which may result in adverse judgments, settlements, fines, penalties, injunctions, or other relief. The number and risk of these investigations and proceedings has increased in recent years with regard to many firms in the financial services industry due to legal changes to the consumer protection laws provided for by the Dodd-Frank Act and the creation of the CFPB.

There have also been a number of highly publicized legal claims against financial institutions involving fraud or misconduct by employees, and we run the risk that employee misconduct could occur. It is not always possible to deter or prevent employee misconduct, and the precautions we take to prevent and detect this activity may not be effective in all cases.

Our controls and procedures may fail or be circumvented, and our methods of reducing risk exposure may not be effective.

We regularly review and update our internal controls, disclosure controls and procedures, and corporate governance policies and procedures. We also maintain an ERM program designed to identify, measure, monitor, report, and analyze our risks. Any system of controls and any system to reduce risk exposure, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system are met. Additionally, instruments, systems, and strategies used to hedge or otherwise manage exposure to various types of market compliance, credit, liquidity, operational, and business risks and enterprise-wide risk could be less effective than anticipated. As a result, we may not be able to effectively mitigate our risk exposures in particular market environments or against particular types of risk.

Climate change, severe weather, natural disasters, acts of war or terrorism, and other external events could significantly impact our business.

Natural disasters, including severe weather events of increasing strength and frequency due to climate change, acts of war or terrorism, and other adverse external events could have a significant impact on our ability to conduct business or upon third parties who perform operational services for us or our customers. Such events could affect the stability of our deposit base, impair the ability of borrowers to repay outstanding loans, impair the value of

collateral securing loans, cause significant property damage, result in lost revenue, or cause us to incur additional expenses.

IV. Liquidity Risk

Capital and liquidity requirements imposed by the Dodd-Frank Act require banks and BHCs to maintain more and higher quality capital and more and higher quality liquid assets than has historically been the case.

Evolving capital standards resulting from the Dodd-Frank Act and the Regulatory Capital Rules adopted by our regulators have had and will continue to have a significant impact on banks and BHCs, including Key. For a detailed explanation of the capital and liquidity rules that became effective for us on a phased-in basis on January 1, 2015, see the section titled “Regulatory capital requirements” under the heading “Supervision and Regulation” in Item 1 of this report.

The Federal Reserve’s capital standards require Key to maintain more and higher quality capital and could limit our business activities (including lending) and our ability to expand organically or through acquisitions. They could also result in our taking steps to increase our capital that may be dilutive to shareholders or limit our ability to pay dividends or otherwise return capital to shareholders.

In addition, the new liquidity standards required us to increase our holdings of higher-quality liquid assets, may require us to change our future mix of investment alternatives, and may impact future business relationships with certain customers. Additionally, support of liquidity standards may be satisfied through the use of term wholesale borrowings, which tend to have a higher cost than that of traditional core deposits.

Further, the Federal Reserve requires BHCs to obtain approval before making a “capital distribution,” such as paying or increasing dividends, implementing common stock repurchase programs, or redeeming or repurchasing capital instruments. The Federal Reserve has detailed the processes that BHCs should maintain to ensure they hold adequate capital under severely adverse conditions and have ready access to funding before engaging in any capital activities. These rules could limit Key’s ability to make distributions, including paying out dividends or buying back shares. For more information, see the section titled “Regulatory capital requirements” under the heading “Supervision and Regulation” in Item 1 of this report.

Federal agencies may take actions that disrupt the stability of the U.S. financial system.

Since 2008, the federal government has taken unprecedented steps to provide stability to and confidence in the financial markets. For example, the Federal Reserve maintains a variety of stimulus policy measures designed to maintain a low interest rate environment. In light of recent moderate improvements in the U.S. economy, federal agencies may no longer support such initiatives. The discontinuation of such initiatives may have unanticipated or unintended impacts, perhaps severe, on the financial markets. These effects could include higher debt yields, a flatter or steeper slope to the yield curve, or unanticipated changes to quality spread premiums that may not follow historical relationships or patterns as the Federal Reserve gradually reverses quantitative easing and reduces the size of its balance sheet. In addition, new initiatives or legislation may not be implemented, or, if implemented, may not be adequate to counter any negative effects of discontinuing programs or, in the event of an economic downturn, to support and stabilize the economy.

We rely on dividends by our subsidiaries for most of our funds.

We are a legal entity separate and distinct from our subsidiaries. With the exception of cash that we may raise from debt and equity issuances, we receive substantially all of our funding from dividends by our subsidiaries. Dividends by our subsidiaries are the principal source of funds for the dividends we pay on our common and preferred stock and interest and principal payments on our debt. Federal banking law and regulations limit the amount of dividends that KeyBank (KeyCorp’s largest subsidiary) can pay. For further information on the regulatory restrictions on the payment of dividends by KeyBank, see “Supervision and Regulation” in Item 1 of this report.

In the event KeyBank is unable to pay dividends to us, we may not be able to service debt, pay obligations, or pay dividends on our common or preferred stock. Such a situation could result in Key losing access to alternative wholesale funding sources. In addition, our right to participate in a distribution of assets upon a subsidiary’s liquidation or reorganization is subject to the prior claims of the subsidiary’s creditors.

We are subject to liquidity risk, which could negatively affect our funding levels.

Market conditions or other events could negatively affect our access to or the cost of funding, affecting our ongoing ability to accommodate liability maturities and deposit withdrawals, meet contractual obligations, or fund asset growth and new business initiatives at a reasonable cost, in a timely manner and without adverse consequences.

Although we maintain a liquid asset portfolio and have implemented strategies to maintain sufficient and diverse sources of funding to accommodate planned as well as unanticipated changes in assets, liabilities, and off-balance sheet commitments under various economic conditions (including a reduced level of wholesale funding sources), a substantial, unexpected, or prolonged change in the level or cost of liquidity could have a material adverse effect on us. If the cost effectiveness or the availability of supply in these credit markets is reduced for a prolonged period of time, our funding needs may require us to access funding and manage liquidity by other means. These alternatives may include generating client deposits, securitizing or selling loans, extending the maturity of wholesale borrowings, borrowing under certain secured borrowing arrangements, using relationships developed with a variety of fixed income investors, and further managing loan growth and investment opportunities. These alternative means of funding may result in an increase to the overall cost of funds and may not be available under stressed conditions, which would cause us to liquidate a portion of our liquid asset portfolio to meet any funding needs.

Our credit ratings affect our liquidity position.

The rating agencies regularly evaluate the securities issued by KeyCorp and KeyBank, and their ratings of our long-term debt and other securities are based on a number of factors, including our financial strength, ability to generate earnings, and other factors. Some of these factors are not entirely within our control, such as conditions affecting the financial services industry and the economy and changes in rating methodologies. Changes in any of these factors could impact our ability to maintain our current credit ratings. A rating downgrade of the securities of KeyCorp or KeyBank could adversely affect our access to liquidity and could significantly increase our cost of funds, trigger additional collateral or funding requirements, and decrease the number of investors and counterparties willing to lend to us, reducing our ability to generate income.

V. Market Risk

A reversal of the U.S. economic recovery and a return to volatile or recessionary conditions in the U.S. or abroad could negatively affect our business or our access to capital markets.

A worsening of economic and market conditions, downside shocks, or a return to recessionary economic conditions could result in adverse effects on Key and others in the financial services industry. The prolonged low-interest rate environment, despite a generally improving economy, has presented a challenge for the industry, including Key, and affects business and financial performance.

In particular, we could face some of the following risks, and other unforeseeable risks, in connection with a downturn in the economic and market environment or in the face of downside shocks or a recession, whether in the United States or internationally:

- A loss of confidence in the financial services industry and the debt and equity markets by investors, placing pressure on the price of Key's common shares or decreasing the credit or liquidity available to Key;
- A decrease in consumer and business confidence levels generally, decreasing credit usage and investment or increasing delinquencies and defaults;
- A decrease in household or corporate incomes, reducing demand for Key's products and services;
- A decrease in the value of collateral securing loans to Key's borrowers or a decrease in the quality of Key's loan portfolio, increasing loan charge-offs and reducing Key's net income;
- A decrease in our ability to liquidate positions at acceptable market prices;
- The extended continuation of the current low-interest rate environment, continuing or increasing downward pressure to our net interest income;
- An increase in competition or consolidation in the financial services industry;
- Increased concern over and scrutiny of the capital and liquidity levels of financial institutions generally, and those of our transaction counterparties specifically;
- A decrease in confidence in the creditworthiness of the United States or other governments whose securities we hold; and
- An increase in limitations on or the regulation of financial services companies like Key.

We are subject to interest rate risk, which could adversely affect net interest income.

Our earnings are largely dependent upon our net interest income. Net interest income is the difference between interest income earned on interest-earning assets such as loans and securities and interest expense paid on interest-bearing liabilities such as deposits and borrowed funds. Interest rates are highly sensitive to many factors that are beyond our control, including general economic conditions, the competitive environment within our markets, consumer preferences for specific loan and deposit products, and policies of various governmental and regulatory agencies, in particular, the Federal Reserve. Changes in monetary policy, including changes in interest rate controls being applied by the Federal Reserve, could influence the amount of interest we receive on loans and securities, the amount of interest we pay on deposits and borrowings, our ability to originate loans and obtain deposits, and the fair value of our financial assets and liabilities. As the Federal Reserve continues to raise interest rates and begins to reverse quantitative easing, the behavior of national money market rate indices, the correlation of consumer deposit rates to financial market interest rates, and the setting of LIBOR rates may not follow historical relationships, which could influence net interest income and net interest margin.

Moreover, if the interest we pay on deposits and other borrowings increases at a faster rate than the interest we receive on loans and other investments, net interest income, and therefore our earnings, would be adversely affected. Conversely, earnings could also be adversely affected if the interest we receive on loans and other investments falls more quickly than the interest we pay on deposits and other borrowings.

Our profitability depends upon economic conditions in the geographic regions where we have significant operations and on certain market segments in which we conduct significant business.

We have concentrations of loans and other business activities in geographic regions where our bank branches are located — Washington; Oregon/Alaska; Rocky Mountains; Indiana/Northwest Ohio/Michigan; Central/Southwest Ohio; East Ohio/Western Pennsylvania; Atlantic; Western New York; Eastern New York; and New England — and additional exposure to geographic regions outside of our branch footprint. The moderate U.S. economic recovery in the various regions where we operate has been uneven, and continued improvement in the overall U.S. economy may not result in similar improvement, or any improvement at all, in the economy of any particular geographic region. Adverse conditions in a geographic region such as inflation, unemployment, recession, natural disasters, or other factors beyond our control could impact the ability of borrowers in these regions to repay their loans, decrease the value of collateral securing loans made in these regions, or affect the ability of our customers in these regions to continue conducting business with us.

Additionally, a significant portion of our business activities are concentrated within the real estate and healthcare market segments. The profitability of some of these market segments depends upon the health of the overall economy, seasonality, the impact of regulation, and other factors that are beyond our control and may be beyond the control of our customers in these market segments.

An economic downturn in one or more geographic regions where we conduct our business, or any significant or prolonged impact on the profitability of one or more of the market segments with which we conduct significant business activity, could adversely affect the demand for our products and services, the ability of our customers to repay loans, the value of the collateral securing loans, and the stability of our deposit funding sources.

The soundness of other financial institutions could adversely affect us.

Our ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions. We have exposure to many different industries and counterparties in the financial services industries, and we routinely execute transactions with such counterparties, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds, and other institutional clients. Financial services institutions are interrelated as a result of trading, clearing, counterparty, or other relationships. Defaults by one or more financial services institutions have led to, and may cause, market-wide liquidity problems and losses. Many of our transactions with other financial institutions expose us to credit risk in the event of default of a counterparty or client. In addition, our credit risk may be affected when the collateral held by us cannot be realized or is liquidated at prices not sufficient to recover the full amount of the loan or derivatives exposure due us.

Tax reform is anticipated to have an impact on our tax liabilities, the tax liabilities of our clients, and how we do business.

On December 22, 2017, the TCJ Act was signed into law. This comprehensive tax legislation provides for significant changes to the U.S. Internal Revenue Code of 1986, as amended, that impact corporate taxation requirements, such as the reduction in the federal corporate income tax rate from 35% to 21% effective January 1, 2018. The TCJ Act retains the low-income housing and research and development credits and repeals the corporate alternative minimum tax. Other relevant corporate changes include earlier recognition of certain revenue; accelerating expensing of investments in tangible property, including leasing assets; and limiting several deductions such as FDIC premiums, certain executive compensation, and meals and entertainment expense.

Key is currently assessing the overall impact of the TCJ Act on the future expected federal income tax obligations of both Key and our clients. We expect that Key's future federal income tax liabilities will overall benefit from the provisions in the TCJ Act. However, we also expect that certain aspects of our business may change over time; both as to the investments we may make as a result of tax reform and in response to how the provisions in the TCJ Act may affect our customers and influence how we offer and deliver our products and services in the future.

Refer to Note 14, Income Taxes, for information on the impact of the TCJ Act to our 2017 financial results.

VI. Reputation Risk

Damage to our reputation could significantly harm our businesses.

Our ability to attract and retain customers, clients, investors, and highly-skilled management and employees is affected by our reputation. Public perception of the financial services industry has declined as a result of the Great Recession. We face increased public and regulatory scrutiny resulting from the financial crisis and economic downturn. Significant harm to our reputation can also arise from other sources, including employee misconduct, actual or perceived unethical behavior, litigation or regulatory outcomes, failing to deliver minimum or required standards of service and quality, compliance failures, disclosure of confidential information, significant or numerous failures, interruptions or breaches of our information systems, failure to meet external commitments and goals, and the activities of our clients, customers and counterparties, including vendors. Actions by the financial services industry generally or by certain members or individuals in the industry may have a significant adverse effect on our reputation. We could also suffer significant reputational harm if we fail to properly identify and manage potential conflicts of interest. Management of potential conflicts of interests is complex as we expand our business activities through more numerous transactions, obligations and interests with and among our clients. The actual or perceived failure to adequately address conflicts of interest could affect the willingness of clients to deal with us, which could adversely affect our businesses.

VII. Strategic Risk

We may not realize the expected benefits of our strategic initiatives.

Our ability to compete depends on a number of factors, including among others our ability to develop and successfully execute our strategic plans and initiatives. Our strategic priorities include growing profitably and maintaining financial strength; effectively managing risk and reward; engaging a high-performing, talented, and diverse workforce; embracing the changes required by our clients and the marketplace; and acquiring and expanding targeted client relationships. Our inability to execute on or achieve the anticipated outcomes of our strategic priorities may affect how the market perceives us and could impede our growth and profitability.

We operate in a highly competitive industry.

We face substantial competition in all areas of our operations from a variety of competitors, some of which are larger and may have more financial resources than us. Our competitors primarily include national and super-regional banks as well as smaller community banks within the various geographic regions in which we operate. We also face competition from many other types of financial institutions, including, without limitation, savings associations, credit unions, mortgage banking companies, finance companies, mutual funds, insurance companies, investment management firms, investment banking firms, broker-dealers and other local, regional, national, and global financial services firms. In addition, technology has lowered barriers to entry and made it possible for nonbanks to offer products and services traditionally provided by banks. We expect the competitive landscape of the financial services industry to become even more intense as a result of legislative, regulatory, structural, and technological changes.

Our ability to compete successfully depends on a number of factors, including: our ability to develop and execute strategic plans and initiatives; our ability to develop, maintain, and build long-term customer relationships based on quality service and competitive prices; our ability to develop competitive products and technologies demanded by our customers, while maintaining our high ethical standards and keeping our assets safe and sound; our ability to attract, retain, and develop a highly competent employee workforce; and industry and general economic trends. Increased competition in the financial services industry, or our failure to perform in any of these areas, could significantly weaken our competitive position, which could adversely affect our growth and profitability.

Maintaining or increasing our market share depends upon our ability to adapt our products and services to evolving industry standards and consumer preferences, while maintaining competitive prices.

The continuous, widespread adoption of new technologies, including internet services and mobile devices (including smartphones and tablets), requires us to evaluate our product and service offerings to ensure they remain competitive. Our success depends, in part, on our ability to adapt our products and services, as well as our distribution of them, to evolving industry standards and consumer preferences. New technologies have altered consumer behavior by allowing consumers to complete transactions such as paying bills or transferring funds directly without the assistance of banks. New products allow consumers to maintain funds in brokerage accounts or mutual funds that would have historically been held as bank deposits. The process of eliminating banks as intermediaries, known as “disintermediation,” could result in the loss of fee income, as well as the loss of customer deposits and related income generated from those deposits.

The increasing pressure from our competitors, both bank and nonbank, to keep pace and adopt new technologies and products and services requires us to incur substantial expense. We may be unsuccessful in developing or introducing new products and services, modifying our existing products and services, adapting to changing consumer preferences and spending and saving habits, achieving market acceptance or regulatory approval, sufficiently developing or maintaining a loyal customer base, or offering products and services at prices lower than the prices offered by our competitors. These risks may affect our ability to achieve growth in our market share and could reduce both our revenue streams from certain products and services and our revenues from our net interest income.

We may not be able to attract and retain skilled people.

Our success depends, in large part, on our ability to attract, retain, motivate, and develop key people. Competition for the best people in most of our business activities is ongoing and can be intense, and we may not be able to retain or hire the people we want or need to serve our customers. To attract and retain qualified employees, we must compensate these employees at market levels. Typically, those levels have caused employee compensation to be our greatest expense.

Various restrictions on compensation of certain executive officers were imposed under the Dodd-Frank Act and other legislation and regulations. In addition, our incentive compensation structure is subject to review by our regulators, who may identify deficiencies in the structure of or issue additional guidance on our compensation practices, causing us to make changes that may affect our ability to offer competitive compensation to these individuals or that place us at a disadvantage to non-financial service competitors. Our ability to attract and retain talented employees may be affected by these developments, or any new executive compensation limits and regulations.

Acquisitions or strategic partnerships may disrupt our business and dilute shareholder value.

Acquiring other banks, bank branches, or other businesses involves various risks commonly associated with acquisitions or partnerships, including exposure to unknown or contingent liabilities of the acquired company; diversion of our management's time and attention; significant integration risk with respect to employees, accounting systems, and technology platforms; increased regulatory scrutiny; and, the possible loss of key employees and customers of the acquired company. We regularly evaluate merger and acquisition and strategic partnership opportunities and conduct due diligence activities related to possible transactions. As a result, mergers or acquisitions involving cash, debt or equity securities may occur at any time. Acquisitions may involve the payment of a premium over book and market values. Therefore, some dilution of our tangible book value and net income per common share could occur in connection with any future transaction.

We may fail to realize the anticipated benefits of the merger with First Niagara.

KeyCorp consummated its merger with First Niagara on August 1, 2016. The success of the merger, including anticipated benefits and cost savings, will depend on, among other things, our ability to combine the businesses of KeyCorp and First Niagara in a manner that permits growth opportunities, including, among other things, enhanced revenues and revenue synergies, an expanded market reach and operating efficiencies, and that does not materially disrupt the existing customer relationships of KeyCorp or First Niagara nor result in decreased revenues due to loss of customers. If we are not able to successfully achieve these objectives, the anticipated benefits of the merger may not be realized fully or at all or may take longer to realize than expected. Failure to achieve these anticipated benefits could result in increased costs, decreases in the amount of expected revenues and diversion of management's time and energy and could have an adverse effect on the surviving corporation's business, financial condition, operating results, and prospects. In addition, it is possible that the integration process could result in the disruption of our ongoing businesses or cause inconsistencies in standards, controls, procedures, and policies that adversely affect our ability to maintain relationships with customers and employees or to achieve the anticipated benefits of the merger.

VIII. Model Risk

We rely on quantitative models to manage certain accounting, risk management, and capital planning functions.

We use quantitative models to help manage certain aspects of our business and to assist with certain business decisions, including estimating incurred loan losses, measuring the fair value of financial instruments when reliable market prices are unavailable, estimating the effects of changing interest rates and other market measures on our financial condition and results of operations, managing risk, and for capital planning purposes (including during the CCAR capital planning process). Our modeling methodologies rely on many assumptions, historical analyses and correlations. These assumptions may be incorrect, particularly in times of market distress, and the historical correlations on which we rely may no longer be relevant. Additionally, as businesses and markets evolve, our measurements may not accurately reflect this evolution. Even if the underlying assumptions and historical correlations used in our models are adequate, our models may be deficient due to errors in computer code, bad data, misuse of data, or the use of a model for a purpose outside the scope of the model's design.

As a result, our models may not capture or fully express the risks we face, may suggest that we have sufficient capitalization when we do not, or may lead us to misjudge the business and economic environment in which we will operate. If our models fail to produce reliable results on an ongoing basis, we may not make appropriate risk management, capital planning, or other business or financial decisions. Furthermore, strategies that we employ to manage and govern the risks associated with our use of models may not be effective or fully reliable, and as a result, we may realize losses or other lapses.

Banking regulators continue to focus on the models used by banks and bank holding companies in their businesses. The failure or inadequacy of a model may result in increased regulatory scrutiny on us or may result in an enforcement action or proceeding against us by one of our regulators.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The headquarters of KeyCorp and KeyBank are located in Key Tower at 127 Public Square, Cleveland, Ohio 44114-1306. At December 31, 2017, Key leased approximately 477,744 square feet of the complex, encompassing the first 12 floors and the 54th through 56th floors of the 57-story Key Tower. In addition, Key owned two buildings in Brooklyn, Ohio, with office space that it operated from and leased out totaling approximately 563,458 square feet at December 31, 2017. Our office space is used by all of our segments. As of the same date, KeyBank owned 520 branches and leased 677 branches. The lease terms for applicable branches are not individually material, with terms ranging from month-to-month to 99 years from inception.

ITEM 3. LEGAL PROCEEDINGS

The information presented in the Legal Proceedings section of Note 22 (“Commitments, Contingent Liabilities, and Guarantees”) of the Notes to Consolidated Financial Statements is incorporated herein by reference.

On at least a quarterly basis, we assess our liabilities and contingencies in connection with outstanding legal proceedings utilizing the latest information available. Where it is probable that we will incur a loss and the amount of the loss can be reasonably estimated, we record a liability in our consolidated financial statements. These legal reserves may be increased or decreased to reflect any relevant developments on a quarterly basis. Where a loss is not probable or the amount of the loss is not estimable, we have not accrued legal reserves, consistent with applicable accounting guidance. Based on information currently available to us, advice of counsel, and available insurance coverage, we believe that our established reserves are adequate and the liabilities arising from the legal proceedings will not have a material adverse effect on our consolidated financial condition. We note, however, that in light of the inherent uncertainty in legal proceedings there can be no assurance that the ultimate resolution will not exceed established reserves. As a result, the outcome of a particular matter or a combination of matters may be material to our results of operations for a particular period, depending upon the size of the loss or our income for that particular period.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR THE REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The dividend restrictions discussion in the “Supervision and Regulation” section in Item 1. Business of this report, and the disclosures included in Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations and in the Notes to Consolidated Financial Statements contained in Item 8 of this report, are incorporated herein by reference:

	Page(s)
Discussion of our common shares, shareholder information and repurchase activities in the section captioned “Capital — Common shares outstanding”	63
Presentation of annual and quarterly market price and cash dividends per common share and discussion of dividends in the section captioned “Capital — Dividends”	31, 35, 63
Discussion of dividend restrictions in the sections captioned “Supervision and Regulation — Regulatory capital requirements — Dividend restrictions,” “Liquidity risk management — Liquidity for KeyCorp,” Note 4 (“Restrictions on Cash, Dividends, and Lending Activities”), and Note 24 (“Shareholders’ Equity”)	14, 75, 117, 182
KeyCorp common share price performance (2013-2017) graph	63, 64

From time to time, KeyCorp or its principal subsidiary, KeyBank, may seek to retire, repurchase, or exchange outstanding debt of KeyCorp or KeyBank, and capital securities or preferred stock of KeyCorp, through cash purchase, privately negotiated transactions, or otherwise. Such transactions, if any, depend on prevailing market conditions, our liquidity and capital requirements, contractual restrictions, and other factors. The amounts involved may be material.

As previously reported and as authorized by the Board and pursuant to our 2017 capital plan (which is effective through the second quarter of 2018) submitted to and not objected to by the Federal Reserve on June 28, 2017, we have authority to repurchase up to $800 million of our common shares, which includes repurchases to offset issuances of common shares under our employee compensation plans. During 2017, we repurchased $254 million of common shares under our 2016 capital plan authorization and $476 million under our 2017 capital plan authorization.

The following table summarizes our repurchases of our common shares for the three months ended December 31, 2017.

Calendar month	Total number of shares repurchased[a]	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be purchased as part of publicly announced plans or programs[b]
October 1-31	4,482,143	$ 18.45	4,443,890	24,118,609
November 1-30	3,706,475	18.35	3,706,475	19,608,209
December 1-31	2,428,147	19.79	2,425,425	16,069,158
Total	10,616,765	$ 18.72	10,575,790	

(a) Includes common shares repurchased in the open market and common shares deemed surrendered by employees in connection with our stock compensation and benefit plans to satisfy tax obligations.

(b) Calculated using the remaining general repurchase amount divided by the closing price of KeyCorp common shares as follows: on October 31, 2017, at $18.25; on November 30, 2017, at $18.98; and on December 31, 2017, at $20.17.

ITEM 6. SELECTED FINANCIAL DATA

The information included under the caption “Selected Financial Data” in Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations beginning on page 35 is incorporated herein by reference.

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

Introduction

This section reviews the financial condition and results of operations of KeyCorp and its subsidiaries for each of the past three years. Some tables include additional periods to comply with disclosure requirements or to illustrate trends in greater depth. When you read this discussion, you should also refer to the consolidated financial statements and related notes in this report. The page locations of specific sections that we refer to are presented in the table of contents.

Terminology

Throughout this discussion, references to "Key," "we," "our," "us," and similar terms refer to the consolidated entity consisting of KeyCorp and its subsidiaries. "KeyCorp" refers solely to the parent holding company, and "KeyBank" refers solely to KeyCorp's subsidiary bank, KeyBank National Association. KeyBank (consolidated) refers to the consolidated entity consisting of KeyBank and its subsidiaries.

We want to explain some industry-specific terms at the outset so you can better understand the discussion that follows.

- We use the phrase ***continuing operations*** in this document to mean all of our businesses other than the education lending business, Victory, and Austin. The education lending business and Austin have been accounted for as ***discontinued operations*** since 2009. Victory was classified as a ***discontinued operation*** in our first quarter 2013 financial reporting as a result of the sale of this business as announced on February 21, 2013, and closed on July 31, 2013.
- Our ***exit loan portfolios*** are separate from our ***discontinued operations.*** These portfolios, which are in a run-off mode, stem from product lines we decided to cease because they no longer fit with our corporate strategy. These exit loan portfolios are included in ***Other Segments.***
- We engage in ***capital markets activities*** primarily through business conducted by our Key Corporate Bank segment. These activities encompass a variety of products and services. Among other things, we trade securities as a dealer, enter into derivative contracts (both to accommodate clients' financing needs and to mitigate certain risks), and conduct transactions in foreign currencies (both to accommodate clients' needs and to benefit from fluctuations in exchange rates).
- For regulatory purposes, capital is divided into two classes. Federal regulations currently prescribe that at least one-half of a bank or BHC's ***total risk-based capital*** must qualify as ***Tier 1 capital***. Both total and Tier 1 capital serve as bases for several measures of capital adequacy, which is an important indicator of financial stability and condition. As described under the heading "Regulatory capital requirements — Capital planning and stress testing" in the section entitled "Supervision and Regulation" in Item 1 of this report, the regulators are required to conduct a supervisory capital assessment of all BHCs with assets of at least $50 billion, including KeyCorp. As part of this capital adequacy review, banking regulators evaluated a component of Tier 1 capital, known as ***Common Equity Tier 1***, under the ***Regulatory Capital Rules***. The "Capital" section of this report under the heading "Capital adequacy" in the MD&A provides more information on total capital, Tier 1 capital, and the Regulatory Capital Rules, including Common Equity Tier 1, and describes how the these measures are calculated.

The acronyms and abbreviations identified below are used in the Notes to Consolidated Financial Statements as well as in the Management's Discussion and Analysis of Financial Condition and Results of Operations. You may find it helpful to refer back to this page as you read this report.

ABO: Accumulated benefit obligation.
ALCO: Asset/Liability Management Committee.
ALLL: Allowance for loan and lease losses.
A/LM: Asset/liability management.
AOCI: Accumulated other comprehensive income (loss).
APBO: Accumulated postretirement benefit obligation.
ASC: Accounting Standards Codification.
ASU: Accounting Standards Update.
ATMs: Automated teller machines.
Austin: Austin Capital Management, Ltd.
BSA: Bank Secrecy Act.
BHCA: Bank Holding Company Act of 1956, as amended.
BHCs: Bank holding companies.
Board: KeyCorp Board of Directors.
CCAR: Comprehensive Capital Analysis and Review.
Cain Brothers: Cain Brothers & Company, LLC.
CFPB: Consumer Financial Protection Bureau.
CFTC: Commodities Futures Trading Commission.
CMBS: Commercial mortgage-backed securities.
CMO: Collateralized mortgage obligation.
Common Shares: KeyCorp common shares, $1 par value.
DIF: Deposit Insurance Fund of the FDIC.
Dodd-Frank Act: Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.
EBITDA: Earnings before interest, taxes, depreciation, and amortization.
EPS: Earnings per share.
ERISA: Employee Retirement Income Security Act of 1974.
ERM: Enterprise risk management.
EVE: Economic value of equity.
FASB: Financial Accounting Standards Board.
FDIA: Federal Deposit Insurance Act, as amended.
FDIC: Federal Deposit Insurance Corporation.
Federal Reserve: Board of Governors of the Federal Reserve System.
FHLB: Federal Home Loan Bank of Cincinnati.
FHLMC: Federal Home Loan Mortgage Corporation.
FICO: Fair Isaac Corporation
FINRA: Financial Industry Regulatory Authority.
First Niagara: First Niagara Financial Group, Inc.
FNMA: Federal National Mortgage Association.
FSOC: Financial Stability Oversight Council.
FVA: Fair value of employee benefit plan assets.
GAAP: U.S. generally accepted accounting principles.
GNMA: Government National Mortgage Association.
HelloWallet: HelloWallet, LLC.
IRS: Internal Revenue Service.
ISDA: International Swaps and Derivatives Association.
KAHC: Key Affordable Housing Corporation.
KBCM: KeyBanc Capital Markets, Inc.
KCC: Key Capital Corporation.
KCDC: Key Community Development Corporation.
KEF: Key Equipment Finance.
KPP: Key Principal Partners.
KMS: Key Merchant Services, LLC.
LCR: Liquidity coverage ratio.
LIBOR: London Interbank Offered Rate.
LIHTC: Low-income housing tax credit.
Moody's: Moody's Investor Services, Inc.
MRM: Market Risk Management group.
N/A: Not applicable.
Nasdaq: The Nasdaq Stock Market LLC.
NFA: National Futures Association.
N/M: Not meaningful.
NOW: Negotiable Order of Withdrawal.
NPR: Notice of proposed rulemaking.
NYSE: New York Stock Exchange.
OCC: Office of the Comptroller of the Currency.
OCI: Other comprehensive income (loss).
OREO: Other real estate owned.
OTTI: Other-than-temporary impairment.
PBO: Projected benefit obligation.
PCCR: Purchased credit card relationship.
PCI: Purchased credit impaired.
S&P: Standard and Poor's Ratings Services, a Division of The McGraw-Hill Companies, Inc.
SEC: U.S. Securities & Exchange Commission.
Series A Preferred Stock: KeyCorp's 7.750% Noncumulative Perpetual Convertible Preferred Stock, Series A.
SIFIs: Systemically important financial institutions, including BHCs with total consolidated assets of at least $50 billion and nonbank financial companies designated by FSOC for supervision by the Federal Reserve.
TCJ Act: Tax Cuts and Jobs Act.
TDR: Troubled debt restructuring.
TE: Taxable-equivalent.
U.S. Treasury: United States Department of the Treasury.
VaR: Value at risk.
VEBA: Voluntary Employee Beneficiary Association.
Victory: Victory Capital Management and/or Victory Capital Advisors.
VIE: Variable interest entity.

Figure 1. Selected Financial Data

dollars in millions, except per share amounts	2017	2016	2015	2014	2013	Compound Annual Rate of Change (2013-2017)
YEAR ENDED DECEMBER 31,						
Interest income	**$ 4,390**	$ 3,319	$ 2,622	$ 2,554	$ 2,620	10.9%
Interest expense	**613**	400	274	261	295	15.8
Net interest income	**3,777**	2,919	2,348	2,293	2,325	10.2
Provision for credit losses	**229**	266	166	57	138	10.7
Noninterest income	**2,478**	2,071	1,880	1,797	1,766	7.0
Noninterest expense	**4,098**	3,756	2,840	2,761	2,812	7.8
Income (loss) from continuing operations before income taxes	**1,928**	968	1,222	1,272	1,141	11.1
Income (loss) from continuing operations attributable to Key	**1,289**	790	915	939	870	8.2
Income (loss) from discontinued operations, net of taxes	**7**	1	1	(39)	40	(29.4)
Net income (loss) attributable to Key	**1,296**	791	916	900	910	7.3
Income (loss) from continuing operations attributable to Key common shareholders	**1,219**	753	892	917	847	7.6
Income (loss) from discontinued operations, net of taxes	**7**	1	1	(39)	40	(29.4)
Net income (loss) attributable to Key common shareholders	**1,226**	754	893	878	887	6.7
PER COMMON SHARE						
Income (loss) from continuing operations attributable to Key common shareholders	**$ 1.13**	$ .81	$ 1.06	$ 1.05	$ .93	4.0
Income (loss) from discontinued operations, net of taxes	**.01**	—	—	(.04)	.04	(24.2)
Net income (loss) attributable to Key common shareholders [a]	**1.14**	.81	1.06	1.01	.98	3.1
Income (loss) from continuing operations attributable to Key common shareholders — assuming dilution	**1.12**	.80	1.05	1.04	.93	3.8
Income (loss) from discontinued operations, net of taxes — assuming dilution	**.01**	—	—	(.04)	.04	(24.2)
Net income (loss) attributable to Key common shareholders — assuming dilution [a]	**1.13**	.80	1.05	.99	.97	3.1
Cash dividends paid	**.38**	.33	.29	.25	.215	12.1
Book value at year end	**13.09**	12.58	12.51	11.91	11.25	3.1
Tangible book value at year end	**10.35**	9.99	11.22	10.65	10.11	.5
Market price at year end	**20.17**	18.27	13.19	13.90	13.42	8.5
Dividend payout ratio	**33.3%**	40.7%	27.4%	24.8%	21.9%	N/A
Weighted-average common shares outstanding (000)	**1,072,078**	927,816	834,846	871,464	906,524	3.4
Weighted-average common shares and potential common shares outstanding (000) [b]	**1,088,593**	938,536	844,489	878,199	912,571	3.6
AT DECEMBER 31,						
Loans	**$ 86,405**	$ 86,038	$ 59,876	$ 57,381	$ 54,457	9.7%
Earning assets	**123,490**	121,966	83,780	82,269	79,467	9.2
Total assets	**137,698**	136,453	95,131	93,820	92,934	8.2
Deposits	**105,235**	104,087	71,046	71,998	69,262	8.7
Long-term debt	**14,333**	12,384	10,184	7,874	7,650	13.4
Key common shareholders' equity	**13,998**	13,575	10,456	10,239	10,012	6.9
Key shareholders' equity	**15,023**	15,240	10,746	10,530	10,303	7.8
PERFORMANCE RATIOS — FROM CONTINUING OPERATIONS						
Return on average total assets	**.96%**	.70%	.99%	1.08%	1.03%	N/A
Return on average common equity	**8.65**	6.26	8.63	9.01	8.48	N/A
Return on average tangible common equity [c]	**10.84**	7.39	9.64	10.04	9.45	N/A
Net interest margin (TE)	**3.17**	2.92	2.88	2.97	3.12	N/A
Cash efficiency ratio [c]	**63.5**	73.7	65.9	66.2	67.3	N/A
PERFORMANCE RATIOS — FROM CONSOLIDATED OPERATIONS						
Return on average total assets	**.96%**	.69%	.97%	.99%	1.02%	N/A
Return on average common equity	**8.70**	6.27	8.64	8.63	8.88	N/A
Return on average tangible common equity [c]	**10.90**	7.40	9.65	9.61	9.90	N/A
Net interest margin (TE)	**3.15**	2.91	2.85	2.94	3.02	N/A
Loan to deposit [d]	**84.4**	85.2	87.8	84.6	83.8	N/A
CAPITAL RATIOS AT DECEMBER 31,						
Key shareholders' equity to assets	**10.91%**	11.17%	11.30%	11.22%	11.09%	N/A
Key common shareholders' equity to assets	**10.17**	9.95	10.99	10.91	10.78	N/A
Tangible common equity to tangible assets [c]	**8.23**	8.09	9.98	9.88	9.80	N/A
Common Equity Tier 1	**10.16**	9.54	10.94	N/A	N/A	N/A
Tier 1 common equity	**N/A**	N/A	N/A	11.17	11.22	N/A
Tier 1 risk-based capital	**11.01**	10.89	11.35	11.90	11.96	N/A
Total risk-based capital	**12.92**	12.85	12.97	13.89	14.33	N/A
Leverage	**9.73**	9.90	10.72	11.26	11.11	N/A
TRUST ASSETS						
Assets under management	**$ 39,588**	$ 36,592	$ 33,983	$ 39,157	$ 36,905	1.4%
OTHER DATA						
Average full-time-equivalent employees	**18,415**	15,700	13,483	13,853	14,783	4.5%
Branches	**1,197**	1,217	966	994	1,028	3.1

(a) EPS may not foot due to rounding.
(b) Assumes conversion of common share options and other stock awards and/or convertible preferred stock, as applicable.
(c) See Figure 2 entitled "GAAP to Non-GAAP Reconciliations," which presents the computations of certain financial measures related to "tangible common equity" and "cash efficiency." The table reconciles the GAAP performance measures to the corresponding non-GAAP measures, which provides a basis for period-to-period comparisons.
(d) Represents period-end consolidated total loans and loans held for sale (excluding education loans in securitizations trusts for periods prior to 2014) divided by period-end consolidated total deposits (excluding deposits in foreign office).

Figure 2 presents certain non-GAAP financial measures related to “tangible common equity,” “return on tangible common equity,” “cash efficiency ratio,” “pre-provision net revenue,” certain financial measures excluding notable items, and “Common Equity Tier 1 under the Regulatory Capital Rules”

Notable items include certain revenue or expense items that may occur in a reporting period which management does not consider indicative of ongoing financial performance. Management believes it is useful to consider certain financial metrics with and without merger-related charges and/or other notable items, including the impact of tax reform and related actions, in order to enable a better understanding of our results, increase comparability of period-to-period results, and to evaluate and forecast those results.

As disclosed in Note 2 ("Business Combination") and Note 15 (“Acquisitions, Divestiture, and Discontinued Operations”), we completed the purchase of First Niagara on August 1, 2016. The definitive agreement and plan of merger to acquire First Niagara was originally announced on October 30, 2015. As a result of this transaction, we have recognized merger-related charges which are included in the total for “notable items.” Figure 2 shows the computation of “return on average tangible common equity excluding notable items,” “pre-provision net revenue excluding notable items,” “cash efficiency ratio excluding notable items,” and “return on average assets from continuing operations excluding notable items.”

The tangible common equity ratio and the return on tangible common equity ratio have been a focus for some investors, and management believes that these ratios may assist investors in analyzing Key’s capital position without regard to the effects of intangible assets and preferred stock. Since analysts and banking regulators may assess our capital adequacy using tangible common equity, we believe it is useful to enable investors to assess our capital adequacy on these same bases. Figure 2 reconciles the GAAP performance measures to the corresponding non-GAAP measures.

Figure 2 also shows the computation for and reconciliation of pre-provision net revenue, which is not formally defined by GAAP. We believe that eliminating the effects of the provision for credit losses makes it easier to analyze our results by presenting them on a more comparable basis.

The cash efficiency ratio is a ratio of two non-GAAP performance measures. Accordingly, there is no directly comparable GAAP performance measure. The cash efficiency ratio excludes the impact of our intangible asset amortization from the calculation. We also disclose the cash efficiency ratio excluding notable items. We believe these ratios provide greater consistency and comparability between our results and those of our peer banks. Additionally, these ratios are used by analysts and investors as they develop earnings forecasts and peer bank analysis.

Non-GAAP financial measures have inherent limitations, are not required to be uniformly applied, and are not audited. Although these non-GAAP financial measures are frequently used by investors to evaluate a company, they have limitations as analytical tools, and should not be considered in isolation, nor as a substitute for analyses of results as reported under GAAP.

Figure 2. GAAP to Non-GAAP Reconciliations

Year ended December 31,

dollars in millions	2017	2016	2015	2014	2013
Tangible common equity to tangible assets at period end					
Key shareholders' equity (GAAP)	**$ 15,023**	$ 15,240	$ 10,746	$ 10,530	$ 10,303
Less: Intangible assets [a]	**2,928**	2,788	1,080	1,090	1,014
Preferred Stock [b]	**1,009**	1,640	281	282	282
Tangible common equity (non-GAAP)	**$ 11,086**	$ 10,812	$ 9,385	$ 9,158	$ 9,007
Total assets (GAAP)	**$ 137,698**	$ 136,453	$ 95,131	$ 93,820	$ 92,934
Less: Intangible assets [a]	**2,928**	2,788	1,080	1,090	1,014
Tangible assets (non-GAAP)	**$ 134,770**	$ 133,665	$ 94,051	$ 92,730	$ 91,920
Tangible common equity to tangible assets ratio (non-GAAP)	**8.23%**	8.09%	9.98%	9.88%	9.80%
Notable items					
Merger-related charges	**$ (217)**	$ (474)	$ (6)	—	—
Estimated impacts of tax reform and related actions	**(30)**	—	—	—	—
Merchant services gain	**59**	—	—	—	—
Purchase accounting finalization, net	**43**	—	—	—	—
Charitable contribution	**(20)**	—	—	—	—
Total notable items	**$ (165)**	$ (474)	$ (6)	—	—
Income taxes	**(53)**	(175)	(2)	—	—
Reevaluation of certain tax related assets	**147**	—	—	—	—
Total notable items, after tax	**$ (259)**	$ (299)	$ (4)	—	—
Average tangible common equity					
Average Key shareholders' equity (GAAP)	**$ 15,224**	$ 12,647	$ 10,626	$ 10,467	$ 10,276
Less: Intangible assets (average) [c]	**2,837**	1,825	1,085	1,039	1,021
Preferred Stock (average)	**1,137**	627	290	291	291
Average tangible common equity (non-GAAP)	**$ 11,250**	$ 10,195	$ 9,251	$ 9,137	$ 8,964
Return on average tangible common equity from continuing operations					
Income (loss) from continuing operations attributable to Key common shareholders (GAAP)	**$ 1,219**	$ 753	$ 892	$ 917	$ 847
Plus: Notable items (after-tax)	**259**	299	4	—	—
Income (loss) from continuing operations attributable to Key common shareholders excluding notable items (non-GAAP)	**$ 1,478**	$ 1,052	$ 896	$ 917	$ 847
Average tangible common equity (non-GAAP)	**$ 11,250**	$ 10,195	$ 9,251	$ 9,137	$ 8,964
Return on average tangible common equity from continuing operations (non-GAAP)	**10.84%**	7.39%	9.64%	10.04%	9.45%
Return on average tangible common equity from continuing operations excluding notable items (non-GAAP)	**13.14**	10.32	9.69	10.04	9.45
Return on average tangible common equity consolidated					
Net income (loss) attributable to Key common shareholders (GAAP)	**$ 1,226**	$ 754	$ 893	$ 878	$ 887
Average tangible common equity (non-GAAP)	**11,250**	10,195	9,251	9,137	8,964
Return on average tangible common equity consolidated (non-GAAP)	**10.90%**	7.40%	9.65%	9.61%	9.90%
Pre-provision net revenue					
Net interest income (GAAP)	**$ 3,777**	$ 2,919	$ 2,348	$ 2,293	$ 2,325
Plus: TE adjustment	**53**	34	28	24	23
Noninterest income (GAAP)	**2,478**	2,071	1,880	1,797	1,766
Less: Noninterest expense (GAAP)	**4,098**	3,756	2,840	2,761	2,812
Pre-provision net revenue from continuing operations (non-GAAP)	**$ 2,210**	$ 1,268	$ 1,416	$ 1,353	$ 1,302
Plus: Notable items	**165**	474	6	—	—
Pre-provision net revenue from continuing operations excluding notable items (non-GAAP)	**$ 2,375**	$ 1,742	$ 1,422	$ 1,353	$ 1,302
Cash efficiency ratio					
Noninterest expense (GAAP)	**$ 4,098**	$ 3,756	$ 2,840	$ 2,761	$ 2,812
Less: Intangible asset amortization (GAAP)	**95**	55	36	39	44
Adjusted noninterest expense (non-GAAP)	**4,003**	3,701	2,804	2,722	2,768
Less: Notable items [d]	**262**	465	6	—	—
Adjusted noninterest expense excluding notable items (non-GAAP)	**$ 3,741**	$ 3,236	$ 2,798	$ 2,722	$ 2,768
Net interest income (GAAP)	**$ 3,777**	$ 2,919	$ 2,348	$ 2,293	$ 2,325
Plus: TE adjustment	**53**	34	28	24	23
Noninterest income (GAAP)	**2,478**	2,071	1,880	1,797	1,766
Total TE revenue (non-GAAP)	**6,308**	5,024	4,256	4,114	4,114
Plus: Notable items [e]	**(97)**	9	—	—	—
Adjusted total TE revenue excluding notable items (non-GAAP)	**$ 6,211**	$ 5,033	$ 4,256	$ 4,114	$ 4,114
Cash efficiency ratio (non-GAAP)	**63.5%**	73.7%	65.9%	66.2%	67.3%
Cash efficiency ratio excluding notable items (non-GAAP)	**60.2**	64.3	65.7	66.2	67.3
Return on average total assets from continuing operations excluding notable items					
Income from continuing operations attributable to Key (GAAP)	**$ 1,289**	$ 790	$ 915	$ 939	$ 870
Plus: Notable items, after tax	**259**	299	4	—	—
Income from continuing operations attributable to Key excluding notable items, after tax (non-GAAP)	**$ 1,548**	$ 1,089	$ 919	$ 939	$ 870
Average total assets from continuing operations (GAAP)	**$ 133,719**	$ 112,537	$ 94,117	$ 87,077	$ 84,177
Return on average total assets from continuing operations excluding notable items (non-GAAP)	**1.16%**	.97%	.98%	1.08%	1.03%

Figure 2. GAAP to Non-GAAP Reconciliations (Continued)

Year ended December 31, *dollars in millions*		2017
Common Equity Tier 1 under the Regulatory Capital Rules		
Common Equity Tier 1 under current Regulatory Capital Rules	$	12,075
Adjustments from current Regulatory Capital Rules to the fully phased-in Regulatory Capital Rules:		
Deferred tax assets and other intangible assets [f]		(67)
Common Equity Tier 1 anticipated under the fully phased-in Regulatory Capital Rules[g]	$	12,008
Net risk-weighted assets under current Regulatory Capital Rules	$	118,812
Adjustments from current Regulatory Capital Rules to the fully phased-in Regulatory Capital Rules:		
Mortgage servicing assets [h]		664
All other assets		(23)
Total risk-weighted assets anticipated under the fully phased-in Regulatory Capital Rules[g]	$	119,453
Common Equity Tier 1 ratio under the fully phased-in Regulatory Capital Rules[g]		10.05%

(a) For the years ended December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013, intangible assets exclude $26 million, $42 million, $45 million, $68 million, and $92 million, respectively, of period-end purchased credit card relationships.
(b) Net of capital surplus.
(c) For the years ended December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013, average intangible assets exclude $34 million, $43 million, $55 million, $79 million, and $107 million, respectively, of average purchased credit card relationships.
(d) Notable items for the year ended December 31, 2017, include $217 million of merger-related charges, a $20 million charitable contribution, $30 million of estimated impacts of tax reform and related actions and a credit of approximately $5 million related to purchase accounting finalization.
(e) Notable items for the year ended December 31, 2017, include $59 million related to the merchant services acquisition gain, $39 million related to purchase accounting finalization, and $1 million related to the impacts of tax reform and related actions.
(f) Includes the deferred tax assets subject to future taxable income for realization, primarily tax credit carryforwards, as well as intangible assets (other than goodwill and mortgage servicing assets) subject to the transition provisions of the final rule.
(g) The anticipated amount of regulatory capital and risk-weighted assets is based upon the federal banking agencies' Regulatory Capital Rules (as fully phased-in on January 1, 2019); we are subject to the Regulatory Capital Rules under the "standardized approach."
(h) Item is included in the 10%/15% exceptions bucket calculation and is risk-weighted at 250%.

Long-term financial targets

Figure 3 shows the evaluation of our long-term financial targets for the year ended December 31, 2017.

Figure 3. Evaluation of Our Long-Term Targets

	Key Metrics [a]	Year Ended December 31, 2017	Targets
Positive operating leverage	Cash efficiency ratio [b]	63.5%	< 60%
	Cash efficiency ratio excluding notable items [b]	60.2%	
Moderate risk profile	Net loan charge-offs to average loans	.24%	.40 - .60 %
Financial Returns	Return on average tangible common equity [c]	10.84%	13.00 - 15.00 %
	Return on average tangible common equity excluding notable items [c]	13.14%	

(a) Calculated from continuing operations, unless otherwise noted.
(b) Excludes intangible asset amortization; non-GAAP measure: see Figure 2 for reconciliation.
(c) Non-GAAP measure: see Figure 2 for reconciliation.

As we have now reached our existing long-term goals in 2017, beginning in 2018, we have revised our long-term financial targets as follows:

- Generate positive operating leverage and a cash efficiency ratio in the range of 54% to 56%;
- Maintain a moderate risk profile by targeting a net loan charge-offs to average loans ratio in the range of .40% to .60%; and
- A return on tangible common equity ratio in the range of 15% to 18%.

Corporate strategy

We remain committed to enhancing long-term shareholder value by continuing to execute our relationship-oriented business model, growing our franchise, and being disciplined in our capital management. Our strategic focus is to deliver ease, value, and expertise to help our clients make better financial decisions and build enduring relationships. We intend to pursue this strategy by growing profitably; acquiring and expanding targeted client relationships; effectively managing risk and rewards; maintaining financial strength; and engaging, retaining, and inspiring our diverse and high-performing workforce. These strategic priorities for enhancing long-term shareholder value are described in more detail below.

- ***Grow profitably —*** We will continue to focus on generating positive operating leverage by growing revenue and creating a more efficient operating environment. We expect our relationship business model to keep

generating organic growth as it helps us expand engagement with existing clients and attract new customers. We will leverage our continuous improvement culture to maintain an efficient cost structure that is aligned, sustainable, and consistent with the current operating environment and that supports our relationship business model.

- ***Acquire and expand targeted client relationships —*** We seek to be client-centric in our actions and have taken purposeful steps to enhance our ability to acquire and expand targeted relationships. For example, in commercial banking, our ability to deliver a broad product set and industry expertise allows us to match client needs and market conditions to deliver attractive solutions to clients.
- ***Effectively manage risk and rewards —*** Our risk management activities are focused on ensuring we properly identify, measure, and manage risks across the entire company to maintain safety and soundness and maximize profitability.
- ***Maintain financial strength —*** With the foundation of a strong balance sheet, we will remain focused on sustaining strong reserves, liquidity and capital. We will work closely with our Board and regulators to manage capital to support our clients' needs and drive long-term shareholder value. Our capital remains a competitive advantage for us.
- ***Engage a high-performing, talented, and diverse workforce —*** Every day our employees provide our clients with great ideas, extraordinary service, and smart solutions. We will continue to engage our high-performing, talented, and diverse workforce to create an environment where they can make a difference, own their careers, be respected, and feel a sense of pride.

Strategic developments

We took the following actions during 2017 to support our corporate strategy:

- We continued to generate positive operating leverage versus the prior year. Our cash efficiency ratio, excluding notable items, was 60.2% for 2017, an improvement of 410 basis points compared to the prior year. We generated revenue synergies from our recent acquisitions, which we expect will continue to provide significant upside over the next several years. Revenue for 2017 grew 25.4% from 2016, driven by an increase in net interest income reflecting the full year benefit from the First Niagara acquisition in addition to higher interest rates, low deposit betas, and growth in our core earning asset balances. We also continued to experience growth in our fee-based businesses. The primary driver of the growth in noninterest income was investment banking and debt placement fees, which reached a new record level for the year of $603 million, driven by organic growth of almost 20%. Cards and payments also added to our growth in noninterest income, increasing 23.2% from the prior year. In 2017, we reached over $400 million in annual run rate cost savings from the First Niagara merger, with another $50 million expected to be realized by early 2018. Expenses for the year were elevated as a result of the full-year impact of the First Niagara acquisition, as well as higher expenses related to acquisitions completed in 2017. Expenses for 2017 also included a number of notable items including merger-related charges and the impact of tax reform and related actions.
- We saw continued strength in our credit quality trends during the year. For 2017, net loan charge-offs were .24% of average loans, down from .29% one year ago, and below our targeted range. Over the past 12 months, net loan charge-offs increased $3 million. This increase is attributable to the growth in our loan portfolio and higher charge-offs in our consumer loan portfolios partially offset by an increase in recoveries in our commercial and industrial loan portfolio.
- Capital management remained a priority in 2017. On June 28, 2017, the Federal Reserve announced that it did not object to our 2017 capital plan submitted as part of the annual CCAR process. The 2017 capital plan included share repurchases of up to $800 million, which is effective through the second quarter of 2018. During the third and fourth quarters of 2017, we completed $476 million of Common Share repurchases, including $469 million of Common Share repurchases in the open market and $7 million of Common Share repurchases related to employee equity compensation programs under the authorization. Over the past five years, we have repurchased over $2.2 billion in Common Shares.
- Consistent with our 2016 capital plan, the Board declared a quarterly dividend of $.085 per Common Share for the first quarter of 2017, and $.095 per Common Share for the second quarter of 2017. The Board declared a quarterly dividend of $.095 per Common Share for the third quarter of 2017, and a quarterly dividend of $.105 per Common Share for the fourth quarter of 2017, consistent with our 2017 capital plan. These quarterly dividend payments brought our annual dividend to $.38 per Common Share for 2017. Our 2017 capital plan proposed an increase in our quarterly Common Share dividend, up to $.12 per share, which will be considered by the Board for the second quarter of 2018.

Results of Operations

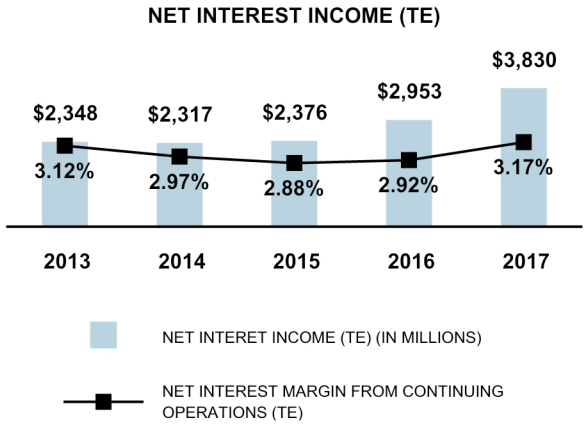
Net interest income

One of our principal sources of revenue is net interest income. Net interest income is the difference between interest income received on earning assets (such as loans and securities) and loan-related fee income, and interest expense paid on deposits and borrowings. There are several factors that affect net interest income, including:

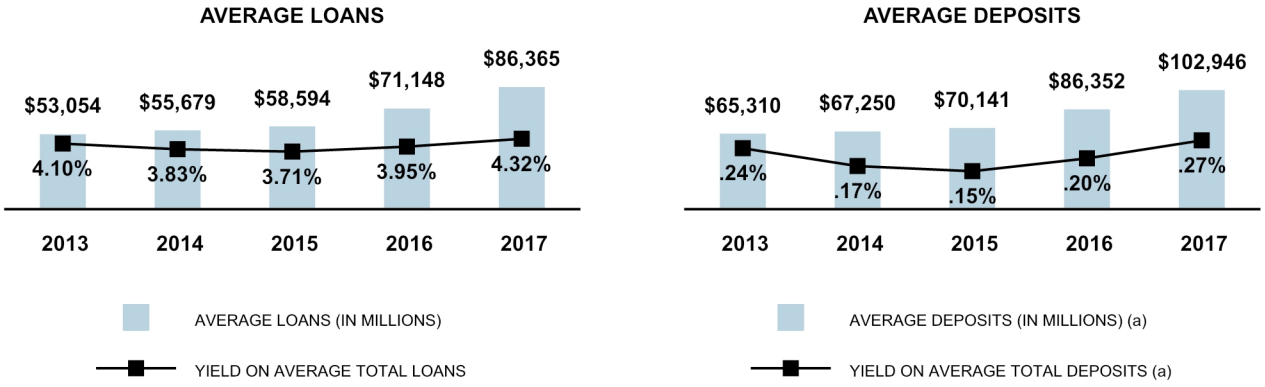
- the volume, pricing, mix, and maturity of earning assets and interest-bearing liabilities;
- the volume and value of net free funds, such as noninterest-bearing deposits and equity capital;
- the use of derivative instruments to manage interest rate risk;
- interest rate fluctuations and competitive conditions within the marketplace;
- asset quality; and
- fair value accounting of acquired earning assets and interest-bearing liabilities.

To make it easier to compare results among several periods and the yields on various types of earning assets (some taxable, some not), we present net interest income in this discussion on a “TE basis” (i.e., as if it were all taxable and at the same rate). For example, $100 of tax-exempt income would be presented as $154, an amount that — if taxed at the 2017 statutory federal income tax rate of 35% — would yield $100.

Figure 4 shows the various components of our balance sheet that affect interest income and expense, and their respective yields or rates over the past five years. This figure also presents a reconciliation of TE net interest income to net interest income reported in accordance with GAAP for each of those years. The net interest margin, which is an indicator of the profitability of the earning assets portfolio less cost of funding, is calculated by dividing taxable-equivalent net interest income by average earning assets.



TE net interest income for 2017 was $3.8 billion, and the net interest margin was 3.17%, compared to TE net interest income of $3.0 billion and a net interest margin of 2.92% for the prior year. 2017 reflects the full year benefit from the First Niagara acquisition, including purchase accounting accretion, higher interest rates, low deposit betas, and growth in our core earning asset balances. TE net interest income for 2016 increased $577 million from 2015 and the net interest margin increase by 4 basis points, reflecting the benefit from the First Niagara acquisition and growth in our core earning asset balances and yields. In 2018, we expect net interest income to be in the range of $3.9 billion to $4.0 billion, with our outlook assuming one additional rate increase in June 2018.



(a) Average deposits for the years ended December 31, 2015, December 31, 2014, and December 31, 2013, exclude deposits in foreign office.

Average loans totaled $86.4 billion for 2017, compared to $71.1 billion in 2016. This increase reflected the impact of the First Niagara acquisition and growth in commercial and industrial loans. For 2018, we anticipate average loans to be in the range of $88.5 billion to $89.5 billion.

Average earning assets totaled $120.8 billion for 2017, compared to $101.3 billion in 2016, reflecting the full year impact of the First Niagara acquisition, as well as growth in commercial and industrial loans. At December 31, 2017, the remaining fair value discount on the First Niagara acquired loan portfolio was $266 million.

Average deposits totaled $102.9 billion for 2017, an increase of $16.6 billion compared to 2017, primarily reflecting the full year impact of the First Niagara acquisition. In addition, we realized core deposit growth in 2017 driven by the strength of our retail banking franchise and from commercial clients, partly offset by the managed exit of higher cost corporate and public sector deposits. For 2018, we anticipate average deposits to be in the range of $104.5 billion to $105.5 billion.

Figure 4. Consolidated Average Balance Sheets, Net Interest Income, and Yields/Rates from Continuing Operations

Year ended December 31,	2017			2016		
dollars in millions	Average Balance	Interest [a]	Yield/ Rate [a]	Average Balance	Interest [a]	Yield/ Rate [a]
ASSETS						
Loans [b], [c]						
Commercial and industrial [d]	$ 40,848	$ 1,613	3.95%	$ 35,276	$ 1,215	3.45%
Real estate — commercial mortgage	14,878	687	4.62	11,063	451	4.07
Real estate — construction	2,143	103	4.78	1,460	76	5.22
Commercial lease financing	4,677	185	3.96	4,261	161	3.78
Total commercial loans	62,546	2,588	4.14	52,060	1,903	3.66
Real estate — residential mortgage	5,499	214	3.89	3,632	148	4.09
Home equity loans	12,380	536	4.33	11,286	456	4.04
Consumer direct loans	1,765	126	7.12	1,661	113	6.79
Credit cards	1,055	118	11.15	916	98	10.73
Consumer indirect loans	3,120	148	4.75	1,593	89	5.58
Total consumer loans	23,819	1,142	4.79	19,088	904	4.74
Total loans	86,365	3,730	4.32	71,148	2,807	3.95
Loans held for sale	1,325	52	3.96	979	34	3.51
Securities available for sale [b], [e]	18,548	369	1.96	16,661	329	1.98
Held-to-maturity securities [b]	10,515	222	2.11	6,275	122	1.94
Trading account assets	949	27	2.81	884	23	2.59
Short-term investments	2,363	26	1.11	4,656	22	.47
Other investments [e]	712	17	2.35	679	16	2.37
Total earning assets	120,777	4,443	3.67	101,282	3,353	3.31
Allowance for loan and lease losses	(865)			(835)		
Accrued income and other assets	13,807			12,090		
Discontinued assets	1,448			1,707		
Total assets	$ 135,167			$ 114,244		
LIABILITIES						
NOW and money market deposit accounts	$ 54,032	143	.26	$ 46,079	87	.19
Savings deposits	6,569	13	.20	3,957	3	.07
Certificates of deposit ($100,000 or more)[f]	6,233	82	1.31	3,911	48	1.22
Other time deposits	4,698	40	.85	4,088	33	.81
Deposits in foreign office	—	—	—	—	—	—
Total interest-bearing deposits	71,532	278	.39	58,035	171	.30
Federal funds purchased and securities sold under repurchase agreements	517	1	.24	487	1	.10
Bank notes and other short-term borrowings	1,140	15	1.34	852	10	1.18
Long-term debt [f], [g]	11,921	319	2.69	9,802	218	2.29
Total interest-bearing liabilities	85,110	613	.72	69,176	400	.58
Noninterest-bearing deposits	31,414			28,317		
Accrued expense and other liabilities	1,970			2,393		
Discontinued liabilities [g]	1,448			1,706		
Total liabilities	119,942			101,592		
EQUITY						
Key shareholders' equity	15,224			12,647		
Noncontrolling interests	1			5		
Total equity	15,225			12,652		
Total liabilities and equity	$ 135,167			$ 114,244		
Interest rate spread (TE)			2.95%			2.73%
Net interest income (TE) and net interest margin (TE)		3,830	3.17%		2,953	2.92%
Less: TE adjustment [b]		53			34	
Net interest income, GAAP basis		$ 3,777			$ 2,919	

(a) Results are from continuing operations. Interest excludes the interest associated with the liabilities referred to in (g) below, calculated using a matched funds transfer pricing methodology.
(b) Interest income on tax-exempt securities and loans has been adjusted to a TE basis using the statutory federal income tax rate in effect that calendar year.
(c) For purposes of these computations, nonaccrual loans are included in average loan balances.
(d) Commercial and industrial average balances include $117 million, $99 million, $88 million, $93 million, and $95 million of assets from commercial credit cards for the years ended December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013, respectively.

Figure 4. Consolidated Average Balance Sheets, Net Interest Income, and Yields/Rates from Continuing Operations (Continued)

2015			2014			2013			Compound Annual Rate of Change (2013-2017)	
Average Balance	Interest [a]	Yield/ Rate [a]	Average Balance	Interest [a]	Yield/ Rate [a]	Average Balance	Interest [a]	Yield/ Rate [a]	Average Balance	Interest
$ 29,658	$ 953	3.21%	$ 26,375	$ 866	3.28%	$ 23,723	$ 855	3.60%	11.5%	13.5%
8,020	295	3.68	7,999	303	3.79	7,591	312	4.11	14.4	17.1
1,143	43	3.73	1,061	43	4.07	1,058	45	4.25	15.2	18.0
3,976	143	3.60	4,239	156	3.67	4,683	172	3.67	—	1.5
42,797	1,434	3.35	39,674	1,368	3.45	37,055	1,384	3.73	11.0	13.3
2,244	95	4.21	2,201	96	4.37	2,185	98	4.49	20.3	16.9
10,503	418	3.98	10,639	428	4.02	10,463	426	4.07	3.4	4.7
1,580	103	6.54	1,501	104	6.92	1,404	103	7.33	4.7	4.1
752	81	10.76	712	78	10.95	701	83	11.86	8.5	7.3
718	46	6.43	952	60	6.31	1,246	80	6.38	20.2	13.1
15,797	743	4.70	16,005	766	4.79	15,999	790	4.94	8.3	7.6
58,594	2,177	3.71	55,679	2,134	3.83	53,054	2,174	4.10	10.2	11.4
959	37	3.85	570	21	3.76	532	20	3.72	20.0	21.1
13,720	293	2.14	12,210	277	2.27	12,689	311	2.49	7.9	3.5
4,936	96	1.95	4,949	93	1.88	4,387	82	1.87	19.1	22.0
761	21	2.80	932	25	2.70	756	21	2.78	4.7	5.2
2,843	8	.27	2,886	6	.21	2,948	6	.20	(4.3)	34.1
706	18	2.63	865	22	2.53	1,028	29	2.84	(7.1)	(10.1)
82,519	2,650	3.21	78,091	2,578	3.30	75,394	2,643	3.51	9.9	10.9
(791)			(818)			(879)			(.3)	
10,298			9,804			9,662			7.4	
2,132			3,828			5,036			(22.1)	
$ 94,158			$ 90,905			$ 89,213			8.7%	
$ 36,258	56	.15	$ 34,283	48	.14	$ 32,846	53	.16	10.5%	22.0
2,372	—	.02	2,446	1	.02	2,505	1	.04	21.3	67.0
2,041	26	1.28	2,616	35	1.35	2,829	50	1.76	17.1	10.4
3,115	22	.71	3,495	32	.91	4,084	53	1.30	2.8	(5.5)
489	1	.23	615	1	.23	567	1	.23	N/M	N/M
44,275	105	.24	43,455	117	.27	42,831	158	.37	10.8	12.0
632	—	.04	1,182	2	.16	1,802	2	.13	(22.1)	(12.9)
572	9	1.52	597	9	1.49	394	8	1.89	23.7	13.4
7,332	160	2.24	5,159	133	2.68	4,184	127	3.28	23.3	20.2
52,811	274	.52	50,393	261	.52	49,211	295	.60	11.6	15.8
26,355			24,410			23,046			6.4	
2,222			1,791			1,656			3.5	
2,132			3,828			4,995			(21.9)	
83,520			80,422			78,908			8.7	
10,626			10,467			10,276			8.2	
12			16			29			(49.0)	
10,638			10,483			10,305			8.1	
$ 94,158			$ 90,905			$ 89,213			8.7%	
		2.69%			2.78%			2.91%		
	2,376	2.88%		2,317	2.97%		2,348	3.12%		10.3
	28			24			23			18.2
	$ 2,348			$ 2,293			$ 2,325			10.2%

(e) Yield is calculated on the basis of amortized cost.
(f) Rate calculation excludes basis adjustments related to fair value hedges.
(g) A portion of long-term debt and the related interest expense is allocated to discontinued liabilities as a result of applying our matched funds transfer pricing methodology to discontinued operations.

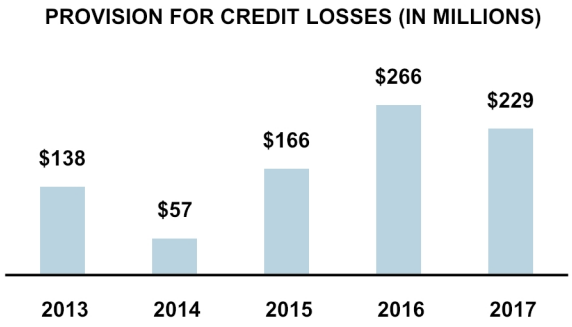
Figure 5 shows how the changes in yields or rates and average balances from the prior year affected net interest income. The section entitled “Financial Condition” contains additional discussion about changes in earning assets and funding sources.

Figure 5. Components of Net Interest Income Changes from Continuing Operations

	2017 vs. 2016			2016 vs. 2015		
in millions	Average Volume	Yield/ Rate	Net Change[(a)]	Average Volume	Yield/ Rate	Net Change[(a)]
INTEREST INCOME						
Loans	$ 640	$ 283	$ 923	$ 488	$ 142	$ 630
Loans held for sale	13	5	18	1	(4)	(3)
Securities available for sale	38	2	40	59	(23)	36
Held-to-maturity securities	89	11	100	26	—	26
Trading account assets	2	2	4	3	(1)	2
Short-term investments	(15)	19	4	7	7	14
Other investments	1	—	1	(1)	(1)	(2)
Total interest income (TE)	768	322	1,090	583	120	703
INTEREST EXPENSE						
NOW and money market deposit accounts	17	39	56	17	14	31
Savings deposits	3	7	10	—	3	3
Certificates of deposit ($100,000 or more)	30	4	34	23	(1)	22
Other time deposits	5	2	7	8	3	11
Deposits in foreign office	—	—	—	(1)	—	(1)
Total interest-bearing deposits	55	52	107	47	19	66
Federal funds purchased and securities sold under repurchase agreements	—	—	—	—	1	1
Bank notes and other short-term borrowings	4	1	5	3	(2)	1
Long-term debt	52	49	101	55	3	58
Total interest expense	111	102	213	105	21	126
Net interest income (TE)	$ 657	$ 220	$ 877	$ 478	$ 99	$ 577

(a) The change in interest not due solely to volume or rate has been allocated in proportion to the absolute dollar amounts of the change in each.

Provision for credit losses



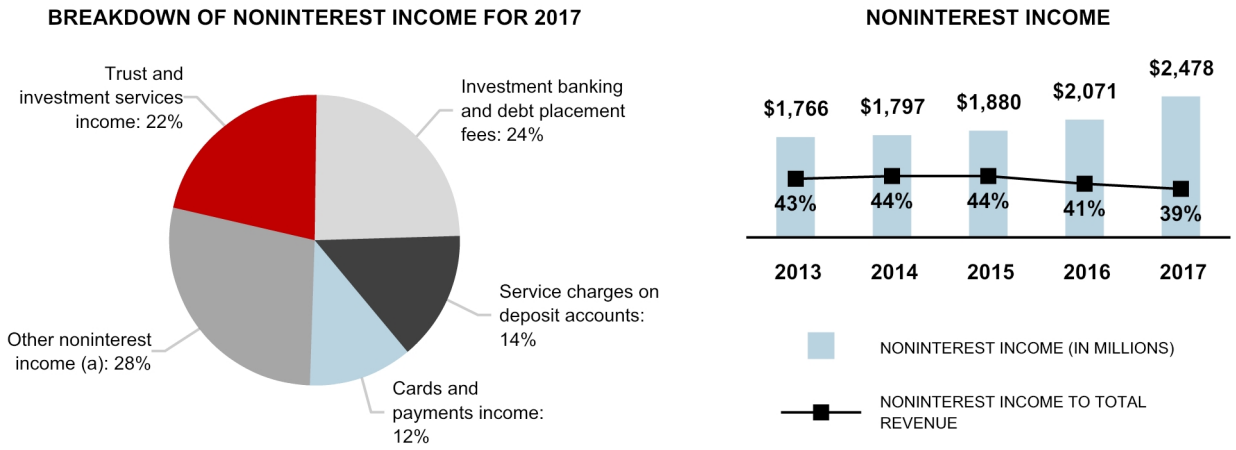
Our provision for credit losses was $229 million for 2017, compared to $266 million for 2016. The decrease of $37 million in our provision for credit losses is related to a decrease in our ALLL taken during 2017 on our commercial loan portfolio when compared to the year prior, partially offset by a slight increase in our net loan charge-offs over the past twelve months. The commercial ALLL decreased due to a year over year reduction in loan outstandings as well as a decrease in classified and nonperforming loans. For 2016, the increase of $100 million in our provision for credit losses was primarily related to the addition of the acquired credit card and consumer direct portfolios, increased charge-offs, and loan growth. In 2018, we expect the provision to slightly exceed net loan charge-offs to provide for loan growth.

Noninterest income

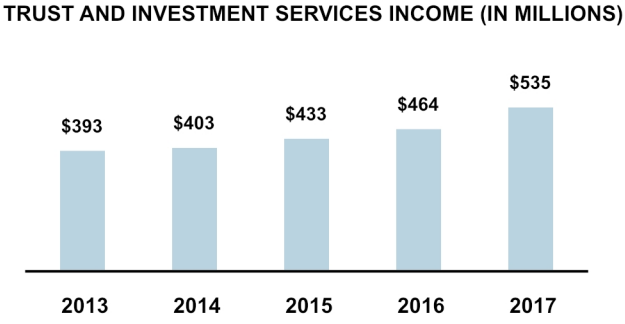
Noninterest income for 2017 was $2.5 billion, compared to $2.1 billion during 2016, and $1.9 billion during 2015. Noninterest income represented 39% of total revenue for 2017, 41% of total revenue for 2016, and 44% of total revenue for 2015. In 2018, we expect noninterest income to be in the range of $2.5 billion to $2.6 billion.

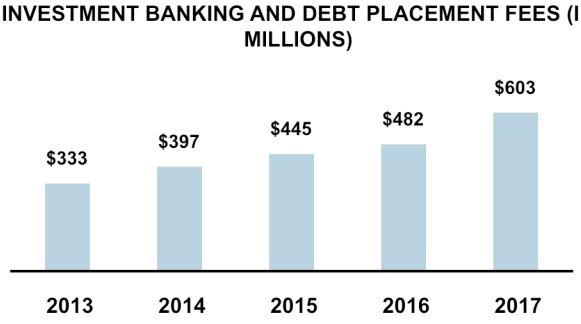
The following discussion explains the composition of certain elements of our noninterest income and the factors that caused those elements to change.

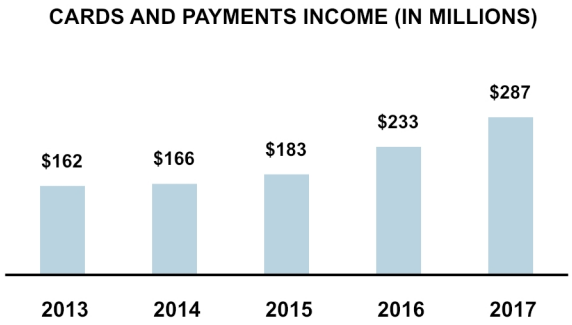
Figure 6. Noninterest Income



(a) Other noninterest income includes operating lease income and other leasing gains, corporate services income, corporate-owned life insurance income, consumer mortgage income, mortgage servicing fees, net gains (losses) from principal investing, and other income. See the "Consolidated Statements of Income" in Part II, Item 8. Financial Statements and Supplementary Data of this report.







Trust and investment services income

Trust and investment services income consists of brokerage commissions, trust and asset management commissions, and insurance income. For 2017, trust and investment services income increased $71 million, or 15.3%, from the prior year primarily due to an increase in insurance and brokerage commissions due to the full year impact of the First Niagara acquisition and higher fees earned from investment management services as a result of stronger market performance. For 2016, trust and investment services income increased $31 million, or 7.2%, from the prior year primarily due to the acquisition of First Niagara and higher insurance and brokerage commissions.

A significant portion of our trust and investment services income depends on the value and mix of assets under management. At December 31, 2017, our bank, trust, and registered investment advisory subsidiaries had assets under management of $39.6 billion, compared to $36.6 billion at December 31, 2016, and $34.0 billion at December 31, 2015. As shown in Figure 7, the increase from 2016 to 2017 was primarily attributable to the market appreciation over the past twelve months. The increase from 2015 to 2016 was primarily attributable to the acquisition of First Niagara.

Figure 7. Assets Under Management

Year ended December 31,				Change 2017 vs. 2016	
dollars in millions	**2017**	**2016**	**2015**	**Amount**	**Percent**
Assets under management by investment type:					
Equity	**$ 24,081**	$ 21,722	$ 20,199	$ 2,359	10.9%
Securities lending	**947**	1,148	1,215	(201)	(17.5)
Fixed income	**10,930**	10,386	9,705	544	5.2
Money market	**3,630**	3,336	2,864	294	8.8
Total	**$ 39,588**	$ 36,592	$ 33,983	$ 2,996	8.2%

Investment banking and debt placement fees

Investment banking and debt placement fees consist of syndication fees, debt and equity financing fees, financial advisor fees, gains on sales of commercial mortgages, and agency origination fees. For 2017, investment banking and debt placement fees increased $121 million, or 25.1%, from the prior year due to growth in financial advisory, debt financing, and mortgage banking fees from our core franchise, as well as the acquisition of Cain Brothers in October 2017. For 2016, investment banking and debt placement fees increased $37 million, or 8.3%, from the prior year primarily driven by increased gains on the sale of commercial mortgages and agency origination fees, partially offset by a decrease in syndication fees.

Cards and payments income

Cards and payments income, which consists of debit card, consumer and commercial credit card, and merchant services income, increased $54 million, or 23.2%, in 2017 compared to 2016 primarily due to the acquisition of First Niagara and higher volumes in ATM debit card, purchase and pre-paid cards, and merchant services. Cards and payments income increased $50 million, or 27.3%, in 2016 compared to 2015 due to the acquisition of First Niagara and higher merchant services, purchase card, and ATM debit card fees driven by increased volume.

Service charges on deposit accounts

Service charges on deposit accounts increased $55 million, or 18%, in 2017 compared to the prior year primarily driven by the full-year impact of the First Niagara acquisition and investments in commercial payments. Service charges on deposit accounts increased $46 million, or 18%, in 2016 compared to 2015 primarily due to the acquisition of First Niagara.

Other noninterest income

Other noninterest income includes operating lease income and other leasing gains, corporate services income, corporate-owned life insurance income, consumer mortgage income, mortgage servicing fees, net gains (losses) from principal investing, and other income. Other noninterest income increased $106 million, or 18.0%, in 2017 compared to 2016. Drivers include a full year impact of First Niagara, a one-time gain related to Key's merchant services acquisition in the second quarter of 2017, higher operating lease income originations, and growth from investments in the Residential Mortgage business. Other noninterest income increased $27 million, or 4.8%, in 2016 compared to 2015, driven by the acquisition of First Niagara, gains related to certain investments held by the Real Estate Capital line of business, and changes in various miscellaneous income categories.

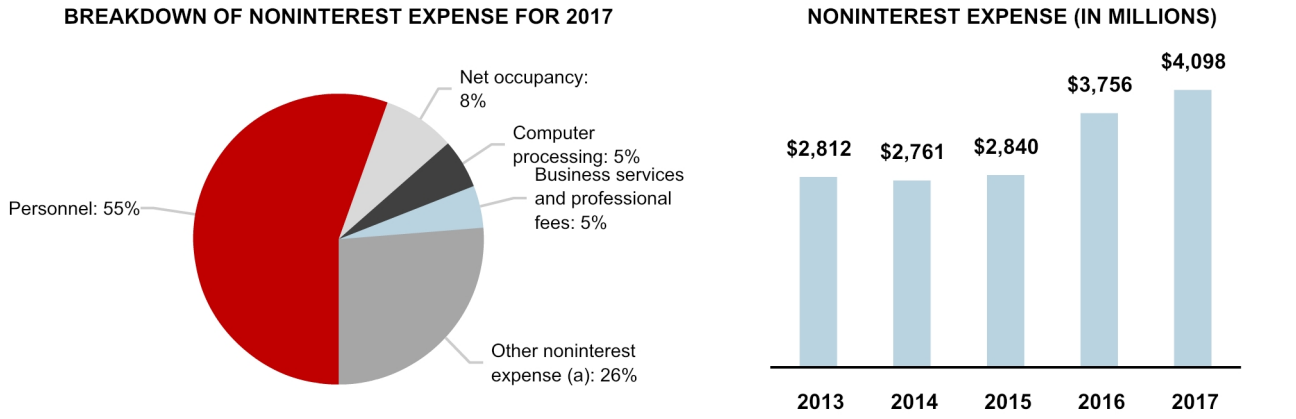
Noninterest expense

Noninterest expense for 2017 was $4.1 billion, compared to $3.8 billion for 2016, and $2.8 billion for 2015. We recognized $217 million of merger-related charges in 2017 compared to $483 million of merger- and pension-related charges in 2016 and $61 million of merger-, pension-, and efficiency-related charges in 2015. Figure 8 gives

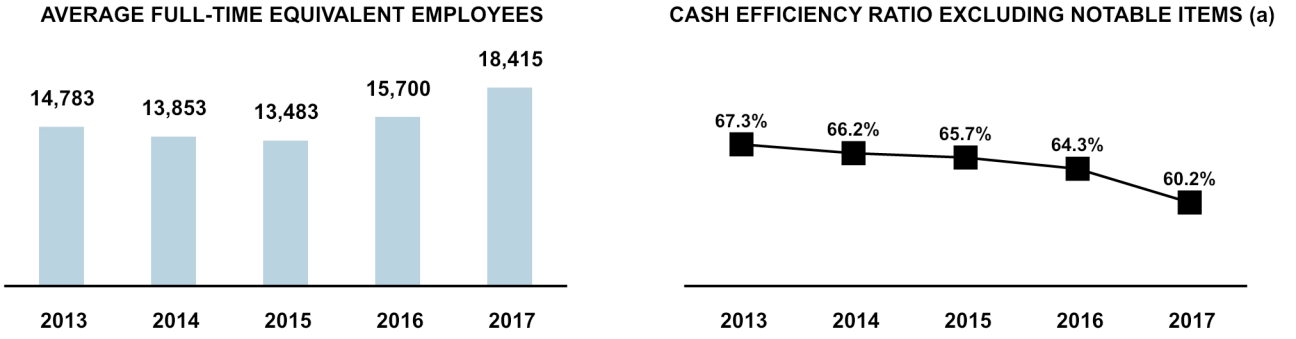
a breakdown of our major categories of noninterest expense as a percentage of total noninterest expense for the twelve months ended December 31, 2017. In 2018, we expect noninterest expense to be in the range of $3.85 billion to $3.95 billion.

The following discussion explains the composition of certain elements of our noninterest expense and the factors that caused those elements to change.

Figure 8. Noninterest Expense



(a) Other noninterest expense includes equipment, operating lease expense, marketing, FDIC assessment, intangible asset amortization, OREO expense, net, and other expense. See the "Consolidated Statements of Income" in Part II, Item 8. Financial Statements and Supplementary Data of this report.



(a) See Figure 2 entitled “GAAP to Non-GAAP Reconciliations,” which presents the computations of certain financial measures related to “cash efficiency.” The table reconciles the GAAP performance measures to the corresponding non-GAAP measures, which provides a basis for period-to-period comparisons.

Figure 9. Merger-Related Charges

Year ended December 31, *dollars in millions*	2017	2016	2015	Change 2017 vs. 2016 Amount	Change 2017 vs. 2016 Percent
Net interest income	—	$ (6)	—	$ 6	N/M
Operating lease income and other leasing gains	—	(2)	—	2	N/M
Other income	—	(1)	—	1	N/M
Noninterest income	—	(3)	—	3	N/M
Personnel	$ 112	228	—	(116)	(50.9)%
Net occupancy	14	29	—	(15)	(51.7)
Business services and professional fees	16	66	$ 5	(50)	(75.8)
Computer processing	12	53	—	(41)	(77.4)
Marketing	22	26	—	(4)	(15.4)
Other nonpersonnel expense	41	63	1	(22)	(34.9)
Noninterest expense	217	465	6	(248)	(53.3)
Total merger-related charges	$ 217	$ 474	$ 6	$ (257)	(54.2)%

Personnel

As shown in Figure 10, personnel expense, the largest category of our noninterest expense, increased by $200 million, or 9.6%, in 2017 compared to 2016. The increase was primarily attributable to the full-year impact of the First Niagara acquisition and the Cain Brothers acquisition in October 2017. In addition, there was higher incentive and stock-based compensation due to higher funding driven by business performance improvements of both cash based incentive plans and performance based stock awards.

Personnel expense increased by $421 million, or 25.5%, from 2015 to 2016. The increase was primarily attributable to the acquisition of First Niagara. In addition, there was higher incentive and stock-based compensation due to higher funding driven by business performance improvements of both cash based incentive plans and performance based stock awards.

Figure 10. Personnel Expense

Year ended December 31, *dollars in millions*	2017	2016	2015	Change 2017 vs. 2016 Amount	Change 2017 vs. 2016 Percent
Salaries and contract labor	$ 1,341	$ 1,191	$ 958	$ 150	12.6%
Incentive and stock-based compensation [(a)]	566	537	410	29	5.4
Employee benefits	342	297	266	45	15.2
Severance	24	48	18	(24)	(50.0)
Total personnel expense	$ 2,273	$ 2,073	$ 1,652	$ 200	9.6%
Notable items [(b)]	128	228	—	(100)	(43.9)
Total personnel expense excluding notable items	$ 2,145	$ 1,845	$ 1,652	$ 300	16.3%

(a) Excludes directors' stock-based compensation of $3 million in both 2017 and 2016, and $1 million in 2015, reported as "other noninterest expense" in Figure 8.
(b) For the twelve months ended December 31, 2017, notable items includes $112 million of merger-related charges and $16 million of estimated impacts of tax reform related actions. For the twelve months ended December 31, 2016, notable items includes $228 million of merger-related charges.

Net occupancy

Net occupancy expense increased $26 million, or 8.5%, in 2017 compared to 2016, primarily due to the full-year impact of the First Niagara acquisition. Net occupancy expense increased $50 million, or 19.6%, in 2016 compared to 2015, primarily due to the acquisition of First Niagara.

Other noninterest expense

Other noninterest expense includes equipment, operating lease expense, marketing, FDIC assessment, intangible asset amortization, OREO expenses, and other miscellaneous expense categories. In total, other noninterest expense increased $189 million, or 21.3%, in 2017 compared to 2016, primarily due to the full year impact of the acquisition of First Niagara. Growth was also driven by on-going investments and business acquisitions during 2017, including the build out of the Residential Mortgage platform, and the acquisitions of HelloWallet, Cain Brothers, and merchant services. Other noninterest expense increased $278 million, or 45.6%, in 2016 compared to 2015. Drivers include the impact of the First Niagara acquisition, higher operating lease expenses, cards and payments processing, and changes in other miscellaneous expenses.

Income taxes

We recorded a tax provision from continuing operations of $637 million for 2017, compared to $179 million for 2016, and $303 million for 2015. The increase in tax provision from 2016 to 2017 was driven by the TCJ Act. The effective tax rate, which is the provision for income taxes as a percentage of income from continuing operations before income taxes, was 33.0% for 2017, compared to 18.5% for 2016, and 24.8% for 2015. In 2018, we expect our GAAP tax rate to be in the range of 18% to 19%.

In 2017, our federal tax expense and effective tax rate differ from the amount that would be calculated using the federal statutory tax rate; primarily from investments in tax-advantaged assets, such as corporate-owned life insurance, tax credits associated with investments in low-income housing projects and energy related projects, periodic adjustments to our tax reserves, and the impact of the TCJ Act as described in Note 14, Income Taxes.

In 2016, our effective tax rate was reduced due to lower pretax income resulting from merger-related charges, increased energy tax credits associated with leasing activities, and a reduction of valuation allowances related to capital loss carryforwards. In 2015, our effective tax rate was reduced due to additional federal tax credit refunds.

Line of Business Results

This section summarizes the financial performance of our two major business segments (operating segments): Key Community Bank and Key Corporate Bank. Note 25 (“Line of Business Results”) describes the products and services offered by each of these business segments, provides more detailed financial information pertaining to the segments and certain lines of business, and explains “Other Segments” and “Reconciling Items.”

Figure 11 summarizes the contribution made by each major business segment to our “taxable-equivalent revenue from continuing operations” and “income (loss) from continuing operations attributable to Key” for each of the past three years.

Figure 11. Major Business Segments — Taxable-Equivalent Revenue from Continuing Operations and Income (Loss) from Continuing Operations Attributable to Key

Year ended December 31,				Change 2017 vs. 2016	
dollars in millions	2017	2016	2015	Amount	Percent
REVENUE FROM CONTINUING OPERATIONS (TE)					
Key Community Bank	**$ 3,843**	$ 2,878	$ 2,275	$ 965	33.5%
Key Corporate Bank	**2,337**	2,062	1,812	275	13.3
Other Segments	**128**	106	175	22	20.8
Total Segments	**6,308**	5,046	4,262	1,262	25.0
Reconciling Items	**—**	(22)	(6)	22	N/M
Total	**$ 6,308**	$ 5,024	$ 4,256	$ 1,284	25.6%
INCOME (LOSS) FROM CONTINUING OPERATIONS ATTRIBUTABLE TO KEY					
Key Community Bank	**$ 649**	$ 365	$ 255	$ 284	77.8%
Key Corporate Bank	**814**	628	544	186	29.6
Other Segments	**125**	89	125	36	40.4
Total Segments	**1,588**	1,082	924	506	46.8
Reconciling Items [(a)]	**(299)**	(292)	(9)	(7)	N/M
Total	**$ 1,289**	$ 790	$ 915	$ 499	63.2%

(a) Reconciling items consist primarily of the unallocated portion of merger-related charges, certain estimated impacts of tax reform, and items not allocated to the business segments because they do not reflect their normal operations.

Key Community Bank summary of operations

As shown in Figure 12, Key Community Bank recorded net income attributable to Key of $649 million for 2017, compared to $365 million for 2016, and $255 million for 2015. The increase in 2017 was primarily due to the acquisition of First Niagara as well as growth in Key's core businesses.

TE net interest income increased in 2017 compared to 2016. The increase is primarily due to growth in both loan and deposit balances. The balance increases are primarily due to a full year impact of the First Niagara acquisition. TE net interest income also benefited from growth in core businesses, higher interest rates, and well-managed deposit betas.

Noninterest income increased from 2016. The increase in 2017 was primarily due to a full-year impact of the First Niagara acquisition as well as growth in Key's core businesses. Growth in Key's core businesses included higher trust and investment services income due to market growth of assets under management, strength in cards and payments, and higher deposit service charges driven by investments in commercial payments. The increase in other income includes a one-time gain related to Key's merchant services acquisition in the second quarter of 2017.

The provision for credit losses increased from 2016, primarily related to loan growth in 2017.

Noninterest expense increased from 2016 primarily related to a full year impact of First Niagara. In addition to the impact of First Niagara, personnel expense increases are primarily related to on-going business investments and business acquisitions including HelloWallet in the third quarter of 2017. Nonpersonnel expense increased primarily due to on-going business investments and business acquisitions including HelloWallet and Key's merchant services acquisition in 2017.

In 2016, Key Community Bank's net income attributable to Key increased from the prior year. TE net interest income increased from 2015. The positive contribution to net interest income is from loan and deposit growth related to the acquisition of First Niagara and the increased value of deposits. Noninterest income increased from 2015 driven by the acquisition of First Niagara and includes higher service charges on deposits, higher cards and payments income due to higher merchant services, purchase card and ATM debit card income, and higher trust and investment services income driven by higher insurance and brokerage commissions. The provision for loan and lease losses increased from 2015 primarily related to the addition of acquired First Niagara loan portfolios and loan growth. Noninterest expense increased from 2015. Personnel expense increased primarily related to the addition of First Niagara employees. Nonpersonnel expense increased primarily due to higher intangible amortization expense, FDIC assessment expense, and other various expenses related to the acquisition of First Niagara.

Figure 12. Key Community Bank

Year ended December 31,				**Change 2017 vs. 2016**	
dollars in millions	**2017**	**2016**	**2015**	**Amount**	**Percent**
SUMMARY OF OPERATIONS					
Net interest income (TE)	**$ 2,643**	$ 1,953	$ 1,487	$ 690	35.3%
Noninterest income	**1,200**	925	788	275	29.7
Total revenue (TE)	**3,843**	2,878	2,275	965	33.5
Provision for credit losses	**209**	143	90	66	46.2
Noninterest expense	**2,602**	2,153	1,779	449	20.9
Income (loss) before income taxes (TE)	**1,032**	582	406	450	77.3
Allocated income taxes (benefit) and TE adjustments	**383**	217	151	166	76.5
Net income (loss) attributable to Key	**$ 649**	$ 365	$ 255	$ 284	77.8%
AVERAGE BALANCES					
Loans and leases	**$ 47,383**	$ 37,620	$ 30,834	$ 9,763	26.0%
Total assets	**51,433**	40,300	32,948	11,133	27.6
Deposits	**79,669**	63,873	51,163	15,796	24.7
Assets under management at year end	**39,588**	36,592	33,983	2,996	8.2

ADDITIONAL KEY COMMUNITY BANK DATA

Year ended December 31,				Change 2017 vs. 2016	
dollars in millions	2017	2016	2015	Amount	Percent
NONINTEREST INCOME					
Trust and investment services income	**$ 396**	$ 321	$ 296	$ 75	23.4%
Services charges on deposit accounts	**307**	251	213	56	22.3
Cards and payments income	**247**	203	168	44	21.7
Other noninterest income	**250**	150	111	100	66.7
Total noninterest income	**$ 1,200**	$ 925	$ 788	$ 275	29.7%
AVERAGE DEPOSITS OUTSTANDING					
NOW and money market deposit accounts	**$ 44,699**	$ 35,599	$ 28,400	$ 9,100	25.6%
Savings deposits	**5,204**	3,607	2,363	1,597	44.3
Certificates of deposits ($100,000 or more)	**4,182**	2,694	1,588	1,488	55.2
Other time deposits	**4,688**	4,060	3,112	628	15.5
Deposits in foreign office	**—**	—	277	—	N/M
Noninterest-bearing deposits	**20,896**	17,913	15,423	2,983	16.7
Total deposits	**$ 79,669**	$ 63,873	$ 51,163	$ 15,796	24.7%
HOME EQUITY LOANS					
Average portfolio balance	**$ 12,242**	$ 11,058	$ 10,266		
Weighted-average loan-to-value ratio (at date of origination)	**70%**	71%	71%		
Percent first lien positions	**60**	57	61		
OTHER DATA					
Branches	**1,197**	1,217	966		
Automated teller machines	**1,572**	1,593	1,256		

Key Corporate Bank summary of operations

As shown in Figure 13, Key Corporate Bank recorded net income attributable to Key of $814 million for 2017, compared to $628 million for 2016 and $544 million for 2015. The 2017 increase was driven by an increase in revenue and lower provision for credit losses, but slightly offset by higher noninterest expense.

TE net interest income increased in 2017 compared to 2016. This increase is primarily due to growth in both loan and deposit balances. The balance increases are due to a full year impact of the First Niagara acquisition as well as growth in core businesses.

Noninterest income increased from 2016. The majority of the increase is related to growth in investment banking and debt placement fees, with growth in financial advisory, debt capital markets, and mortgage banking fees from our core Key franchise as well as the fourth quarter acquisition of Cain Brothers. Operating lease income and other leasing gains increased due to higher originations. Cards and payments income increased due to higher volumes in purchase and pre-paid card and merchant services. Slightly offsetting these increases is a decline in other noninterest income mostly driven by impairments and lower gains related to certain investments held by the Real Estate Capital line of business.

The provision for credit losses decreased from 2016, primarily due to lower net loan charge-offs and lower provisioning related to improving credit quality in the overall portfolio.

Noninterest expense increased from 2016. Personnel expense increased due to higher salaries, incentive compensation, benefits, and stock-based compensation expense partially related to the acquisition of Cain Brothers as well as higher performance-based compensation. Nonpersonnel expense increased due to higher operating lease expense, cards and payments processing, and other various expenses related to the acquisition of Cain Brothers.

In 2016, Key Corporate Bank's net income attributable to Key increased from the prior year. TE net interest income increased compared to 2015, due to higher balances related to the First Niagara acquisition and growth in core businesses. Noninterest income increased due to growth in investment banking and debt placement fees, other noninterest income, and cards and payments income. The provision for credit losses increased primarily due to increased net loan charge-offs. Noninterest expense increased due to higher salaries, incentive compensation, benefits, and stock-based compensation expense largely related to the acquisition of First Niagara as well as higher performance-based compensation, higher operating lease expense, cards and payments processing, FDIC assessment, and other various expenses related to the acquisition of First Niagara.

Figure 13. Key Corporate Bank

Year ended December 31,				**Change 2017 vs. 2016**	
dollars in millions	**2017**	**2016**	**2015**	**Amount**	**Percent**
SUMMARY OF OPERATIONS					
Net interest income (TE)	**$ 1,190**	$ 1,049	$ 886	$ 141	13.4%
Noninterest income	**1,147**	1,013	926	134	13.2
Total revenue (TE)	**2,337**	2,062	1,812	275	13.3
Provision for credit losses	**20**	127	83	(107)	(84.3)
Noninterest expense	**1,257**	1,131	988	126	11.1
Income (loss) before income taxes (TE)	**1,060**	804	741	256	31.8
Allocated income taxes and TE adjustments	**246**	178	196	68	38.2
Net income (loss)	**814**	626	545	188	30.0
Less: Net income (loss) attributable to noncontrolling interests	**—**	(2)	1	2	(100.0)
Net income (loss) attributable to Key	**$ 814**	$ 628	$ 544	$ 186	29.6%
AVERAGE BALANCES					
Loans and leases	**$ 37,732**	$ 31,929	$ 25,865	$ 5,803	18.2%
Loans held for sale	**1,242**	934	937	308	33.0
Total assets	**44,521**	37,801	31,541	6,720	17.8
Deposits	**21,318**	20,783	19,043	535	2.6

ADDITIONAL KEY CORPORATE BANK DATA

Year ended December 31,				Change 2017 vs. 2016	
dollars in millions	2017	2016	2015	Amount	Percent
NONINTEREST INCOME					
Trust and investment services income	**$ 138**	$ 143	$ 137	$ (5)	(3.5)%
Investment banking and debt placement fees	**589**	471	439	118	25.1
Operating lease income and other leasing gains	**80**	56	62	24	42.9
Corporate services income	**156**	157	155	(1)	(.6)
Service charges on deposit accounts	**50**	50	43	—	—
Cards and payments income	**40**	29	15	11	37.9
Payments and services income	**246**	236	213	10	4.2
Mortgage servicing fees	**61**	53	48	8	15.1
Other noninterest income	**33**	54	27	(21)	(38.9)
Total noninterest income	**$ 1,147**	$ 1,013	$ 926	$ 134	13.2 %

Other Segments

Other Segments consist of Corporate Treasury, our Principal Investing unit, and various exit portfolios. Other Segments generated net income attributable to Key of $125 million for 2017, compared to $89 million for 2016, and $125 million for 2015.

Financial Condition

Loans and loans held for sale

Figure 14 shows the composition of our loan portfolio at December 31 for each of the past five years.

Figure 14. Composition of Loans

December 31, *dollars in millions*	2017 Amount	2017 Percent of Total	2016 Amount	2016 Percent of Total	2015 Amount	2015 Percent of Total
COMMERCIAL						
Commercial and industrial [a]	**$ 41,859**	**48.4%**	$ 39,768	46.2%	$ 31,240	52.2%
Commercial real estate: [b]						
Commercial mortgage	**14,088**	**16.3**	15,111	17.6	7,959	13.3
Construction	**1,960**	**2.3**	2,345	2.7	1,053	1.7
Total commercial real estate loans	**16,048**	**18.6**	17,456	20.3	9,012	15.0
Commercial lease financing [c]	**4,826**	**5.6**	4,685	5.5	4,020	6.7
Total commercial loans [d]	**62,733**	**72.6**	61,909	72.0	44,272	73.9
CONSUMER						
Real estate — residential mortgage	**5,483**	**6.3**	5,547	6.4	2,242	3.7
Home equity loans	**12,028**	**13.9**	12,674	14.7	10,335	17.3
Consumer direct loans	**1,794**	**2.1**	1,788	2.1	1,600	2.7
Credit cards	**1,106**	**1.3**	1,111	1.3	806	1.3
Consumer indirect loans	**3,261**	**3.8**	3,009	3.5	621	1.1
Total consumer loans	**23,672**	**27.4**	24,129	28.0	15,604	26.1
Total loans [e], [f]	**$ 86,405**	**100.0%**	$ 86,038	100.0%	$ 59,876	100.0%

	2014 Amount	2014 Percent of Total	2013 Amount	2013 Percent of Total
COMMERCIAL				
Commercial and industrial [a]	$ 27,982	48.8%	$ 24,963	45.8%
Commercial real estate:				
Commercial mortgage	8,047	14.0	7,720	14.2
Construction	1,100	1.9	1,093	2.0
Total commercial real estate loans	9,147	15.9	8,813	16.2
Commercial lease financing [c]	4,252	7.4	4,551	8.4
Total commercial loans	41,381	72.1	38,327	70.4
CONSUMER				
Real estate — residential mortgage	2,225	3.9	2,187	4.0
Home equity loans	10,633	18.6	10,674	19.6
Consumer direct loans	1,560	2.7	1,449	2.7
Credit cards	754	1.3	722	1.3
Consumer indirect loans	828	1.4	1,098	2.0
Total consumer loans	16,000	27.9	16,130	29.6
Total loans [e], [f]	$ 57,381	100.0%	$ 54,457	100.0%

(a) Loan balances include $119 million, $116 million, $85 million, $88 million, and $94 million of commercial credit card balances at December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013, respectively.
(b) See Figure 16 for a more detailed breakdown of our commercial real estate loan portfolio at December 31, 2017, and December 31, 2016.
(c) Commercial lease financing includes receivables held as collateral for a secured borrowing of $24 million, $68 million, $134 million, $302 million, and $58 million at December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013 respectively. Principal reductions are based on the cash payments received from these related receivables. Additional information pertaining to this secured borrowing is included in Note 20 (“Long-Term Debt”).
(d) See Figure 15 for a more detail breakdown of our commercial loans at December 31, 2017, and December 31, 2016.
(e) Total loans exclude loans of $1.3 billion at December 31, 2017, $1.6 billion at December 31, 2016, $1.8 billion at December 31, 2015, $2.3 billion at December 31, 2014, and $4.5 billion at December 31, 2013, related to the discontinued operations of the education lending business.
(f) At December 31, 2017, total loans include purchased loans of $15.4 billion, of which $738 million were PCI loans. At December 31, 2016, total loans include purchased loans of $21.0 billion, of which $865 million were PCI loans. At December 31, 2015, total loans include purchased loans of $114 million, of which $11 million were PCI loans. At December 31, 2014, total loans include purchased loans of $138 million of which $13 million were PCI loans. At December 31, 2013, total loans include purchased loans of $166 million, of which $16 million were PCI loans.

At December 31, 2017, total loans outstanding from continuing operations were $86.4 billion, compared to $86.0 billion at the end of 2016. For more information on balance sheet carrying value, see Note 1 (“Summary of Significant Accounting Policies”) under the headings “Loans” and “Loans Held for Sale.”

Commercial loan portfolio

Commercial loans outstanding were $62.7 billion at December 31, 2017, an increase of $824 million, or 1.3%, compared to December 31, 2016.

Figure 15 provides our commercial loan portfolio by industry classification as of December 31, 2017, and December 31, 2016.

Figure 15. Commercial Loans by Industry

December 31, 2017 *dollars in millions*	Commercial and industrial	Commercial real estate	Commercial lease financing	Total commercial loans	Percent of total
Industry classification:					
Agricultural	$ 742	$ 156	$ 100	$ 998	1.5%
Automotive	2,156	474	73	2,703	4.3
Business products	1,845	148	52	2,045	3.3
Business services	2,711	158	245	3,114	5.0
Commercial real estate	5,595	10,392	23	16,010	25.5
Construction materials and contractors	1,693	320	162	2,175	3.5
Consumer discretionary	3,646	565	542	4,753	7.6
Consumer services	3,005	937	262	4,204	6.7
Equipment	1,505	137	118	1,760	2.8
Financial	4,081	62	341	4,484	7.1
Healthcare	3,246	2,233	389	5,868	9.4
Materials manufacturing and mining	1,819	113	133	2,065	3.3
Media	364	21	42	427	.7
Oil and gas	1,095	21	51	1,167	1.9
Public exposure	2,783	52	1,055	3,890	6.2
Technology	579	3	8	590	.9
Transportation	1,418	242	890	2,550	4.1
Utilities	3,067	6	340	3,413	5.4
Other	509	8	—	517	.8
Total	$ 41,859	$ 16,048	$ 4,826	$ 62,733	100.0%

December 31, 2016 *dollars in millions*	Commercial and industrial	Commercial real estate	Commercial lease financing	Total commercial loans	Percent of total
Industry classification:					
Agricultural	$ 844	$ 194	$ 151	$ 1,189	1.9%
Automotive	2,139	491	74	2,704	4.4
Business products	1,243	152	31	1,426	2.3
Business services	2,648	179	303	3,130	5.1
Commercial real estate	4,759	11,235	2	15,996	25.8
Construction materials and contractors	1,282	307	79	1,668	2.7
Consumer discretionary	3,367	539	314	4,220	6.8
Consumer services	2,281	749	66	3,096	5.0
Equipment	1,582	107	87	1,776	2.9
Financial	3,864	95	296	4,255	6.9
Healthcare	3,487	2,577	526	6,590	10.6
Materials manufacturing and mining	2,743	276	212	3,231	5.2
Media	478	18	70	566	.9
Oil and gas	1,094	27	62	1,183	1.9
Public exposure	2,621	311	1,204	4,136	6.7
Technology	485	6	34	525	.8
Transportation	940	148	923	2,011	3.3
Utilities	3,441	26	251	3,718	6.0
Other	470	19	—	489	.8
Total	$ 39,768	$ 17,456	$ 4,685	$ 61,909	100.0%

Commercial and industrial. Commercial and industrial loans are the largest component of our loan portfolio, representing 48% of our total loan portfolio at December 31, 2017, and 46% at December 31, 2016. This portfolio is approximately 83% variable rate and consists of loans originated in both Key Corporate and Community Bank to large corporate, middle market, and small business clients.

Commercial and industrial loans totaled $41.9 billion at December 31, 2017, an increase of $2.1 billion compared to December 31, 2016, driven by increases in the business products, commercial real estate, consumer services, and transportation industries, which combined, accounted for approximately 28% of the total portfolio mix at December 31, 2017.

Commercial real estate loans. Our commercial real estate lending business includes both mortgage and construction loans, and is conducted through two primary sources: our 15-state banking franchise, and KeyBank

Real Estate Capital, a national line of business that cultivates relationships with owners of commercial real estate located both within and beyond the branch system. Approximately 70% of loans outstanding at December 31, 2017, were generated by our KeyBank Real Estate Capital line of business. Nonowner-occupied properties, generally properties for which at least 50% of the debt service is provided by rental income from nonaffiliated third parties, represented 79% of total commercial real estate loans outstanding at December 31, 2017. Construction loans, which provide a stream of funding for properties not fully leased at origination to support debt service payments over the term of the contract or project, represented 12% of commercial real estate loans at year end.

At December 31, 2017, commercial real estate loans totaled $16.0 billion, comprised of $14.1 billion of mortgage loans and $1.9 billion of construction loans. Compared to December 31, 2016, this portfolio decreased $1.4 billion, largely the result of reductions in commercial mortgages, which declined $1.0 billion, reflecting significantly higher debt placements and paydowns in 2017. We continue to focus primarily on owners of completed and stabilized commercial real estate in accordance with our relationship strategy.

As shown in Figure 16, our commercial real estate loan portfolio includes various property types and geographic locations of the underlying collateral. These loans include commercial mortgage and construction loans in both Key Community Bank and Key Corporate Bank. As a result of the First Niagara acquisition, we have an increased concentration of commercial real estate loans in the Northeast region.

Figure 16. Commercial Real Estate Loans

	Geographic Region										
dollars in millions	West	Southwest	Central	Midwest	Southeast	Northeast	National	Total	Percent of Total	Construction	Commercial Mortgage
December 31, 2017											
Nonowner-occupied:											
Retail properties	$ 212	$ 165	$ 119	$ 214	$ 252	$ 850	$ 243	$ 2,055	12.8%	$ 245	$ 1,810
Multifamily properties	402	182	662	508	984	2,091	101	4,930	30.7	1,145	3,785
Health facilities	167	—	143	197	279	950	159	1,895	11.8	118	1,777
Office buildings	204	12	102	125	192	1,078	22	1,735	10.8	116	1,619
Warehouses	68	25	21	104	72	329	78	697	4.3	27	670
Manufacturing facilities	7	—	5	4	16	73	64	169	1.1	3	166
Hotels/Motels	14	—	16	4	10	190	24	258	1.6	20	238
Residential properties	1	—	—	3	17	163	—	184	1.2	73	111
Land and development	23	—	5	2	3	69	—	102	.6	77	25
Other	48	—	25	33	2	364	152	624	3.9	7	617
Total nonowner-occupied	1,146	384	1,098	1,194	1,827	6,157	843	12,649	78.8	1,831	10,818
Owner-occupied	925	3	222	536	112	1,601	—	3,399	21.2	129	3,270
Total	$ 2,071	$ 387	$ 1,320	$ 1,730	$ 1,939	$ 7,758	$ 843	$ 16,048	100.0%	$ 1,960	$ 14,088
December 31, 2016											
Total	$ 2,032	$ 291	$ 1,508	$ 2,281	$ 2,304	$ 8,340	$ 700	$ 17,456		$ 2,345	$ 15,111
December 31, 2017											
Nonowner-occupied:											
Nonperforming loans	—	—	—	$ 4	$ 11	$ 6	—	$ 21	N/M	—	$ 21
Accruing loans past due 90 days or more	—	—	—	1	1	11	—	13	N/M	—	13
Accruing loans past due 30 through 89 days	—	—	—	—	1	26	—	27	N/M	$ 12	15

West –	Alaska, California, Hawaii, Idaho, Montana, Oregon, Washington, and Wyoming
Southwest –	Arizona, Nevada, and New Mexico
Central –	Arkansas, Colorado, Oklahoma, Texas, and Utah
Midwest –	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin
Southeast –	Alabama, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, Washington, D.C., and West Virginia
Northeast –	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont
National –	Accounts in three or more regions

Loan modification and restructuring

We modify and extend certain commercial and consumer loans in the normal course of business for our clients. Loan modifications vary and are handled on a case-by-case basis with strategies responsive to the specific circumstances of each loan and borrower. In many cases, borrowers have other resources and can reinforce the credit with additional capital, collateral, guarantees, or other income sources.

Modifications are negotiated to achieve mutually agreeable terms that maximize loan credit quality while at the same time meeting our clients' financing needs. In accordance with applicable accounting guidance, a loan is classified as a TDR only when the borrower is experiencing financial difficulties and a creditor concession has been granted.

In the case of loan extensions where either collection of all principal and interest is uncertain or a concession has been made, we would analyze such credit under the applicable accounting guidance to determine whether it qualifies as a TDR. If commercial loan terms are extended at less than normal market rates for similar lending arrangements, our Asset Recovery Group is consulted to help determine if any concession granted would result in designation as a TDR. Transfer to our Asset Recovery Group is considered for any loan determined to be a TDR. During 2017, we had $89 million of new TDR commercial loans compared to $37 million of new TDR commercial loans in 2016. Consumer loans modifications are handled centrally by our default management team. In addition to consumer modifications that result in a credit concession, we also classify consumer loans discharged in bankruptcy as a TDR. During 2017, we had $41 million of new TDR consumer loans compared to $34 million of new TDR consumer loans in 2016.

For more information on concession types for our commercial and consumer accruing and nonaccruing TDRs, see Note 6 ("Asset Quality").

Figure 17. TDRs by Accrual Status

December 31, *in millions*	2017	2016
Commercial TDRs by Accrual Status		
Nonaccruing	**$ 98**	$ 51
Accruing	**13**	16
Total Commercial TDRs	**$ 111**	$ 67
Consumer TDRs by Accrual Status		
Nonaccruing	**$ 91**	$ 90
Accruing	**115**	123
Total Consumer TDRs	**$ 206**	$ 213

Restructured nonaccrual loans may be returned to accrual status based on a current, well-documented evaluation of the credit, which would include analysis of the borrower's financial condition, prospects for repayment under the modified terms, and alternate sources of repayment such as the value of loan collateral. We consider the borrower's ability to perform under the modified terms for a reasonable period (generally a minimum of six months) before returning the loan to accrual status. Sustained historical repayment performance prior to the restructuring also may be taken into account. The primary consideration for returning a TDR loan to accrual status is the reasonable assurance that the full contractual principal balance of the loan and the ongoing contractually required interest payments will be fully repaid. Although our policy is a guideline, considerable judgment is required to review each borrower's circumstances. Because economic conditions have improved modestly and we have restructured loans to provide the optimal opportunity for successful repayment by the borrower, certain of our TDR loans have returned to accrual status and consistently performed under the restructured loan terms over the past year.

Additional information regarding TDRs is provided in Note 6 ("Asset Quality").

Extensions. Project loans typically are refinanced into the permanent commercial loan market at maturity, but they are often modified and extended. Extension terms take into account the specific circumstances of the client relationship, the status of the project, and near-term prospects for the client, the repayment source, and the collateral. In all cases, pricing and loan structure are reviewed and, where necessary, modified to ensure the loan has been priced to achieve a market rate of return and loan terms that are appropriate for the risk. Typical enhancements include one or more of the following: principal pay down, increased amortization, additional collateral, increased guarantees, and a cash flow sweep. Some maturing loans have automatic extension options built in; in those cases, pricing and loan terms cannot be altered.

Loan pricing is determined based on the strength of the borrowing entity, the strength of the guarantor, if any, and the structure and residual risk of the transaction. Therefore, pricing for an extended loan may remain the same because the loan is already priced at or above current market. Extensions that qualify as TDRs are measured for impairment under the applicable accounting guidance.

Guarantors. We conduct a detailed guarantor analysis (1) for all new extensions of credit, (2) at the time of any material modification/extension, and (3) typically annually, as part of our on-going portfolio and loan monitoring procedures. This analysis requires the guarantor entity to submit all appropriate financial statements, including balance sheets, income statements, tax returns, and real estate schedules.

While the specific steps of each guarantor analysis may vary, the high-level objectives include determining the overall financial conditions of the guarantor entities, including size, quality, and nature of asset base; net worth (adjusted to reflect our opinion of market value); leverage; standing liquidity; recurring cash flow; contingent and direct debt obligations; and near-term debt maturities.

Borrower and guarantor financial statements are required at least annually within 90-120 days of the calendar/fiscal year end. Income statements and rent rolls for project collateral are required quarterly. We may require certain information, such as liquidity, certifications, status of asset sales or debt resolutions, and real estate schedules, to be provided more frequently.

We routinely seek performance from guarantors of impaired debt if the guarantor is solvent. We may not seek to enforce the guaranty if we are precluded by bankruptcy or we determine the cost to pursue a guarantor exceeds the value to be returned given the guarantor's verified financial condition. We often are successful in obtaining either monetary payment or the cooperation of our solvent guarantors to help mitigate loss, cost, and the expense of collections.

Mortgage and construction loans with a loan-to-value ratio greater than 1.0 may be accounted for as performing loans. These loans may not be considered impaired due to one or more of the following factors: (i) underlying cash flow adequate to service the debt at a market rate of return with adequate amortization; (ii) a satisfactory borrower payment history; and (iii) acceptable guarantor support. As of December 31, 2017, we did not have any mortgage and construction loans that had a loan-to-value ratio greater than 1.0.

Consumer loan portfolio

Consumer loans outstanding at December 31, 2017, totaled $23.7 billion, a decrease of $457 million, or 1.9%, from one year ago. The decrease in consumer loans was driven by continued declines in the home equity loan portfolio, largely the result of paydowns in home equity lines of credit, partly offset by growth in indirect auto lending.

Home equity loans are the largest component of our consumer loan portfolio, representing approximately 51% of consumer loans outstanding at year end. Approximately 99% of this portfolio at December 31, 2017, was originated by our Key Community Bank within our 15-state footprint.

As shown in Figure 12, we held the first lien position for approximately 60% of the Key Community Bank home equity portfolio at December 31, 2017, and 57% at December 31, 2016. For loans with real estate collateral, we track borrower performance monthly. Regardless of the lien position, credit metrics are refreshed quarterly, including recent Fair Isaac Corporation scores as well as original and updated loan-to-value ratios. This information is used in establishing the ALLL. Our methodology is described in Note 1 ("Summary of Significant Accounting Policies") under the heading "Allowance for Loan and Lease Losses."

Loan sales

As shown in Figure 18, which summarizes our loan sales for 2017 and 2016, during 2017, we sold $12.0 billion of our loans. Commercial real estate loan sales in 2017 increased $3.3 billion from 2016, due to organic growth and increased collaboration within our lines of business. Most of these sales came from the held-for-sale portfolio; however, $183 million of these loan sales related to the held-to-maturity portfolio in 2017.

Among the factors that we consider in determining which loans to sell are:

- our business strategy for particular lending areas;
- whether particular lending businesses meet established performance standards or fit with our relationship banking strategy;
- our A/LM needs;
- the cost of alternative funding sources;
- the level of credit risk;

- capital requirements; and
- market conditions and pricing.

Figure 18. Loans Sold (Including Loans Held for Sale)

in millions	Commercial	Commercial Real Estate	Commercial Lease Financing	Residential Real Estate	Total
2017					
Fourth quarter	**$ 88**	**$ 3,394**	**$ 81**	**$ 275**	**$ 3,838**
Third quarter	**337**	**2,534**	**93**	**279**	**3,243**
Second quarter	**205**	**2,097**	**14**	**230**	**2,546**
First quarter	**49**	**2,011**	**83**	**194**	**2,337**
Total	**$ 679**	**$ 10,036**	**$ 271**	**$ 978**	**$ 11,964**
2016					
Fourth quarter	$ 83	$ 2,521	$ 93	$ 232	$ 2,929
Third quarter	105	1,791	52	260	2,208
Second quarter	83	1,518	121	111	1,833
First quarter	46	925	88	89	1,148
Total	$ 317	$ 6,755	$ 354	$ 692	$ 8,118

Figure 19 shows loans that are either administered or serviced by us but not recorded on the balance sheet. The table includes loans that have been sold.

Figure 19. Loans Administered or Serviced

December 31, *in millions*	2017	2016	2015	2014	2013
Commercial real estate loans	**$ 238,718**	$ 218,135	$ 211,274	$ 191,407	$ 177,731
Residential mortgage	**4,582**	4,198	—	—	—
Education loans	**932**	1,122	1,339	1,589	—
Commercial lease financing	**862**	899	932	722	717
Commercial loans	**488**	418	335	344	327
Total	**$ 245,582**	$ 224,772	$ 213,880	$ 194,062	$ 178,775

In the event of default by a borrower, we are subject to recourse with respect to approximately $3.3 billion of the $245.6 billion of loans administered or serviced at December 31, 2017. Additional information about this recourse arrangement is included in Note 22 (“Commitments, Contingent Liabilities, and Guarantees”) under the heading “Recourse agreement with FNMA.”

We derive income from several sources when retaining the right to administer or service loans that are sold. We earn noninterest income (recorded as “mortgage servicing fees”) from fees for servicing or administering loans. This fee income is reduced by the amortization of related servicing assets. In addition, we earn interest income from investing funds generated by escrow deposits collected in connection with the servicing loans. Additional information about our mortgage servicing assets is included in Note 10 (“Mortgage Servicing Assets”).

Maturities and sensitivity of certain loans to changes in interest rates

Figure 20 shows the remaining maturities of certain commercial and real estate loans, and the sensitivity of those loans to changes in interest rates. At December 31, 2017, approximately 31% of these outstanding loans were scheduled to mature within one year.

Figure 20. Remaining Maturities and Sensitivity of Certain Loans to Changes in Interest Rates

December 31, 2017 *in millions*	Within One Year	One - Five Years	Over Five Years	Total
Commercial and industrial	$ 12,742	$ 22,671	$ 6,446	$ 41,859
Real estate — construction	848	884	228	1,960
Total	$ 13,590	$ 23,555	$ 6,674	$ 43,819
Loans with floating or adjustable interest rates [(a)]		$ 19,886	$ 3,926	$ 23,812
Loans with predetermined interest rates [(b)]		3,669	2,748	6,417
Total		$ 23,555	$ 6,674	$ 30,229

(a) Floating and adjustable rates vary in relation to other interest rates (such as the base lending rate) or a variable index that may change during the term of the loan.
(b) Predetermined interest rates either are fixed or may change during the term of the loan according to a specific formula or schedule.

Securities

Our securities portfolio totaled $30.0 billion at December 31, 2017, compared to $30.4 billion at December 31, 2016. Available-for-sale securities were $18.1 billion at December 31, 2017, compared to $20.2 billion at December 31, 2016. Held-to-maturity securities were $11.8 billion at December 31, 2017, compared to $10.2 billion at December 31, 2016.

As shown in Figure 21, all of our mortgage-backed securities, which include both securities available-for-sale and held-to-maturity securities, are issued by government-sponsored enterprises or GNMA, and are traded in liquid secondary markets. These securities are recorded on the balance sheet at fair value for the available-for-sale portfolio and at cost for the held-to-maturity portfolio. For more information about these securities, see Note 7 (“Fair Value Measurements”) under the heading “Qualitative Disclosures of Valuation Techniques,” and Note 8 (“Securities”).

Figure 21. Mortgage-Backed Securities by Issuer

December 31, *in millions*	**2017**	**2016**
FHLMC	**$ 5,897**	$ 6,415
FNMA	**10,328**	9,879
GNMA	**13,543**	13,920
Total[(a)]	**$ 29,768**	$ 30,214

(a) Includes securities held in the available-for-sale and held-to-maturity portfolios.

Securities available for sale

The majority of our securities available-for-sale portfolio consists of Federal Agency CMOs and mortgage-backed securities. CMOs are debt securities secured by a pool of mortgages or mortgage-backed securities. These mortgage securities generate interest income, serve as collateral to support certain pledging agreements, and provide liquidity value under regulatory requirements.

We periodically evaluate our securities available-for-sale portfolio in light of established A/LM objectives, changing market conditions that could affect the profitability of the portfolio, the regulatory environment, and the level of interest rate risk to which we are exposed. These evaluations may cause us to take steps to adjust our overall balance sheet positioning.

In addition, the size and composition of our securities available-for-sale portfolio could vary with our needs for liquidity and the extent to which we are required (or elect) to hold these assets as collateral to secure public funds and trust deposits. Although we generally use debt securities for this purpose, other assets, such as securities purchased under resale agreements or letters of credit, are used occasionally when they provide a lower cost of collateral or more favorable risk profiles.

Our investing activities continue to complement other balance sheet developments and provide for our ongoing liquidity management needs. Our actions to not reinvest the monthly security cash flows at various times served to provide the liquidity necessary to address our funding requirements. These funding requirements included ongoing loan growth and occasional debt maturities. At other times, we may make additional investments that go beyond the replacement of maturities or mortgage security cash flows as our liquidity position and/or interest rate risk management strategies may require. Lastly, our focus on investing in high quality liquid assets, including GNMA-related securities, is related to liquidity management strategies to satisfy regulatory requirements.

Figure 22 shows the composition, yields, and remaining maturities of our securities available for sale. For more information about these securities, including gross unrealized gains and losses by type of security and securities pledged, see Note 8 (“Securities”).

Figure 22. Securities Available for Sale

dollars in millions	U.S. Treasury, Agencies, and Corporations	States and Political Subdivisions	Agency Residential Collateralized Mortgage Obligations[a],[b]	Agency Residential Mortgage-backed Securities[a],[b]	Agency Commercial Mortgage-backed Securities[a]	Other Securities	Total	Weighted-Average Yield[d]
December 31, 2017								
Remaining maturity:								
One year or less	$ 9	$ 3	$ 160	$ 18	—	—	$ 190	2.94%
After one through five years	58	6	11,400	1,383	$ 1,768	$ 20	14,635	2.05
After five through ten years	89	—	3,100	30	86	—	3,305	1.92
After ten years	1	—	—	8	—	—	9	3.28
Fair value	$ 157	$ 9	$ 14,660	$ 1,439	$ 1,854	$ 20	$18,139	—
Amortized cost	159	9	14,985	1,456	1,920	17	18,546	2.09%
Weighted-average yield [c]	1.76%	6.31%	2.07%	2.09%	2.23%	— [d]	2.09% [d]	—
Weighted-average maturity (years)	4.1	1.7	4.1	3.7	4.0	2.9	4.1	—
December 31, 2016								
Fair value	$ 184	$ 11	$ 16,408	$ 1,846	$ 1,743	$ 20	$20,212	—
Amortized cost	188	11	16,652	1,857	1,778	21	20,507	2.00%
December 31, 2015								
Fair value	—	$ 14	$ 11,995	$ 2,189	—	$ 20	$14,218	—
Amortized cost	—	14	12,082	2,193	—	21	14,310	2.14%

(a) Maturity is based upon expected average lives rather than contractual terms.
(b) "Collateralized Mortgage Obligations" and "Other Mortgage-backed Securities" were renamed to "Agency Residential Collateralized Mortgage Obligations" and "Agency Residential Mortgage-backed Securities" in September 2016. There was no reclassification of previously reported balances.
(c) Weighted-average yields are calculated based on amortized cost. Such yields have been adjusted to a TE basis using the statutory federal income tax rate in effect that calendar year.
(d) Excludes $20 million of securities at December 31, 2017, that have no stated yield.

Held-to-maturity securities

Federal Agency CMOs and mortgage-backed securities constitute essentially all of our held-to-maturity securities. The remaining balance comprises foreign bonds. Figure 23 shows the composition, yields and remaining maturities of these securities.

Figure 23. Held-to-Maturity Securities

dollars in millions	Agency Residential Collateralized Mortgage Obligations[a]	Agency Residential Mortgage-backed Securities[a]	Agency Commercial Mortgage-backed Securities[a]	Other Securities	Total	Weighted-Average Yield[b]
December 31, 2017						
Remaining maturity:						
One year or less	$ 53	—	—	$ 3	$ 56	2.33%
After one through five years	6,697	$ 39	$ 1,229	12	7,977	2.10
After five through ten years	1,305	535	1,350	—	3,190	2.61
After ten years	—	—	607	—	607	2.66
Amortized cost	$ 8,055	$ 574	$ 3,186	$ 15	$ 11,830	2.27%
Fair value	7,831	571	3,148	15	11,565	—
Weighted-average yield[b]	2.03%	2.68%	2.79%	2.85%	2.27%	—
Weighted-average maturity (years)	4.2	6.3	7.3	1.6	5.1	—
December 31, 2016						
Amortized cost	$ 8,404	$ 629	$ 1,184	$ 15	$ 10,232	2.05%
Fair value	8,232	624	1,136	15	10,007	—
December 31, 2015						
Amortized cost	$ 4,174	$ 703	—	$ 20	$ 4,897	2.01%
Fair value	4,129	699	—	20	4,848	—

(a) "Collateralized Mortgage Obligations" and "Other Mortgage-backed Securities" were renamed to "Agency Residential Collateralized Mortgage Obligations" and "Agency Residential Mortgage-backed Securities" in September 2016. There was no reclassification of previously reported balances.
(b) Weighted-average yields are calculated based on amortized cost. Such yields have been adjusted to a TE basis using the statutory federal income tax rate in effect that calendar year.

Other investments

Principal investments — investments in equity and debt instruments made by our Principal Investing unit — represented 19% and 25% of other investments at December 31, 2017, and December 31, 2016, respectively. They include direct investments (investments made in a particular company) as well as indirect investments (investments made through funds that include other investors). Principal investments are predominantly made in privately held companies and are carried at fair value. The fair value of the direct investments was $13 million at December 31, 2017, and $27 million at December 31, 2016, while the fair value of the indirect investments was $124 million at December 31, 2017, and $158 million at December 31, 2016. Under the requirements of the Volcker Rule, we will be required to dispose of some or all of our indirect investments. For more information about the Volcker Rule, see the discussion in Item 1 under the heading “Other Regulatory Developments under the Dodd-Frank Act – ‘Volcker Rule’” in the section entitled “Supervision and Regulation.”

Most of our other investments are not traded on an active market. We determine the fair value at which these investments should be recorded based on the nature of the specific investment and all available relevant information. This review may encompass such factors as the issuer’s past financial performance and future potential, the values of public companies in comparable businesses, the risks associated with the particular business or investment type, current market conditions, the nature and duration of resale restrictions, the issuer’s payment history, our knowledge of the industry, third-party data, and other relevant factors. As of December 31, 2017, net gains from our principal investing activities (including results attributable to noncontrolling interests) totaled $7 million, which includes $12 million of net unrealized losses. These net gains are recorded as “net gains (losses) from principal investing” on the income statement. Additional information regarding these investments is provided in Note 7.

Deposits and other sources of funds

Domestic deposits are our primary source of funding. The composition of our average deposits is shown in Figure 4 in the section entitled “Net interest income.” During 2017, average domestic deposits were $102.9 billion and represented 85% of the funds we used to support loans and other earning assets, compared to $86.4 billion and 85% during 2016. Noninterest–bearing deposits make up approximately 30% of our deposit mix and provides an alternative to higher cost funding sources. The $16.6 billion increase in domestic deposits compared to the prior year reflects the full year impact of the First Niagara acquisition. In addition, we realized core deposit growth in 2017 driven by the strength of our retail banking franchise and from commercial clients, partly offset by the managed exit of higher cost corporate and public sector deposits.

Wholesale funds, consisting of short-term borrowings and long-term debt, averaged $13.6 billion during 2017, compared to $11.1 billion during 2016. The increase from the prior year reflects the full year impact of the First Niagara acquisition and an increase in long-term debt issuances.

Figure 24 shows the maturity distribution of time deposits of $100,000 or more. All of our time deposits at December 31, 2017, were domestic deposits.

Figure 24. Maturity Distribution of Time Deposits of $100,000 or More

December 31, 2017 *in millions*	**Total**
Remaining maturity:	
Three months or less	$ 1,650
After three through six months	1,089
After six through twelve months	1,562
After twelve months	2,548
Total	$ 6,849

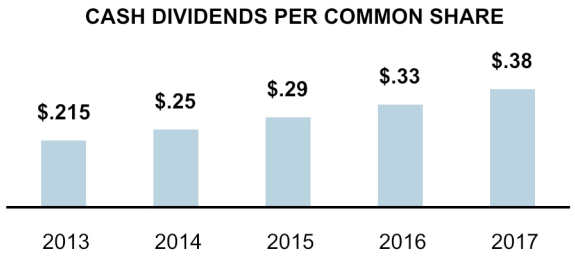
Capital

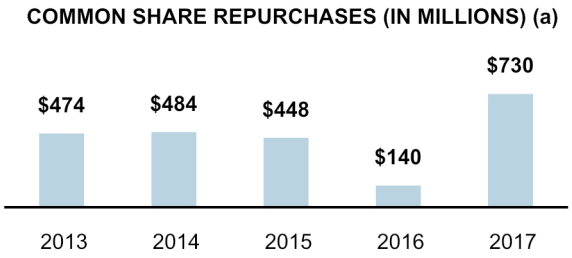
The objective of management of capital is to maintain capital levels consistent with our risk appetite and sufficient in size to operate within a wide range of operating environments. We have identified four primary uses of capital:

1. Investing in our businesses, supporting our clients, and loan growth;

2. Maintaining or increasing our Common Share dividend;
3. Returning capital in the form of Common Share repurchases to our shareholders; and
4. Remaining disciplined and opportunistic about how we invest in our franchise to include selective acquisitions over time.

The following sections discuss certain ways we have deployed our capital. For further information, see the Consolidated Statements of Changes in Equity and Note 24 (“Shareholders' Equity”).





(a) Common Share repurchases were suspended during the third quarter of 2015 due to the then pending merger with First Niagara. We resumed our Common Share repurchase program during the third quarter of 2016 upon the completion of the First Niagara merger.

Dividends

Consistent with our 2016 capital plan, the Board declared a quarterly dividend of $.085 per common share for the first quarter of 2017, and $.095 per Common Share for the second quarter of 2017. The Board declared a quarterly dividend of $.095 per Common Share for the third quarter of 2017, and a quarterly dividend of $.105 per Common Share for the fourth quarter of 2017, consistent with our 2017 capital plan. These quarterly dividend payments brought our annual dividend to $.38 per Common Share for 2017.

During 2017, we made the following dividend payments on our preferred stock:

- $1.9375 per share, or $6 million, during the first quarter of 2017 on our Series A Preferred Stock;
- $.539063 per share, or $7 million, during the first quarter of 2017 on our Series C Preferred Stock;
- $12.50 per depositary share, or $26 million, during the first, second, third, and fourth quarters of 2017 on our Series D Preferred Stock; and
- $.395573 per depositary share, or $8 million, during the first quarter of 2017 and $.382813 per depositary share, or $23 million, during the second, third, and fourth quarters of 2017, on our Series E Preferred Stock.

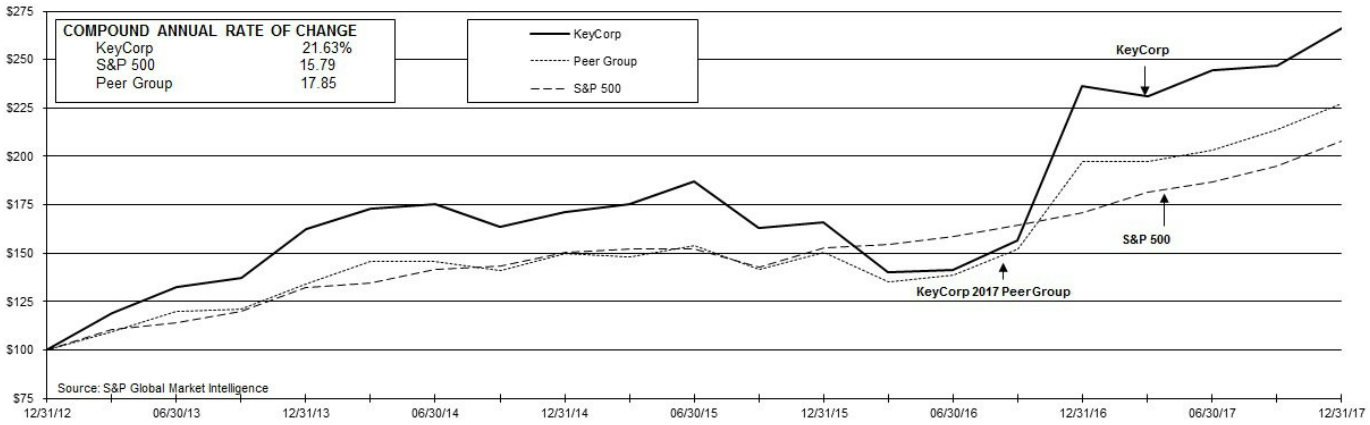
Common Shares outstanding

Our Common Shares are traded on the NYSE under the symbol KEY with 36,126 holders of record at December 31, 2017. Our book value per Common Share was $13.09 based on 1.069 billion shares outstanding at December 31, 2017, compared to $12.58 based on 1.079 billion shares outstanding at December 31, 2016. At December 31, 2017, our tangible book value per Common Share was $10.35, compared to $9.99 at December 31, 2016.

Figure 41 in the section entitled “Fourth Quarter Results” shows the market price ranges of our Common Shares, per Common Share earnings, and dividends paid by quarter for each of the last two years.

Figure 25 compares the price performance of our Common Shares (based on an initial investment of $100 on December 31, 2012, and assuming reinvestment of dividends) with that of the Standard & Poor’s 500 Index and a group of other banks that constitute our peer group. The peer group consists of the banks that make up the Standard & Poor’s 500 Regional Bank Index and the banks that make up the Standard & Poor’s 500 Diversified Bank Index. We are included in the Standard & Poor’s 500 Index and the peer group.

Figure 25. Common Share Price Performance (2013- 2017)[(a)]



(a) Share price performance is not necessarily indicative of future price performance.

Figure 26 shows activities that caused the change in our outstanding Common Shares over the past two years.

Figure 26. Changes in Common Shares Outstanding

		2017 Quarters				
in thousands	**2017**	**Fourth**	**Third**	**Second**	**First**	**2016**
Shares outstanding at beginning of period	**1,079,314**	**1,079,039**	**1,092,739**	**1,097,479**	**1,079,314**	835,751
Common Shares repurchased	**(39,660)**	**(10,617)**	**(15,298)**	**(5,072)**	**(8,673)**	(9,620)
Shares reissued (returned) under employee benefit plans	**8,862**	**662**	**1,598**	**332**	**6,270**	13,451
Series A Preferred Stock exchanged for Common Shares	**20,568**	**—**	**—**	**—**	**20,568**	—
Common Shares issued to acquire First Niagara	**—**	**—**	**—**	**—**	**—**	239,732
Shares outstanding at end of period	**1,069,084**	**1,069,084**	**1,079,039**	**1,092,739**	**1,097,479**	1,079,314

During 2017, Common Shares outstanding decreased by 10.2 million shares due to Common Share repurchases under our 2016 and 2017 capital plans.

At December 31, 2017, we had 187.6 million treasury shares, compared to 177.4 million treasury shares at December 31, 2016. Going forward, we expect to reissue treasury shares as needed in connection with stock-based compensation awards and for other corporate purposes.

Capital adequacy

Capital adequacy is an important indicator of financial stability and performance. All of our capital ratios remained in excess of regulatory requirements at December 31, 2017. Our capital and liquidity levels are intended to position us to weather an adverse operating environment while continuing to serve our clients' needs, as well as to meet the Regulatory Capital Rules described in the "Supervision and regulation" section of Item 1 of this report. Our shareholders' equity to assets ratio was 10.91% at December 31, 2017, compared to 11.17% at December 31, 2016. Our tangible common equity to tangible assets ratio was 8.23% at December 31, 2017, compared to 8.09% at December 31, 2016. The new minimum capital and leverage ratios under the Regulatory Capital Rules together with the estimated ratios of KeyCorp at December 31, 2017, calculated on a fully phased-in basis, are set forth under the heading "Basel III" in the "Supervision and Regulation" section in Item 1 of this report.

Figure 27 represents the details of our regulatory capital positions at December 31, 2017, and December 31, 2016, under the Regulatory Capital Rules. Information regarding the regulatory capital ratios of KeyCorp's banking subsidiaries is presented in Note 24 ("Shareholders' Equity").

Figure 27. Capital Components and Risk-Weighted Assets

December 31, *dollars in millions*	2017	2016
COMMON EQUITY TIER 1		
Key shareholders' equity (GAAP)	**$ 15,023**	$ 15,240
Less: Preferred Stock [a]	**1,009**	1,640
Common Equity Tier 1 capital before adjustments and deductions	**14,014**	13,600
Less: Goodwill, net of deferred taxes	**2,495**	2,405
Intangible assets, net of deferred taxes	**266**	155
Deferred tax assets	**2**	4
Net unrealized gains (losses) on available-for-sale securities, net of deferred taxes	**(311)**	(185)
Accumulated gains (losses) on cash flow hedges, net of deferred taxes	**(122)**	(52)
Amounts in AOCI attributed to pension and postretirement benefit costs, net of deferred taxes	**(391)**	(339)
Total Common Equity Tier 1 capital	**12,075**	11,612
TIER 1 CAPITAL		
Common Equity Tier 1	**12,075**	11,612
Additional Tier 1 capital instruments and related surplus	**1,009**	1,640
Non-qualifying capital instruments subject to phase out	**—**	—
Less: Deductions	**1**	3
Total Tier 1 capital	**13,083**	13,249
TIER 2 CAPITAL		
Tier 2 capital instruments and related surplus	**1,310**	1,450
Allowance for losses on loans and liability for losses on lending-related commitments [b]	**952**	939
Net unrealized gains on available-for-sale preferred stock classified as an equity security	**—**	—
Less: Deductions	**—**	—
Total Tier 2 capital	**2,262**	2,389
Total risk-based capital	**$ 15,345**	$ 15,638
RISK-WEIGHTED ASSETS		
Risk-weighted assets on balance sheet	**$ 94,735**	$ 94,959
Risk-weighted off-balance sheet exposure	**23,058**	25,848
Market risk-equivalent assets	**1,019**	864
Gross risk-weighted assets	**118,812**	121,671
Less: Excess allowance for loan and lease losses	**—**	—
Net risk-weighted assets	**$ 118,812**	$ 121,671
AVERAGE QUARTERLY TOTAL ASSETS	**$ 134,484**	$ 133,795
CAPITAL RATIOS		
Tier 1 risk-based capital	**11.01%**	10.89%
Total risk-based capital	**12.92**	12.85
Leverage [c]	**9.73**	9.90
Common Equity Tier 1	**10.16**	9.54

(a) Net of capital surplus.
(b) The ALLL included in Tier 2 capital is limited by regulation to 1.25% of the institution's standardized total risk-weighted assets (excluding its standardized market risk-weighted assets). The ALLL includes $16 million of allowance classified as "discontinued assets" on the balance sheet at December 31, 2017.
(c) This ratio is Tier 1 capital divided by average quarterly total assets as defined by the Federal Reserve less: (i) goodwill, (ii) the disallowed intangible and deferred tax assets, and (iii) other deductions from assets for leverage capital purposes.

Off-Balance Sheet Arrangements and Aggregate Contractual Obligations

Off-balance sheet arrangements

We are party to various types of off-balance sheet arrangements, which could lead to contingent liabilities or risks of loss that are not reflected on the balance sheet.

Variable interest entities

In accordance with the applicable accounting guidance for consolidations, we consolidate a VIE if we have: (i) a variable interest in the entity; (ii) the power to direct activities of the VIE that most significantly impact the entity's economic performance; and (iii) the obligation to absorb losses of the entity or the right to receive benefits from the entity that could potentially be significant to the VIE (i.e., we are considered to be the primary beneficiary). Additional information regarding the nature of VIEs and our involvement with them is included in Note 1 ("Summary of Significant Accounting Policies") under the heading "Basis of Presentation," and in Note 13 ("Variable Interest Entities").

Commitments to extend credit or funding

Loan commitments provide for financing on predetermined terms as long as the client continues to meet specified criteria. These commitments generally carry variable rates of interest and have fixed expiration dates or other termination clauses. We typically charge a fee for our loan commitments. Since a commitment may expire without resulting in a loan or being fully utilized, the total amount of an outstanding commitment may significantly exceed any related cash outlay. Further information about our loan commitments at December 31, 2017, is presented in Note 22 ("Commitments, Contingent Liabilities, and Guarantees") under the heading "Commitments to Extend Credit or Funding." Figure 28 shows the remaining contractual amount of each class of commitment to extend credit or funding. For loan commitments and commercial letters of credit, this amount represents our maximum possible accounting loss on the unused commitment if the borrower were to draw upon the full amount of the commitment and subsequently default on payment for the total amount of the then outstanding loan.

Other off-balance sheet arrangements

Other off-balance sheet arrangements include financial instruments that do not meet the definition of a guarantee in accordance with the applicable accounting guidance, and other relationships, such as liquidity support provided to asset-backed commercial paper conduits, indemnification agreements and intercompany guarantees. Information about such arrangements is provided in Note 22 under the heading "Other Off-Balance Sheet Risk."

Contractual obligations

Figure 28 summarizes our significant contractual obligations, and lending-related and other off-balance sheet commitments at December 31, 2017, by the specific time periods in which related payments are due or commitments expire.

Figure 28. Contractual Obligations and Other Off-Balance Sheet Commitments

December 31, 2017 *in millions*	Within 1 year	After 1 through 3 years	After 3 through 5 years	After 5 years	Total
Contractual obligations:[a]					
Deposits with no stated maturity	$ 93,588	—	—	—	$ 93,588
Time deposits of $100,000 or more	4,301	$ 2,348	$ 170	$ 30	6,849
Other time deposits	2,960	1,595	155	88	4,798
Federal funds purchased and securities sold under repurchase agreements	377	—	—	—	377
Bank notes and other short-term borrowings	634	—	—	—	634
Long-term debt	3,071	4,754	4,050	2,458	14,333
Noncancelable operating leases	142	249	190	381	962
Liability for unrecognized tax benefits	39	—	—	—	39
Purchase obligations:					
Banking and financial data services	46	39	13	2	100
Telecommunications	12	6	—	—	18
Professional services	12	2	—	—	14
Technology equipment and software	69	84	18	—	171
Other	12	15	5	—	32
Total purchase obligations	151	146	36	2	335
Total	$ 105,263	$ 9,092	$ 4,601	$ 2,959	$ 121,915
Lending-related and other off-balance sheet commitments:					
Commercial, including real estate	$ 14,380	$ 13,587	$ 14,172	$ 950	$ 43,089
Home equity	522	1,000	902	7,249	9,673
Credit cards	5,890	—	—	—	5,890
Purchase cards	425	—	—	—	425
Commercial letters of credit	152	30	49	—	231
Principal investing commitments	19	7	3	—	29
Tax credit investment commitments	481	—	—	—	481
Securities underwriting	9	—	—	—	9
Total	$ 21,878	$ 14,624	$ 15,126	$ 8,199	$ 59,827

(a) Deposits and borrowings exclude interest.

Guarantees

We are a guarantor in various agreements with third parties. As guarantor, we may be contingently liable to make payments to the guaranteed party based on changes in a specified interest rate, foreign exchange rate or other variable (including the occurrence or nonoccurrence of a specified event). These variables, known as underlyings, may be related to an asset or liability, or another entity's failure to perform under a contract. Additional information regarding these types of arrangements is presented in Note 22 under the heading "Guarantees."

Risk Management

Overview

Like all financial services companies, we engage in business activities and assume the related risks. The most significant risks we face are credit, compliance, operational, liquidity, market, reputation, strategic, and model risks. Our risk management activities are focused on ensuring we properly identify, measure, and manage such risks across the entire enterprise to maintain safety and soundness and maximize profitability. Certain of these risks are defined and discussed in greater detail in the remainder of this section.

The Board serves in an oversight capacity ensuring that Key's risks are managed in a manner that is effective and balanced and adds value for the shareholders. The Board understands Key's risk philosophy, approves the risk appetite, inquires about risk practices, reviews the portfolio of risks, compares the actual risks to the risk appetite, and is apprised of significant risks, both actual and emerging, and determines whether management is responding appropriately. The Board challenges management and ensures accountability.

The Board's Audit Committee assists the Board in oversight of financial statement integrity, regulatory and legal requirements, independent auditors' qualifications and independence, and the performance of the internal audit function and independent auditors. The Audit Committee meets with management and approves significant policies relating to the risk areas overseen by the Audit Committee. The Audit Committee has responsibility over all risk review functions, including internal audit, as well as financial reporting, legal matters, and fraud risk. The Audit Committee also receives reports on enterprise risk. In addition to regularly scheduled bi-monthly meetings, the Audit Committee convenes to discuss the content of our financial disclosures and quarterly earnings releases.

The Board's Risk Committee assists the Board in oversight of strategies, policies, procedures, and practices relating to the assessment and management of enterprise-wide risk, including credit, market, liquidity, model, operational, compliance, reputation, and strategic risks. The Risk Committee also assists the Board in overseeing risks related to capital adequacy, capital planning, and capital actions. The Risk Committee reviews and provides oversight of management's activities related to the enterprise-wide risk management framework, which includes review of the ERM Policy, including the Risk Appetite Statement, and management and ERM reports. The Risk Committee also approves any material changes to the charter of the ERM Committee and significant policies relating to risk management.

The Audit and Risk Committees meet jointly, as appropriate, to discuss matters that relate to each committee's responsibilities. Committee chairpersons routinely meet with management during interim months to plan agendas for upcoming meetings and to discuss emerging trends and events that have transpired since the preceding meeting. All members of the Board receive formal reports designed to keep them abreast of significant developments during the interim months.

Our ERM Committee, chaired by the Chief Executive Officer and comprising other senior level executives, is responsible for managing risk and ensuring that the corporate risk profile is managed in a manner consistent with our risk appetite. The ERM Program encompasses our risk philosophy, policy, framework, and governance structure for the management of risks across the entire company. The ERM Committee reports to the Board's Risk Committee. Annually, the Board reviews and approves the ERM Policy, as well as the risk appetite, including corporate risk tolerances for major risk categories. We use a risk-adjusted capital framework to manage risks. This framework is approved and managed by the ERM Committee.

Tier 2 Risk Governance Committees support the ERM Committee by identifying early warning events and trends, escalating emerging risks, and discussing forward-looking assessments. Risk Governance Committees include attendees from each of the Three Lines of Defense. The First Line of Defense is the Line of Business primarily responsible to accept, own, proactively identify, monitor, and manage risk. The Second Line of Defense comprises

Risk Management representatives who provide independent, centralized oversight over all risk categories by aggregating, analyzing, and reporting risk information. Risk Review, our internal audit function, provides the Third Line of Defense in their role to provide independent assessment and testing of the effectiveness, appropriateness, and adherence to KeyCorp's risk management policies, practices, and controls. The Chief Risk Officer ensures that relevant risk information is properly integrated into strategic and business decisions, ensures appropriate ownership of risks, provides input into performance and compensation decisions, assesses aggregate enterprise risk, monitors capabilities to manage critical risks, and executes appropriate Board and stakeholder reporting.

Federal banking regulators continue to emphasize with financial institutions the importance of relating capital management strategy to the level of risk at each institution. We believe our internal risk management processes help us achieve and maintain capital levels that are commensurate with our business activities and risks, and conform to regulatory expectations.

Market risk management

Market risk is the risk that movements in market risk factors, including interest rates, foreign exchange rates, equity prices, commodity prices, credit spreads, and volatilities will reduce Key's income and the value of its portfolios. These factors influence prospective yields, values, or prices associated with the instrument.

We are exposed to market risk both in our trading and nontrading activities, which include asset and liability management activities. Our trading positions are carried at fair value with changes recorded in the income statement. These positions are subject to various market-based risk factors that impact the fair value of the financial instruments in the trading category. Information regarding our fair value policies, procedures, and methodologies is provided in Note 1 ("Summary of Significant Accounting Policies") under the heading "Fair Value Measurements" and Note 7 ("Fair Value Measurements") in this report. Our traditional banking loan and deposit products as well as long-term debt and certain short-term borrowings are nontrading positions. These positions are generally carried at the principal amount outstanding for assets and the amount owed for liabilities. The nontrading positions are subject to changes in economic value due to varying market conditions, primarily changes in interest rates.

Trading market risk

Key incurs market risk as a result of trading activities that are used in support of client facilitation and hedging activities, principally within our investment banking and capital markets businesses. Key has exposures to a wide range of risk factors including interest rates, equity prices, foreign exchange rates, credit spreads, and commodity prices, as well as the associated implied volatilities and spreads. Our primary market risk exposures are a result of trading and hedging activities in the derivative and fixed income markets, including securitization exposures. At year end, we did not have any re-securitization positions. We maintain modest trading inventories to facilitate customer flow, make markets in securities, and hedge certain risks including but not limited to credit risk and interest rate risk. The risks associated with these activities are mitigated in accordance with the Market Risk hedging policy. The majority of our positions are traded in active markets.

Management of trading market risks. Market risk management is an integral part of Key's risk culture. The Risk Committee of our Board provides oversight of trading market risks. The ERM Committee and the Market Risk Committee regularly review and discuss market risk reports prepared by our MRM that contain our market risk exposures and results of monitoring activities. Market risk policies and procedures have been defined and approved by the Market Risk Committee, a Tier 2 Risk Governance Committee, and take into account our tolerance for risk and consideration for the business environment.

The MRM, as the second line of defense, is an independent risk management function that partners with the lines of business to identify, measure, and monitor market risks throughout our company. The MRM is responsible for ensuring transparency of significant market risks, monitoring compliance with established limits, and escalating limit exceptions to appropriate senior management. The various business units and trading desks are responsible for ensuring that market risk exposures are well-managed and prudent. Market risk is monitored through various measures, such as VaR, and through routine stress testing, sensitivity, and scenario analyses. The MRM conducts stress tests for each position using historical worst case and standard shock scenarios. VaR, stressed VaR, and other analyses are prepared daily and distributed to appropriate management.

Covered positions. We monitor the market risk of our covered positions as defined in the Market Risk Rule, which includes all of our trading positions as well as all foreign exchange and commodity positions, regardless of whether

the position is in a trading account. Key's covered positions may also include mortgage-backed and asset-backed securities that may be identified as securitization positions or re-securitization positions under the Market Risk Rule. MRM as well as the LOB that trades securitization positions monitor the positions, the portfolio composition and the risks identified in this section on a daily basis consistent with the Market Risk policies and procedures. At year end, covered positions did not include any re-securitization positions. Instruments that are used to hedge nontrading activities, such as bank-issued debt and loan portfolios, equity positions that are not actively traded, and securities financing activities, do not meet the definition of a covered position. The MRM is responsible for identifying our portfolios as either covered or non-covered. The Covered Position Working Group develops the final list of covered positions, and a summary is provided to the Market Risk Committee.

Our significant portfolios of covered positions are detailed below. We analyze market risk by portfolios of covered positions, and do not separately measure and monitor our portfolios by risk type. The descriptions below incorporate the respective risk types associated with each of these portfolios.

- Fixed income includes those instruments associated with our capital markets business and the trading of securities as a dealer. These instruments may include positions in municipal bonds, bonds backed by the U.S. government, agency and corporate bonds, certain mortgage-backed and asset-backed securities, securities issued by the U.S. Treasury, money markets, and certain CMOs. The activities and instruments within the fixed income portfolio create exposures to interest rate and credit spread risks.
- Interest rate derivatives include interest rate swaps, caps, and floors, which are transacted primarily to accommodate the needs of commercial loan clients. In addition, we enter into interest rate derivatives to offset or mitigate the interest rate risk related to the client positions. The activities within this portfolio create exposures to interest rate risk.

VaR and stressed VaR. VaR is the estimate of the maximum amount of loss on an instrument or portfolio due to adverse market conditions during a given time interval within a stated confidence level. Stressed VaR is used to assess extreme conditions on market risk within our trading portfolios. The MRM calculates VaR and stressed VaR on a daily basis, and the results are distributed to appropriate management. VaR and stressed VaR results are also provided to our regulators and utilized in regulatory capital calculations.

We use a historical simulation VaR model to measure the potential adverse effect of changes in interest rates, foreign exchange rates, equity prices, and credit spreads on the fair value of our covered positions and other non-covered positions. Historical scenarios are customized for specific positions, and numerous risk factors are incorporated in the calculation. Additional consideration is given to the risk factors to estimate the exposures that contain optionality features, such as options and cancelable provisions. VaR is calculated using daily observations over a one-year time horizon, and approximates a 95% confidence level. Statistically, this means that we would expect to incur losses greater than VaR, on average, five out of 100 trading days, or three to four times each quarter. We also calculate VaR and stressed VaR at a 99% confidence level.

The VaR model is an effective tool in estimating ranges of possible gains and losses on our positions. However, there are limitations inherent in the VaR model since it uses historical results over a given time interval to estimate future performance. Historical results may not be indicative of future results, and changes in the market or composition of our portfolios could have a significant impact on the accuracy of the VaR model. We regularly review and enhance the modeling techniques, inputs and assumptions used. Our market risk policy includes the independent validation of our VaR model by Key's internal model validation group on an annual basis. The Model Risk Management Committee oversees the Model Validation Program, and results of validations are discussed with the ERM Committee.

Actual losses for the total covered positions did not exceed aggregate daily VaR on any day during the quarters ended December 31, 2017, and December 31, 2016. The MRM backtests our VaR model on a daily basis to evaluate its predictive power. The test compares VaR model results at the 99% confidence level to daily held profit and loss. Results of backtesting are provided to the Market Risk Committee. Backtesting exceptions occur when trading losses exceed VaR. We do not engage in correlation trading, or utilize the internal model approach for measuring default and credit migration risk. Our net VaR approach incorporates diversification, but our VaR calculation does not include the impact of counterparty risk and our own credit spreads on derivatives.

The aggregate VaR at the 99% confidence level with a one day holding period for all covered positions was $.7 million at December 31, 2017, and $1.9 million at December 31, 2016. The decrease in aggregate VaR was primarily due to the lower inventories and the composition of our fixed income portfolio. Additionally, starting with the

third quarter of 2017, the aggregate VaR does not include the VaR for the credit derivatives that represented the hedging activities for the commercial real estate warehouse portfolio. These activities are no longer considered as covered portfolio. Figure 29 summarizes our VaR at the 99% confidence level with a one day holding period for significant portfolios of covered positions for the three months ended December 31, 2017, and December 31, 2016. During this period, none of our significant portfolios daily trading VaR numbers exceeded their VaR limits or stress VaR limits.

Figure 29. VaR for Significant Portfolios of Covered Positions

	2017				2016			
	Three months ended December 31,				Three months ended December 31,			
in millions	High	Low	Mean	December 31,	High	Low	Mean	December 31,
Trading account assets:								
Fixed income	$ .8	$ .3	$ .5	$ .5	$ 1.5	$ .4	$ .9	$ 1.5
Derivatives:								
Interest rate	$ .1	—	$ .1	$ .1	$ .1	—	$ .1	$ .1
Credit	—	—	—	—	.3	—	.2	.1

Stressed VaR is calculated using our general VaR results at the 99% confidence level and applying certain assumptions. The aggregate stressed VaR for all covered positions was $4.5 million at December 31, 2017, and $4.1 million at December 31, 2016. Figure 30 summarizes our stressed VaR at the 99% confidence level with a one day holding period for significant portfolios of covered positions for the three months ended December 31, 2017, and December 31, 2016.

Figure 30. Stressed VaR for Significant Portfolios of Covered Positions

	2017				2016			
	Three months ended December 31,				Three months ended December 31,			
in millions	High	Low	Mean	December 31,	High	Low	Mean	December 31,
Trading account assets:								
Fixed income	$ 3.7	$ 1.9	$ 2.7	$ 3.4	$ 3.4	$ 1.3	$ 2.5	$ 3.1
Derivatives:								
Interest rate	$ .5	$ .2	$ .3	$ .5	$ .3	$ .1	$ .2	$ .3
Credit	—	—	—	—	.6	.1	.4	.1

Internal capital adequacy assessment. Market risk is a component of our internal capital adequacy assessment. Our risk-weighted assets include a market risk-equivalent asset amount, which consists of a VaR component, stressed VaR component, a de minimis exposure amount, and a specific risk add-on including the securitization positions. The aggregate market value of the securitization positions as defined by the Market Risk Rule was $44.5 million at December 31, 2017. This amount included $35.3 million or mortgage-backed securities positions and $9.2 million of asset-backed securities positions. Specific risk is the price risk of individual financial instruments, which is not accounted for by changes in broad market risk factors and is measured through a standardized approach. Market risk weighted assets, including the specific risk calculations are run quarterly by the MRM in accordance with the Market Risk Rule, and approved by the Chief Market Risk Officer.

Nontrading market risk

Most of our nontrading market risk is derived from interest rate fluctuations and its impacts on our traditional loan and deposit products, as well as investments, hedging relationships, long-term debt, and certain short-term borrowings. Interest rate risk, which is inherent in the banking industry, is measured by the potential for fluctuations in net interest income and the EVE. Such fluctuations may result from changes in interest rates and differences in the repricing and maturity characteristics of interest-earning assets and interest-bearing liabilities. We manage the exposure to changes in net interest income and the EVE in accordance with our risk appetite and in accordance with the Board approved ERM policy.

Interest rate risk positions are influenced by a number of factors including the balance sheet positioning that arises out of customer preferences for loan and deposit products, economic conditions, the competitive environment within our markets, changes in market interest rates that affect client activity, and our hedging, investing, funding, and capital positions. The primary components of interest rate risk exposure consist of reprice risk, basis risk, yield curve risk, and option risk.

- ***"Reprice risk"*** is the exposure to changes in the level of interest rates and occurs when the volume of interest-bearing liabilities and the volume of interest-earning assets they fund (e.g., deposits used to fund loans) do not mature or reprice at the same time.
- ***"Basis risk"*** is the exposure to asymmetrical changes in interest rate indexes and occurs when floating-rate assets and floating-rate liabilities reprice at the same time, but in response to different market factors or indexes.
- ***"Yield curve risk"*** is the exposure to non-parallel changes in the slope of the yield curve (where the yield curve depicts the relationship between the yield on a particular type of security and its term to maturity) and occurs when interest-bearing liabilities and the interest-earning assets that they fund do not price or reprice to the same term point on the yield curve.
- ***"Option risk"*** is the exposure to a customer or counterparty's ability to take advantage of the interest rate environment and terminate or reprice one of our assets, liabilities, or off-balance sheet instruments prior to contractual maturity without a penalty. Option risk occurs when exposures to customer and counterparty early withdrawals or prepayments are not mitigated with an offsetting position or appropriate compensation.

The management of nontrading market risk is centralized within Corporate Treasury. The Risk Committee of our Board provides oversight of nontrading market risk. The ERM Committee and the ALCO review reports on the interest rate risk exposures described above. In addition, the ALCO reviews reports on stress tests and sensitivity analyses related to interest rate risk. These committees have various responsibilities related to managing nontrading market risk, including recommending, approving, and monitoring strategies that maintain risk positions within approved tolerance ranges. The A/LM policy provides the framework for the oversight and management of interest rate risk and is administered by the ALCO. The MRM, as the second line of defense, provides additional oversight.

Net interest income simulation analysis. The primary tool we use to measure our interest rate risk is simulation analysis. For purposes of this analysis, we estimate our net interest income based on the current and projected composition of our on- and off-balance sheet positions, accounting for recent and anticipated trends in customer activity. The analysis also incorporates assumptions for the current and projected interest rate environments, and balance sheet growth projections based on a most likely macroeconomic view. The results of simulation analysis reflect management's desired interest rate risk positioning. The modeling incorporates investment portfolio and swap portfolio balances consistent with management's desired interest rate risk positioning. The simulation model estimates the amount of net interest income at risk by simulating the change in net interest income that would occur if interest rates were to gradually increase or decrease over the next 12 months. Our standard rate scenarios encompass a gradual, parallel increase or decrease of 200 basis points, but due to the low interest rate environment, we have modified the standard decrease scenario to a gradual, parallel decrease of 125 basis points over eight months with no change over the following four months. After calculating the amount of net interest income at risk to interest rate changes, we compare that amount with the net interest income generated in an unchanged interest rate environment.

Figure 31 presents the results of the simulation analysis at December 31, 2017, and December 31, 2016. At December 31, 2017, our simulated impact to changes in interest rates was moderately asset-sensitive. In 2017, the Federal Reserve increased the range for the Federal Funds Target Rate, which led to an increase in the magnitude of the declining rate scenario to 125 basis points. Tolerance levels for risk management require the development of remediation plans to maintain residual risk within tolerance if simulation modeling demonstrates that a gradual, parallel 200 basis point increase or 125 basis point decrease in interest rates over the next 12 months would adversely affect net interest income over the same period by more than 5.5%. As a result of the Federal Reserve's 2017 interest rate increases, our modeled exposure to declining rates increased.

Figure 31. Simulated Change in Net Interest Income

December 31, 2017		
Basis point change assumption (short-term rates)	**-125**	**+200**
Tolerance level	**-5.50%**	**-5.50%**
Interest rate risk assessment	**-5.35%**	**3.95%**
December 31, 2016		
Basis point change assumption (short-term rates)	-75	+200
Tolerance level	-5.50%	-5.50%
Interest rate risk assessment	-2.94%	1.13%

Simulation analysis produces a sophisticated estimate of interest rate exposure based on assumptions input into the model. We tailor certain assumptions to the specific interest rate environment and yield curve shape being modeled, and validate those assumptions on a regular basis. However, actual results may differ from those derived in simulation analysis due to unanticipated changes to the balance sheet composition, customer behavior, product pricing, market interest rates, changes in management's desired interest rate risk positioning, investment, funding and hedging activities, and repercussions from unanticipated or unknown events.

We also perform regular stress tests and sensitivity analyses on the model inputs that could materially change the resulting risk assessments. Assessments are performed using different shapes of the yield curve, including steepening or flattening of the yield curve, immediate changes in market interest rates, and changes in the relationship of money market interest rates. Assessments are also performed on changes to the following assumptions: loan and deposit balances, the pricing of deposits without contractual maturities, changes in lending spreads, prepayments on loans and securities, investment, funding and hedging activities, and liquidity and capital management strategies.

The results of additional assessments indicate that net interest income could increase or decrease from the base simulation results presented in Figure 31. Net interest income is highly dependent on the timing, magnitude, frequency, and path of interest rate increases and the associated assumptions for deposit repricing relationships, lending spreads, and the balance behavior of transaction accounts. If fixed rate assets increase by $1 billion, or fixed rate liabilities decrease by $1 billion, then the benefit to rising rates would decrease by approximately 30 basis points. If the interest bearing liquid deposit beta assumption increases or decreases by 5% (e.g. 40% to 45%), then the benefit to rising rates would decrease or increase by approximately 90 basis points.

Our current interest rate risk position could fluctuate to higher or lower levels of risk depending on the competitive environment and client behavior that may affect the actual volume, mix, maturity, and repricing characteristics of loan and deposit flows. Treasury discretionary activities related to funding, investing, and hedging may also change as a result of changes in customer business flows, or changes in management's desired interest rate risk positioning. As changes occur to both the configuration of the balance sheet and the outlook for the economy, management proactively evaluates hedging opportunities that may change our interest rate risk profile.

We also conduct simulations that measure the effect of changes in market interest rates in the second and third years of a three-year horizon. These simulations are conducted in a manner similar to those based on a 12-month horizon. To capture longer-term exposures, we calculate exposures to changes of the EVE as discussed in the following section.

Economic value of equity modeling. EVE complements net interest income simulation analysis as it estimates risk exposure beyond 12-, 24-, and 36-month horizons. EVE modeling measures the extent to which the economic values of assets, liabilities and off-balance sheet instruments may change in response to fluctuations in interest rates. EVE is calculated by subjecting the balance sheet to an immediate 200 basis point increase or decrease in interest rates, measuring the resulting change in the values of assets, liabilities, and off-balance sheet instruments, and comparing those amounts with the base case of the current interest rate environment. Because the calculation of EVE under an immediate 200 basis point decrease in interest rates in the current low rate environment results in certain interest rates declining to zero and a less than 200 basis point decrease in certain yield curve term points, we have modified the standard declining rate scenario to an immediate 125 basis point decrease. This analysis is highly dependent upon assumptions applied to assets and liabilities with non-contractual maturities. Those assumptions are based on historical behaviors, as well as our expectations. We develop remediation plans that would maintain residual risk within tolerance if this analysis indicates that our EVE will decrease by more than 15% in response to an immediate increase or decrease in interest rates. We are operating within these guidelines as of December 31, 2017.

Management of interest rate exposure. We use the results of our various interest rate risk analyses to formulate A/LM strategies to achieve the desired risk profile while managing to our objectives for capital adequacy and liquidity risk exposures. Specifically, we manage interest rate risk positions by purchasing securities, issuing term debt with floating or fixed interest rates, and using derivatives — predominantly in the form of interest rate swaps, which modify the interest rate characteristics of certain assets and liabilities.

Figure 32 shows all swap positions that we hold for A/LM purposes. These positions are used to convert the contractual interest rate index of agreed-upon amounts of assets and liabilities (i.e., notional amounts) to another interest rate index. For example, fixed-rate debt is converted to a floating rate through a "receive fixed/pay variable"

interest rate swap. The volume, maturity, and mix of portfolio swaps change frequently as we adjust our broader A/LM objectives and the balance sheet positions to be hedged. For more information about how we use interest rate swaps to manage our risk profile, see Note 9 (“Derivatives and Hedging Activities”).

Figure 32. Portfolio Swaps by Interest Rate Risk Management Strategy

	December 31, 2017					December 31, 2016		
			Weighted-Average					
dollars in millions	Notional Amount	Fair Value	Maturity (Years)	Receive Rate	Pay Rate	Notional Amount	Fair Value	
Receive fixed/pay variable — conventional A/LM [(a)]	$ 16,425	$ (126)	1.9	1.3%	1.4%	$ 15,550	$ (47)	
Receive fixed/pay variable — conventional debt	9,691	(9)	2.6	1.6	1.4	8,616	93	
Pay fixed/receive variable — conventional debt	50	(6)	10.5	1.3	3.6	50	(6)	
Total portfolio swaps	$ 26,166	$ (141) [(b)]	2.2	1.4%	1.4%	$ 24,216	$ 40	[(b)]

(a) Portfolio swaps designated as A/LM are used to manage interest rate risk tied to both assets and liabilities.
(b) Excludes accrued interest of $176 million and $54 million for December 31, 2017, and December 31, 2016, respectively.

Liquidity risk management

Liquidity risk, which is inherent in the banking industry, is measured by our ability to accommodate liability maturities and deposit withdrawals, meet contractual obligations, and fund new business opportunities at a reasonable cost, in a timely manner, and without adverse consequences. Liquidity management involves maintaining sufficient and diverse sources of funding to accommodate planned, as well as unanticipated, changes in assets and liabilities under both normal and adverse conditions.

Governance structure

We manage liquidity for all of our affiliates on an integrated basis. This approach considers the unique funding sources available to each entity, as well as each entity’s capacity to manage through adverse conditions. The approach also recognizes that adverse market conditions or other events that could negatively affect the availability or cost of liquidity will affect the access of all affiliates to sufficient wholesale funding.

The management of consolidated liquidity risk is centralized within Corporate Treasury. Oversight and governance is provided by the Board, the ERM Committee, the ALCO, and the Chief Risk Officer. The Asset Liability Management Policy provides the framework for the oversight and management of liquidity risk and is administered by the ALCO. The MRM, as the second line of defense, provides additional oversight. Our current liquidity risk management practices are in compliance with the Federal Reserve Board’s Enhanced Prudential Standards.

These committees regularly review liquidity and funding summaries, liquidity trends, peer comparisons, variance analyses, liquidity projections, hypothetical funding erosion stress tests, and goal tracking reports. The reviews generate a discussion of positions, trends, and directives on liquidity risk and shape a number of our decisions. When liquidity pressure is elevated, positions are monitored more closely and reporting is more intensive. To ensure that emerging issues are identified, we also communicate with individuals inside and outside of the company on a daily basis.

Factors affecting liquidity

Our liquidity could be adversely affected by both direct and indirect events. An example of a direct event would be a downgrade in our public credit ratings by a rating agency. Examples of indirect events (events unrelated to us) that could impair our access to liquidity would be an act of terrorism or war, natural disasters, political events, or the default or bankruptcy of a major corporation, mutual fund or hedge fund. Similarly, market speculation, or rumors about us or the banking industry in general, may adversely affect the cost and availability of normal funding sources.

Our credit ratings at December 31, 2017, are shown in Figure 33. We believe these credit ratings, under normal conditions in the capital markets, will enable KeyCorp or KeyBank to issue fixed income securities to investors.

Figure 33. Credit Ratings

December 31, 2017	Short-Term Borrowings	Long-Term Deposits	Senior Long-Term Debt	Subordinated Long-Term Debt	Capital Securities	Preferred Stock
KEYCORP (THE PARENT COMPANY)						
Standard & Poor's	A-2	N/A	BBB+	BBB	BB+	BB+
Moody's	P-2	N/A	Baa1	Baa1	Baa2	Baa3
Fitch	F1	N/A	A-	BBB+	BB+	BB
DBRS	R-1(low)	N/A	A(low)	BBB(high)	BBB(high)	BBB(low)
KEYBANK						
Standard & Poor's	A-2	N/A	A-	BBB+	N/A	N/A
Moody's	P-1	Aa3	A3	Baa1	N/A	N/A
Fitch	F1	A	A-	BBB+	N/A	N/A
DBRS	R-1(low)	A	A	A(low)	N/A	N/A

Managing liquidity risk

Most of our liquidity risk is derived from our lending activities, which inherently places funds into illiquid assets. Liquidity risk is also derived from our deposit gathering activities and the ability of our customers to withdraw funds that do not have a stated maturity or to withdraw funds before their contractual maturity. The assessments of liquidity risk are measured under the assumption of normal operating conditions as well as under a stressed environment. We manage these exposures in accordance with our risk appetite, and within Board-approved policy limits.

We regularly monitor our liquidity position and funding sources and measure our capacity to obtain funds in a variety of hypothetical scenarios in an effort to maintain an appropriate mix of available and affordable funding. In the normal course of business, we perform a monthly hypothetical funding erosion stress test for both KeyCorp and KeyBank. In a "heightened monitoring mode," we may conduct the hypothetical funding erosion stress tests more frequently, and use assumptions to reflect the changed market environment. Our testing incorporates estimates for loan and deposit lives based on our historical studies. Erosion stress tests analyze potential liquidity scenarios under various funding constraints and time periods. Ultimately, they determine the periodic effects that major direct and indirect events would have on our access to funding markets and our ability to fund our normal operations. To compensate for the effect of these assumed liquidity pressures, we consider alternative sources of liquidity and maturities over different time periods to project how funding needs would be managed.

We maintain a Contingency Funding Plan that outlines the process for addressing a liquidity crisis. The plan provides for an evaluation of funding sources under various market conditions. It also assigns specific roles and responsibilities for managing liquidity through a problem period. As part of the plan, we maintain on-balance sheet liquid reserves referred to as our liquid asset portfolio, which consists of high quality liquid assets. During a problem period, that reserve could be used as a source of funding to provide time to develop and execute a longer-term strategy. The liquid asset portfolio at December 31, 2017, totaled $27.2 billion, consisting of $22.8 billion of unpledged securities, $290 million of securities available for secured funding at the FHLB, and $4.1 billion of net balances of federal funds sold and balances in our Federal Reserve account. The liquid asset portfolio can fluctuate due to excess liquidity, heightened risk, or prefunding of expected outflows, such as debt maturities. Additionally, as of December 31, 2017, our unused borrowing capacity secured by loan collateral was $23.8 billion at the Federal Reserve Bank of Cleveland and $6.3 billion at the FHLB of Cincinnati. In 2017, Key's outstanding FHLB of Cincinnati advances increased by $980 million due to additional borrowings.

Final U.S. liquidity coverage ratio

Under the Liquidity Coverage Rules, we will be required to calculate the Modified LCR for Key. At December 31, 2017, our estimated Modified LCR was above 100%. In the future, we may change the composition of our investment portfolio, increase the size of the overall investment portfolio, and modify product offerings to enhance or optimize our liquidity position.

Additional information about the Liquidity Coverage Rules and Modified LCR is included in the "Supervision and Regulation" section under the heading "Regulatory capital requirements - Liquidity requirements" in Item 1 of this report.

Long-term liquidity strategy

Our long-term liquidity strategy is to be predominantly funded by core deposits. However, we may use wholesale funds to sustain an adequate liquid asset portfolio, meet daily cash demands, and allow management flexibility to execute business initiatives. Key's client-based relationship strategy provides for a strong core deposit base that, in conjunction with intermediate and long-term wholesale funds managed to a diversified maturity structure and investor base, supports our liquidity risk management strategy. We use the loan-to-deposit ratio as a metric to monitor these strategies. Our target loan-to-deposit ratio is 90-100% (at December 31, 2017, our loan-to-deposit ratio was 84.4%), which we calculate as total loans, loans held for sale, and nonsecuritized discontinued loans divided by deposits.

Sources of liquidity

Our primary sources of liquidity include customer deposits, wholesale funding, and liquid assets. If the cash flows needed to support operating and investing activities are not satisfied by deposit balances, we rely on wholesale funding or on-balance sheet liquid reserves. Conversely, excess cash generated by operating, investing, and deposit-gathering activities may be used to repay outstanding debt or invest in liquid assets.

Liquidity programs

We have several liquidity programs, which are described in Note 20 ("Long-Term Debt"), that are designed to enable KeyCorp and KeyBank to raise funds in the public and private debt markets. The proceeds from most of these programs can be used for general corporate purposes, including acquisitions. These liquidity programs are reviewed from time to time by the Board and are renewed and replaced as necessary. There are no restrictive financial covenants in any of these programs.

On June 9, 2017, KeyBank issued $600 million of 2.40% Senior Bank Notes due June 9, 2022, under its Global Bank Note Program.

On September 14, 2017, KeyBank issued $750 million of 2.30% Senior Bank Notes due September 14, 2022, under its Global Bank Note Program.

Liquidity for KeyCorp

The primary source of liquidity for KeyCorp is from subsidiary dividends, primarily from KeyBank. KeyCorp has sufficient liquidity when it can service its debt; support customary corporate operations and activities (including acquisitions); support occasional guarantees of subsidiaries' obligations in transactions with third parties at a reasonable cost, in a timely manner, and without adverse consequences; and pay dividends to shareholders.

We use a parent cash coverage months metric as the primary measure to assess parent company liquidity. The parent cash coverage months metric measures the months into the future where projected obligations can be met with the current quantity of liquidity. We generally issue term debt to supplement dividends from KeyBank to manage our liquidity position at or above our targeted levels. The parent company generally maintains cash and short-term investments in an amount sufficient to meet projected debt maturities over at least the next 24 months. At December 31, 2017, KeyCorp held $2.3 billion in cash, which we projected to be sufficient to meet our projected obligations, including the repayment of our maturing debt obligations for the periods prescribed by our risk tolerance.

Typically, KeyCorp meets its liquidity requirements through regular dividends from KeyBank, supplemented with term debt. Federal banking law limits the amount of capital distributions that a bank can make to its holding company without prior regulatory approval. A national bank's dividend-paying capacity is affected by several factors, including net profits (as defined by statute) for the two previous calendar years and for the current year, up to the date of dividend declaration. During 2017, KeyBank paid $750 million in dividends to KeyCorp. At January 1, 2018, KeyBank had regulatory capacity to pay $925 million in dividends to KeyCorp without prior regulatory approval.

Our liquidity position and recent activity

Over the past 12 months, our liquid asset portfolio, which includes overnight and short-term investments, as well as unencumbered, high quality liquid securities held as protection against a range of potential liquidity stress scenarios, has increased as a result of an increase in unpledged securities offset by net customer loan and deposit flows. The liquid asset portfolio continues to exceed the amount that we estimate would be necessary to manage through an adverse liquidity event by providing sufficient time to develop and execute a longer-term solution.

From time to time, KeyCorp or KeyBank may seek to retire, repurchase, or exchange outstanding debt, capital securities, preferred shares, or Common Shares through cash purchase, privately negotiated transactions or other means. Additional information on repurchases of Common Shares by KeyCorp is included in Part II, Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities of this report. Such transactions depend on prevailing market conditions, our liquidity and capital requirements, contractual restrictions, regulatory requirements, and other factors. The amounts involved may be material, individually or collectively.

We generate cash flows from operations and from investing and financing activities. We have approximately $174 million of cash and cash equivalents and short-term investments in international tax jurisdictions as of December 31, 2017. As we consider alternative long-term strategic and liquidity plans, opportunities to repatriate these amounts would result in approximately $2 million in taxes to be paid. We have included the appropriate amount as a deferred tax liability at December 31, 2017.

The Consolidated Statements of Cash Flows summarize our sources and uses of cash by type of activity for the years ended December 31, 2017, and December 31, 2016.

Credit risk management

Credit risk is the risk of loss to us arising from an obligor's inability or failure to meet contractual payment or performance terms. Like other financial services institutions, we make loans, extend credit, purchase securities, add financial and payments products, and enter into financial derivative contracts, all of which have related credit risk.

Credit policy, approval, and evaluation

We manage credit risk exposure through a multifaceted program. The Credit Risk Committee approves management credit policies and recommends for approval significant credit policies to the appropriate Board or Board committee. These policies are communicated throughout the organization to foster a consistent approach to granting credit.

Our credit risk management team and certain individuals within our lines of business, to whom credit risk management has delegated limited credit authority, are responsible for credit approval. Individuals with assigned credit authority are authorized to grant exceptions to credit policies. It is not unusual to make exceptions to established policies when mitigating circumstances dictate, however, a corporate level tolerance has been established to keep exceptions at an acceptable level based upon portfolio and economic considerations.

Our credit risk management team uses risk models to evaluate consumer loans. These models, known as scorecards, forecast the probability of serious delinquency and default for an applicant. The scorecards are embedded in the application processing system, which allows for real-time scoring and automated decisions for many of our products. We periodically validate the loan grading and scoring processes.

We maintain an active concentration management program to mitigate concentration risk in our credit portfolios. For individual obligors, we employ a sliding scale of exposure, known as hold limits, which is dictated by the type of loan and strength of the borrower. Our legal lending limit is approximately $2.2 billion for any individual borrower. However, internal hold limits generally restrict the largest exposures to less than 20% of that amount. As of December 31, 2017, we had 14 client relationships with loan commitments net of credit default swaps of more than $200 million. The average amount outstanding on these 14 individual net obligor commitments was $82 million at December 31, 2017. In general, our philosophy is to maintain a diverse portfolio with regard to credit exposures.

We actively manage the overall loan portfolio in a manner consistent with asset quality objectives and concentration risk tolerances to mitigate portfolio credit risk. We utilize credit default swaps on a limited basis to transfer a portion

of the credit risk associated with a particular extension of credit to a third party. At December 31, 2017, we used credit default swaps with a notional amount of $159 million to manage the credit risk associated with specific commercial lending obligations.

Credit default swaps are recorded on the balance sheet at fair value. Related gains or losses, as well as the premium paid or received for credit protection, are included in the “corporate services income” and “other income” components of noninterest income.

Selected asset quality statistics for each of the past five years are presented in Figure 34. The factors that drive these statistics are discussed in the remainder of this section.

Figure 34. Selected Asset Quality Statistics from Continuing Operations

Year ended December 31, *dollars in millions*	**2017**	**2016**	**2015**	**2014**	**2013**
Net loan charge-offs	**$ 208**	$ 205	$ 142	$ 113	$ 168
Net loan charge-offs to average total loans	**.24%**	.29%	.24%	.20%	.32%
Allowance for loan and lease losses	**$ 877**	$ 858	$ 796	$ 794	$ 848
Allowance for credit losses [(a)]	**934**	913	852	829	885
Allowance for loan and lease losses to period-end loans	**1.01%**	1.00%	1.33%	1.38%	1.56%
Allowance for credit losses to period-end loans	**1.08**	1.06	1.42	1.44	1.63
Allowance for loan and lease losses to nonperforming loans	**174.4**	137.3	205.7	190.0	166.9
Allowance for credit losses to nonperforming loans	**185.7**	146.1	220.2	198.3	174.2
Nonperforming loans at period end [(b)]	**$ 503**	$ 625	$ 387	$ 418	$ 508
Nonperforming assets at period end	**534**	676	403	436	531
Nonperforming loans to period-end portfolio loans	**.58%**	.73%	.65%	.73%	.93%
Nonperforming assets to period-end portfolio loans plus OREO and other nonperforming assets	**.62**	.79	.67	.76	.97

(a) Includes the ALLL plus the liability for credit losses on lending-related unfunded commitments.
(b) Nonperforming loan balances exclude $738 million, $865 million, $11 million, $13 million, and $16 million of PCI loans at December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013, respectively.

Allowance for loan and lease losses

We estimate the appropriate level of the ALLL on at least a quarterly basis. The methodology used is described in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Allowance for Loan and Lease Losses.” Briefly, our allowance applies incurred loss rates to existing loans with similar risk characteristics. We exercise judgment to assess any adjustment to the incurred loss rates for the impact of factors such as changes in economic conditions, lending policies including underwriting standards, and the level of credit risk associated with specific industries and markets. The ALLL at December 31, 2017, represents our best estimate of the probable credit losses inherent in the loan portfolio at that date. For more information about impaired loans, see Note 6 (“Asset Quality”).

As shown in Figure 35, our ALLL from continuing operations remained relatively stable, increasing by $19 million, or 2.2%, from December 31, 2016. Our commercial ALLL increased by $19 million, or 2.7%, from December 31, 2016, primarily because of loan growth and credit quality moving toward normalized levels. Our consumer ALLL was unchanged from December 31, 2016. The consumer ALLL was impacted by declining loan balances and improving credit quality.

Figure 35. Allocation of the Allowance for Loan and Lease Losses

December 31, *dollars in millions*	2017 Total Allowance	2017 Percent of Allowance to Total Allowance	2017 Percent of Loan Type to Total Loans	2016 Total Allowance	2016 Percent of Allowance to Total Allowance	2016 Percent of Loan Type to Total Loans	2015 Total Allowance	2015 Percent of Allowance to Total Allowance	2015 Percent of Loan Type to Total Loans
Commercial and industrial	**$ 529**	**60.3%**	**48.4%**	$ 508	59.2%	46.2%	$ 450	56.5%	52.2%
Commercial real estate:									
Commercial mortgage	**133**	**15.2**	**16.3**	144	16.8	17.6	134	16.8	13.3
Construction	**30**	**3.4**	**2.3**	22	2.6	2.7	25	3.2	1.7
Total commercial real estate loans	**163**	**18.6**	**18.6**	166	19.4	20.3	159	20.0	15.0
Commercial lease financing	**43**	**4.9**	**5.6**	42	4.9	5.4	47	5.9	6.7
Total commercial loans	**735**	**83.8**	**72.6**	716	83.5	71.9	656	82.4	73.9
Real estate — residential mortgage	**7**	**.8**	**6.3**	17	2.0	6.5	18	2.3	3.7
Home equity loans	**43**	**4.9**	**13.9**	54	6.3	14.7	57	7.2	17.3
Consumer direct loans	**28**	**3.2**	**2.1**	24	2.8	2.1	20	2.5	2.7
Credit cards	**44**	**5.0**	**1.3**	38	4.4	1.3	32	4.0	1.3
Consumer indirect loans	**20**	**2.3**	**3.8**	9	1.0	3.5	13	1.6	1.1
Total consumer loans	**142**	**16.2**	**27.4**	142	16.5	28.1	140	17.6	26.1
Total loans [(a)]	**$ 877**	**100.0%**	**100.0%**	$ 858	100.0%	100.0%	$ 796	100.0%	100.0%

	2014 Total Allowance	2014 Percent of Allowance to Total Allowance	2014 Percent of Loan Type to Total Loans	2013 Total Allowance	2013 Percent of Allowance to Total Allowance	2013 Percent of Loan Type to Total Loans
Commercial and industrial	$ 391	49.2%	48.8%	$ 362	42.7%	45.8%
Commercial real estate:						
Commercial mortgage	148	18.7	14.0	165	19.4	14.2
Construction	28	3.5	1.9	32	3.8	2.0
Total commercial real estate loans	176	22.2	15.9	197	23.2	16.2
Commercial lease financing	56	7.1	7.4	62	7.3	8.4
Total commercial loans	623	78.5	72.1	621	73.2	70.4
Real estate — residential mortgage	23	2.9	3.9	37	4.4	4.0
Home equity loans	71	8.9	18.6	95	11.2	19.6
Consumer direct loans	22	2.8	2.7	29	3.4	2.7
Credit cards	33	4.1	1.3	34	4.0	1.3
Consumer indirect loans	22	2.8	1.4	32	3.8	2.0
Total consumer loans	171	21.5	27.9	227	26.8	29.6
Total loans [(a)]	$ 794	100.0%	100.0%	$ 848	100.0%	100.0%

(a) Excludes allocations of the ALLL related to the discontinued operations of the education lending business in the amount of $16 million at December 31, 2017, $24 million at December 31, 2016, $28 million at December 31, 2015, $29 million at December 31, 2014, and $39 million at December 31, 2013.

Net loan charge-offs

Figure 36 shows the trend in our net loan charge-offs by loan type, while the composition of loan charge-offs and recoveries by type of loan is presented in Figure 37.

Over the past 12 months, net loan charge-offs increased $3 million. This increase is attributable to the growth in our loan portfolio and higher charge-offs in our consumer loan portfolios partially offset by an increase in recoveries in our commercial and industrial loan portfolio driven by a large recovery during the third quarter of 2017. In 2018, we expect net loan charge-offs to average loans to remain below our long-term targeted range of 40 to 60 basis points.

Figure 36. Net Loan Charge-offs from Continuing Operations [a]

Year ended December 31, *dollars in millions*	2017	2016	2015	2014	2013
Commercial and industrial	**$ 93**	$ 107	$ 61	$ 12	$ 23
Real estate — commercial mortgage	**9**	(4)	(2)	2	(7)
Real estate — construction	**1**	7	—	(12)	(11)
Commercial lease financing	**8**	9	4	—	12
Total commercial loans	**111**	119	63	2	17
Real estate — residential mortgage	**(1)**	3	3	8	18
Home equity loans	**15**	16	21	32	66
Consumer direct loans	**28**	22	18	24	24
Credit cards	**39**	31	28	33	27
Consumer indirect loans	**16**	14	9	14	16
Total consumer loans	**97**	86	79	111	151
Total net loan charge-offs	**$ 208**	$ 205	$ 142	$ 113	$ 168
Net loan charge-offs to average loans	**.24%**	.29%	.24%	.20%	.32%
Net loan charge-offs from discontinued operations — education lending business	**$ 18**	$ 17	$ 22	$ 31	$ 37

(a) Credit amounts indicate that recoveries exceeded charge-offs.

Figure 37. Summary of Loan and Lease Loss Experience from Continuing Operations

Year ended December 31, *dollars in millions*	2017	2016	2015	2014	2013
Average loans outstanding	$ 86,365	$ 71,148	$ 58,594	$ 55,679	$ 53,054
Allowance for loan and lease losses at beginning of period	$ 858	$ 796	$ 794	$ 848	$ 888
Loans charged off:					
Commercial and industrial	133	118	77	45	62
Real estate — commercial mortgage	11	5	4	6	20
Real estate — construction	2	9	1	5	3
Total commercial real estate loans [a]	13	14	5	11	23
Commercial lease financing	14	12	11	10	27
Total commercial loans [b]	160	144	93	66	112
Real estate — residential mortgage	3	4	6	10	20
Home equity loans	30	30	32	46	82
Consumer direct loans	34	27	24	30	31
Credit cards	44	35	30	34	30
Consumer indirect loans	31	21	18	25	33
Total consumer loans	142	117	110	145	196
Total loans charged off	302	261	203	211	308
Recoveries:					
Commercial and industrial	40	11	16	33	39
Real estate — commercial mortgage	2	9	6	4	27
Real estate — construction	1	2	1	17	14
Total commercial real estate loans [a]	3	11	7	21	41
Commercial lease financing	6	3	7	10	15
Total commercial loans [b]	49	25	30	64	95
Real estate — residential mortgage	4	1	3	2	2
Home equity loans	15	14	11	14	16
Consumer direct loans	6	5	6	6	7
Credit cards	5	4	2	1	3
Consumer indirect loans	15	7	9	11	17
Total consumer loans	45	31	31	34	45
Total recoveries	94	56	61	98	140
Net loan charge-offs	(208)	(205)	(142)	(113)	(168)
Provision (credit) for loan and lease losses	227	267	145	59	130
Foreign currency translation adjustment	—	—	(1)	—	(2)
Allowance for loan and lease losses at end of year	$ 877	$ 858	$ 796	$ 794	$ 848
Liability for credit losses on lending-related commitments at beginning of the year	$ 55	$ 56	$ 35	$ 37	$ 29
Provision (credit) for losses on lending-related commitments	2	(1)	21	(2)	8
Liability for credit losses on lending-related commitments at end of the year [c]	$ 57	$ 55	$ 56	$ 35	$ 37
Total allowance for credit losses at end of the year	$ 934	$ 913	$ 852	$ 829	$ 885
Net loan charge-offs to average total loans	.24%	.29%	.24%	.20%	.32%
Allowance for loan and lease losses to period-end loans	1.01	1.00	1.33	1.38	1.56
Allowance for credit losses to period-end loans	1.08	1.06	1.42	1.44	1.63
Allowance for loan and lease losses to nonperforming loans	174.4	137.3	205.7	190.0	166.9
Allowance for credit losses to nonperforming loans	185.7	146.1	220.2	198.3	174.2
Discontinued operations — education lending business:					
Loans charged off	$ 26	$ 28	$ 35	$ 45	$ 55
Recoveries	8	11	13	14	18
Net loan charge-offs	$ (18)	$ (17)	$ (22)	$ (31)	$ (37)

(a) See Figure 15 and the accompanying discussion in the "Loans and loans held for sale" section for more information related to our commercial and industrial loan portfolio.
(b) See Figure 16 and the accompanying discussion in the "Loans and loans held for sale" section for more information related to our commercial real estate loan portfolio.
(c) Included in "accrued expense and other liabilities" on the balance sheet.

Nonperforming assets

Figure 38 shows the composition of our nonperforming assets. As shown in Figure 38, nonperforming assets decreased $142 million during 2017. Most of the decrease came from our commercial and industrial loan portfolio centered in oil and gas exposures. These improvements were slightly offset by increases in nonperforming designations in our consumer portfolio as a result of regulatory guidance. See Note 1 ("Summary of Significant Accounting Policies") under the headings "Nonperforming Loans," "Impaired Loans," and "Allowance for Loan and Lease Losses" for a summary of our nonaccrual and charge-off policies.

Figure 38. Summary of Nonperforming Assets and Past Due Loans from Continuing Operations

December 31, *dollars in millions*	2017	2016	2015	2014	2013
Commercial and industrial	**$ 153**	$ 297	$ 82	$ 59	$ 77
Real estate — commercial mortgage	**30**	26	19	34	37
Real estate — construction	**2**	3	9	13	14
Total commercial real estate loans [a]	**32**	29	28	47	51
Commercial lease financing	**6**	8	13	18	19
Total commercial loans [b]	**191**	334	123	124	147
Real estate — residential mortgage	**58**	56	64	79	107
Home equity loans	**229**	223	190	195	220
Consumer direct loans	**4**	6	2	2	3
Credit cards	**2**	2	2	2	4
Consumer indirect loans	**19**	4	6	16	27
Total consumer loans	**312**	291	264	294	361
Total nonperforming loans [c]	**503**	625	387	418	508
Nonperforming loans held for sale	**—**	—	—	—	1
OREO	**31**	51	14	18	15
Other nonperforming assets	**—**	—	2	—	7
Total nonperforming assets [c]	**$ 534**	$ 676	$ 403	$ 436	$ 531
Accruing loans past due 90 days or more	**$ 89**	$ 87	$ 72	$ 96	$ 71
Accruing loans past due 30 through 89 days	**359**	404	208	235	318
Restructured loans — accruing and nonaccruing [d]	**317**	280	280	270	338
Restructured loans included in nonperforming loans [d]	**189**	141	159	157	214
Nonperforming assets from discontinued operations — education lending business	**7**	5	7	11	25
Nonperforming loans to period-end portfolio loans [c]	**.58%**	.73%	.65%	.73%	.93%
Nonperforming assets to period-end portfolio loans plus OREO and other nonperforming assets [c]	**.62**	.79	.67	.76	.97

(a) See Figure 16 and the accompanying discussion in the "Loans and loans held for sale" section for more information related to our commercial, real estate loan portfolio.
(b) See Figure 15 and the accompanying discussion in the "Loans and loans held for sale" section for more information related to our commercial loan portfolio.
(c) Nonperforming loan balances exclude $738 million, $865 million, $11 million, $13 million and $16 million of PCI loans at December 31, 2017, December 31, 2016, December 31, 2015, December 31, 2014, and December 31, 2013, respectively.
(d) Restructured loans (i.e., TDRs) are those for which Key, for reasons related to a borrower's financial difficulties, grants a concession to the borrower that it would not otherwise consider. See Note 6,("Asset Quality ") for more information on our TDRs.

Figure 39 shows the types of activity that caused the change in our nonperforming loans during each of the last four quarters and the years ended December 31, 2017, and December 31, 2016.

Figure 39. Summary of Changes in Nonperforming Loans from Continuing Operations

		2017 Quarters				
in millions	2017	Fourth	Third	Second	First	2016
Balance at beginning of period	**$ 625**	**$ 517**	**$ 507**	**$ 573**	**$ 625**	$ 387
Loans placed on nonaccrual status	**679**	**137**	**181**	**143**	**218**	778
Nonperforming loans acquired from First Niagara	**—**	**—**	**—**	**—**	**—**	119
Charge-offs	**(297)**	**(67)**	**(71)**	**(82)**	**(77)**	(258)
Loans sold	**(9)**	**—**	**(1)**	**—**	**(8)**	(20)
Payments	**(227)**	**(52)**	**(32)**	**(84)**	**(59)**	(145)
Transfers to OREO	**(37)**	**(8)**	**(10)**	**(8)**	**(11)**	(36)
Loans returned to accrual status	**(231)**	**(24)**	**(57)**	**(35)**	**(115)**	(200)
Balance at end of period [a]	**$ 503**	**$ 503**	**$ 517**	**$ 507**	**$ 573**	$ 625

(a) Nonperforming loan balances exclude $738 million and $865 million of PCI loans at December 31, 2017, and December 31, 2016, respectively.

Operational and compliance risk management

Like all businesses, we are subject to operational risk, which is the risk of loss resulting from human error or malfeasance, inadequate or failed internal processes and systems, and external events. These events include, among other things, threats to our cybersecurity, as we are reliant upon information systems and the Internet to conduct our business activities. Operational risk also encompasses compliance risk, which is the risk of loss from violations of, or noncompliance with, laws, rules and regulations, prescribed practices, and ethical standards. Under the Dodd-Frank Act, large financial companies like Key are subject to heightened prudential standards and regulation. This heightened level of regulation has increased our operational risk. Resulting operational risk losses

and/or additional regulatory compliance costs could take the form of explicit charges, increased operational costs, harm to our reputation, or foregone opportunities.

We seek to mitigate operational risk through identification and measurement of risk, alignment of business strategies with risk appetite and tolerance, and a system of internal controls and reporting. We continuously strive to strengthen our system of internal controls to improve the oversight of our operational risk and to ensure compliance with laws, rules, and regulations. For example, an operational event database tracks the amounts and sources of operational risk and losses. This tracking mechanism helps to identify weaknesses and to highlight the need to take corrective action. We also rely upon software programs designed to assist in assessing operational risk and monitoring our control processes. This technology has enhanced the reporting of the effectiveness of our controls to senior management and the Board.

The Operational Risk Management Program provides the framework for the structure, governance, roles, and responsibilities, as well as the content, to manage operational risk for Key. The Compliance Risk Committee serves the same function in managing compliance risk for Key. Primary responsibility for managing and monitoring internal control mechanisms lies with the managers of our various lines of business. The Operational Risk Committee and Compliance Risk Committee are senior management committees that oversee our level of operational and compliance risk and direct and support our operational and compliance infrastructure and related activities. These committees and the Operational Risk Management and Compliance functions are an integral part of our ERM Program. Our Risk Review function regularly assesses the overall effectiveness of our Operational Risk Management and Compliance Programs and our system of internal controls. Risk Review reports the results of reviews on internal controls and systems to senior management and the Risk and Audit Committees and independently supports the Risk Committee's oversight of these controls.

Cybersecurity

We maintain comprehensive Cyber Incident Response Plans, and we devote significant time and resources to maintaining and regularly updating our technology systems and processes to protect the security of our computer systems, software, networks, and other technology assets against attempts by third parties to obtain unauthorized access to confidential information, destroy data, disrupt or degrade service, sabotage systems, or cause other damage. We and many other U.S. financial institutions have experienced distributed denial-of-service attacks from technologically sophisticated third parties. These attacks are intended to disrupt or disable online banking services and prevent banking transactions. We also periodically experience other attempts to breach the security of our systems and data. These cyberattacks have not, to date, resulted in any material disruption of our operations or material harm to our customers, and have not had a material adverse effect on our results of operations.

Cyberattack risks may also occur with our third-party technology service providers, and may result in financial loss or liability that could adversely affect our financial condition or results of operations. Cyberattacks could also interfere with third-party providers' ability to fulfill their contractual obligations to us. Recent high-profile cyberattacks have targeted retailers, credit bureaus, and other businesses for the purpose of acquiring the confidential information (including personal, financial, and credit card information) of customers, some of whom are customers of ours. We may incur expenses related to the investigation of such attacks or related to the protection of our customers from identity theft as a result of such attacks. We may also incur expenses to enhance our systems or processes in order to protect our customers whose information may have been exposed through the recent breach of the Equifax credit bureau or other external security incidents. Risks and exposures related to cyberattacks are expected to remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats, as well as due to the expanding use of Internet banking, mobile banking, and other technology-based products and services by us and our clients.

Fourth Quarter Results

Figure 41 shows our financial performance for each of the past eight quarters. Highlights of our results for the fourth quarter of 2017 are summarized below.

Earnings

Our fourth quarter net income from continuing operations attributable to Key common shareholders was $181 million, or $.17 per Common Share, compared to $213 million, or $.20 per Common Share, for the fourth quarter of 2016.

On an annualized basis, our return on average total assets from continuing operations for the fourth quarter of 2017 was .57%, compared to .69% for the fourth quarter of 2016. The annualized return on average tangible common equity from continuing operations was 6.35% for the fourth quarter of 2017, compared to 7.88% for the year-ago quarter.

Net interest income

TE net interest income was $952 million for the fourth quarter of 2017, and the net interest margin was 3.09%, compared to TE net interest income of $948 million and a net interest margin of 3.12% for the fourth quarter of 2016, reflecting the benefit from higher interest rates and low deposit betas. The improvement in our TE net interest income was partially offset by a decline of $54 million of purchase account accretion related to the acquisition of First Niagara compared to the fourth quarter of 2016 and a shift in funding mix into certificates of deposit.

Noninterest income

Our noninterest income was $656 million for the fourth quarter of 2017, compared to $618 million for the year-ago quarter. Growth was largely driven by another record quarter of investment banking and debt placement fees, up $43 million from the year-ago period, related to the recent acquisition of Cain Brothers, as well as ongoing growth in our core franchise, including strength in commercial mortgage banking. Momentum continued in many fee-based businesses, as cards and payments income and trust and investment services income each grew $8 million from the year-ago period, as a result of higher credit card and merchant fees and strength in the equity markets, respectively. These increases were partially offset by a decline in other income, including $7 million of impairments of certain tax-advantaged assets, which were offset by a reduction of related income tax expense.

Noninterest expense

Our noninterest expense was $1.1 billion for the fourth quarter of 2017, compared to $1.2 billion for the fourth quarter of 2016, and included a number of notable items, including merger-related charges and the estimated impact of tax reform and related actions. Merger-related charges included $26 million of personnel expense and $30 million of non-personnel expense, mostly reflected in net occupancy, marketing and other expense. The fourth quarter of 2017 was the last quarter that merger charges related to the First Niagara acquisition will be reported. The estimated impact of tax reform and other related actions totaled $29 million in the fourth quarter of 2017, including the impairment of certain tax-advantaged assets, as well as a one-time additional contribution to employee retirement accounts.

Excluding notable items, noninterest expense was unchanged from the year-ago period. Expenses related to acquisitions and investments, including Cain Brothers, as well as higher operating lease expense were offset by the realization of First Niagara cost savings.

Provision for credit losses

Our provision for credit losses was $49 million for the fourth quarter of 2017, compared to $66 million for the fourth quarter of 2016. Our ALLL was $877 million, or 1.01% of total period-end loans, at December 31, 2017, compared to 1.00% at December 31, 2016.

Net loan charge-offs for the fourth quarter of 2017 totaled $52 million, or .24% of average total loans. These results compare to $72 million, or .34%, for the fourth quarter of 2016.

Income taxes

For the fourth quarter of 2017, we recorded a tax provision from continuing operations of $251 million, compared to a tax provision of $38 million for the fourth quarter of 2016. The effective tax rate for the fourth quarter of 2017 was 56.2%, compared to 14.1% for the same quarter one year ago, due to lower pretax income resulting from merger-related charges, increased energy tax credits associated with leasing activities, a reduction of valuation allowances related to capital loss carryforwards, and the TCJ Act. Our income tax provision increased $147 million, or 33%, compared to the same quarter one year ago due to the reduction to our net deferred tax asset and related actions associated with the TCJ Act. Accordingly, our tax provision from continuing operations, excluding the impacts of the TCJ Act, was $104 million and our effective tax rate was 23.2% for the quarter. Refer to Note 14 (“Income Taxes”), for more information on the impact of the TCJ Act.

Figure 41. Selected Quarterly Financial Data

	2017 Quarters				2016 Quarters			
dollars in millions, except per share amounts	**Fourth**	**Third**	**Second**	**First**	Fourth	Third	Second	First
FOR THE PERIOD								
Interest income	**$ 1,114**	**$ 1,109**	**$ 1,117**	**$ 1,050**	$ 1,062	$ 890	$ 684	$ 683
Interest expense	**176**	**161**	**144**	**132**	124	110	87	79
Net interest income	**938**	**948**	**973**	**918**	938	780	597	604
Provision for credit losses	**49**	**51**	**66**	**63**	66	59	52	89
Noninterest income	**656**	**592**	**653**	**577**	618	549	473	431
Noninterest expense	**1,098**	**992**	**995**	**1,013**	1,220	1,082	751	703
Income (loss) from continuing operations before income taxes	**447**	**497**	**565**	**419**	270	188	267	243
Income (loss) from continuing operations attributable to Key	**195**	**363**	**407**	**324**	233	171	199	187
Income (loss) from discontinued operations, net of taxes	**1**	**1**	**5**	**—**	(4)	1	3	1
Net income (loss) attributable to Key	**196**	**364**	**412**	**324**	229	172	202	188
Income (loss) from continuing operations attributable to Key common shareholders	**181**	**349**	**393**	**296**	213	165	193	182
Income (loss) from discontinued operations, net of taxes	**1**	**1**	**5**	**—**	(4)	1	3	1
Net income (loss) attributable to Key common shareholders	**182**	**350**	**398**	**296**	209	166	196	183
PER COMMON SHARE								
Income (loss) from continuing operations attributable to Key common shareholders	**$ .17**	**$ .32**	**$ .36**	**$ .28**	$ .20	$ .17	$ .23	$ .22
Income (loss) from discontinued operations, net of taxes	**—**	**—**	**—**	**—**	—	—	—	—
Net income (loss) attributable to Key common shareholders [a]	**.17**	**.32**	**.37**	**.28**	.20	.17	.23	.22
Income (loss) from continuing operations attributable to Key common shareholders — assuming dilution	**.17**	**.32**	**.36**	**.27**	.20	.16	.23	.22
Income (loss) from discontinued operations, net of taxes — assuming dilution	**—**	**—**	**—**	**—**	—	—	—	—
Net income (loss) attributable to Key common shareholders — assuming dilution [a]	**.17**	**.32**	**.36**	**.27**	.19	.17	.23	.22
Cash dividends paid	**.105**	**.095**	**.095**	**.085**	.085	.085	.085	.075
Book value at period end	**13.09**	**13.18**	**13.02**	**12.71**	12.58	12.78	13.08	12.79
Tangible book value at period end	**10.35**	**10.52**	**10.40**	**10.21**	9.99	10.14	11.81	11.52
Market price:								
High	**20.44**	**19.37**	**19.10**	**19.53**	18.62	12.64	13.08	13.37
Low	**17.64**	**16.47**	**16.91**	**16.54**	12.00	10.38	10.21	9.88
Close	**20.17**	**18.82**	**18.74**	**17.78**	18.27	12.17	11.05	11.04
Weighted-average Common Shares outstanding (000)	**1,062,348**	**1,073,390**	**1,076,203**	**1,068,609**	1,067,771	982,080	831,899	827,381
Weighted-average Common Shares and potential Common Shares outstanding (000) [b]	**1,079,330**	**1,088,841**	**1,093,039**	**1,086,540**	1,083,717	994,660	838,496	835,060
AT PERIOD END								
Loans	**$ 86,405**	**$ 86,492**	**$ 86,503**	**$ 86,125**	$ 86,038	$ 85,528	$ 62,098	$ 60,438
Earning assets	**123,490**	**122,625**	**121,243**	**120,261**	121,966	121,089	90,065	87,273
Total assets	**137,698**	**136,733**	**135,824**	**134,476**	136,453	135,805	101,150	98,402
Deposits	**105,235**	**103,446**	**102,821**	**103,982**	104,087	104,185	75,325	73,382
Long-term debt	**14,333**	**15,100**	**13,261**	**12,324**	12,384	12,622	11,388	10,760
Key common shareholders' equity	**13,998**	**14,224**	**14,228**	**13,951**	13,575	13,831	11,023	10,776
Key shareholders' equity	**15,023**	**15,249**	**15,253**	**14,976**	15,240	14,996	11,313	11,066
PERFORMANCE RATIOS — FROM CONTINUING OPERATIONS								
Return on average total assets	**.57%**	**1.07%**	**1.23%**	**.99%**	.69%	.55%	0.82%	0.80%
Return on average common equity	**5.04**	**9.74**	**11.12**	**8.76**	6.22	5.09	7.15	6.86
Return on average tangible common equity [c]	**6.35**	**12.21**	**13.80**	**10.98**	7.88	6.16	7.94	7.64
Net interest margin (TE)	**3.09**	**3.15**	**3.30**	**3.13**	3.12	2.85	2.76	2.89
Cash efficiency ratio [c]	**66.7**	**62.2**	**59.3**	**65.8**	76.2	80.0	69.0	66.6
PERFORMANCE RATIOS — FROM CONSOLIDATED OPERATIONS								
Return on average total assets	**.57%**	**1.06%**	**1.23%**	**.98%**	.67%	.55%	.82%	.79%
Return on average common equity	**5.07**	**9.77**	**11.26**	**8.76**	6.10	5.12	7.26	6.90
Return on average tangible common equity [c]	**6.39**	**12.25**	**13.98**	**10.98**	7.73	6.20	8.06	7.68
Net interest margin (TE)	**3.07**	**3.13**	**3.28**	**3.11**	3.09	2.83	2.74	2.83
Loan to deposit [d]	**84.4**	**86.2**	**87.2**	**85.6**	85.2	84.7	85.3	85.7
CAPITAL RATIOS AT PERIOD END								
Key shareholders' equity to assets	**10.91%**	**11.15%**	**11.23%**	**11.14%**	11.17%	11.04%	11.18%	11.25%
Key common shareholders' equity to assets	**10.17**	**10.40**	**10.48**	**10.37**	9.95	10.18	10.90	10.95
Tangible common equity to tangible assets [c]	**8.23**	**8.49**	**8.56**	**8.51**	8.09	8.27	9.95	9.97
Common Equity Tier 1	**10.16**	**10.26**	**9.91**	**9.91**	9.54	9.56	11.10	11.07
Tier 1 risk-based capital	**11.01**	**11.11**	**10.73**	**10.74**	10.89	10.53	11.41	11.38
Total risk-based capital	**12.92**	**13.09**	**12.64**	**12.69**	12.85	12.63	13.63	13.12
Leverage	**9.73**	**9.83**	**9.95**	**9.81**	9.90	10.22	10.59	10.73
TRUST ASSETS								
Assets under management	**$ 39,588**	**$ 38,660**	**$ 37,613**	**$ 37,417**	$ 36,592	$ 36,752	$ 34,535	$ 34,107
OTHER DATA								
Average full-time-equivalent employees	**18,379**	**18,548**	**18,344**	**18,386**	18,849	17,079	13,419	13,403
Branches	**1,197**	**1,208**	**1,210**	**1,216**	1,217	1,322	949	961

(a) EPS may not foot due to rounding.
(b) Assumes conversion of Common Share options and other stock awards and/or convertible preferred stock, as applicable.
(c) See Figure 42 entitled "Selected Quarterly GAAP to Non-GAAP Reconciliations," which presents the computations of certain financial measures related to "tangible common equity," and "cash efficiency." The table reconciles the GAAP performance measures to the corresponding non-GAAP measures, which provides a basis for period-to-period comparisons.
(d) Represents period-end consolidated total loans and loans held for sale divided by period-end consolidated total deposits.

Figure 42. Selected Quarterly GAAP to Non-GAAP Reconciliations

	Three months ended							
dollars in millions	12/31/2017	9/30/2017	6/30/2017	3/31/2017	12/31/2016	9/30/2016	6/30/2016	3/31/2016
Tangible common equity to tangible assets at period end								
Key shareholders' equity (GAAP)	$ 15,023	$ 15,249	$ 15,253	$ 14,976	$ 15,240	$ 14,996	$ 11,313	$ 11,066
Less: Intangible assets [(a)]	2,928	2,870	2,866	2,751	2,788	2,855	1,074	1,077
Preferred Stock [(b)]	1,009	1,009	1,009	1,009	1,640	1,150	281	281
Tangible common equity (non-GAAP)	$ 11,086	$ 11,370	$ 11,378	$ 11,216	$ 10,812	$ 10,991	$ 9,958	$ 9,708
Total assets (GAAP)	$ 137,698	$ 136,733	$ 135,824	$ 134,476	$ 136,453	$ 135,805	$ 101,150	$ 98,402
Less: Intangible assets [(a)]	2,928	2,870	2,866	2,751	2,788	2,855	1,074	1,077
Tangible assets (non-GAAP)	$ 134,770	$ 133,863	$ 132,958	$ 131,725	$ 133,665	$ 132,950	$ 100,076	$ 97,325
Tangible common equity to tangible assets ratio (non-GAAP)	8.23%	8.49%	8.56%	8.51%	8.09%	8.27%	9.95%	9.97%
Average tangible common equity								
Average Key shareholders' equity (GAAP)	$ 15,268	$ 15,241	$ 15,200	$ 15,184	$ 14,901	$ 13,552	$ 11,147	$ 10,953
Less: Intangible assets (average) [(c)]	2,939	2,878	2,756	2,772	2,874	2,255	1,076	1,079
Preferred Stock (average)	1,025	1,025	1,025	1,480	1,274	648	290	290
Average tangible common equity (non-GAAP)	$ 11,304	$ 11,338	$ 11,419	$ 10,932	$ 10,753	$ 10,649	$ 9,781	$ 9,584
Return on average tangible common equity from continuing operations								
Net income (loss) from continuing operations attributable to Key common shareholders (GAAP)	$ 181	$ 349	$ 393	$ 296	$ 213	$ 165	$ 193	$ 182
Average tangible common equity (non-GAAP)	11,304	11,338	11,419	10,932	10,753	10,649	9,781	9,584
Return on average tangible common equity from continuing operations (non-GAAP)	6.35%	12.21%	13.80%	10.98%	7.88%	6.16%	7.94%	7.64%
Return on average tangible common equity consolidated								
Net income (loss) attributable to Key common shareholders (GAAP)	$ 182	$ 350	$ 398	$ 296	$ 209	$ 166	$ 196	$ 183
Average tangible common equity (non-GAAP)	11,304	11,338	11,419	10,932	10,753	10,649	9,781	9,584
Return on average tangible common equity consolidated (non-GAAP)	6.39%	12.25%	13.98%	10.98%	7.73%	6.20%	8.06%	7.68%
Cash efficiency ratio								
Noninterest expense (GAAP)	$ 1,098	$ 992	$ 995	$ 1,013	$ 1,220	$ 1,082	$ 751	$ 703
Less: Intangible asset amortization (GAAP)	26	25	22	22	27	13	7	8
Adjusted noninterest expense (non-GAAP)	$ 1,072	$ 967	$ 973	$ 991	$ 1,193	$ 1,069	$ 744	$ 695
Net interest income (GAAP)	$ 938	$ 948	$ 973	$ 918	$ 938	$ 780	$ 597	$ 604
Plus: TE adjustment	14	14	14	11	10	8	8	8
Noninterest income (GAAP)	656	592	653	577	618	549	473	431
Total TE revenue (non-GAAP)	$ 1,608	$ 1,554	$ 1,640	$ 1,506	$ 1,566	$ 1,337	$ 1,078	$ 1,043
Cash efficiency ratio (non-GAAP)	66.7%	62.2%	59.3%	65.8%	76.2%	80.0%	69.0%	66.6%

(a) For the three months ended December 31, 2017, September 30, 2017, June 30, 2017, and March 31, 2017, intangible assets exclude $26 million, $30 million, $33 million, and $38 million, respectively, of period-end purchased credit card relationships. For the three months ended December 31, 2016, September 30, 2016, June 30, 2016, and March 31, 2016, intangible assets exclude $42 million, $51 million, $36 million, and $40 million, respectively, of period-end purchased credit card relationships.

(b) Net of capital surplus.

(c) For the three months ended December 31, 2017, September 30, 2017, June 30, 2017, and March 31, 2017, average intangible assets exclude $28 million, $32 million, $36 million, and $40 million, respectively, of average purchased credit card relationships. For the three months ended December 31, 2016, September 30, 2016, June 30, 2016, and March 31, 2016, average intangible assets exclude $46 million, $47 million, $38 million, and $42 million, respectively, of average purchased credit card relationships.

Critical Accounting Policies and Estimates

Our business is dynamic and complex. Consequently, we must exercise judgment in choosing and applying accounting policies and methodologies. These choices are critical; not only are they necessary to comply with GAAP, they also reflect our view of the appropriate way to record and report our overall financial performance. All accounting policies are important, and all policies described in Note 1 ("Summary of Significant Accounting Policies") should be reviewed for a greater understanding of how we record and report our financial performance.

In our opinion, some accounting policies are more likely than others to have a critical effect on our financial results and to expose those results to potentially greater volatility. These policies apply to areas of relatively greater business importance, or require us to exercise judgment and to make assumptions and estimates that affect amounts reported in the financial statements. Because these assumptions and estimates are based on current circumstances, they may prove to be inaccurate, or we may find it necessary to change them. The following is a description of our current critical accounting policies.

Allowance for loan and lease losses

The ALLL is calculated with the objective of maintaining a reserve sufficient to absorb estimated probable losses incurred in the loan portfolio. In determining the ALLL, we apply expected loss rates to existing loans with similar risk characteristics and exercise judgment to assess the impact of factors such as changes in economic conditions, underwriting standards, concentrations of credit, collateral values, and the amounts and timing of expected future cash flows. For all commercial and consumer TDRs, regardless of size, as well as all other impaired commercial loans with outstanding balances of $2.5 million or greater, we conduct further analysis to determine the probable loss and assign a specific allowance to the loan.

Our loss estimates include an assessment of internal and external influences on credit quality that may not be fully reflective in the historical loss, risk-rating, or other indicative data. The ALLL is sensitive to a variety of internal factors, such as modifications in the mix and level of loan balances outstanding, portfolio performance and assigned risk ratings. The ALLL is also sensitive to a variety of external factors, such as the general health of the economy, as evidenced by volatility in commodity prices, changes in real estate demand and values, interest rates, unemployment rates, bankruptcy filings, fluctuations in the GDP, and the effects of weather and natural disasters such as droughts, floods and hurricanes. Management considers these variables and all other available information when establishing the final level of the ALLL. These variables and others may result in actual loan losses that differ from the originally estimated amounts.

Since our loss rates are applied to large pools of loans, even minor changes in the level of estimated losses can significantly affect management's determination of the appropriate ALLL because those changes must be applied across a large portfolio. To illustrate, an increase in estimated losses equal to one-tenth of one percent of our consumer loan portfolio as of December 31, 2017, would indicate the need for a $24 million increase in the ALLL. The same increase in estimated losses for the commercial loan portfolio would result in a $63 million increase in the ALLL. Such adjustments to the ALLL can materially affect financial results. Following the above examples, a $24 million increase in the consumer loan portfolio allowance would have reduced our earnings on an after-tax basis by approximately $15 million, or $.01 per Common Share; a $63 million increase in the commercial loan portfolio allowance would have reduced earnings on an after-tax basis by approximately $39 million, or $.04 per Common Share.

Our accounting policy related to the ALLL is disclosed in Note 1 under the heading "Allowance for Loan and Lease Losses."

Fair value measurements

We measure or monitor many of our assets and liabilities on a fair value basis. Fair value is generally defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) as opposed to the price that would be paid to acquire the asset or received to assume the liability (an entry price), in an orderly transaction between market participants at the measurement date under current market conditions. While management uses judgment when determining the price at which willing market participants would transact when there has been a significant decrease in the volume or level of activity for the asset or liability in relation to "normal" market activity, management's objective is to determine the point within the range of fair value estimates that is most representative of a sale to a third-party investor under current market conditions. The value to us if the asset or liability were held to maturity is not included in the fair value estimates.

A fair value measure should reflect the assumptions that market participants would use in pricing the asset or liability, including the assumptions about the risk inherent in a particular valuation technique, the effect of a restriction on the sale or use of an asset and the risk of nonperformance. Fair value is measured based on a variety of inputs that we utilize. Fair value may be based on quoted market prices for identical assets or liabilities traded in active markets (Level 1 valuations). If market prices are not available, quoted market prices for similar instruments traded in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market are used (Level 2 valuations). Where observable market data is not available, the valuation is generated from model based techniques that use significant assumptions not observable in the market, but observable based on our specific data (Level 3 valuations). These unobservable assumptions reflect our own estimates for assumptions that market participants would use in pricing the asset or liability. Valuation techniques typically include option pricing models, discounted cash flow models and similar techniques, but may also include the use of market prices of assets or liabilities that are not directly comparable to the subject asset or liability.

The selection and weighting of the various fair value techniques may result in a fair value higher or lower than carrying value. Considerable judgment may be involved in determining the amount that is most representative of fair value.

For assets and liabilities recorded at fair value, our policy is to maximize the use of observable inputs and minimize the use of unobservable inputs when developing fair value measurements for those items where there is an active market. In certain cases, when market observable inputs for model-based valuation techniques may not be readily available, we are required to make judgments about assumptions market participants would use in estimating the fair value of the financial instrument. The models used to determine fair value adjustments are

regularly evaluated by management for relevance under current facts and circumstances.

Changes in market conditions may reduce the availability of quoted prices or observable data. For example, reduced liquidity in the capital markets or changes in secondary market activities could result in observable market inputs becoming unavailable. When market data is not available, we use valuation techniques requiring more management judgment to estimate the appropriate fair value.

Fair value is used on a recurring basis for certain assets and liabilities in which fair value is the primary measure of accounting. Fair value is used on a nonrecurring basis to measure certain assets or liabilities (including HTM securities, commercial loans held for sale, and OREO) for impairment or for disclosure purposes in accordance with current accounting guidance.

Impairment analysis also relates to long-lived assets, goodwill, and core deposit and other intangible assets. An impairment loss is recognized if the carrying amount of the asset is not likely to be recoverable and exceeds its fair value. In determining the fair value, management uses models and applies the techniques and assumptions previously discussed.

See Note 1 under the heading “Fair Value Measurements,” and in Note 7 (“Fair Value Measurements”) for a detailed discussion of determining fair value, including pricing validation processes.

Goodwill

The valuation and testing methodologies used in our analysis of goodwill impairment are summarized in Note 1 under the heading “Goodwill and Other Intangible Assets.” Accounting guidance permits an entity to first assess qualitative factors to determine whether additional goodwill impairment testing is required. We did not choose to utilize this qualitative assessment in our annual goodwill impairment testing in the fourth quarter of 2017. Therefore, the first step in goodwill impairment testing is to determine the fair value of each reporting unit. Our reporting units for purposes of the analysis are our two major business segments: Key Community Bank and Key Corporate Bank.

The amount of capital being allocated to our reporting units as a proxy for the carrying value is based on risk-based regulatory capital requirements. Fair values are estimated using an equal combination of market and income approaches. The market approach incorporates comparable public company multiples along with data related to recent merger and acquisition activity. The income approach consists of discounted cash flow modeling that utilizes internal forecasts and various other inputs and assumptions. A multi-year internal forecast is prepared for each reporting unit and a terminal growth rate is estimated for each one based on market expectations of inflation and economic conditions in the financial services industry. Earnings projections for both reporting units are adjusted for after tax cost savings expected to be realized by a market participant. The discount rate applied to our cash flows is derived from the Capital Asset Pricing Model (“CAPM”). The buildup to the discount rate includes a risk-free rate, 5-year adjusted beta based on peer companies, a market equity risk premium, a size premium and a company specific risk premium. The discount rates differ between our two reporting segments as they have different levels of risk. Key Corporate Bank generally has a higher discount rate due to a higher level of perceived risk related to its service offerings and asset mix. A sensitivity analysis is typically performed on key assumptions, such as the discount rates and cost savings estimates.

If the carrying amount of a reporting unit exceeds its fair value, goodwill impairment may be indicated. In such a case, we would perform the second step of goodwill impairment testing, and we would estimate a hypothetical purchase price for the reporting unit (representing the unit’s fair value). Then we would compare that hypothetical purchase price with the fair value of the unit’s net assets (excluding goodwill). Any excess of the estimated purchase price over the fair value of the reporting unit’s net assets represents the implied fair value of goodwill. If the carrying amount of the reporting unit’s goodwill exceeds the implied fair value of goodwill, the impairment loss represented by this difference is charged to earnings. We continue to monitor the impairment indicators for goodwill and other intangible assets, and to evaluate the carrying amount of these assets quarterly. Additional information is provided in Note 12 (“Goodwill and Other Intangible Assets”).

Derivatives and hedging

We primarily use interest rate swaps to hedge interest rate risk for asset and liability management purposes. These derivative instruments modify the interest rate characteristics of specified on-balance sheet assets and liabilities. Our accounting policies related to derivatives reflect the current accounting guidance, which provides that all derivatives should be recognized as either assets or liabilities on the balance sheet at fair value, after taking into account the effects of master netting agreements. Accounting for changes in the fair value (i.e., gains or losses) of a particular derivative depends on whether the derivative has been designated and qualifies as part of a hedging relationship, and further, on the type of hedging relationship.

The application of hedge accounting requires significant judgment to interpret the relevant accounting guidance, as well as to assess hedge effectiveness, identify similar hedged item groupings, and measure changes in the fair value of the hedged items. We believe our methods of addressing these judgments and applying the accounting guidance are consistent with both the guidance and industry practices. On January 1, 2018, we will early adopt revised derivative and hedging accounting guidance. For additional information on the adoption of this guidance, refer to the table in Note 1 under the heading “Accounting Guidance Pending Adoption on December 31, 2017”. Additional information relating to our use of derivatives is included in Note 1 under the heading “Derivatives,” and Note 9 (“Derivatives and Hedging Activities”).

Contingent liabilities, guarantees and income taxes

Note 22 (“Commitments, Contingent Liabilities, and Guarantees”) summarizes contingent liabilities arising from litigation and contingent liabilities arising from guarantees in various agreements with third parties under which we are a guarantor, and the potential effects of these items on the results of our operations. We record a liability for the fair value of the obligation to stand ready to perform over the term of a guarantee, but there is a risk that our actual future payments in the event of a default by the guaranteed party could exceed the recorded amount. See Note 22 (“Commitments, Contingent Liabilities, and Guarantees”) for a comparison of the liability recorded and the maximum potential undiscounted future payments for the various types of guarantees that we had outstanding at December 31, 2017.

It is not always clear how the Internal Revenue Code and various state tax laws apply to transactions that we undertake. In the normal course of business, we may record tax benefits and then have those benefits contested by the IRS or state tax authorities. We have provided tax reserves that we believe are adequate to absorb potential adjustments that such challenges may necessitate. However, if our judgment later proves to be inaccurate, the tax reserves may need to be adjusted, which could have an adverse effect on our results of operations and capital.

Additionally, we conduct quarterly assessments that determine the amount of deferred tax assets that are more-likely-than-not to be realized, and therefore recorded. The available evidence used in connection with these assessments includes taxable income in prior periods, projected future taxable income, potential tax-planning strategies, and projected future reversals of deferred tax items. These assessments are subjective and may change. Based on these criteria, and in particular our projections for future taxable income, we currently believe it is more-likely-than-not that we will realize our net deferred tax asset in future periods. However, if our assessments prove incorrect, they could have a material adverse effect on our results of operations in the period in which they occur. For further information on our accounting for income taxes, see Note 1 (“Summary of Significant Accounting Policies”) and Note 14 (“Income Taxes”).

During 2017, we did not significantly alter the manner in which we applied our critical accounting policies or developed related assumptions and estimates.

European Sovereign and Non-Sovereign Debt Exposures

Our total European sovereign and non-sovereign debt exposure is presented in Figure 43.

Figure 43. European Sovereign and Non-Sovereign Debt Exposures

December 31, 2017 *in millions*	Short- and Long-Term Commercial Total [a]	Foreign Exchange and Derivatives with Collateral [b]	Net Exposure
France:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	$ (2)	$ (2)
Non-sovereign non-financial institutions	$ 9	—	9
Total	9	(2)	7
Germany:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	(1)	(1)
Non-sovereign non-financial institutions	33	—	33
Total	33	(1)	32
Italy:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	—	—
Non-sovereign non-financial institutions	10	—	10
Total	10	—	10
Netherlands:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	—	—
Non-sovereign non-financial institutions	3	—	3
Total	3	—	3
Spain:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	—	—
Non-sovereign non-financial institutions	2	—	2
Total	2	—	2
Switzerland:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	(3)	(3)
Non-sovereign non-financial institutions	51	—	51
Total	51	(3)	48
United Kingdom:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	154	154
Non-sovereign non-financial institutions	34	—	34
Total	34	154	188
Other Europe: [c]			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	—	—
Non-sovereign non-financial institutions	1	—	1
Total	1	—	1
Total Europe:			
Sovereigns	—	—	—
Non-sovereign financial institutions	—	148	148
Non-sovereign non-financial institutions	143	—	143
Total	$ 143	$ 148	$ 291

(a) Represents our outstanding leases.
(b) Represents contracts to hedge our balance sheet asset and liability needs, and to accommodate our clients' trading and/or hedging needs. Our derivative mark-to-market exposures are calculated and reported on a daily basis. These exposures are largely covered by cash or highly marketable securities collateral with daily collateral calls.
(c) Other Europe consists of Austria, Belgium, Finland, and Sweden.

Our credit risk exposure is largely concentrated in developed countries with emerging market exposure essentially limited to commercial facilities; these exposures are actively monitored by management. We do not have at-risk exposures in the rest of the world.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information included under the caption "Risk Management — Market risk management" in the MD&A beginning on page 68 is incorporated herein by reference.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our financial performance for each of the past eight quarters is summarized in Figure 41 contained in the “Fourth Quarter Results” section in the MD&A.

Management's Annual Report on Internal Control over Financial Reporting

We are responsible for the preparation, content and integrity of the financial statements and other statistical data and analyses compiled for this annual report. The financial statements and related notes have been prepared in conformity with U.S. generally accepted accounting principles and reflect our best estimates and judgments. We believe the financial statements and notes present fairly our financial position, results of operations and cash flows in all material respects.

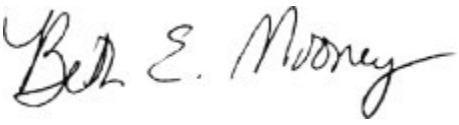
We are responsible for establishing and maintaining a system of internal control that is designed to protect our assets and the integrity of our financial reporting. This corporate-wide system of controls includes self-monitoring mechanisms and written policies and procedures, prescribes proper delegation of authority and division of responsibility, and facilitates the selection and training of qualified personnel.

All employees are required to comply with our code of ethics. We conduct an annual certification process to ensure that our employees meet this obligation. Although any system of internal control can be compromised by human error or intentional circumvention of required procedures, we believe our system provides reasonable assurance that financial transactions are recorded and reported properly, providing an adequate basis for reliable financial statements.

The Board of Directors discharges its responsibility for our financial statements through its Audit Committee. This committee, which draws its members exclusively from the non-management directors, also hires the independent registered public accounting firm.

Management's Assessment of Internal Control over Financial Reporting

We are responsible for establishing and maintaining adequate internal control over our financial reporting. We have assessed the effectiveness of our internal control and procedures over financial reporting using criteria described in "Internal Control — Integrated Framework," issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on that assessment, we believe we maintained an effective system of internal control over financial reporting as of December 31, 2017. Our independent registered public accounting firm has issued an attestation report, dated February 26, 2018, on our internal control over financial reporting, which is included in this annual report.



Beth E. Mooney
Chairman, Chief Executive Officer and President

Donald R. Kimble
Chief Financial Officer

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm on Internal Control over Financial Reporting

To the Shareholders and the Board of Directors of KeyCorp

Opinion on Internal Control over Financial Reporting

We have audited KeyCorp's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, KeyCorp maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of KeyCorp as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes of KeyCorp and our report dated February 26, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

KeyCorp'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 financial statements. Our responsibility is to express an opinion on KeyCorp's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to KeyCorp in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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. 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.

Cleveland, Ohio
February 26, 2018

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of KeyCorp

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of KeyCorp as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of KeyCorp at December 31, 2017 and 2016, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, 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) (PCAOB), KeyCorp’s internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 26, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of KeyCorp’s management. Our responsibility is to express an opinion on KeyCorp’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to KeyCorp in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as KeyCorp’s auditor since 1994.

Cleveland, Ohio

February 26, 2018

Consolidated Balance Sheets

December 31, *in millions, except per share data*	2017	2016
ASSETS		
Cash and due from banks	**$ 671**	$ 677
Short-term investments	**4,447**	2,775
Trading account assets	**836**	867
Securities available for sale	**18,139**	20,212
Held-to-maturity securities (fair value: $11,565 and $10,007)	**11,830**	10,232
Other investments	**726**	738
Loans, net of unearned income of $736 and $826	**86,405**	86,038
Allowance for loan and lease losses	**(877)**	(858)
Net loans	**85,528**	85,180
Loans held for sale [(a)]	**1,107**	1,104
Premises and equipment	**930**	978
Operating lease assets	**821**	540
Goodwill	**2,538**	2,446
Other intangible assets	**416**	384
Corporate-owned life insurance	**4,132**	4,068
Derivative assets	**669**	803
Accrued income and other assets	**3,568**	3,864
Discontinued assets	**1,340**	1,585
Total assets	**$ 137,698**	$ 136,453
LIABILITIES		
Deposits in domestic offices:		
NOW and money market deposit accounts	**$ 53,627**	$ 54,590
Savings deposits	**6,296**	6,491
Certificates of deposit ($100,000 or more)	**6,849**	5,483
Other time deposits	**4,798**	4,698
Total interest-bearing deposits	**71,570**	71,262
Noninterest-bearing deposits	**33,665**	32,825
Total deposits	**105,235**	104,087
Federal funds purchased and securities sold under repurchase agreements	**377**	1,502
Bank notes and other short-term borrowings	**634**	808
Derivative liabilities	**291**	636
Accrued expense and other liabilities	**1,803**	1,796
Long-term debt	**14,333**	12,384
Total liabilities	**122,673**	121,213
EQUITY		
Preferred stock	**1,025**	1,665
Common Shares, $1 par value; authorized 1,400,000,000 shares; issued 1,256,702,081 and 1,256,702,081 shares	**1,257**	1,257
Capital surplus	**6,335**	6,385
Retained earnings [(b)]	**10,335**	9,378
Treasury stock, at cost (187,617,832 and 177,388,429 shares)	**(3,150)**	(2,904)
Accumulated other comprehensive income (loss) [(b)]	**(779)**	(541)
Key shareholders' equity	**15,023**	15,240
Noncontrolling interests	**2**	—
Total equity	**15,025**	15,240
Total liabilities and equity	**$ 137,698**	$ 136,453

(a) Total loans held for sale include Real estate — residential mortgage loans held for sale at fair value of $71 million at December 31, 2017, and $62 million at December 31, 2016.
(b) These figures for December 31, 2017, have been revised from what has previously been disclosed in our earnings release on January 18, 2018, as a result of updated guidance from the FASB. See Note 1 ("Summary of Significant Accounting Policies") for more information.

See notes to Consolidated Financial Statements

Consolidated Statements of Income

Year ended December 31, *dollars in millions, except per share amounts*	2017	2016	2015
INTEREST INCOME			
Loans	**$ 3,677**	$ 2,773	$ 2,149
Loans held for sale	**52**	34	37
Securities available for sale	**369**	329	293
Held-to-maturity securities	**222**	122	96
Trading account assets	**27**	23	21
Short-term investments	**26**	22	8
Other investments	**17**	16	18
Total interest income	**4,390**	3,319	2,622
INTEREST EXPENSE			
Deposits	**278**	171	105
Federal funds purchased and securities sold under repurchase agreements	**1**	1	—
Bank notes and other short-term borrowings	**15**	10	9
Long-term debt	**319**	218	160
Total interest expense	**613**	400	274
NET INTEREST INCOME	**3,777**	2,919	2,348
Provision for credit losses	**229**	266	166
Net interest income after provision for credit losses	**3,548**	2,653	2,182
NONINTEREST INCOME			
Trust and investment services income	**535**	464	433
Investment banking and debt placement fees	**603**	482	445
Service charges on deposit accounts	**357**	302	256
Operating lease income and other leasing gains	**96**	62	73
Corporate services income	**219**	215	198
Cards and payments income	**287**	233	183
Corporate-owned life insurance income	**131**	125	127
Consumer mortgage income	**26**	17	12
Mortgage servicing fees	**71**	57	48
Net gains (losses) from principal investing	**7**	20	51
Other income[(a)]	**146**	94	54
Total noninterest income	**2,478**	2,071	1,880
NONINTEREST EXPENSE			
Personnel	**2,273**	2,073	1,652
Net occupancy	**331**	305	255
Computer processing	**225**	255	164
Business services and professional fees	**192**	235	159
Equipment	**114**	98	88
Operating lease expense	**92**	59	47
Marketing	**120**	101	57
FDIC assessment	**82**	61	32
Intangible asset amortization	**95**	55	36
OREO expense, net	**11**	9	6
Other expense	**563**	505	344
Total noninterest expense	**4,098**	3,756	2,840
INCOME (LOSS) FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	**1,928**	968	1,222
Income taxes	**637**	179	303
INCOME (LOSS) FROM CONTINUING OPERATIONS	**1,291**	789	919
Income (loss) from discontinued operations	**7**	1	1
NET INCOME (LOSS)	**1,298**	790	920
Less: Net income (loss) attributable to noncontrolling interests	**2**	(1)	4
NET INCOME (LOSS) ATTRIBUTABLE TO KEY	**$ 1,296**	$ 791	$ 916
Income (loss) from continuing operations attributable to Key common shareholders	**$ 1,219**	$ 753	$ 892
Net income (loss) attributable to Key common shareholders	**1,226**	754	893
Per Common Share:			
Income (loss) from continuing operations attributable to Key common shareholders	**1.13**	.81	1.06
Income (loss) from discontinued operations, net of taxes	**.01**	—	—
Net income (loss) attributable to Key common shareholders [(b)]	**1.14**	.81	1.06
Per Common Share — assuming dilution:			
Income (loss) from continuing operations attributable to Key common shareholders	**1.12**	.80	1.05
Income (loss) from discontinued operations, net of taxes	**.01**	—	—
Net income (loss) attributable to Key common shareholders [(b)]	**1.13**	.80	1.05
Cash dividends declared per Common Share	**.38**	.33	.29
Weighted-average Common Shares outstanding (000)	**1,072,078**	927,816	836,846
Effect of convertible preferred stock	**—**	—	—
Effect of Common Share options and other stock awards	**16,515**	10,720	7,643
Weighted-average Common Shares and potential Common Shares outstanding (000)[(c)]	**1,088,593**	938,536	844,489

(a) Net securities gains (losses) totaled less than $1 million for each of the years ended December 31, 2017, 2016, and 2015. For 2017, 2016, and 2015, we did not have any impairment losses related to securities.
(b) EPS may not foot due to rounding.
(c) Assumes conversion of Common Share options and other stock awards and/or convertible preferred stock, as applicable.

See Notes to Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

Year ended December 31, *in millions*	2017	2016	2015
Net income (loss)	**$ 1,298**	$ 790	$ 920
Other comprehensive income (loss), net of tax:			
Net unrealized gains (losses) on securities available for sale, net of income taxes of $13, ($76), and ($32)	**(126)**	(127)	(54)
Net unrealized gains (losses) on derivative financial instruments, net of income taxes of ($19), ($19), and $17	**(72)**	(34)	28
Foreign currency translation adjustments, net of income taxes of $9, ($1), and ($14)	**12**	(1)	(24)
Net pension and postretirement benefit costs, net of income taxes of $80, $19, and ($2)	**(52)**	26	1
Total other comprehensive income (loss), net of tax	**(238)**	(136)	(49)
Comprehensive income (loss)	**1,060**	654	871
Less: Comprehensive income attributable to noncontrolling interests	**2**	(1)	4
Comprehensive income (loss) attributable to Key	**$ 1,058**	$ 655	$ 867

See Notes to Consolidated Financial Statements.

Consolidated Statements of Changes in Equity

dollars in millions, except per share amounts	Key Shareholders' Equity								Noncontrolling Interests
	Preferred Shares Outstanding (000)	Common Shares Outstanding (000)	Preferred Stock	Common Shares	Capital Surplus	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Income (Loss)	
BALANCE AT DECEMBER 31, 2014	2,905	859,403	$ 291	$ 1,017	$ 3,986	$ 8,273	$ (2,681)	$ (356)	$ 12
Net income (loss)						916			4
Other comprehensive income (loss):								(49)	
Deferred compensation					11				
Cash dividends declared									
Common Shares ($.29 per share)						(244)			
Series A Preferred Stock ($7.75 per share)						(23)			
Common shares repurchased		(31,267)					(448)		
Series A Preferred Stock exchanged for common shares	(5)	33	(1)				1		
Common Shares reissued (returned) for stock options and other employee benefit plans		7,582			(75)		128		
Net contribution from (distribution to) noncontrolling interests									(3)
BALANCE AT DECEMBER 31, 2015	2,900	835,751	290	1,017	3,922	8,922	(3,000)	(405)	13
Net income (loss)						791			(1)
Other comprehensive income (loss):								(136)	
Deferred compensation					(4)				
Cash dividends declared									
Common Shares ($.33 per share)						(298)			
Series A Preferred Stock ($7.75 per share)						(22)			
Series C Preferred Stock ($.539063 per share)						(8)			
Series D Preferred Stock ($13.33 per share)						(7)			
Common Shares issued for the acquisition of FNFG		239,732		240	2,591				
Common Shares repurchased		(10,502)					(140)		
Issuance of Preferred Stock	14,521		1,375		(16)				
Common Shares reissued (returned) for stock options and other employee benefit plans		14,333			(108)		236		
Net contribution from (distribution to) noncontrolling interests									(12)
BALANCE AT DECEMBER 31, 2016	17,421	1,079,314	1,665	1,257	6,385	9,378	(2,904)	(541)	—
Net income (loss)						**1,296**			**2**
Other comprehensive income (loss):								**(238)**	
Reclassification of tax effects in AOCI resulting from the new federal corporate income tax rate						**141**			
Deferred compensation					**16**				
Cash dividends declared									
Common Shares ($.380 per share)						**(410)**			
Series A Preferred Stock ($1.9375 per share)						**(6)**			
Series C Preferred Stock ($.539063 per share)						**(7)**			
Series D Preferred Stock ($50.00 per share)						**(26)**			
Series E Preferred Stock ($1.544012 per share)						**(31)**			
Open market common share repurchases		**(36,140)**					**(665)**		
Employee equity compensation program Common Share repurchases		**(3,520)**					**(65)**		
Series A Preferred Stock exchanged for Common Shares	**(2,900)**	**20,568**	**(290)**		**(49)**		**338**		
Redemption of Series C Preferred Stock	**(14,000)**		**(350)**						
Common Shares reissued (returned) for stock options and other employee benefit plans		**8,862**			**(17)**		**146**		
Net contribution from (distribution to) noncontrolling interests									**—**
BALANCE AT DECEMBER 31, 2017	**521**	**1,069,084**	**$ 1,025**	**$ 1,257**	**$ 6,335**	**$ 10,335**	**$ (3,150)**	**$ (779)**	**$ 2**

See Notes to Consolidated Financial Statements.

Consolidated Statements of Cash Flows

Year ended December 31, *in millions*	2017	2016	2015
OPERATING ACTIVITIES			
Net income (loss)	**$ 1,298**	$ 790	$ 920
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Provision for credit losses	**229**	266	166
Depreciation and amortization expense, net	**407**	314	247
Accretion of acquired loans	**203**	116	—
Increase in cash surrender value of corporate-owned life insurance	**(119)**	(111)	(108)
Stock-based compensation expense	**100**	99	58
FDIC reimbursement (payments), net of FDIC expense	**(3)**	13	—
Deferred income taxes (benefit)	**303**	11	(76)
Proceeds from sales of loans held for sale	**11,963**	8,572	7,333
Originations of loans held for sale, net of repayments	**(11,846)**	(8,361)	(7,072)
Net losses (gains) from sale of loans held for sale	**(181)**	(139)	(103)
Net losses (gains) from principal investing	**(7)**	(20)	(51)
Net losses (gains) and writedown on OREO	**5**	4	4
Net losses (gains) on leased equipment	**3**	7	(6)
Net losses (gains) on sales of fixed assets	**24**	56	8
Net securities losses (gains)	**(1)**	—	—
Net decrease (increase) in trading account assets	**31**	(79)	(38)
Direct acquisition costs	**—**	(44)	—
Other operating activities, net	**(594)**	195	(151)
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	**1,815**	1,689	1,131
INVESTING ACTIVITIES			
Cash received (used) in acquisitions, net of cash acquired	**(144)**	(481)	—
Net decrease (increase) in short-term investments, excluding acquisitions	**(1,672)**	(68)	1,562
Purchases of securities available for sale	**(3,002)**	(5,718)	(4,090)
Proceeds from sales of securities available for sale	**915**	4,249	19
Proceeds from prepayments and maturities of securities available for sale	**3,999**	4,241	3,098
Proceeds from prepayments and maturities of held-to-maturity securities	**1,797**	1,627	1,102
Purchases of held-to-maturity securities	**(3,398)**	(6,968)	(988)
Purchases of other investments	**(87)**	(46)	(32)
Proceeds from sales of other investments	**117**	243	145
Proceeds from prepayments and maturities of other investments	**4**	4	8
Net decrease (increase) in loans, excluding acquisitions, sales and transfers	**(945)**	(3,580)	(2,951)
Proceeds from sales of portfolio loans	**183**	140	110
Proceeds from corporate-owned life insurance	**55**	29	46
Purchases of premises, equipment, and software	**(112)**	(145)	(75)
Proceeds from sales of premises and equipment	**—**	—	1
Proceeds from sales of OREO	**51**	16	22
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES	**(2,239)**	(6,457)	(2,023)
FINANCING ACTIVITIES			
Net increase (decrease) in deposits, excluding acquisitions	**1,148**	4,047	(952)
Net increase (decrease) in short-term borrowings	**(1,299)**	(1,294)	(93)
Net proceeds from issuance of long-term debt	**2,852**	2,827	3,756
Payments on long-term debt	**(748)**	(1,308)	(1,172)
Issuance of preferred shares	**—**	1,009	—
Repurchase of Common Shares	**(664)**	(140)	(448)
Employee equity compensation program Common Share repurchases	**(66)**	—	—
Redemption of Preferred Stock Series C	**(350)**	—	—
Net proceeds from reissuance of Common Shares	**25**	32	22
Cash dividends paid	**(480)**	(335)	(267)
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	**418**	4,838	846
NET INCREASE (DECREASE) IN CASH AND DUE FROM BANKS	**(6)**	70	(46)
CASH AND DUE FROM BANKS AT BEGINNING OF YEAR	**677**	607	653
CASH AND DUE FROM BANKS AT END OF YEAR	**$ 671**	$ 677	$ 607
Additional disclosures relative to cash flows:			
Interest paid	**$ 598**	$ 429	$ 329
Income taxes paid (refunded)	**6**	144	281
Noncash items:			
Preferred stock issued to acquire First Niagara	**—**	$ 350	—
Common stock issued to acquire First Niagara	**—**	2,831	—
Reduction of secured borrowing and related collateral	**$ 40**	67	$ 160
Loans transferred to portfolio from held for sale	**105**	10	1
Loans transferred to held for sale from portfolio	**42**	45	63
Loans transferred to other real estate owned	**37**	36	20
CMBS risk retentions	**18**	—	—
First Niagara assets acquired	**—**	35,616	—
First Niagara liabilities assumed	**—**	33,028	—

See Notes to Consolidated Financial Statements.

1. Summary of Significant Accounting Policies

Organization

We are one of the nation's largest bank-based financial services companies, with consolidated total assets of $137.7 billion at December 31, 2017. We provide deposit, lending, cash management, insurance, and investment services to individuals and small and medium-sized businesses through our subsidiary, KeyBank. We also provide a broad range of sophisticated corporate and investment banking products, such as merger and acquisition advice, public and private debt and equity, syndications, and derivatives to middle market companies in selected industries throughout the United States through our subsidiary, KBCM. As of December 31, 2017, KeyBank operated 1,197 full-service retail banking branches and 1,572 ATMs in 15 states, as well as additional offices, online and mobile banking capabilities, and a telephone banking call center. Additional information pertaining to our two major business segments, Key Community Bank and Key Corporate Bank, is included in Note 25 ("Line of Business Results").

Use of Estimates

Our accounting policies conform to GAAP and prevailing practices within the financial services industry. We must make certain estimates and judgments when determining the amounts presented in our consolidated financial statements and the related notes. If these estimates prove to be inaccurate, actual results could differ from those reported.

Basis of Presentation

The consolidated financial statements include the accounts of KeyCorp and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. Some previously reported amounts have been reclassified to conform to current reporting practices.

The consolidated financial statements include any voting rights entities in which we have a controlling financial interest. In accordance with the applicable accounting guidance for consolidations, we consolidate a VIE if we have: (i) a variable interest in the entity; (ii) the power to direct activities of the VIE that most significantly impact the entity's economic performance; and (iii) the obligation to absorb losses of the entity or the right to receive benefits from the entity that could potentially be significant to the VIE (i.e., we are considered to be the primary beneficiary). Variable interests can include equity interests, subordinated debt, derivative contracts, leases, service agreements, guarantees, standby letters of credit, loan commitments, and other contracts, agreements and financial instruments. See Note 13 ("Variable Interest Entities") for information on our involvement with VIEs.

We use the equity method to account for unconsolidated investments in voting rights entities or VIEs if we have significant influence over the entity's operating and financing decisions (usually defined as a voting or economic interest of 20% to 50%, but not controlling). Unconsolidated investments in voting rights entities or VIEs in which we have a voting or economic interest of less than 20% generally are carried at cost or fair value. Investments held by our registered broker-dealer and investment company subsidiaries (primarily principal investments) are carried at fair value.

In preparing these financial statements, subsequent events were evaluated through the time the financial statements were issued. Financial statements are considered issued when they are widely distributed to all shareholders and other financial statement users or filed with the SEC.

Statements of Cash Flows

Cash and due from banks are considered "cash and cash equivalents" for financial reporting purposes.

Loans

Loans held in portfolio, which management has the intent and ability to hold for the foreseeable future or until maturity or payoff, are carried at the principal amount outstanding, net of unearned income, including net deferred loan fees and costs and unamortized premiums and discounts. We defer certain nonrefundable loan origination and

commitment fees, and the direct costs of originating or acquiring loans. The net deferred amount is amortized over the estimated lives of the related loans as an adjustment to the yield.

Direct financing leases are carried at the aggregate of the lease receivable plus estimated unguaranteed residual values, less unearned income and deferred initial direct fees and costs. Unearned income on direct financing leases is amortized over the lease terms using a method approximating the interest method that produces a constant rate of return. Deferred initial direct fees and costs are amortized over the lease terms as an adjustment to the yield. The residual value component of a lease represents the fair value of the leased asset at the end of the lease term. We rely on industry data, historical experience, independent appraisals and the experience of the equipment leasing asset management team to value lease residuals. Relationships with a number of equipment vendors give the asset management team insight into the life cycle of the leased equipment, pending product upgrades and competing products.

Residual values are reviewed at least annually to determine if an other-than-temporary decline in value has occurred. In the event of such a decline, the residual value is adjusted to its fair value. Impairment charges and net gains or losses on sales of lease residuals are included in “other income” on the income statement.

Loans Held for Sale

Loans held for sale generally include certain residential and commercial mortgage loans and other commercial loans. Loans are initially classified as held for sale when they are individually identified as being available for immediate sale and a formal plan exists to sell them. Loans held for sale are recorded at either fair value, if elected, or the lower of cost or fair value. When a loan is originated as held-for-sale, we do not defer the related fees and costs. Our commercial loans (including commercial mortgage and non-mortgage loans), which we originated and intend to sell, are carried at the lower of aggregate cost or fair value. Beginning with the third quarter of 2016, we elected the fair value option for our consumer real estate - residential mortgages loans. Fair value is determined based on available market data for similar assets, expected cash flows, and appraisals of underlying collateral or the credit quality of the borrower. Subsequent declines in fair value for loans held for sale are recognized as a charge to “other income” on the income statement. Subsequent increases and decreases in fair value for loans elected to be measured at fair value are also recorded to “other income” on the income statement. Additional information regarding fair value measurements associated with our loans held for sale is provided in Note 7 (“Fair Value Measurements”).

We may transfer certain loans to held for sale at the lower of cost or fair value. If a loan is transferred from the loan portfolio to the held-for-sale category, any write-down in the carrying amount of the loan at the date of transfer is recorded as a reduction in the ALLL. When a loan is transferred into the held for sale category, we stop amortizing the related deferred fees and costs. The remaining unamortized fees and costs are recognized as part of the cost basis of the loan at the time it is sold. We may also transfer loans from held for sale to the loan portfolio held for investment. If a loan held for sale for which fair value accounting was elected is transferred to held for investment, it will continue to be accounted for at fair value in the loan portfolio. Additional information regarding our loans held for sale is provided in Note 5 (“Loans and Loans Held for Sale”).

Nonperforming Loans

Nonperforming loans are loans for which we do not accrue interest income, and include commercial and consumer loans and leases, as well as current year TDRs and nonaccruing TDR loans from prior years. Nonperforming loans do not include loans held for sale or PCI loans.

We generally classify commercial loans as nonperforming and stop accruing interest (i.e., designate the loan “nonaccrual”) when the borrower’s principal or interest payment is 90 days past due unless the loan is well-secured and in the process of collection. Commercial loans are also placed on nonaccrual status when payment is not past due but we have serious doubts about the borrower’s ability to comply with existing repayment terms. Once a loan is designated nonaccrual (and as a result assessed for impairment), the interest accrued but not collected generally is charged against the ALLL, and payments subsequently received generally are applied to principal. Commercial loans generally are charged off in full or charged down to the fair value of the underlying collateral when the borrower’s payment is 180 days past due.

We generally classify consumer loans as nonperforming and stop accruing interest when the borrower’s payment is 120 days past due, unless the loan is well-secured and in the process of collection. Any second lien home equity

loan with an associated first lien that is 120 days or more past due or in foreclosure, or for which the first mortgage delinquency timeframe is unknown, is reported as a nonperforming loan. Secured loans that are discharged through Chapter 7 bankruptcy and not formally re-affirmed are designated as nonperforming and TDRs. Our charge-off policy for most consumer loans takes effect when payments are 120 days past due. Home equity and residential mortgage loans generally are charged down to net realizable value when payment is 180 days past due. Credit card loans and similar unsecured products continue to accrue interest until the account is charged off at 180 days past due.

Commercial and consumer loans may be returned to accrual status if we are reasonably assured that all contractually due principal and interest are collectible and the borrower has demonstrated a sustained period (generally six months) of repayment performance under the contracted terms of the loan and applicable regulation.

Impaired Loans

A loan is considered to be impaired when, based on current information and events, it is probable that we will be unable to collect all amounts due (both principal and interest) according to the contractual terms of the loan agreement.

All commercial and consumer TDRs, regardless of size, and all non-accrual commercial loans with an outstanding balance of $2.5 million or greater are individually evaluated for impairment and assigned a specific reserve. Commercial non-accrual loans of less than $2.5 million and all non-accrual consumer loans are aggregated and collectively evaluated for impairment. The amount of the reserve is estimated based on the criteria outlined in the “Allowance for Loan and Lease Losses” section of this note.

Allowance for Loan and Lease Losses

The ALLL represents our estimate of incurred credit losses inherent in the loan portfolio at the balance sheet date. We establish the amount of this allowance by analyzing the quality of the loan portfolio at least quarterly, and more often if deemed necessary. We segregate our loan portfolio between commercial and consumer loans and develop and document our methodology to determine the ALLL accordingly. We believe these portfolio segments represent the most appropriate level for determining our historical loss experience, as well as the level at which we monitor credit quality and risk characteristics of the portfolios. Commercial loans, which generally have larger individual balances, constitute a significant portion of our total loan portfolio. The consumer portfolio typically includes smaller-balance homogeneous loans.

We estimate the appropriate level of our ALLL by applying expected loss rates to existing loans with similar risk characteristics. Expected loss rates for commercial loans are derived from a statistical analysis of our historical default and loss severity experience. The analysis utilizes probability of default and loss given default to assign loan grades using our internal risk rating system. Our expected loss rates are reviewed quarterly and updated as necessary. As of December 31, 2017, the probability of default ratings was based on our default data for the period from January 2008 through October 2017, which encompasses the last downturn period as well as our more recent positive credit experience. We adjust expected loss rates based on calculated estimates of the average time period from initial loss indication to the initial loss recorded for an individual loan.

Expected loss rates for consumer loans are statistically derived from an analysis of our historical default and loss severity experience, and is sensitive to change in delinquency status. Consumer loans are analyzed quarterly in homogeneous product-type pools that share similar risk attributes, including the application of delinquency roll rate models and credit loss severity estimates. Incurred losses that are not yet individually identifiable are measured as the estimate of the average time period for initial loss indication to initial loss recorded for consumer loans.

The ALLL may be adjusted to reflect our current assessment of many qualitative factors that may not be directly measured in the statistical analysis of expected loss, including:

- changes in international, national, regional, and local economic and business conditions;
- changes in the experience, ability, and depth of our lending management and staff;
- changes in lending policies and procedures, including changes in underwriting standards and collection, charge-off, and recovery practices;
- changes in the nature and volume of the loan portfolio, including the existence and effect of any concentrations of credit, and changes in the level of such concentrations;

- changes in the volume and/or severity of past due, nonaccrual, and adversely classified or graded loans; and
- external factors, such as competition, legal developments, and regulatory requirements.

For all commercial and consumer loan TDRs, regardless of size, as well as non-accrual commercial loans with an outstanding balance of $2.5 million or greater, we conduct further analysis to determine the probable loss content and assign a specific allowance to the loan if deemed appropriate. We estimate the extent of the individual impairment for commercial loans and TDRs by comparing the recorded investment of the loan with the estimated present value of its future cash flows, the fair value of its underlying collateral, or the loan's observable market price. Secured consumer loan TDRs that are discharged through Chapter 7 bankruptcy and not formally re-affirmed are adjusted to reflect the fair value of the underlying collateral, less costs to sell. Other consumer loan TDRs are assigned a specific allocation based on the estimated present value of future cash flows using the effective interest rate. A specific allowance also may be assigned — even when sources of repayment appear sufficient — if we remain uncertain about whether the loan will be repaid in full. On at least a quarterly basis, we evaluate the appropriateness of our loss estimation methods to reduce differences between estimated incurred losses and actual losses.

Liability for Credit Losses on Lending-Related Commitments

The liability for credit losses inherent in lending-related commitments, such as letters of credit and unfunded loan commitments, is included in "accrued expense and other liabilities" on the balance sheet. We establish the amount of this liability by considering both historical trends and current market conditions quarterly, or more often if deemed necessary.

Fair Value Measurements

Fair value is defined as the price to sell an asset or transfer a liability in an orderly transaction between market participants in our principal market. In other words, fair value represents an exit price at the measurement date. Market participants are buyers and sellers who are independent, knowledgeable, and willing and able to transact in the principal (or most advantageous) market for the asset or liability being measured. Current market conditions, including imbalances between supply and demand, are considered in determining fair value.

We value our assets and liabilities based on the principal market where each would be sold (in the case of assets) or transferred (in the case of liabilities). The principal market is the forum with the greatest volume and level of activity. In the absence of a principal market, valuation is based on the most advantageous market (i.e., the market where the asset could be sold at a price that maximizes the amount to be received or the liability transferred at a price that minimizes the amount to be paid). In the absence of observable market transactions, we consider liquidity valuation adjustments to reflect the uncertainty in pricing the instruments.

In measuring the fair value of an asset, we assume the highest and best use of the asset by a market participant — not just the intended use — to maximize the value of the asset. We also consider whether any credit valuation adjustments are necessary based on the counterparty's credit quality.

When measuring the fair value of a liability, we assume that the transfer will not affect the associated nonperformance risk. Nonperformance risk is the risk that an obligation will not be satisfied, and encompasses not only our own credit risk (i.e., the risk that we will fail to meet our obligation), but also other risks such as settlement risk (i.e., the risk that upon termination or sale, the contract will not settle). We consider the effect of our own credit risk on the fair value for any period in which fair value is measured.

There are three acceptable techniques for measuring fair value: the market approach, the income approach, and the cost approach. The appropriate technique for valuing a particular asset or liability depends on the exit market, the nature of the asset or liability being valued, and how a market participant would value the same asset or liability. Ultimately, selecting the appropriate valuation method requires significant judgment, and applying the valuation technique requires sufficient knowledge and expertise.

Valuation inputs refer to the assumptions market participants would use in pricing a given asset or liability. Inputs can be observable or unobservable. Observable inputs are assumptions based on market data obtained from an independent source. Unobservable inputs are assumptions based on our own information or assessment of assumptions used by other market participants in pricing the asset or liability. Our unobservable inputs are based on the best and most current information available on the measurement date.

All inputs, whether observable or unobservable, are ranked in accordance with a prescribed fair value hierarchy that gives the highest ranking to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest ranking to unobservable inputs (Level 3). Fair values for Level 2 assets or liabilities are based on one or a combination of the following factors: (i) quoted market prices for similar assets or liabilities; (ii) observable inputs, such as interest rates or yield curves; or (iii) inputs derived principally from or corroborated by observable market data. The level in the fair value hierarchy ascribed to a fair value measurement in its entirety is based on the lowest level input that is significant to the measurement. We consider an input to be significant if it drives 10% or more of the total fair value of a particular asset or liability. Assets and liabilities may transfer between levels based on the observable and unobservable inputs used at the valuation date, as the inputs may be influenced by certain market conditions. We recognize transfers between levels of the fair value hierarchy at the end of the reporting period.

Typically, assets and liabilities are considered to be fair valued on a recurring basis if fair value is measured regularly. However, if the fair value measurement of an instrument does not necessarily result in a change in the amount recorded on the balance sheet, assets and liabilities are considered to be fair valued on a nonrecurring basis. This generally occurs when we apply accounting guidance that requires assets and liabilities to be recorded at the lower of cost or fair value, or assessed for impairment.

At a minimum, we conduct our valuations quarterly. Additional information regarding fair value measurements and disclosures is provided in Note 7 (“Fair Value Measurements”).

Short-Term Investments

Short-term investments consist of segregated, interest-bearing deposits due from banks, the Federal Reserve, and certain non-U.S. banks as well as reverse repurchase agreements. Reverse repurchase agreements are further described under the “Repurchase agreements” heading in this section.

Trading Account Assets

Trading account assets are debt and equity securities, as well as commercial loans, that we purchase and hold but intend to sell in the near term. These assets are reported at fair value. Realized and unrealized gains and losses on trading account assets are reported in “other income” on the income statement.

Securities

Securities available for sale. Securities available for sale are securities that we intend to hold for an indefinite period of time but that may be sold in response to changes in interest rates, prepayment risk, liquidity needs, or other factors. Securities available for sale are reported at fair value. Unrealized gains and losses (net of income taxes) deemed temporary are recorded in equity as a component of AOCI on the balance sheet. Unrealized losses on equity securities deemed “other-than-temporary,” and realized gains and losses resulting from sales of securities using the specific identification method, are included in “other income” on the income statement. Unrealized losses on debt securities deemed “other-than-temporary” are included in “other income” on the income statement or in AOCI, as further described under the heading “Other-than-Temporary Impairments” in this note and in Note 8 (“Securities”).

“Other securities” held in the available-for-sale portfolio consist of marketable equity securities that are traded on a public exchange such as the NYSE or Nasdaq and convertible preferred stock of privately held companies.

Held-to-maturity securities. Held-to-maturity securities are debt securities that we have the intent and ability to hold until maturity. Debt securities are carried at cost and adjusted for amortization of premiums and accretion of discounts using the interest method. This method produces a constant rate of return on the adjusted carrying amount. “Other securities” held in the held-to-maturity portfolio consist of foreign bonds and capital securities.

Other Investments

Other investments include equity and mezzanine instruments, such as certain real estate-related investments that are carried at fair value, as well as other types of investments that generally are carried at cost. The carrying amounts of the investments carried at cost are adjusted for declines in value if they are considered to be other-than-temporary. These adjustments are included in “other income” on the income statement.

Other-than-Temporary Impairments

If the amortized cost of a debt security is greater than its fair value and we intend to sell it, or it is more-likely-than-not that we will be required to sell it, before the expected recovery of the amortized cost, then the entire impairment is recognized in earnings. If we have no intent to sell the security, or it is more-likely-than-not that we will not be required to sell it, before expected recovery, then the credit portion of the impairment is recognized in earnings, while the remaining portion attributable to factors such as liquidity and interest rate changes is recognized in equity as a component of AOCI on the balance sheet. The credit portion is equal to the difference between the cash flows expected to be collected and the amortized cost of the debt security.

Generally, if the amortized cost of an equity security is greater than its fair value by more than 20% consistently for more than six months, the difference is considered to be other-than-temporary.

Derivatives and Hedging

All derivatives are recognized as either “derivative assets” or “derivative liabilities” on the balance sheet at fair value. The net increase or decrease in derivatives is included in “other operating activities, net” within the statement of cash flows.

Accounting for changes in fair value (i.e., gains or losses) of derivatives differs depending on whether the derivative has been designated and qualifies as part of a hedge relationship, and further, on the type of hedge relationship. For derivatives that are not designated as hedging instruments, any gain or loss, as well as any premium paid or received, is recognized immediately in earnings in “corporate services income” and “other income” on the income statement. A derivative that is designated and qualifies as a hedging instrument must be designated as a fair value hedge, a cash flow hedge, or a hedge of a net investment in a foreign operation. We have only designated derivatives as hedging instruments.

A fair value hedge is used to limit exposure to changes in the fair value of existing assets, liabilities, and commitments caused by changes in interest rates or other economic factors. The effective portion of a change in the fair value of an instrument designated as a fair value hedge is recorded in earnings at the same time as a change in fair value of the hedged item, resulting in no effect on net income. The ineffective portion of a change in the fair value of such a hedging instrument is recognized in “other income” on the income statement, with no corresponding offset.

A cash flow hedge is used to minimize the variability of future cash flows that is caused by changes in interest rates or other economic factors. The effective portion of a gain or loss on a cash flow hedge is recorded as a component of AOCI on the balance sheet and reclassified to earnings in the same period in which the hedged transaction affects earnings (e.g., when we incur variable-rate interest on debt, earn variable-rate interest on loans, or sell commercial real estate loans). The ineffective portion of a cash flow hedge is included in “other income” on the income statement.

A net investment hedge is used to hedge the exposure of changes in the carrying value of investments as a result of changes in the related foreign exchange rates. The effective portion of a gain or loss on a net investment hedge is recorded as a component of AOCI on the balance sheet when the terms of the derivative match the notional and currency risk being hedged. The effective portion is subsequently reclassified into income when the hedged transaction affects earnings (e.g., when we dispose or liquidate a foreign subsidiary). The ineffective portion of a net investment hedge is included in “other income” on the income statement.

Hedge “effectiveness” is determined by the extent to which changes in the fair value of a derivative instrument offset changes in the fair value, cash flows, or carrying value attributable to the risk being hedged. If the relationship between the change in the fair value of the derivative instrument and the change in the hedged item falls within a range considered to be the industry norm, the hedge is considered “highly effective” and qualifies for hedge accounting. A hedge is “ineffective” if the relationship between the changes falls outside the acceptable range. In that case, hedge accounting is discontinued on a prospective basis. Hedge effectiveness is tested at least quarterly.

Additional information regarding the accounting for derivatives is provided in Note 9 (“Derivatives and Hedging Activities”).

Offsetting Derivative Positions

We take into account the impact of bilateral collateral and master netting agreements that allow us to settle all derivative contracts held with a single counterparty on a net basis, and to offset the net derivative position with the related cash collateral when recognizing derivative assets and liabilities. As a result, we could have derivative contracts with negative fair values included in derivative assets on the balance sheet and contracts with positive fair values included in derivative liabilities. Additional information regarding derivative offsetting is provided in Note 9 ("Derivatives and Hedging Activities").

Servicing Assets

We service commercial real estate and residential mortgages loans. Servicing assets and liabilities purchased or retained are initially measured at fair value and are recorded as a component of "accrued income and other assets" on the balance sheet. When no ready market value (such as quoted market prices, or prices based on sales or purchases of similar assets) is available to determine the fair value of servicing assets, fair value is determined by calculating the present value of future cash flows associated with servicing the loans. This calculation is based on a number of assumptions, including the market cost of servicing, the discount rate, the prepayment rate, and the default rate.

We remeasure our servicing assets using the amortization method at each reporting date. The amortization of servicing assets is determined in proportion to, and over the period of, the estimated net servicing income and recorded in "mortgage servicing fees" on the income statement.

Servicing assets are evaluated quarterly for possible impairment. This process involves stratifying the assets based upon one or more predominant risk characteristics and determining the fair value of each class. The characteristics may include financial asset type, size, interest rate, date of origination, term and geographic location. If the evaluation indicates that the carrying amount of the servicing assets exceeds their fair value, the carrying amount is reduced by recording a charge to income in the amount of such excess and establishing a valuation reserve allowance. Additional information pertaining to servicing assets is included in Note 10 ("Mortgage Servicing Assets").

Business Combinations

We account for our business combinations using the acquisition method of accounting. Under this accounting method, the acquired company's assets and liabilities are recorded at fair value at the date of acquisition, except as provided for by the applicable accounting guidance, and the results of operations of the acquired company are combined with Key's results from that date forward. Acquisition costs are expensed when incurred. The difference between the purchase price and the fair value of the net assets acquired (including identifiable intangible assets) is recorded as goodwill. Our accounting policy for intangible assets is summarized in this note under the heading "Goodwill and Other Intangible Assets."

Additional information regarding acquisitions is provided in Note 2 ("Business Combination") and Note 15 ("Acquisitions, Divestiture, and Discontinued Operations").

Goodwill and Other Intangible Assets

Goodwill represents the amount by which the cost of net assets acquired in a business combination exceeds their fair value. Goodwill is assigned to reporting units as of the acquisition date based on the expected benefit to such reporting unit from the synergies of the business combination. Goodwill is tested at the reporting unit level for impairment, at least annually as of October 1, or as events and circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount.

We may elect to perform a qualitative analysis to determine whether or not it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If we elect to bypass this qualitative analysis, or conclude via qualitative analysis that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying value, a two-step goodwill impairment test is performed. In the first step, the fair value of each reporting unit is compared with its carrying value. If the fair value is greater than the carrying value, then the reporting unit's goodwill is deemed not to be impaired. If the fair value is less than the carrying value, then the second step is performed,

which measures the amount of impairment by comparing the carrying amount of goodwill to its implied fair value. If the implied fair value of the goodwill exceeds the carrying amount, there is no impairment. If the carrying amount exceeds the implied fair value of the goodwill, an impairment charge is recorded for the excess.

Other intangible assets with finite lives are amortized on either an accelerated or straight-line basis and are evaluated for impairment whenever events or circumstances indicate that the carrying value of the asset may not be recoverable.

Additional information pertaining to goodwill and other intangible assets is included in Note 12 (“Goodwill and Other Intangible Assets”).

Purchased Loans

Purchased performing loans that do not have evidence of deterioration in credit quality at acquisition are recorded at fair value at the acquisition date. Any premium or discount associated with purchased performing loans is recognized as an expense or income based on the effective yield method of amortization for term loans or the straight-line method of amortization for revolving loans. Subsequent to the purchase date, the methods utilized to estimate the required ALLL for these loans is similar to originated loans; however, we record a provision for loan and lease losses only when the required ALLL exceeds any remaining purchase discount at the product level.

Purchased loans that have evidence of deterioration in credit quality since origination and for which it is probable, at acquisition, that all contractually required payments will not be collected, are deemed PCI. Revolving loans, including lines of credit and credit card loans, leases, and loans where cash flows cannot be reasonably estimated are excluded from PCI accounting. Purchased loans are initially recorded at fair value without recording an allowance for loan losses. Fair value of these loans is determined using market participant assumptions in estimating the amount and timing of both principal and interest cash flows expected to be collected, as adjusted for an estimate of future credit losses and prepayments, and then a market-based discount rate is applied to those cash flows. PCI loans that have similar risk characteristics, primarily credit risk, collateral type and interest rate risk, and are homogeneous in size, are pooled and accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows. PCI loans that cannot be aggregated into a pool are accounted for individually.

The excess of cash flows expected to be collected, measured as of the acquisition date, over the estimated fair value is referred to as the “accretable yield” and is recognized in interest income over the remaining life of the loan or pool using the effective yield method. Accordingly, PCI loans are not subject to classification as nonaccrual (and nonperforming) in the same manner as originated loans. Rather, acquired PCI loans are considered to be accruing loans because their interest income relates to the accretable yield recognized on the individual loan or pool and not to the contractual interest payments of the loan. The difference between the contractually required principal and interest payments as of the acquisition date and the cash flows expected to be collected is referred to as the “nonaccretable difference.” The nonaccretable difference, which is not accreted into income, reflects estimated future credit losses and uncollectible contractual payments over the life of the PCI loan.

After we acquire loans determined to be PCI loans, actual cash collections are monitored to determine if they conform to management’s expectations. Revised cash flow expectations are prepared each quarter. A decrease in expected cash flows in subsequent periods may indicate impairment and would require us to establish an ALLL by recording a charge to the provision for loan and lease losses. An increase in expected cash flows in subsequent periods initially reduces any previously established ALLL by the increase in the present value of cash flows expected to be collected, and requires us to recalculate the amount of accretable yield for the PCI loan or pool. The adjustment of accretable yield due to an increase in expected cash flows is accounted for as a change in estimate. The additional cash flows expected to be collected are reclassified from the nonaccretable difference to the accretable yield, and the amount of periodic accretion is adjusted accordingly over the remaining life of the PCI loan or pool.

A PCI loan may be derecognized either through receipt of payment (in full or in part) from the borrower, the sale of the loan to a third party, foreclosure of the collateral, or charge-off. If one of these events occurs, the loan is removed from the loan pool, or derecognized if it is accounted for as an individual loan. PCI loans subject to modification are not removed from a PCI pool even if those loans would otherwise be deemed TDRs since the pool, and not the individual loan, represents the unit of account. Individually accounted for PCI loans that are modified in a TDR are no longer classified as PCI loans and are subject to TDR recognition.

Premises and Equipment

Premises and equipment, including leasehold improvements, are stated at cost less accumulated depreciation and amortization. We determine depreciation of premises and equipment using the straight-line method over the estimated useful lives of the particular assets. Leasehold improvements are amortized using the straight-line method over the shorter of their economic lives or terms of the leases. Premises and equipment are evaluated for impairment whenever events or circumstances indicate that the carrying value of the asset may not be recoverable.

Securities Financing Activities

We enter into repurchase agreements to finance overnight customer sweep deposits. We also enter into repurchase and reverse repurchase agreements to settle other securities obligations. We account for these securities financing agreements as collateralized financing transactions. Repurchase and reverse repurchase agreements are recorded on the balance sheet at the amounts that the securities will be subsequently sold or repurchased. Securities borrowed transactions are recorded on the balance sheet at the amounts of cash collateral advanced. While our securities financing agreements incorporate a right of set off, the assets and liabilities are reported on a gross basis. Reverse repurchase agreements and securities borrowed transactions are included in "short-term investments" on the balance sheet; repurchase agreements are included in "federal funds purchased and securities sold under repurchase agreements." Fees received in connection with these transactions are recorded in interest income; fees paid are recorded in interest expense.

Additional information regarding guarantees is included in Note 16 ("Securities Financing Activities").

Guarantees

We recognize liabilities, which are included in "accrued expense and other liabilities" on the balance sheet, for the fair value of our obligations under certain guarantees issued.

If we receive a fee for a guarantee requiring liability recognition, the amount of the fee represents the initial fair value of the "stand ready" obligation. If there is no fee, the fair value of the stand ready obligation is determined using expected present value measurement techniques, unless observable transactions for comparable guarantees are available. The subsequent accounting for these stand ready obligations depends on the nature of the underlying guarantees. We account for our release from risk under a particular guarantee when the guarantee expires or is settled, or by a systematic and rational amortization method, depending on the risk profile of the guarantee.

Additional information regarding guarantees is included in Note 22 ("Commitments, Contingent Liabilities, and Guarantees") under the heading "Guarantees."

Revenue Recognition

We recognize revenues as they are earned based on contractual terms, as transactions occur, or as services are provided and collectability is reasonably assured. Our principal source of revenue is interest income from loans and investments. We also earn noninterest income from various banking and financial services offered through both the Corporate and Community banks.

Interest Income. The largest source of revenue for us is interest income. Interest income is primarily recognized on an accrual basis according to nondiscretionary formulas in written contracts, such as loan agreements or securities contracts.

Noninterest Income. We earn noninterest income through a variety of financial and transaction services provided to corporate and consumer clients. Revenue is recorded for noninterest income based on the contractual terms for the service or transaction performed. In certain circumstances, noninterest income is reported net of associated expenses.

Trust and Investment Services Income. Trust and investment services revenues include brokerage commissions, trust and asset management commissions, and insurance income.

Revenue from trade execution and brokerage services is earned through commissions from trade execution on behalf of clients. Revenue from these transactions is recognized at the trade date. Any ongoing service fees are recognized on a monthly basis as services are performed.

Trust and asset management services include asset custody and investment management services provided to individual and institutional customers. Revenue is recognized monthly based on a minimum annual fee, and the market value of assets in custody. Additional fees are recognized for transactional activity.

Insurance revenue is earned through commissions on insurance sales and third party administrative services. Based on the nature of the commission agreement with each insurance provider, we may recognize revenue from insurance commissions over-time or at a point in time. Revenue from third party administrative services is recognized over the life of the contract.

Investment Banking and Debt Placement Fees. Investment banking and debt placement fees primarily represent revenues earned by KeyBank Capital Markets for various corporate services including advisory, debt placement and underwriting. Revenues for these services are recorded at a point in time, upon completion of a contractually identified transaction, or when an advisory opinion is provided. Certain underwriting costs are presented net against underwriting revenues.

Service Charges on Deposit Accounts. Revenue from service charges on deposit accounts is earned through cash management, wire transfer, and other deposit-related services; as well as overdraft, non-sufficient funds, account management and other deposit-related fees. Revenue is recognized for these services either over time, corresponding with deposit accounts' monthly cycle, or at a point in time for transactional related services and fees.

Cards and Payments. Cards and payments income includes interchange fees from consumer credit and debit cards processed through card association networks, merchant services, and other card related services. Interchange rates are generally set by the credit card associations and based on purchase volumes and other factors. Interchange fees are recognized as transactions occur. Merchant services income represents account management fees and transaction fees charged to merchants for the processing of card association network transactions. Merchant services revenue is recognized as transactions occur, or as services are performed.

Corporate Services Income. Corporate services income includes various ancillary service revenue including letter of credit fees, loan fees, and certain capital markets' revenue. Revenue from these fees is recorded in a manner that reflects the timing of when transactions occur, and as services are provided.

Corporate-Owned Life Insurance Income. Income from corporate-owned life insurance primarily represents changes in the cash surrender value of life insurance policies held on certain key employees. Revenue is recognized in each period based on the change in the cash surrender value during the period.

Pension Costs

The Company utilizes its fiscal year-end as the measurement date for its pension and other postretirement employee benefit plans. At the measurement date, plan assets are determined based on fair value, generally representing observable market prices or the net asset value provided by the funds' trustee or administrator. The actuarial cost method used to compute the pension liabilities and related expense is the projected unit credit method. The projected benefit obligation is principally determined based on the present value of projected benefit distributions at an assumed discount rate. We determine the assumed discount rate based on the rate of return on a hypothetical portfolio of high quality corporate bonds with interest rates and maturities that provide the necessary cash flows to pay benefits when due. Periodic pension expense (or income) includes service costs, interest costs based on the assumed discount rate, the expected return on plan assets based on an actuarially derived market-related value and amortization of actuarial gains and losses. Pension accounting reflects the long-term nature of benefit obligations and the investment horizon of plan assets, and can have the effect of reducing earnings volatility related to short-term changes in interest rates and market valuations. Actuarial gains and losses include the impact of plan amendments and various unrecognized gains and losses which are deferred and amortized over the future service periods of active employees. We determine the expected return on plan assets using a calculated market-related value of plan assets that smooths what might otherwise be significant year-to-year volatility in net pension cost. Changes in the value of plan assets are not recognized in the year they occur. Rather, they are combined with any other cumulative unrecognized asset- and obligation-related gains and losses and reflected evenly in the market-related value during the five years after they occur as long as the market-related value does not vary more

than 10% from the plan's FVA. The overfunded or underfunded status of the plans is recorded as an asset or liability on the Consolidated Balance Sheet, with changes in that status recognized through other comprehensive income (loss).

Stock-Based Compensation

Stock-based compensation is measured using the fair value method of accounting on the grant date. The measured cost is recognized over the period during which the recipient is required to provide service in exchange for the award. We estimate expected forfeitures when stock-based awards are granted and record compensation expense only for awards that are expected to vest. Compensation expense related to awards granted to employees is recorded in "personnel expense" on the income statement while compensation expense related to awards granted to directors is recorded in "other expense."

We recognize compensation cost for stock-based, mandatory deferred incentive compensation awards using the accelerated method of amortization over a period of approximately 5 years (the current year performance period and a four-year vesting period, which generally starts in the first quarter following the performance period) for awards granted in 2012 and after.

Employee stock options typically become exercisable at the rate of 25% per year, beginning one year after the grant date. Options expire no later than 10 years after their grant date. We recognize stock-based compensation expense for stock options with graded vesting using an accelerated method of amortization.

We use shares repurchased under our annual capital plan submitted to our regulators (treasury shares) for share issuances under all stock-based compensation programs.

We estimate the fair value of options granted using the Black-Scholes option-pricing model, as further described in Note 17 ("Stock-Based Compensation").

Income Taxes

Deferred tax assets and liabilities are determined based on temporary differences between financial statement asset and liability amounts and their respective tax bases, and are measured using enacted tax laws and rates that are expected to apply in the periods in which the deferred tax assets or liabilities are expected to be realized. Deferred tax assets are also recorded for any tax attributes, such as tax credit and net operating loss carryforwards. The net balance of deferred tax assets and liabilities is reported in other assets or other liabilities in the consolidated balance sheets, as appropriate. Subsequent changes in the tax laws require adjustment to these assets and liabilities with the cumulative effect included in the provision for income taxes for the period in which the change is enacted. A valuation allowance is recognized for a DTA if, based on the weight of available evidence, it is more-likely-than-not that some portion or all of the DTA will not be realized.

Earnings Per Share

Basic net income per common share is calculated using the two-class method. The two-class method is an earnings allocation formula that determines earnings per share for each share of common stock and participating securities according to dividends declared (distributed earnings) and participation rights in undistributed earnings. Distributed and undistributed earnings are allocated between common and participating security shareholders based on their respective rights to receive dividends. Nonvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents are considered participating securities (e.g., nonvested service-based restricted stock units). Undistributed net losses are not allocated to nonvested restricted shareholders, as these shareholders do not have a contractual obligation to fund the incurred losses. Net income attributable to common shares is then divided by the weighted-average number of common shares outstanding during the period.

Diluted net income per common share is calculated using the more dilutive of either the treasury method or the two-class method. The dilutive calculation considers common stock issuable under the assumed exercise of stock options and service- and performance-based restricted stock and stock units granted under the our stock plans using the treasury stock method, if dilutive. It also considers the conversion of convertible preferred shares. Net income attributable to common shares is then divided by the total of weighted-average number of common shares and common stock equivalents outstanding during the period.

Accounting Guidance Adopted in 2017

Standard	Date of Adoption	Description	Effect on Financial Statements or Other Significant Matters
ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*	January 1, 2017	The ASU requires entities to recognize the income tax effects of share-based awards in the income statement when the awards vest or are settled (i.e. the additional paid-in capital pools will be eliminated). The guidance on employers' accounting for an employee's use of shares to satisfy the employer's statutory income tax withholding obligation and for forfeitures is changing. The standard also provides an entity the option to make an entity-wide accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur.	During the year ended December 31, 2017, the application of this guidance resulted in recognition of $28 million in excess tax benefits within "income taxes" on our income statement. Adoption did not materially affect our Consolidated Statements of Cash Flows, nor did it affect retained earnings as of the beginning of the period of adoption. We elected to retain our existing accounting policy of estimating award forfeitures upon the award's grant date.
ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220)	October 1, 2017	On December 22, 2017, the TCJ Act was signed into law. Under current U.S. GAAP, deferred tax assets and liabilities are to be adjusted for the effect of a change in tax laws or rates with the effect included in income from continuing operations in the reporting period that includes the enactment date. This accounting treatment resulted in the tax effect of items within accumulated other comprehensive income not reflecting the appropriate tax rate. This ASU allows stranded tax effects resulting from the TCJ Act to be reclassified from accumulated other comprehensive income to retained earnings.	We early adopted this guidance during the quarter ended December 31, 2017, resulting in a reclassification of $141 million from accumulated other comprehensive income to retained earnings to adjust the tax effect of items within accumulated other comprehensive income to reflect the newly enacted federal corporate income tax rate. Refer to Note 14, Income Taxes, for additional information.

Accounting Guidance Pending Adoption at December 31, 2017

Standard	Required Adoption	Description	Effect on Financial Statements or Other Significant Matters
ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* ASU 2015-14, *Deferral of Effective Date* ASU 2016-08, *Principal versus Agent Considerations* ASU 2016-10, *Identifying Performance Obligations and Licensing* ASU 2016-11, *Rescission of SEC Guidance because of Accounting Standard Updates 2014-09 and 2014-16 pursuant to Staff Announcements at the March 3, 2016 EITF Meeting* ASU 2016-12, *Narrow-scope Improvements and Practical Expedients*	January 1, 2018 Early adoption is permitted for interim and annual reporting periods beginning after December 15, 2016	These ASUs supersede the revenue recognition guidance in ASC 605, *Revenue Recognition,* and most industry-specific guidance. The core principle of these ASUs is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. These ASUs can be implemented using a retrospective method, or a cumulative-effect approach to new contracts and existing contracts with performance obligations as of the effective date.	We have identified the revenue line items within the scope of the new guidance and have finalized our contract testing related to trust and investment services income, investment banking and debt placement fees, service charges on deposit accounts, and cards and payments income. The new guidance will change our presentation of certain underwriting and credit and debit card related costs. Underwriting costs will change from a net presentation to a gross expense. Certain credit and debit card related costs will change from a gross presentation to a reduction in revenue. Additionally, we will expand our qualitative and quantitative disclosures pursuant to the new requirements Key will adopt using a cumulative-effect approach. The adoption of this accounting guidance will not have a material effect on our financial condition or results of operations.

Standard	Required Adoption	Description	Effect on Financial Statements or Other Significant Matters
ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*	January 1, 2018 Early adoption is not permitted, except under certain circumstances	The ASU amends ASC Topic 825, *Financial Instruments-Overall, and r*equires equity investments, except those accounted for under the equity method of accounting or consolidated, to be measured at fair value with changes recognized in net income. If there is no readily determinable fair value, the guidance allows entities the ability to measure investments at cost less impairment, whereby impairment is based on a qualitative assessment. The guidance eliminates the requirement to disclose the methods and significant assumptions used to estimate the fair value of financial instruments measured at amortized cost and changes the presentation of financial assets and financial liabilities on the balance sheet or in the footnotes. If an entity has elected the fair value option to measure liabilities, the new accounting guidance requires the portion of the change in the fair value of a liability resulting from credit risk to be presented in OCI. With the exception of disclosure requirements that will be adopted prospectively, the ASU must be adopted on a modified retrospective basis.	The adoption of this guidance will not have a material effect on our financial condition or results of operations.
ASU 2016-02, *Leases (Topic 842)*	January 1, 2019 Early adoption is permitted	The ASU creates ASC Topic 842, *Leases*, and supersedes Topic 840, *Leases*. The ASU requires that a lessee recognize assets and liabilities for leases with lease terms of more than 12 months. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. Leveraged leases that commenced before the effective date of the new guidance are grandfathered. The recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. However, the ASU will require both types of leases to be recognized on the balance sheet. It also requires disclosures to better understand the amount, timing, and uncertainty of cash flows arising from leases. These disclosures include qualitative and quantitative requirements, providing additional information about the amounts recorded in the financial statements. Upon transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach.	Key has formed a cross-functional team to oversee the implementation of this ASU. Implementation efforts are ongoing, including the review of our lease portfolios and related lease accounting policies, the review of our service contracts for embedded leases, and the deployment of a new lease software solution. Key's adoption of this ASU will result in an increase in right-of-use assets and associated lease liabilities, arising from operating leases in which Key is the lessee, on our Consolidated Balance Sheet. The amount of the right-of-use assets and associated lease liabilities recorded upon adoption will be based primarily on the present value of unpaid future minimum lease payments, the amount of which will depend on the population of leases in effect at the date of adoption. Key's minimum future rental payments under noncancelable operating leases would be measured and recognized when the new guidance is adopted (refer to Note 22 ("Commitments, Contingent Liabilities, and Guarantees"). While these leases represent a large majority of the leases that are within scope of the new leasing standard, we will continue to review service contracts up through the effective date and may identify additional leases embedded in those arrangements that will be within the scope of the new standard. In addition to final determination of the lease portfolio at the effective date, the initial measurement of the right-of-use asset and the corresponding liability will be affected by certain key assumptions such as expectations of renewals or extensions and the interest rate to be used to discount the future lease obligations. We do not expect the adoption of this guidance to have a material impact on our Consolidated Statements of Income.
ASU 2016-13 *Measurement of Credit Losses on Financial Instruments*	January 1, 2020 Early adoption is permitted as of January 1, 2019	The ASU amends ASC Topic 326, *Financial Instruments-Credit Losses, and* significantly changes how entities will measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The standard replaces today's "incurred loss" approach with an "expected loss" model for instruments such as loans and HTM securities that are measured at amortized cost. The standard requires credit losses relating to AFS debt securities to be recorded through an allowance rather than a reduction of the carrying amount. It also changes the accounting for purchased credit-impaired debt securities and loans. The ASU retains many of the current disclosure requirements in current GAAP and expands certain disclosure requirements.	This new guidance will affect the accounting for our loans, debt securities held to maturity and available for sale, and liabilities for credit losses on unfunded lending-related commitments as well as purchased financial assets with a more-than-insignificant amount of credit deterioration since origination. Key has formed a cross-functional implementation working group comprised of teams throughout Key, including finance and credit. The implementation team has developed a high-level project plan, is identifying and researching key interpretive issues, and is in the process of developing models that meet the requirements of the new guidance. The implementation team is also in the process of assessing forecast accuracy and potential macroeconomic factors that will be used to determine the reasonable and supportable forecast period. Key expects that the new guidance will generally result in an increase in its allowance for credit losses, as it will cover credit losses over the full remaining expected life of loans and commitments and will consider future changes in macroeconomic conditions. Since the magnitude of the anticipated increase in the allowance for credit losses will be impacted by economic conditions and trends in the Company's portfolio at the time of adoption, the quantitative impact cannot yet be reasonably estimated.

Standard	Required Adoption	Description	Effect on Financial Statements or Other Significant Matters
ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments.*	January 1, 2018 Early adoption is permitted	The ASU amends ASC Topic 230, *Statement of Cash Flows*, and clarifies how cash receipts and cash payments in certain transactions should be presented and classified in the statement of cash flows. These specific transactions include, but are not limited to, debt prepayment or extinguishment costs, contingent considerations made after a business combination, proceeds from the settlement of insurance claims, proceeds from the settlement of corporate-owned life insurance policies, and distributions from equity method investees. This guidance also clarifies that in instances of cash flows with multiple aspects that cannot be separately identified, classification should be based on the activity that is likely to be the predominant source of or use of cash flow. The guidance should be implemented using a retrospective approach.	The adoption of this accounting guidance will not have a material effect on the presentation of our Consolidated Statements of Cash Flows, as Key's current policies are either already in-line with the clarifications in the updated guidance, or the related cash flows are not material.
ASU 2017-04, *Simplifying the Test for Goodwill Impairment*	January 1, 2020 Early adoption is permitted	The ASU amends ASC Topic 350, *Intangibles - Goodwill and Other and* eliminates the second step of the test for goodwill impairment. Under the new guidance, entities will compare the fair value of a reporting unit with its carrying amount. If the carrying amount exceeds the reporting unit's fair value, the entity is required to recognize an impairment charge for this amount. The new method applies to all reporting units and the performance of a qualitative assessment is still allowable. The guidance should be implemented using a prospective approach.	The adoption of this accounting guidance is not expected to have a material effect on our financial condition or results of operations.
ASU 2017-05, *Other Income- Gains and Losses from the Derecognition of Nonfinancial Assets*	January 1, 2018 Early adoption is permitted	The ASU amends ASC Topic 610-20, *Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets* to clarify the scope of the Topic by clarifying the definition of the term "in substance nonfinancial asset" and also adding guidance for partial sales of nonfinancial assets. Under the new guidance, an entity will derecognize a nonfinancial asset when it does not have or ceases to have a controlling interest in the legal entity that holds the asset and when control of the asset has transferred in accordance with ASC 606. The ASU can be adopted on a retrospective or modified retrospective approach.	The adoption of this guidance will not have a material effect on our financial condition or results of operations.
ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*	January 1, 2018 Early adoption is permitted within the first interim period if the entity issues interim financial statements.	The ASU amends ASC Topic 715, *Compensation - Retirement Benefits*, and requires service costs to be included in the same line item as certain other compensation costs related to services rendered by employees. We record compensation costs under personnel expense on the income statement. Other elements of net benefit cost should be presented separately. The guidance should be implemented on a retrospective basis.	The adoption of this guidance will result in a reclassification of certain net benefit cost components from personnel expense to other expense on the income statement. There will be no material effect on our financial condition or results of operations.
ASU 2017-08, *Premium Amortization on Purchased Callable Debt Securities*	January 1, 2019 Early adoption is permitted.	The ASU amends ASC Topic 310-20, *Receivables — Nonrefundable Fees and Other Costs*, and shortens the amortization period to the earliest call date for certain callable debt securities held at a premium. Securities held at a discount will continue to be amortized to maturity. The guidance should be implemented on a modified retrospective basis using a cumulative-effect adjustment.	The adoption of this guidance is not expected to have a material effect on our financial condition or results of operations.
ASU 2017-09, *Scope of Modification Accounting*	January 1, 2018 Early adoption is permitted, including interim periods.	The ASU amends ASC Topic 718, *Compensation - Stock Compensation*, and clarifies when changes to terms and conditions for share-based payment awards should be accounted for as modifications. Under the new guidance, entities should apply the modification guidance unless the fair value of the modified award is the same as the fair value of the original award immediately before modification, the vesting conditions of the modified award are the same as the vesting conditions of the original award immediately before modification, and the classification of the modified award (as equity or liability instrument) is the same as the classification of the original award immediately before modification. The guidance should be applied on a prospective basis.	The adoption of this guidance will not have a material effect on our financial condition or results of operations.

Standard	Required Adoption	Description	Effect on Financial Statements or Other Significant Matters
ASU 2017-01, *Clarifying the Definition of a Business*	January 1, 2018 Early application is allowed for certain transactions.	The ASU amends Topic 805, *Business Combinations,* and clarifies the definition of a business and removes the requirement for a market participant to consider whether it could replace missing elements in an integrated set of assets and activities. The guidance states that if substantially all of the fair value of the assets acquired or disposed of is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. The guidance should be implemented using a prospective approach.	The adoption of this guidance will not have a material effect on our financial condition or results of operations.
ASU 2017-12, *Targeted Improvements to Accounting for Hedging Activities*	January 1, 2019 Early adoption is permitted, including interim periods. Key anticipates early adopting this standard as of January 1, 2018.	The ASU amends ASC Topic 815, *Derivatives and Hedging*, to simplify the requirements for hedge accounting and facilitate financial reporting that more closely aligns with an entity's risk management activities. Key amendments include: eliminating the requirement to separately measure and report hedge ineffectiveness, requiring changes in the value of the hedging instrument to be presented in the same income statement line as the earnings effect of the hedged item, and the ability to measure the hedged item based on the benchmark interest rate component of the total contractual coupon for fair value hedges. Additional disclosures are also required for reporting periods subsequent to the date of adoption. The guidance should be implemented on a modified retrospective basis to existing hedge relationships as of the adoption date.	We will adopt this ASU in the first quarter of 2018. Our financial statements for the quarter ended March 31, 2018, will include a cumulative-effect adjustment to opening retained earnings to reflect the application of the new guidance as of January 1, 2018. The primary impact to Key at adoption is the election to measure the change in fair value of the hedged item in fair value hedges on the basis of the benchmark interest rate component of contractual coupon cash flows. The cumulative-effect entry at adoption will reflect a cumulative basis adjustment for existing fair value hedges to be under the benchmark component approach. We expect adoption of this ASU to reduce hedge ineffectiveness going forward; however, we do not anticipate this guidance to have a material effect on our financial condition and results of operations.

2. Business Combination

First Niagara

On August 1, 2016 (the "Acquisition Date"), we acquired all of the outstanding common shares of First Niagara, the parent company of First Niagara Bank, for total consideration of approximately $4.0 billion and thereby acquired First Niagara Bank's approximately 390 branch locations across New York, Pennsylvania, Connecticut, and Massachusetts. The merger with First Niagara enabled us to expand in the New England market and into the Pennsylvania market, improve our core deposit base, and add additional scale in our banking operations. The results of First Niagara's operations are included in our consolidated financial statements from the Acquisition Date.

Under the terms of the merger agreement, each outstanding share of First Niagara common stock was converted into the right to receive 0.680 KeyCorp Common Shares and $2.30 in cash, for a total per share value of $10.26, based on the $11.70 closing price of KeyCorp's stock on July 29, 2016. In the aggregate, First Niagara stockholders received 240 million shares of KeyCorp common stock. Also under the terms of the merger agreement, First Niagara employee stock options and restricted stock awards converted into options to purchase and receive KeyCorp common stock. These options and restricted stock awards had a fair value of $26 million on the date of acquisition. Our methodology for valuing employee stock options is disclosed in Note 17 ("Stock-Based Compensation") under the heading "Stock Options." Our methodology for valuing restricted stock awards is disclosed in Note 17 ("Stock-Based Compensation") under the heading "Long-Term Incentive Compensation Program."

In addition, at the time of the merger, each share of First Niagara preferred stock, Series B, was converted into the right to receive a share of KeyCorp preferred stock, Series C, a newly created series of KeyCorp preferred stock. Additional information on this series of preferred stock is provided in Note 24 ("Shareholders' Equity").

On October 7, 2016, First Niagara Bank merged with and into KeyBank, with KeyBank as the surviving entity. Systems and client conversion also occurred during the fourth quarter of 2016 in connection with the bank merger.

The acquisition of First Niagara constituted a business combination and was accounted for under the acquisition method of accounting. Accordingly, the assets acquired, the liabilities assumed, and the consideration paid were recorded at their estimated fair value as of the acquisition date.

The following table provides the final purchase price calculation as of the Acquisition Date and the identifiable assets purchased and the liabilities assumed at their estimated fair value. These fair value measurements are based on internal and third-party valuations.

in millions

Consideration paid:		
KeyCorp common stock issued		$ 2,831
Cash payments to First Niagara stockholders		811
Exchange of First Niagara preferred stock for KeyCorp preferred stock		350
Total consideration paid		$ 3,992
Statement of Net Assets Acquired at Fair Value:		
ASSETS		
Cash and due from banks and short-term investments	$ 620	
Investment securities	9,012	
Other investments	297	
Loans	23,590	
Premises and equipment	245	
Other intangible assets	385	
Accrued income and other assets	1,467	
Total assets	$ 35,616	
LIABILITIES		
Deposits	$ 28,994	
Bank notes and other short-term borrowings	2,698	
Accrued expense and other liabilities	490	
Long-term debt	846	
Total liabilities	$ 33,028	
Net identifiable assets acquired		2,588
Goodwill		$ 1,404

Measurement Period Adjustments

We estimated the fair value of loans acquired from First Niagara by utilizing the discounted cash flow method within the income approach. This methodology aggregates the purchased loans by category and risk rating. Cash flows for each category were determined by estimating future credit losses and the rate of prepayments. Projected monthly cash flows were then discounted to present value based on a market rate for similar loans. There was no carryover of First Niagara's ALLL associated with the loans we acquired. The valuation was final at June 30, 2017.

The amounts reflected in the following table represent the change in the fair values of acquired assets as of June 30, 2017:

in millions

Acquired Asset or Liability	Balance Sheet Line Item	Provisional Estimate	Final	Increase (Decrease)
Loans	Loans	$ 23,645	$ 23,590	$ (55)
Tax adjustment on previous fair value measurement	Accrued income and other assets	1,449	1,467	18
Unfunded lending-related commitments	Accrued expense and other liabilities	67	65	(2)
Deferred compensation	Accrued expense and other liabilities	39	41	2

The finalization of the fair values also impacted various income statement line items on the Consolidated Statements of Income. The amounts shown in the table below represent the increase (decrease) in the respective line items for the previous reporting period had the final fair value been recorded at the Acquisition Date for the twelve months ended December 31, 2017.

in millions

Acquired Asset or Liability	Income Statement Line Item	Portion Related to Previous Reporting Period [(a)]
Loans	Interest income	$ 42
Loans	Provision for credit losses	1
Loans	Other noninterest income	(3)
Unfunded lending-related commitments	Other noninterest income	(4)

(a) Represents the change in amount that should have been reported compared to what was actually reported in the December 31, 2016, Consolidated Statements of Income.

Intangible assets consisted of the core deposit intangible, the commercial purchased credit card relationships, the consumer purchased credit card relationships, and other intangible assets. The core deposit intangible asset of $356 million recognized as part of the First Niagara merger is being amortized over its estimated useful life of approximately ten years utilizing an accelerated method. The commercial purchased credit card relationships recognized as part of the First Niagara merger are being amortized over their estimated useful life of approximately six years utilizing an accelerated method. The consumer purchased credit card relationships recognized as part of the First Niagara merger are being amortized over their estimated useful life of approximately nine years utilizing an accelerated method.

Goodwill of $1.4 billion was recorded as a result of the transaction and is not amortized for book purposes. $1.1 billion of goodwill was assigned to our Key Community Bank segment and $280 million of goodwill was assigned to our Key Corporate Bank segment. The goodwill recorded is not deductible for tax purposes. The following table shows the changes in the carrying amount of goodwill by reporting unit.

in millions	Key Community Bank	Key Corporate Bank	Total
BALANCE AT DECEMBER 31, 2015	$ 979	$ 81	$ 1,060
Acquisition of First Niagara	1,109	277	1,386
BALANCE AT DECEMBER 31, 2016	2,088	358	2,446
Tax adjustment on previous fair value measurements	(15)	(4)	(19)
Loan adjustment on previous fair value measurements	30	7	37
BALANCE AT JUNE 30, 2017	$ 2,103	$ 361	$ 2,464

Certificates of deposit were valued by projecting out the expected cash flows based on the contractual terms of the certificates of deposit. These cash flows were discounted based on a market rate for a certificate of deposit with a corresponding maturity. The fair values of savings and transaction deposit accounts acquired from First Niagara were assumed to approximate the carrying value as these accounts have no stated maturity and are payable on demand.

Direct acquisition costs related to the First Niagara acquisition were expensed as incurred and amounted to less than $1 million for the twelve months ended December 31, 2017, and $44 million for the twelve months ended December 31, 2016. Professional fees and charitable contributions comprised the majority of these direct acquisition costs, which also included franchise and business taxes and other noninterest expenses. These direct acquisition costs are part of our total merger-related charges.

The following table presents unaudited pro forma information as if the acquisition of First Niagara had occurred on January 1, 2015. This pro forma information gives effect to certain adjustments, including purchase accounting fair value adjustments, amortization of core deposit and other intangibles, and related income tax effects. Merger-related charges related to the First Niagara merger that we incurred during the twelve months ended December 31, 2016, and 2015, are not reflected in the unaudited pro forma amounts. The pro forma information does not necessarily reflect the results of operations that would have occurred had KeyCorp merged with First Niagara at the beginning of 2015. Cost savings are also not reflected in the unaudited pro forma amounts for the twelve months ended December 31, 2016, and 2015.

	Pro forma Twelve months ended December 31,	
in millions	2016	2015
Net interest income (TE)	$ 3,599	$ 3,564
Noninterest income	2,231	2,206
Net income (loss) attributable to common shareholders	1,161	1,187

For information on the Cain Brothers, HelloWallet Holdings, Inc., and KMS acquisitions, see Note 15 (“Acquisitions, Divestiture, and Discontinued Operations”).

3. Earnings Per Common Share

Basic earnings per share is the amount of earnings (adjusted for dividends declared on our preferred stock) available to each Common Share outstanding during the reporting periods. Diluted earnings per share is the amount of earnings available to each Common Share outstanding during the reporting periods adjusted to include the effects of potentially dilutive Common Shares. Potentially dilutive Common Shares include stock options and

other stock-based awards. Potentially dilutive Common Shares are excluded from the computation of diluted earnings per share in the periods where the effect would be antidilutive.

On March 20, 2017, all outstanding Series A Preferred Stock was converted into KeyCorp Common Shares. Prior to this conversion, for diluted earnings per share, net income available to common shareholders could have been affected by the conversion of our convertible Series A Preferred Stock. Where the effect of this conversion would have been dilutive, net income available to common shareholders was adjusted by the amount of preferred dividends associated with our Series A Preferred Stock.

Our basic and diluted earnings per Common Share are calculated as follows:

Year ended December 31, *dollars in millions, except per share amounts*	**2017**	**2016**	**2015**
EARNINGS			
Income (loss) from continuing operations	**$ 1,291**	$ 789	$ 919
Less: Net income (loss) attributable to noncontrolling interests	**2**	(1)	4
Income (loss) from continuing operations attributable to Key	**1,289**	790	915
Less: Dividends on preferred stock	**70**	37	23
Income (loss) from continuing operations attributable to Key common shareholders	**1,219**	753	892
Income (loss) from discontinued operations, net of taxes	**7**	1	1
Net income (loss) attributable to Key common shareholders	**$ 1,226**	$ 754	$ 893
WEIGHTED-AVERAGE COMMON SHARES			
Weighted-average Common Shares outstanding (000)	**1,072,078**	927,816	836,846
Effect of convertible preferred stock	**—**	—	—
Effect of common share options and other stock awards	**16,515**	10,720	7,643
Weighted-average common shares and potential Common Shares outstanding (000) [(a)]	**1,088,593**	938,536	844,489
EARNINGS PER COMMON SHARE			
Income (loss) from continuing operations attributable to Key common shareholders	**$ 1.13**	$ .81	$ 1.06
Income (loss) from discontinued operations, net of taxes	**.01**	—	—
Net income (loss) attributable to Key common shareholders [(b)]	**1.14**	.81	1.06
Income (loss) from continuing operations attributable to Key common shareholders — assuming dilution	**1.12**	.80	1.05
Income (loss) from discontinued operations, net of taxes	**.01**	—	—
Net income (loss) attributable to Key common shareholders — assuming dilution [(b)]	**1.13**	.80	1.05

(a) Assumes conversion of Common Share options and other stock awards and/or convertible preferred stock, as applicable.
(b) EPS may not foot due to rounding.

4. Restrictions on Cash, Dividends, and Lending Activities

Federal law requires a depository institution to maintain a prescribed amount of cash or deposit reserve balances with its Federal Reserve Bank. KeyBank maintained average reserve balances aggregating $349 million in 2017 to fulfill these requirements. Currently KeyBank meets the required reserve balances with vault cash, therefore any cash on deposit at the Federal Reserve is not restricted.

Capital distributions from KeyBank and other subsidiaries are our principal source of cash flows for paying dividends on our common and preferred shares, servicing our debt, and financing corporate operations. Federal banking law limits the amount of capital distributions that a bank can make to its holding company without prior regulatory approval. A national bank's dividend-paying capacity is affected by several factors, including net profits (as defined by statute) for the previous two calendar years and for the current year, up to the date the dividend is declared.

During 2017, KeyBank paid $750 million in dividends to KeyCorp. At January 1, 2018, KeyBank had regulatory capacity to pay $925 million in dividends to KeyCorp without prior regulatory approval. At December 31, 2017, KeyCorp held $2.3 billion in short-term investments, which can be used to pay dividends to shareholders, service debt, and finance corporate operations.

5. Loans and Loans Held for Sale

Our loans by category are summarized as follows:

December 31, *in millions*	2017	2016
Commercial and industrial [a]	$ 41,859	$ 39,768
Commercial real estate:		
Commercial mortgage	14,088	15,111
Construction	1,960	2,345
Total commercial real estate loans	16,048	17,456
Commercial lease financing [b]	4,826	4,685
Total commercial loans	62,733	61,909
Residential — prime loans:		
Real estate — residential mortgage	5,483	5,547
Home equity loans	12,028	12,674
Total residential — prime loans	17,511	18,221
Consumer direct loans	1,794	1,788
Credit cards	1,106	1,111
Consumer indirect loans	3,261	3,009
Total consumer loans	23,672	24,129
Total loans [c], [d]	$ 86,405	$ 86,038

(a) Loan balances include $119 million and $116 million of commercial credit card balances at December 31, 2017, and December 31, 2016, respectively.
(b) Commercial lease financing includes receivables of $24 million and $68 million held as collateral for a secured borrowing at December 31, 2017, and December 31, 2016, respectively. Principal reductions are based on the cash payments received from these related receivables. Additional information pertaining to this secured borrowing is included in Note 20 (“Long-Term Debt”).
(c) At December 31, 2017, total loans include purchased loans of $15.4 billion, of which $738 million were purchased credit impaired. At December 31, 2016, total loans include purchased loans of $21.0 billion, of which $865 million were purchased credit impaired.
(d) Total loans exclude loans in the amount of $1.3 billion at December 31, 2017, and $1.6 billion at December 31, 2016, related to the discontinued operations of the education lending business.

Our loans held for sale by category are summarized as follows:

December 31, *in millions*	2017	2016
Commercial and industrial	$ 139	$ 19
Real estate — commercial mortgage	897	1,022
Real estate — construction	—	1
Real estate — residential mortgage [a]	71	62
Total loans held for sale	$ 1,107	$ 1,104

(a) Real estate — residential mortgage loans held for sale at fair value at December 31, 2017. The fair value option was elected for real estate — residential mortgage loans held for sale during the third quarter of 2016 with the First Niagara acquisition. The contractual amount due on these loans totaled $71 million at December 31, 2017 and $62 million at December 31, 2016. Changes in fair value are recorded in "Consumer mortgage income" on the income statement. Additional information regarding residential mortgage loans held for sale fair value methodology is provided in Note 7 (“Fair Value Measurements”).

Our summary of changes in loans held for sale follows:

Year ended December 31, *in millions*	2017	2016
Balance at beginning of the period	$ 1,104	$ 639
Purchases	—	48
New originations	11,860	8,356
Transfers from (to) held to maturity, net	(63)	35
Loan sales	(11,780)	(7,979)
Loan draws (payments), net	(14)	5
Balance at end of period [a]	$ 1,107	$ 1,104

(a) Total loans held for sale include Real Estate - residential mortgage loans held for sale at fair value of $71 million at December 31, 2017.

Commercial lease financing receivables primarily are direct financing leases, but also include leveraged leases. The composition of the net investment in direct financing leases is as follows:

December 31, *in millions*	2017	2016
Direct financing lease receivables	$ 3,727	$ 3,468
Unearned income	(323)	(278)
Unguaranteed residual value	382	316
Deferred fees and costs	19	16
Net investment in direct financing leases	$ 3,805	$ 3,522

At December 31, 2017, minimum future lease payments to be received are as follows: 2018 — $1 billion; 2019 — $860 million; 2020 — $614 million; 2021 — $398 million; 2022 —$249 million; and all subsequent years — $467 million. The allowance related to lease financing receivables is $43 million at December 31, 2017.

6. Asset Quality

We assess the credit quality of the loan portfolio by monitoring net credit losses, levels of nonperforming assets and delinquencies, and credit quality ratings as defined by management.

Credit Quality Indicators

The prevalent risk characteristic for both commercial and consumer loans is the risk of loss arising from an obligor's inability or failure to meet contractual payment or performance terms. Evaluation of this risk is stratified and monitored by the loan risk rating grades assigned for the commercial loan portfolios and the regulatory risk ratings assigned for the consumer loan portfolios.

Most extensions of credit are subject to loan grading or scoring. Loan grades are assigned at the time of origination, verified by credit risk management, and periodically re-evaluated thereafter. This risk rating methodology blends our judgment with quantitative modeling. Commercial loans generally are assigned two internal risk ratings. The first rating reflects the probability that the borrower will default on an obligation; the second rating reflects expected recovery rates on the credit facility. Default probability is determined based on, among other factors, the financial strength of the borrower, an assessment of the borrower's management, the borrower's competitive position within its industry sector, and our view of industry risk in the context of the general economic outlook. Types of exposure, transaction structure, and collateral, including credit risk mitigants, affect the expected recovery assessment.

Commercial Credit Exposure — Excluding PCI
Credit Risk Profile by Creditworthiness Category [a], [b]

December 31,

in millions	Commercial and industrial		RE — Commercial		RE — Construction		Commercial Lease		Total	
RATING	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
Pass	**$ 39,833**	$ 37,845	**$ 13,328**	$ 14,308	**$ 1,894**	$ 2,287	**$ 4,730**	$ 4,632	**$ 59,785**	$ 59,072
Criticized (Accruing)	**1,790**	1,514	**482**	455	**38**	30	**90**	45	**2,400**	2,044
Criticized (Nonaccruing)	**153**	297	**30**	26	**2**	2	**6**	8	**191**	333
Total	**$ 41,776**	$ 39,656	**$ 13,840**	$ 14,789	**$ 1,934**	$ 2,319	**$ 4,826**	$ 4,685	**$ 62,376**	$ 61,449

(a) Credit quality indicators are updated on an ongoing basis and reflect credit quality information as of the dates indicated.
(b) The term criticized refers to those loans that are internally classified by Key as special mention or worse, which are asset quality categories defined by regulatory authorities. These assets have an elevated level of risk and may have a high probability of default or total loss. Pass rated refers to all loans not classified as criticized.

Consumer Credit Exposure – Excluding PCI
Non-PCI Loans by Refreshed FICO Score [a]

December 31,

in millions	Residential — Prime		Consumer direct loans		Credit cards		Consumer indirect loans		Total	
FICO SCORE	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
750 and above	**$ 10,226**	$ 9,818	**$ 519**	$ 498	**$ 477**	$ 453	**$ 1,472**	$ 1,266	**$ 12,694**	$ 12,035
660 to 749	**5,181**	5,266	**690**	661	**508**	525	**1,184**	1,195	**7,563**	7,647
Less than 660	**1,519**	1,617	**225**	194	**121**	132	**529**	543	**2,394**	2,486
No Score	**208**	1,122	**356**	428	**—**	1	**76**	5	**640**	1,556
Total	**$ 17,134**	$ 17,823	**$ 1,790**	$ 1,781	**$ 1,106**	$ 1,111	**$ 3,261**	$ 3,009	**$ 23,291**	$ 23,724

(a) Borrower FICO scores provide information about the credit quality of our consumer loan portfolio as they provide an indication as to the likelihood that a debtor will repay their debts. The scores are obtained from a nationally recognized consumer rating agency and are presented in the above table at the dates indicated.

Commercial Credit Exposure — PCI
Credit Risk Profile by Creditworthiness Category [a], [b]

December 31,

in millions	Commercial and industrial		RE — Commercial		RE — Construction		Commercial Lease		Total	
RATING	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
Pass	**$ 41**	$ 12	**$ 153**	$ 139	**$ 26**	$ 21	**—**	—	**$ 220**	$ 172
Criticized	**42**	100	**95**	183	**—**	5	**—**	—	**137**	288
Total	**$ 83**	$ 112	**$ 248**	$ 322	**$ 26**	$ 26	**—**	—	**$ 357**	$ 460

(a) Credit quality indicators are updated on an ongoing basis and reflect credit quality information as of the dates indicated.
(b) The term criticized refers to those loans that are internally classified by Key as special mention or worse, which are asset quality categories defined by regulatory authorities. These assets have an elevated level of risk and may have a high probability of default or total loss. Pass rated refers to all loans not classified as criticized.

Consumer Credit Exposure – PCI
PCI Loans by Refreshed FICO Score [a]

December 31,

in millions	Residential — Prime		Consumer direct loans		Credit cards		Consumer indirect loans		Total	
FICO SCORE	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
750 and above	**$ 149**	$ 133	**—**	—	**—**	—	**—**	—	**$ 149**	$ 133
660 to 749	**117**	127	**$ 2**	$ 2	**—**	—	**—**	—	**119**	129
Less than 660	**105**	133	**2**	4	**—**	—	**—**	—	**107**	137
No Score	**6**	5	**—**	1	**—**	—	**—**	—	**6**	6
Total	**$ 377**	$ 398	**$ 4**	$ 7	**—**	—	**—**	—	**$ 381**	$ 405

(a) Borrower FICO scores provide information about the credit quality of our consumer loan portfolio as they provide an indication as to the likelihood that a debtor will repay their debts. The scores are obtained from a nationally recognized consumer rating agency and are presented in the above table at the dates indicated.

Nonperforming and Past Due Loans

Our policies for determining past due loans, placing loans on nonaccrual, applying payments on nonaccrual loans, and resuming accrual of interest for our commercial and consumer loan portfolios are disclosed in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Nonperforming Loans.”

The following aging analysis of current and past due loans as of December 31, 2017, and December 31, 2016, provides further information regarding Key's credit exposure.

Aging Analysis of Loan Portfolio [a]

December 31, 2017 *in millions*	Current	30-59 Days Past Due [b]	60-89 Days Past Due [b]	90 and Greater Days Past Due [b]	Non-performing Loans	Total Past Due and Non-performing Loans	Purchased Credit Impaired	Total Loans [c], [d]
LOAN TYPE								
Commercial and industrial	$ 41,444	$ 111	$ 34	$ 34	$ 153	$ 332	$ 83	$ 41,859
Commercial real estate:								
Commercial mortgage	13,750	26	13	21	30	90	248	14,088
Construction	1,919	4	9	—	2	15	26	1,960
Total commercial real estate loans	15,669	30	22	21	32	105	274	16,048
Commercial lease financing	4,791	23	4	2	6	35	—	4,826
Total commercial loans	$ 61,904	$ 164	$ 60	$ 57	$ 191	$ 472	$ 357	$ 62,733
Real estate — residential mortgage	$ 5,043	$ 16	$ 7	$ 4	$ 58	$ 85	$ 355	$ 5,483
Home equity loans	11,721	32	15	9	229	285	22	12,028
Consumer direct loans	1,768	9	4	5	4	22	4	1,794
Credit cards	1,081	7	5	11	2	25	—	1,106
Consumer indirect loans	3,199	33	7	3	19	62	—	3,261
Total consumer loans	$ 22,812	$ 97	$ 38	$ 32	$ 312	$ 479	$ 381	$ 23,672
Total loans	$ 84,716	$ 261	$ 98	$ 89	$ 503	$ 951	$ 738	$ 86,405

(a) Amounts in table represent recorded investment and exclude loans held for sale. Recorded investment represents the face amount of the loan increased or decreased by applicable accrued interest, net deferred loan fees and costs, and unamortized premium or discount, and reflects direct charge-offs.
(b) Past due loan amounts exclude purchased impaired loans, even if contractually past due (or if we do not expect to collect principal or interest in full based on the original contractual terms), as we are currently accreting income over the remaining term of the loans.
(c) Net of unearned income, net deferred loan fees and costs, and unamortized discounts and premiums.
(d) Future accretable yield related to purchased credit impaired loans is not included in the analysis of the loan portfolio.

December 31, 2016 *in millions*	Current	30-59 Days Past Due [b]	60-89 Days Past Due [b]	90 and Greater Days Past Due [b]	Non-performing Loans	Total Past Due and Non-performing Loans	Purchased Credit Impaired	Total Loans [c], [d]
LOAN TYPE								
Commercial and industrial	$ 39,242	$ 58	$ 28	$ 31	$ 297	$ 414	$ 112	$ 39,768
Commercial real estate:								
Commercial mortgage	14,655	93	9	6	26	134	322	15,111
Construction	2,314	—	—	2	3	5	26	2,345
Total commercial real estate loans	16,969	93	9	8	29	139	348	17,456
Commercial lease financing	4,641	28	3	5	8	44	—	4,685
Total commercial loans	$ 60,852	$ 179	$ 40	$ 44	$ 334	$ 597	$ 460	$ 61,909
Real estate — residential mortgage	$ 5,098	$ 17	$ 5	$ 3	$ 56	$ 81	$ 368	$ 5,547
Home equity loans	12,327	49	29	16	223	317	30	12,674
Consumer direct loans	1,705	44	15	11	6	76	7	1,788
Credit cards	1,082	9	6	12	2	29	—	1,111
Consumer indirect loans	2,993	7	4	1	4	16	—	3,009
Total consumer loans	$ 23,205	$ 126	$ 59	$ 43	$ 291	$ 519	$ 405	$ 24,129
Total loans	$ 84,057	$ 305	$ 99	$ 87	$ 625	$ 1,116	$ 865	$ 86,038

(a) Amounts in table represent recorded investment and exclude loans held for sale. Recorded investment represents the face amount of the loan increased or decreased by applicable accrued interest, net deferred loan fees and costs, and unamortized premium or discount, and reflects direct charge-offs.
(b) Past due loan amounts exclude purchased impaired loans, even if contractually past due (or if we do not expect to collect principal or interest in full based on the original contractual terms), as we are currently accreting income over the remaining term of the loans.
(c) Net of unearned income, net deferred loan fees and costs, and unamortized discounts and premiums.
(d) Future accretable yield related to purchased credit impaired loans is not included in the analysis of the loan portfolio.

At December 31, 2017, the approximate carrying amount of our commercial nonperforming loans outstanding represented 71% of their original contractual amount owed, total nonperforming loans outstanding represented 80% of their original contractual amount owed, and nonperforming assets in total were carried at 80% of their original contractual amount owed.

Nonperforming loans reduced expected interest income by $25 million, $26 million, and $16 million for each of the twelve months ended December 31, 2017, December 31, 2016, and December 31, 2015, respectively.

Impaired Loans

The following tables set forth a further breakdown of individually impaired loans for the periods indicated are as follows:

December 31, 2017 *in millions*	Recorded Investment [(a)]	Unpaid Principal Balance [(b)]	Specific Allowance [(c)]
With no related allowance recorded:			
Commercial and industrial	$ 126	$ 153	—
Commercial real estate:			
Commercial mortgage	12	18	—
Construction	—	—	—
Total commercial real estate loans	12	18	—
Total commercial loans	138	171	—
Real estate — residential mortgage	17	17	—
Home equity loans	56	56	—
Consumer indirect loans	2	2	—
Total consumer loans	75	75	—
Total loans with no related allowance recorded	213	246	—
With an allowance recorded:			
Commercial and industrial	10	28	$ 6
Commercial real estate:			
Commercial mortgage	—	—	—
Total commercial real estate loans	—	—	—
Total commercial loans	10	28	6
Real estate — residential mortgage	32	32	5
Home equity loans	61	61	9
Consumer direct loans	4	4	—
Credit cards	2	2	—
Consumer indirect loans	32	32	3
Total consumer loans	131	131	17
Total loans with an allowance recorded	141	159	23
Total	$ 354	$ 405	$ 23

(a) The Recorded Investment represents the face amount of the loan increased or decreased by applicable accrued interest, net deferred loan fees and costs, and unamortized premium or discount, and reflects direct charge-offs. This amount is a component of total loans on our consolidated balance sheet.
(b) The Unpaid Principal Balance represents the customer's legal obligation to us.
(c) See Note 1 ("Summary of Significant Accounting Policies") under the heading "Impaired Loans" for a description of the specific allowance methodology.

December 31, 2016 *in millions*	Recorded Investment [a]	Unpaid Principal Balance [b]	Specific Allowance [c]
With no related allowance recorded:			
Commercial and industrial	$ 222	$ 301	—
Commercial real estate:			
Commercial mortgage	2	3	—
Total commercial real estate loans	2	3	—
Total commercial loans	224	304	—
Real estate — residential mortgage	20	20	—
Home equity loans	61	61	—
Consumer indirect loans	1	1	—
Total consumer loans	82	82	—
Total loans with no related allowance recorded	306	386	—
With an allowance recorded:			
Commercial and industrial	62	73	$ 17
Commercial real estate:			
Commercial mortgage	4	4	—
Total commercial real estate loans	4	4	—
Total commercial loans	66	77	17
Real estate — residential mortgage	31	31	2
Home equity loans	64	64	18
Consumer direct loans	2	3	—
Credit cards	3	3	—
Consumer indirect loans	29	29	1
Total consumer loans	129	130	21
Total loans with an allowance recorded	195	207	38
Total	$ 501	$ 593	$ 38

(a) The Recorded Investment represents the face amount of the loan increased or decreased by applicable accrued interest, net deferred loan fees and costs, and unamortized premium or discount, and reflects direct charge-offs. This amount is a component of total loans on our consolidated balance sheet.
(b) The Unpaid Principal Balance represents the customer's legal obligation to us.
(c) See Note 1 ("Summary of Significant Accounting Policies") under the heading "Impaired Loans" for a description of the specific allowance methodology.

The following table sets forth a further breakdown of average individually impaired loans reported by Key:

Average Recorded Investment [a] *in millions*	Twelve Months Ended December 31, 2017	2016	2015
Commercial and industrial	**$ 210**	$ 176	$ 56
Commercial real estate:			
Commercial mortgage	**9**	8	15
Construction	**—**	3	7
Total commercial real estate loans	**9**	11	22
Total commercial loans	**219**	187	78
Real estate — residential mortgage	**50**	53	55
Home equity loans	**121**	125	122
Consumer direct loans	**3**	3	4
Credit cards	**3**	3	4
Consumer indirect loans	**32**	34	42
Total consumer loans	**209**	218	227
Total	**$ 428**	$ 405	$ 305

(a) The Recorded Investment represents the face amount of the loan increased or decreased by applicable accrued interest, net deferred loan fees and costs, and unamortized premium or discount, and reflects direct charge-offs. This amount is a component of total loans on our consolidated balance sheet.

For the twelve months ended December 31, 2017, December 31, 2016, and December 31, 2015, interest income recognized on the outstanding balances of accruing impaired loans totaled $9 million, $10 million, and $6 million, respectively.

TDRs

We classify loan modifications as TDRs when a borrower is experiencing financial difficulties and we have granted a concession without commensurate financial, structural, or legal consideration. Acquired loans that were previously modified by First Niagara in a TDR are no longer classified as TDRs at the Acquisition Date. An acquired loan may only be classified as a TDR if a modification meeting the above TDR criteria is performed after the Acquisition Date. PCI loans cannot be classified as TDRs. All commercial and consumer loan TDRs, regardless of size, are individually evaluated for impairment to determine the probable loss content and are assigned a specific loan allowance. This designation has the effect of moving the loan from the general reserve methodology (i.e., collectively evaluated) to the specific reserve methodology (i.e., individually evaluated) and may impact the ALLL through a charge-off or increased loan loss provision. These components affect the ultimate allowance level.

As TDRs are individually evaluated for impairment under the specific reserve methodology, subsequent defaults do not generally have a significant additional impact on the ALLL. Commitments outstanding to lend additional funds to borrowers whose loan terms have been modified in TDRs are $2 million and $14 million at December 31, 2017, and December 31, 2016, respectively.

Our loan modifications are handled on a case-by-case basis and are negotiated to achieve mutually agreeable terms that maximize loan collectability and meet the borrower's financial needs. The commercial TDR other concession category includes modification of loan terms, covenants, or conditions. The consumer TDR other concession category primarily includes those borrowers' debts that are discharged through Chapter 7 bankruptcy and have not been formally re-affirmed. At December 31, 2017, and December 31, 2016, the recorded investment of consumer residential mortgage loans in the process of foreclosure was approximately $142 million and $141 million, respectively. At December 31, 2017, and December 31, 2016, we had $31 million and $51 million, respectively, of OREO which included the carrying value of foreclosed residential real estate of approximately $26 million and $29 million, respectively.

The following table shows the period-end post-modification outstanding recorded investment by concession type for our commercial and consumer accruing and nonaccruing TDRs added during the periods indicated:

	Twelve Months Ended December 31,		
in millions	**2017**	**2016**	**2015**
Commercial loans:			
Interest rate reduction	**—**	—	—
Forgiveness of principal	**—**	—	$ 22
Extension of maturity date	**$ 12**	—	21
Payment or covenant modification/deferment	**46**	$ 19	—
Bankruptcy plan modification	**31**	18	—
Total	**$ 89**	$ 37	$ 43
Consumer loans:			
Interest rate reduction	**$ 13**	$ 10	$ 19
Forgiveness of principal	**—**	3	4
Other	**28**	21	17
Total	**$ 41**	$ 34	$ 40
Total commercial and consumer TDRs	**$ 130**	$ 71	$ 83

The following table summarizes the change in the post-modification outstanding recorded investment of our accruing and nonaccruing TDRs during the periods indicated:

Year ended December 31, *in millions*	2017	2016
Balance at beginning of the period	**$ 280**	$ 280
Additions	**165**	107
Payments	**(111)**	(68)
Charge-offs	**(17)**	(39)
Balance at end of period [(a)]	**$ 317**	$ 280

A further breakdown of TDRs included in nonperforming loans by loan category for the periods indicated are as follows:

December 31, 2017 *dollars in millions*	Number of Loans	Pre-modification Outstanding Recorded Investment	Post-modification Outstanding Recorded Investment
LOAN TYPE			
Nonperforming:			
Commercial and industrial	20	$ 109	$ 86
Commercial real estate:			
Real estate — commercial mortgage	8	16	12
Total commercial real estate loans	8	16	12
Total commercial loans	28	125	98
Real estate — residential mortgage	308	18	18
Home equity loans	1,025	64	57
Consumer direct loans	114	2	2
Credit cards	322	2	1
Consumer indirect loans	825	16	13
Total consumer loans	2,594	102	91
Total nonperforming TDRs	2,622	227	189
Prior-year accruing: [(a)]			
Commercial and industrial	4	30	13
Total commercial loans	4	30	13
Real estate — residential mortgage	484	31	31
Home equity loans	1,276	75	59
Consumer direct loans	48	3	2
Credit cards	430	1	1
Consumer indirect loans	320	31	22
Total consumer loans	2,558	141	115
Total prior-year accruing TDRs	2,562	171	128
Total TDRs	5,184	$ 398	$ 317

(a) All TDRs that were restructured prior to January 1, 2017, and are fully accruing.

December 31, 2016 *dollars in millions*	Number of Loans	Pre-modification Outstanding Recorded Investment	Post-modification Outstanding Recorded Investment
LOAN TYPE			
Nonperforming:			
Commercial and industrial	18	$ 91	$ 50
Commercial real estate:			
Real estate — commercial mortgage	7	2	1
Total commercial real estate loans	7	2	1
Total commercial loans	25	93	51
Real estate — residential mortgage	264	16	16
Home equity loans	1,199	77	69
Consumer direct loans	32	1	—
Credit cards	336	2	2
Consumer indirect loans	124	4	3
Total consumer loans	1,955	100	90
Total nonperforming TDRs	1,980	193	141
Prior-year accruing: [(a)]			
Commercial and industrial	5	30	16
Total commercial loans	5	30	16
Real estate — residential mortgage	477	35	35
Home equity loans	1,231	70	57
Consumer direct loans	35	2	2
Credit cards	410	3	1
Consumer indirect loans	377	56	28
Total consumer loans	2,530	166	123
Total prior-year accruing TDRs	2,535	196	139
Total TDRs	4,515	$ 389	$ 280

(a) All TDRs that were restructured prior to January 1, 2016, and are fully accruing.

Commercial loan TDRs are considered defaulted when principal and interest payments are 90 days past due. Consumer loan TDRs are considered defaulted when principal and interest payments are more than 60 days past due. During the year ended December 31, 2017, there were no commercial loan TDRs and 147 consumer loan TDRs with a combined recorded investment of $4 million that experienced payment defaults after modifications resulting in TDR status during 2016. During the year ended December 31, 2016, there were no commercial loan TDRs and 187 consumer loan TDRs with a combined recorded investment of $9 million that experienced payment defaults after modifications resulting in TDR status during 2015. During the year ended December 31, 2015, there were two commercial loan TDRs with a combined recorded investment of $1 million, and 269 consumer loan TDRs with a combined recorded investment of $12 million that experienced payment defaults after modifications resulting in TDR status during 2014.

ALLL and Liability for Credit Losses on Unfunded Lending-Related Commitments

We determine the appropriate level of the ALLL on at least a quarterly basis. The methodology is described in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Allowance for Loan and Lease Losses.”

The ALLL on the acquired non-impaired loan portfolio is estimated using the same methodology as the originated portfolio, however, the estimated ALLL is compared to the remaining accretable yield to determine if an ALLL must be recorded. For PCI loans, Key estimates cash flows expected to be collected quarterly. Decreases in expected cash flows are recognized as impairment through a provision for loan and lease losses and an increase in the ALLL. There was $3 million of provision for loan and lease losses on these PCI loans during the year ended December 31, 2017. There was $11 million of provision for loan and lease losses on these PCI loans during the year ended December 31, 2016.

The ALLL at December 31, 2017, represents our best estimate of the incurred credit losses inherent in the loan portfolio at that date. A summary of the changes in the ALLL for the periods indicated is presented in the table below:

December 31, *in millions*	2017	2016	2015
Balance at beginning of period — continuing operations	**$ 858**	$ 796	$ 794
Charge-offs	**(302)**	(261)	(203)
Recoveries	**94**	56	61
Net loans and leases charged off	**(208)**	(205)	(142)
Provision for loan and lease losses from continuing operations	**227**	267	145
Foreign currency translation adjustment	**—**	—	(1)
Balance at end of period — continuing operations	**$ 877**	$ 858	$ 796

The changes in the ALLL by loan category for the periods indicated are as follows:

in millions	December 31, 2016	Provision	Charge-offs	Recoveries	December 31, 2017
Commercial and industrial	$ 508	**$ 114**	**$ (133)**	**$ 40**	**$ 529**
Real estate — commercial mortgage	144	**(2)**	**(11)**	**2**	**133**
Real estate — construction	22	**9**	**(2)**	**1**	**30**
Commercial lease financing	42	**9**	**(14)**	**6**	**43**
Total commercial loans	716	**130**	**(160)**	**49**	**735**
Real estate — residential mortgage	17	**(11)**	**(3)**	**4**	**7**
Home equity loans	54	**4**	**(30)**	**15**	**43**
Consumer direct loans	24	**32**	**(34)**	**6**	**28**
Credit cards	38	**45**	**(44)**	**5**	**44**
Consumer indirect loans	9	**27**	**(31)**	**15**	**20**
Total consumer loans	142	**97**	**(142)**	**45**	**142**
Total ALLL — continuing operations	858	**227** [(a)]	**(302)**	**94**	**877**
Discontinued operations	24	**10**	**(26)**	**8**	**16**
Total ALLL — including discontinued operations	$ 882	**$ 237**	**$ (328)**	**$ 102**	**$ 893**

(a) Excludes a provision for losses on lending-related commitments of $2 million.

in millions	December 31, 2015	Provision	Charge-offs	Recoveries	December 31, 2016
Commercial and industrial	$ 450	$ 165	$ (118)	$ 11	$ 508
Real estate — commercial mortgage	134	6	(5)	9	144
Real estate — construction	25	4	(9)	2	22
Commercial lease financing	47	4	(12)	3	42
Total commercial loans	656	179	(144)	25	716
Real estate — residential mortgage	18	2	(4)	1	17
Home equity loans	57	13	(30)	14	54
Consumer direct loans	20	26	(27)	5	24
Credit cards	32	37	(35)	4	38
Consumer indirect loans	13	10	(21)	7	9
Total consumer loans	140	88	(117)	31	142
Total ALLL — continuing operations	796	267 [(a)]	(261)	56	858
Discontinued operations	28	13	(28)	11	24
Total ALLL — including discontinued operations	$ 824	$ 280	$ (289)	$ 67	$ 882

(a) Excludes a credit for losses on lending-related commitments of $1 million.

in millions	December 31, 2014	Provision	Charge-offs	Recoveries	December 31, 2015
Commercial and industrial	$ 391	$ 120	$ (77)	$ 16	$ 450
Real estate — commercial mortgage	148	(16)	(4)	6	134
Real estate — construction	28	(3)	(1)	1	25
Commercial lease financing	56	(5)	(11)	7	47
Total commercial loans	623	96	(93)	30	656
Real estate — residential mortgage	23	(2)	(6)	3	18
Home equity loans	71	7	(32)	11	57
Consumer direct loans	22	16	(24)	6	20
Credit cards	33	27	(30)	2	32
Consumer indirect loans	22	—	(18)	9	13
Total consumer loans	171	48	(110)	31	140
Total ALLL — continuing operations	794	144 [(a)]	(203)	61	796
Discontinued operations	29	21	(35)	13	28
Total ALLL — including discontinued operations	$ 823	$ 165	$ (238)	$ 74	$ 824

(a) Includes a $1 million foreign currency translation adjustment. Excludes a provision for losses on lending-related commitments of $21 million.

A breakdown of the individual and collective ALLL and the corresponding loan balances for the periods indicated are as follows:

	Allowance				Outstanding		
December 31, 2017 *in millions*	Individually Evaluated for Impairment	Collectively Evaluated for Impairment	Purchased Credit Impaired	Loans	Individually Evaluated for Impairment	Collectively Evaluated for Impairment	Purchased Credit Impaired
Commercial and industrial	$ 6	$ 520	$ 3	$ 41,859	$ 136	$ 41,640	$ 83
Commercial real estate:							
Commercial mortgage	—	131	2	14,088	12	13,828	248
Construction	—	30	—	1,960	—	1,934	26
Total commercial real estate loans	—	161	2	16,048	12	15,762	274
Commercial lease financing	—	43	—	4,826	—	4,826	—
Total commercial loans	6	724	5	62,733	148	62,228	357
Real estate — residential mortgage	5	2	—	5,483	49	5,079	355
Home equity loans	9	33	1	12,028	117	11,889	22
Consumer direct loans	—	28	—	1,794	4	1,786	4
Credit cards	—	44	—	1,106	2	1,104	—
Consumer indirect loans	3	17	—	3,261	34	3,227	—
Total consumer loans	17	124	1	23,672	206	23,085	381
Total ALLL — continuing operations	23	848	6	86,405	354	85,313	738
Discontinued operations	3	13	—	1,314 [(a)]	21	1,293 [(a)]	—
Total ALLL — including discontinued operations	$ 26	$ 861	$ 6	$ 87,719	$ 375	$ 86,606	$ 738

(a) Amount includes $2 million of loans carried at fair value that are excluded from ALLL consideration.

	Allowance				Outstanding		
December 31, 2016 *in millions*	Individually Evaluated for Impairment	Collectively Evaluated for Impairment	Purchased Credit Impaired	Loans	Individually Evaluated for Impairment	Collectively Evaluated for Impairment	Purchased Credit Impaired
Commercial and industrial	$ 17	$ 486	$ 5	$ 39,768	$ 284	$ 39,372	$ 112
Commercial real estate:							
Commercial mortgage	—	144	—	15,111	5	14,784	322
Construction	—	22	—	2,345	—	2,319	26
Total commercial real estate loans	—	166	—	17,456	5	17,103	348
Commercial lease financing	—	42	—	4,685	—	4,685	—
Total commercial loans	17	694	5	61,909	289	61,160	460
Real estate — residential mortgage	2	15	—	5,547	51	5,128	368
Home equity loans	17	37	—	12,674	125	12,519	30
Consumer direct loans	—	24	—	1,788	3	1,778	7
Credit cards	—	38	—	1,111	3	1,108	—
Consumer indirect loans	1	8	—	3,009	30	2,979	—
Total consumer loans	20	122	—	24,129	212	23,512	405
Total ALLL — continuing operations	37	816	5	86,038	501	84,672	865
Discontinued operations	2	22	—	1,565 [(a)]	22	1,543 [(a)]	—
Total ALLL — including discontinued operations	$ 39	$ 838	$ 5	$ 87,603	$ 523	$ 86,215	$ 865

(a) Amount includes $3 million of loans carried at fair value that are excluded from ALLL consideration.

The liability for credit losses inherent in lending-related unfunded commitments, such as letters of credit and unfunded loan commitments, is included in "accrued expense and other liabilities" on the balance sheet. We establish the amount of this reserve by considering both historical trends and current market conditions quarterly, or more often if deemed necessary.

Changes in the liability for credit losses on unfunded lending-related commitments are summarized as follows:

Year ended December 31, *in millions*	**2017**	**2016**	**2015**
Balance at beginning of period	**$ 55**	$ 56	$ 35
Provision (credit) for losses on lending-related commitments	**2**	(1)	21
Balance at end of period	**$ 57**	$ 55	$ 56

PCI Loans

Purchased loans that have evidence of deterioration in credit quality since origination and for which it is probable, at acquisition, that all contractually required payments will not be collected are deemed PCI. Several factors were considered when evaluating whether a loan was considered a PCI loan, including the delinquency status of the loan, updated borrower credit status, geographic information, and updated LTV. In accordance with ASC 310-30, excluded from the purchased impaired loans were leases, revolving credit arrangements, and loans held for sale. Auto, boat and RV loans were also excluded from purchased impaired loans due to Key's inability to develop a reasonable estimate of the timing and magnitude of cash flows related to these loans.

We estimated the fair value of loans acquired from First Niagara by utilizing the discounted cash flow method within the income approach. See Note 2 ("Business Combination") for further discussion over the fair value methodology. There was no carryover of First Niagara's allowance for loan losses associated with the loans we acquired.

The excess of a PCI loan's contractually required payments over the amount of its undiscounted cash flows expected to be collected is referred to as the nonaccretable difference. The nonaccretable difference, which is not accreted into income, reflects estimated future credit losses and uncollectible contractual interest expected to be incurred over the life of the PCI loan. The excess of cash flows expected to be collected over the carrying amount of the PCI loans is referred to as the accretable yield. This amount is accreted into interest income over the remaining life of the PCI loans or pools using the level yield method.

Over the life of PCI loans, Key evaluates the remaining contractual required payments receivable and estimates cash flows expected to be collected. Contractually required payments receivable 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. Increases in expected cash flows of PCI loans subsequent to acquisition are recognized prospectively through adjustment of the yield on the loans or pools over its remaining life, while decreases in expected cash flows are recognized as impairment through a provision for loan and lease losses and an increase in the ALLL.

The difference between the fair value of a non-impaired acquired loan and contractual amounts due at the Acquisition Date is accreted into income over the estimated life of the loan. Contractually required payments represent the total undiscounted amount of all uncollected principal and interest payments.

The following table presents the PCI loans receivable balance at the First Niagara Acquisition Date:

August 1, 2016 *in millions*	**PCI**
Contractual required payments receivable	$ 1,434
Nonaccretable difference	173
Expected cash flows	1,261
Accretable yield	172
Fair Value	$ 1,089

At the First Niagara Acquisition Date, the contractual required payments receivable on the purchased non-impaired loans totaled $22.5 billion, with an estimated corresponding fair value of $22.0 billion. The estimated cash flows not expected to be collected at the Acquisition Date were $500 million. These amounts do not include loans held for sale and the loans that were divested as part of the 18 branches that were sold on September 9, 2016.

We have PCI loans from two separate acquisitions, one in 2012 and one during the third quarter of 2016. At the 2012 acquisition date, the estimated gross contractual amount receivable of all PCI loans totaled $41 million. The estimated cash flows not expected to be collected (the nonaccretable amount) were $11 million, and the accretable amount was approximately $5 million. The following table presents the rollforward of the accretable yield and the beginning and ending outstanding unpaid principal balance and carrying amount of PCI loans for the for the periods indicated are as follows:

PCI Loans

	Twelve Months Ended December 31,					
	2017			2016		
in millions	Accretable Yield	Carrying Amount	Outstanding Unpaid Principal Balance	Accretable Yield	Carrying Amount	Outstanding Unpaid Principal Balance
Balance at beginning of period	$ 197	$ 865	$ 1,002	$ 5	$ 11	$ 17
Additions	(32)			205		
Accretion	(44)			(29)		
Net reclassifications from non-accretable to accretable	15			35		
Payments received, net	(4)			(19)		
Disposals	(1)			—		
Balance at end of period	$ 131	$ 738	$ 803	$ 197	$ 865	$ 1,002

7. Fair Value Measurements

Fair Value Determination

We have established and documented our process for determining the fair values of our assets and liabilities, where applicable. Fair value is based on quoted market prices, when available, for identical or similar assets or liabilities. In the absence of quoted market prices, we determine the fair value of our assets and liabilities using valuation models or third-party pricing services. Both of these approaches rely on market-based parameters, when available, such as yield curves, option volatilities, and credit spreads, or unobservable inputs. Unobservable inputs may be based on our judgment, assumptions, and estimates related to credit quality, liquidity, interest rates, and other relevant inputs.

We make liquidity valuation adjustments to the fair value of certain assets to reflect the uncertainty in the pricing and trading of the instruments when we are unable to observe recent market transactions for identical or similar instruments. Liquidity valuation adjustments are based on the following factors:

- the amount of time since the last relevant valuation;
- whether there is an actual trade or relevant external quote available at the measurement date; and
- volatility associated with the primary pricing components.

We ensure that our fair value measurements are accurate and appropriate by relying upon various controls, including:

- an independent review and approval of valuation models and assumptions;
- recurring detailed reviews of profit and loss; and
- a validation of valuation model components against benchmark data and similar products, where possible.

We recognize transfers between levels of the fair value hierarchy at the end of the reporting period. Quarterly, we review any changes to our valuation methodologies to ensure they are appropriate and justified, and refine our valuation methodologies if more market-based data becomes available. The Fair Value Committee, which is governed by ALCO, oversees the valuation process. Various Working Groups that report to the Fair Value Committee analyze and approve the underlying assumptions and valuation adjustments. Changes in valuation

methodologies for Level 1 and Level 2 instruments are presented to the Accounting Policy group for approval. Changes in valuation methodologies for Level 3 instruments are presented to the Fair Value Committee for approval. The Working Groups are discussed in more detail in the qualitative disclosures within this note. Formal documentation of the fair valuation methodologies is prepared by the lines of business and support areas as appropriate. The documentation details the asset or liability class and related general ledger accounts, valuation techniques, fair value hierarchy level, market participants, accounting methods, valuation methodology, group responsible for valuations, and valuation inputs.

Additional information regarding our accounting policies for determining fair value is provided in Note 1 ("Summary of Significant Accounting Policies") under the heading "Fair Value Measurements."

Qualitative Disclosures of Valuation Techniques

Loans. Most loans recorded as trading account assets are valued based on market spreads for similar assets since they are actively traded. Therefore, these loans are classified as Level 2 because the fair value recorded is based on observable market data for similar assets.

Securities (trading and available for sale). We own several types of securities, requiring a range of valuation methods:

- Securities are classified as Level 1 when quoted market prices are available in an active market for the identical securities. Level 1 instruments include exchange-traded equity securities.
- Securities are classified as Level 2 if quoted prices for identical securities are not available, and fair value is determined using pricing models (either by a third-party pricing service or internally) or quoted prices of similar securities. These instruments include municipal bonds; bonds backed by the U.S. government; corporate bonds; certain mortgage-backed securities; securities issued by the U.S. Treasury; money markets; and certain agency and corporate CMOs. Inputs to the pricing models include: standard inputs, such as yields, benchmark securities, bids, and offers; actual trade data (i.e., spreads, credit ratings, and interest rates) for comparable assets; spread tables; matrices; high-grade scales; and option-adjusted spreads.
- Securities are classified as Level 3 when there is limited activity in the market for a particular instrument. To determine fair value in such cases, depending on the complexity of the valuations required, we use internal models based on certain assumptions or a third-party valuation service. At December 31, 2017, our Level 3 instruments consist of debt and equity securities. Our Strategy group is responsible for reviewing the valuation model and determining the fair value of these investments on a quarterly basis. The securities are valued using a cash flow analysis of the associated private company issuers.

The valuations provided by the third-party pricing service are based on observable market inputs, which include benchmark yields, reported trades, issuer spreads, benchmark securities, bids, offers, and reference data obtained from market research publications. Inputs used by the third-party pricing service in valuing CMOs and other mortgage-backed securities also include new issue data, monthly payment information, whole loan collateral performance, and "To Be Announced" prices. In valuations of securities issued by state and political subdivisions, inputs used by the third-party pricing service also include material event notices.

On a monthly basis, we validate the pricing methodologies utilized by our third-party pricing service to ensure the fair value determination is consistent with the applicable accounting guidance and that our assets are properly classified in the fair value hierarchy. To perform this validation, we:

- review documentation received from our third-party pricing service regarding the inputs used in their valuations and determine a level assessment for each category of securities;
- substantiate actual inputs used for a sample of securities by comparing the actual inputs used by our third-party pricing service to comparable inputs for similar securities; and
- substantiate the fair values determined for a sample of securities by comparing the fair values provided by our third-party pricing service to prices from other independent sources for the same and similar securities. We analyze variances and conduct additional research with our third-party pricing service and take appropriate steps based on our findings.

Principal investments. Principal investments consist of investments in equity and debt instruments made by our principal investing entities. They include direct investments (investments made in a particular company) and indirect investments (investments made through funds that include other investors). Our principal investing entities are

accounted for as investment companies in accordance with the applicable accounting guidance, whereby each investment is adjusted to fair value with any net realized or unrealized gain/loss recorded in the current period's earnings. This process is a coordinated and documented effort by the Principal Investing Entities Deal Team (individuals from one of the independent investment managers who oversee these instruments), accounting staff, and the Investment Committee (individual employees and one of the independent investment managers). This process involves an in-depth review of the condition of each investment depending on the type of investment.

Our direct investments include investments in debt and equity instruments of both private and public companies. In most cases, quoted market prices are not available for our direct investments, and we must perform valuations using other methods. These direct investment valuations are an in-depth analysis of the condition of each investment and are based on the unique facts and circumstances related to each individual investment. There is a certain amount of subjectivity surrounding the valuation of these investments due to the combination of quantitative and qualitative factors that are used in the valuation models. Therefore, these direct investments are classified as Level 3 assets.

Our indirect investments include primary and secondary investments in private equity funds engaged mainly in venture- and growth-oriented investing. These investments do not have readily determinable fair values. Indirect investments are valued using a methodology that is consistent with accounting guidance that allows us to estimate fair value based upon net asset value per share (or its equivalent, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed). Under the requirements of the Volcker Rule, we will be required to dispose of some or all of our indirect investments. On February 14, 2017, Key's application for an extension to comply with this rule for illiquid funds was approved. Key will retain certain indirect investments until the earlier of the date on which the investment is conformed or is expected to mature or July 21, 2022; as of December 31, 2017, we have not committed to a plan to sell these investments. Therefore, these investments continue to be valued using the net asset value per share methodology.

The following table presents the fair value of our direct and indirect principal investments and related unfunded commitments at December 31, 2017, as well as financial support provided for the years ended December 31, 2017, and December 31, 2016.

			Financial support provided			
			Year ended December 31,			
	December 31, 2017		2017		2016	
in millions	Fair Value	Unfunded Commitments	Funded Commitments	Funded Other	Funded Commitments	Funded Other
INVESTMENT TYPE						
Direct investments [(a)]	**$ 13**	**—**	**—**	**—**	—	$ 13
Indirect investments [(b)]	**124**	**$ 29**	**$ 1**	**—**	$ 6	—
Total	**$ 137**	**$ 29**	**$ 1**	**—**	$ 6	$ 13

(a) Our direct investments consist of equity and debt investments directly in independent business enterprises. Operations of the business enterprises are handled by management of the portfolio company. The purpose of funding these enterprises is to provide financial support for business development and acquisition strategies. We infuse equity capital based on an initial contractual cash contribution and later from additional requests on behalf of the companies' management.

(b) Our indirect investments consist of buyout funds, venture capital funds, and fund of funds. These investments are generally not redeemable. Instead, distributions are received through the liquidation of the underlying investments of the fund. An investment in any one of these funds typically can be sold only with the approval of the fund's general partners. We estimate that the underlying investments of the funds will be liquidated over a period of one to eight years. The purpose of funding our capital commitments to these investments is to allow the funds to make additional follow-on investments and pay fund expenses until the fund dissolves. We, and all other investors in the fund, are obligated to fund the full amount of our respective capital commitments to the fund based on our and their respective ownership percentages, as noted in the applicable Limited Partnership Agreement.

Loans Held for Sale. As of August 1, 2016, we account for our residential mortgage loans held for sale at fair value on a recurring basis. The election of the fair value option aligns the accounting for the residential mortgages held for sale with the related forward mortgage loan sale commitments.

Residential mortgage loans are valued based on quoted market prices, where available, prices for other traded mortgage loans with similar characteristics, and purchase commitments and bid information received from market participants. The prices are adjusted as necessary to include the embedded servicing value in the loans and to take into consideration the specific characteristics of certain loans that are priced based on the pricing of similar loans. These adjustments represent unobservable inputs to the valuation but are not considered significant given the relative insensitivity of the value to changes in these inputs to the fair value of the loans. Accordingly, the majority of residential mortgage loans held for sale are classified as Level 2. Our residential mortgage activity also includes temporarily unsalable residential mortgage loans that are includes in "Loans, net of unearned income" and loans with salability issues included in "Loans held for sale" on the balance sheet. These loans have an origination defect

that makes them temporarily unable to be sold into the performing loan sales market. Because transaction details regarding sales of this type of loan are often unavailable, unobservable bid information from brokers and investors is heavily relied upon. Accordingly, based on the significance of unobservable inputs, these loans are classified as Level 3.

Derivatives. Exchange-traded derivatives are valued using quoted prices and, therefore, are classified as Level 1 instruments. However, only a few types of derivatives are exchange-traded. The majority of our derivative positions are valued using internally developed models based on market convention that use observable market inputs, such as interest rate curves, yield curves, LIBOR and Overnight Index Swap (OIS) discount rates and curves, index pricing curves, foreign currency curves, and volatility surfaces (a three-dimensional graph of implied volatility against strike price and maturity), as well as current prices for mortgage securities and investor supplied prices. These derivative contracts, which are classified as Level 2 instruments, include interest rate swaps, certain options, cross currency swaps, credit default swaps, and forward mortgage loan sale commitments.

We have several customized derivative instruments and risk participations that are classified as Level 3 instruments. These derivative positions are valued using internally developed models, with inputs consisting of available market data, such as bond spreads and asset values, as well as unobservable internally derived assumptions, such as loss probabilities and internal risk ratings of customers. These derivatives are priced monthly by our MRM group using a credit valuation adjustment methodology. Swap details with the customer and our related participation percentage, if applicable, are obtained from our derivatives accounting system, which is the system of record. Applicable customer rating information is obtained from the particular loan system and represents an unobservable input to this valuation process. Using these various inputs, a valuation of these Level 3 derivatives is performed using a model that was acquired from a third party. In summary, the fair value represents an estimate of the amount that the risk participation counterparty would need to pay/receive as of the measurement date based on the probability of customer default on the swap transaction and the fair value of the underlying customer swap. Therefore, a higher loss probability and a lower credit rating would negatively affect the fair value of the risk participations and a lower loss probability and higher credit rating would positively affect the fair value of the risk participations.

We use interest rate lock commitments for our residential mortgage business. These instruments are accounted for as a derivative and valued using models containing unobservable significant inputs. For valuation purposes, the loan amount associated with each interest rate lock commitment is adjusted by its modeled pull through (an unobservable input) defined as the percentage of loans that will close prior to the expiration of the rate lock commitment, as adjusted for approved changes to the terms. Based on the significance of unobservable inputs, these instruments are classified as Level 3.

Market convention implies a credit rating of “AA” equivalent in the pricing of derivative contracts, which assumes all counterparties have the same creditworthiness. To reflect the actual exposure on our derivative contracts related to both counterparty and our own creditworthiness, we record a fair value adjustment in the form of a credit valuation adjustment. The credit component is determined by individual counterparty based on the probability of default and considers master netting and collateral agreements. The credit valuation adjustment is classified as Level 3. Our MRM group is responsible for the valuation policies and procedures related to this credit valuation adjustment. A weekly reconciliation process is performed to ensure that all applicable derivative positions are covered in the calculation, which includes transmitting customer exposures and reserve reports to trading management, derivative traders and marketers, derivatives middle office, and corporate accounting personnel. On a quarterly basis, MRM prepares the credit valuation adjustment calculation, which includes a detailed reserve comparison with the previous quarter, an analysis for change in reserve, and a reserve forecast to ensure that the credit valuation adjustment recorded at period end is sufficient.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Certain assets and liabilities are measured at fair value on a recurring basis in accordance with GAAP. The following tables present these assets and liabilities at December 31, 2017, and December 31, 2016.

December 31, 2017 *in millions*	Level 1	Level 2	Level 3	Total
ASSETS MEASURED ON A RECURRING BASIS				
Trading account assets:				
U.S. Treasury, agencies and corporations	—	$ 615	—	$ 615
States and political subdivisions	—	37	—	37
Collateralized mortgage obligations	—	—	—	—
Other mortgage-backed securities	—	104	—	104
Other securities	—	65	—	65
Total trading account securities	—	821	—	821
Commercial loans	—	15	—	15
Total trading account assets	—	836	—	836
Securities available for sale:				
U.S. Treasury, agencies and corporations	—	157	—	157
States and political subdivisions	—	9	—	9
Agency residential collateralized mortgage obligations	—	14,660	—	14,660
Agency residential mortgage-backed securities	—	1,439	—	1,439
Agency commercial mortgage-backed securities	—	1,854	—	1,854
Other securities	—	—	$ 20	20
Total securities available for sale	—	18,119	20	18,139
Other investments:				
Principal investments:				
Direct	—	—	13	13
Indirect (measured at NAV) [(a)]	—	—	—	124
Total principal investments	—	—	13	137
Equity investments:				
Direct	—	4	3	7
Total equity investments	—	4	3	7
Total other investments	—	4	16	144
Loans, net of unearned income	—	—	2	2
Loans held for sale	—	70	1	71
Derivative assets:				
Interest rate	—	713	9	722
Foreign exchange	$ 100	30	—	130
Commodity	—	255	—	255
Credit	—	—	1	1
Other	—	1	3	4
Derivative assets	100	999	13	1,112
Netting adjustments [(b)]	—	—	—	(443)
Total derivative assets	100	999	13	669
Accrued income and other assets	—	—	—	—
Total assets on a recurring basis at fair value	$ 100	$ 20,028	$ 52	$ 19,861
LIABILITIES MEASURED ON A RECURRING BASIS				
Bank notes and other short-term borrowings:				
Short positions	$ 72	$ 562	—	$ 634
Derivative liabilities:				
Interest rate	—	520	—	520
Foreign exchange	98	26	—	124
Commodity	—	246	—	246
Credit	—	4	—	4
Other	—	13	—	13
Derivative liabilities	98	809	—	907
Netting adjustments [(b)]	—	—	—	(616)
Total derivative liabilities	98	809	—	291
Accrued expense and other liabilities	—	—	—	—
Total liabilities on a recurring basis at fair value	$ 170	$ 1,371	—	$ 925

(a) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

(b) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with applicable accounting guidance. The net basis takes into account the impact of bilateral collateral and master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Total derivative assets and liabilities include these netting adjustments.

December 31, 2016 *in millions*	Level 1	Level 2	Level 3	Total
ASSETS MEASURED ON A RECURRING BASIS				
Trading account assets:				
U.S. Treasury, agencies and corporations	—	$ 655	—	$ 655
States and political subdivisions	—	8	—	8
Collateralized mortgage obligations	—	—	—	—
Other mortgage-backed securities	—	113	—	113
Other securities	—	73	—	73
Total trading account securities	—	849	—	849
Commercial loans	—	18	—	18
Total trading account assets	—	867	—	867
Securities available for sale:				
U.S. Treasury, agencies and corporations	—	184	—	184
States and political subdivisions	—	11	—	11
Agency residential collateralized mortgage obligations	—	16,408	—	16,408
Agency residential mortgage-backed securities	—	1,846	—	1,846
Agency commercial mortgage-backed securities	—	1,743	—	1,743
Other securities	$ 3	—	$ 17	20
Total securities available for sale	3	20,192	17	20,212
Other investments:				
Principal investments:				
Direct	—	—	27	27
Indirect (measured at NAV) [(a)]	—	—	—	158
Total principal investments	—	—	27	185
Equity and mezzanine investments:				
Indirect (measured at NAV) [(a)]	—	—	—	6
Total equity and mezzanine investments	—	—	—	6
Total other investments	—	—	27	191
Loans, net of unearned income	—	—	—	—
Loans held for sale	—	62	—	62
Derivative assets:				
Interest rate	—	923	7	930
Foreign exchange	114	9	—	123
Commodity	—	176	—	176
Credit	—	—	1	1
Other	—	2	2	4
Derivative assets	114	1,110	10	1,234
Netting adjustments [(b)]	—	—	—	(431)
Total derivative assets	114	1,110	10	803
Accrued income and other assets	—	8	—	8
Total assets on a recurring basis at fair value	$ 117	$ 22,239	$ 54	$ 22,143
LIABILITIES MEASURED ON A RECURRING BASIS				
Bank notes and other short-term borrowings:				
Short positions	$ 192	$ 616	—	$ 808
Derivative liabilities:				
Interest rate	—	737	—	737
Foreign exchange	102	11	—	113
Commodity	—	165	—	165
Credit	—	4	—	4
Other	—	1	—	1
Derivative liabilities	102	918	—	1,020
Netting adjustments [(b)]	—	—	—	(384)
Total derivative liabilities	102	918	—	636
Accrued expense and other liabilities	—	14	—	14
Total liabilities on a recurring basis at fair value	$ 294	$ 1,548	—	$ 1,458

(a) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

(b) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with applicable accounting guidance. The net basis takes into account the impact of bilateral collateral and master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Total derivative assets and liabilities include these netting adjustments.

Changes in Level 3 Fair Value Measurements

The following table shows the change in the fair values of our Level 3 financial instruments for the years ended December 31, 2017, and December 31, 2016. We mitigate the credit risk, interest rate risk, and risk of loss related to many of these Level 3 instruments by using securities and derivative positions classified as Level 1 or Level 2. Level 1 and Level 2 instruments are not included in the following table. Therefore, the gains or losses shown do not include the impact of our risk management activities.

in millions	Beginning of Period Balance	Gains (Losses) included in comprehensive income	Gains (Losses) included in Earnings	Purchases	Sales	Settlements	Transfers Other	Transfers into Level 3 [e]	Transfers out of Level 3 [e]	End of Period Balance	Unrealized Gains (Losses) included in Earnings
Year ended December 31, 2017											
Securities available for sale											
Other securities	$ 17	$ 3	—	—	—	—	—	—	—	$ 20	—
Other investments											
Principal investments											
Direct	27	—	$ (6) [c]	—	$ (8)	—	—	—	—	13	$ (1) [c]
Equity investments											
Direct	—	—	—	—	—	—	—	$ 3	—	3	—
Loans held for sale	—	—	—	—	(3)	—	$ 4	—	—	1	—
Loans held for investment	—	—	—	—	—	—	2	—	—	2	—
Derivative instruments [b]											
Interest rate	7	—	(2) [d]	—	—	—	—	13 [f]	$ (9) [f]	9	—
Credit	1	—	(16) [d]	—	—	$ 16	—	—	—	1	—
Other [a]	2	—	—	—	—	—	1	—	—	3	—

in millions	Beginning of Period Balance	Gains (Losses) Included in Earnings	Purchases	Sales	Settlements	Transfers Other	Transfers into Level 3 [e]	Transfers out of Level 3 [e]	End of Period Balance	Unrealized Gains (Losses) Included in Earnings
Year ended December 31, 2016										
Securities available for sale										
Other securities	$ 17	—	—	—	—	—	—	—	$ 17	—
Other investments										
Principal investments										
Direct	50	$ 16 [c]	—	$ (39)	—	—	—	—	27	$ 2 [c]
Other indirect	—	—	—	(20)	—	—	$ 20	—	—	(1) [c]
Derivative instruments [b]										
Interest rate	16	4 [d]	$ 1	—	—	—	9 [f]	$ (23) [f]	7	—
Credit	1	(13) [d]	1	—	$ 12	—	—	—	1	—
Other [a]	—	—	5	—	—	$ (3)	—	—	2	—

(a) Amounts represent Level 3 interest rate lock commitments.
(b) Amounts represent Level 3 derivative assets less Level 3 derivative liabilities.
(c) Realized and unrealized gains and losses on principal investments are reported in “net gains (losses) from principal investing” on the income statement. Realized and unrealized losses on private equity and mezzanine investments are reported in “other income” on the income statement.
(d) Realized and unrealized gains and losses on derivative instruments are reported in “corporate services income” and “other income” on the income statement.
(e) Our policy is to recognize transfers into and transfers out of Level 3 as of the end of the reporting period.
(f) Certain derivatives previously classified as Level 2 were transferred to Level 3 because Level 3 unobservable inputs became significant. Certain derivatives previously classified as Level 3 were transferred to Level 2 because Level 3 unobservable inputs became less significant.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis in accordance with GAAP. The adjustments to fair value generally result from the application of accounting guidance that requires assets and liabilities to be recorded at the lower of cost or fair value, or assessed for impairment. There were no liabilities measured at fair value on a nonrecurring basis at December 31, 2017, and December 31, 2016. The following table presents our assets measured at fair value on a nonrecurring basis at December 31, 2017, and December 31, 2016:

in millions	December 31, 2017 Level 1	Level 2	Level 3	Total	December 31, 2016 Level 1	Level 2	Level 3	Total
ASSETS MEASURED ON A NONRECURRING BASIS								
Impaired loans	—	—	$ 9	$ 9	—	—	$ 11	$ 11
Loans held for sale [(a)]	—	—	—	—	—	—	—	—
Accrued income and other assets [(b)]	—	$ 5	133	138	—	—	11	11
Total assets on a nonrecurring basis at fair value	—	$ 5	$ 142	$ 147	—	—	$ 22	$ 22

(a) During 2017, we transferred $63 million, net, of commercial and residential loans and leases at their current fair value from held-for-sale status to the held-to-maturity portfolio, compared to $35 million, net, during 2016 that was transferred from held-to-maturity to held-for-sale status.

(b) At December 31, 2017, we recorded $31 million of impairment related to $119 million of LIHTC and Historic Tax Credit investments impacted by the enactment of the TCJ Act. Refer to the "Other Assets" section below for a description of the valuation technique and inputs applied for this fair value measurement.

Impaired loans. Loans are evaluated for impairment on a quarterly basis. Loans included in the previous quarter's review are re-evaluated, and if their values have changed materially, the underlying information (loan balance and in most cases, collateral value) is compared. Material differences are evaluated for reasonableness, and the relationship managers and their senior managers consider these differences and determine if any adjustment is necessary. The inputs are developed and substantiated on a quarterly basis based on current borrower developments, market conditions, and collateral values.

The following two internal methods are used to value impaired loans:

- Cash flow analysis considers internally developed inputs, such as discount rates, default rates, costs of foreclosure, and changes in collateral values.
- The fair value of the collateral, which may take the form of real estate or personal property, is based on internal estimates, field observations, and assessments provided by third-party appraisers. We perform or reaffirm appraisals of collateral-dependent impaired loans at least annually. Appraisals may occur more frequently if the most recent appraisal does not accurately reflect the current market, the debtor is seriously delinquent or chronically past due, or there has been a material deterioration in the performance of the project or condition of the property. Adjustments to outdated appraisals that result in an appraisal value less than the carrying amount of a collateral-dependent impaired loan are reflected in the ALLL.

We adjust the carrying amount of our impaired loans when there is evidence of probable loss and the expected fair value of the loan is less than its contractual amount. The amount of the impairment may be determined based on the estimated present value of future cash flows, the fair value of the underlying collateral, or the loan's observable market price. Impaired loans with a specifically allocated allowance based on a cash flow analysis or the value of the underlying collateral are classified as Level 3 assets. Impaired loans with a specifically allocated allowance based on an observable market price that reflects recent sale transactions for similar loans and collateral are classified as Level 2 assets.

Impairment valuations are back-tested each quarter, based on a look-back of actual incurred losses on closed deals previously evaluated for impairment. The overall percent variance of actual net loan charge-offs on closed deals compared to the specific allocations on such deals is considered in determining each quarter's specific allocations.

The evaluations for impairment are prepared by the responsible relationship managers in our Asset Recovery Group and are reviewed and approved by the Asset Recovery Group Executive. The Asset Recovery Group is part of the Risk Management Group and reports to our Chief Credit Officer. These evaluations are performed in conjunction with the quarterly ALLL process.

Commercial loans held for sale. Through a quarterly analysis of our loan portfolios held for sale, which include both performing and nonperforming commercial loans, we determine any adjustments necessary to record the portfolios at the lower of cost or fair value in accordance with GAAP. Our analysis concluded that there were no loans held for sale adjusted to fair value at December 31, 2017, or December 31, 2016.

Direct financing leases and operating lease assets held for sale. Our KEF Accounting and Capital Markets groups are responsible for the valuation policies and procedures related to these assets. The Managing Director of the KEF Capital Markets group reports to the President of the KEF line of business. A weekly report is distributed to both groups that lists all equipment finance deals booked in the warehouse portfolio. On a quarterly basis, the KEF Accounting group prepares a detailed held-for-sale roll-forward schedule that is reconciled to the general ledger and

the above mentioned weekly report. KEF management uses the held-for-sale roll-forward schedule to determine if an impairment adjustment is necessary in accordance with lower of cost or fair value guidelines.

Valuations of direct financing leases and operating lease assets held for sale are performed using an internal model that relies on market data, such as swap rates and bond ratings, as well as our own assumptions about the exit market for the leases and details about the individual leases in the portfolio. The inputs based on our assumptions include changes in the value of leased items and internal credit ratings. These leases have been classified as Level 3 assets. KEF has master sale and assignment agreements with numerous institutional investors. Historically, multiple quotes are obtained, with the most reasonable formal quotes retained. These nonbinding quotes generally lead to a sale to one of the parties who provided the quote. Leases for which we receive a current nonbinding bid, and for which the sale is considered probable, may be classified as Level 2. The validity of these quotes is supported by historical and continued dealings with these institutions that have fulfilled the nonbinding quote in the past. In a distressed market where market data is not available, an estimate of the fair value of the leased asset may be used to value the lease, resulting in a Level 3 classification. In an inactive market, the market value of the assets held for sale is determined as the present value of the future cash flows discounted at the current buy rate. KEF Accounting calculates an estimated fair value buy rate based on the credit premium inherent in the relevant bond index and the appropriate swap rate on the measurement date. The amount of the adjustment is calculated as book value minus the present value of future cash flows discounted at the calculated buy rate.

Other assets. OREO and other repossessed properties are valued based on inputs such as appraisals and third-party price opinions, less estimated selling costs. Generally, we classify these assets as Level 3, but OREO and other repossessed properties for which we receive binding purchase agreements are classified as Level 2. Returned lease inventory is valued based on market data for similar assets and is classified as Level 2. Assets that are acquired through, or in lieu of, loan foreclosures are recorded initially as held for sale at fair value less estimated selling costs at the date of foreclosure. After foreclosure, valuations are updated periodically, and current market conditions may require the assets to be marked down further to a new cost basis.

- Commercial Real Estate Valuation Process: When a loan is reclassified from loan status to OREO because we took possession of the collateral, the Asset Recovery Group Loan Officer, in consultation with our OREO group, obtains a broker price opinion or a third-party appraisal, which is used to establish the fair value of the underlying collateral. The determined fair value of the underlying collateral less estimated selling costs becomes the carrying value of the OREO asset. In addition to valuations from independent third-party sources, our OREO group also writes down the carrying balance of OREO assets once a bona fide offer is contractually accepted, where the accepted price is lower than the current balance of the particular OREO asset. The fair value of OREO property is re-evaluated every 90 days, and the OREO asset is adjusted as necessary.
- Residential Real Estate Valuation Process: The Asset Management team within our Risk Operations group is responsible for valuation policies and procedures in this area. The current vendor partner provides monthly reporting of all broker price opinion evaluations, appraisals, and the monthly market plans. Market plans are reviewed monthly, and valuations are reviewed and tested monthly to ensure proper pricing has been established and guidelines are being met. Risk Operations Compliance validates and provides periodic testing of the valuation process. The Asset Management team reviews changes in fair value measurements. Third-party broker price opinions are reviewed every 180 days, and the fair value is written down based on changes to the valuation. External factors are documented and monitored as appropriate.

LIHTC and Historic Tax Credit Investments. LIHTC and Historic Tax Credit (HTC) operating partnerships are subject to quarterly impairment testing. This evaluation involves measuring the present value of future tax benefits and comparing that value against the current carrying value of the investment. Expected future tax benefit schedules are provided by the partnerships' general partners on a quarterly basis. These future benefits are discounted to their present value using discounted cash flow modeling that incorporates an appropriate risk premium. LIHTC and HTC investments are impaired when it is more likely than not that the carrying amount of the investment will not be realized. A primarily driver of impairment in the fourth quarter of 2017 was the enactment of the TCJ Act, which reduced future depreciation tax benefits expected to be realized by certain LIHTC and HTC investments.

Quantitative Information about Level 3 Fair Value Measurements

The range and weighted-average of the significant unobservable inputs used to fair value our material Level 3 recurring and nonrecurring assets at December 31, 2017, and December 31, 2016, along with the valuation techniques used, are shown in the following table:

December 31, 2017 *Dollars in millions*	Fair Value of Level 3 Assets	Valuation Technique	Significant Unobservable Input	Range (Weighted-Average)
Recurring				
Other investments — principal investments — direct:	$ 13	Individual analysis of the condition of each investment		
Debt instruments			EBITDA multiple	N/A (6.00)
Equity instruments of private companies			EBITDA multiple (where applicable)	N/A (6.00)
Nonrecurring				
Impaired loans	$ 9	Fair value of underlying collateral	Discount	00.00 - 50.00% (23.00%)

December 31, 2016 *dollars in millions*	Fair Value of Level 3 Assets	Valuation Technique	Significant Unobservable Input	Range (Weighted-Average)
Recurring				
Other investments — principal investments — direct:	$ 27	Individual analysis of the condition of each investment		
Debt instruments			EBITDA multiple	6.30 - 7.00 (6.50)
Equity instruments of private companies			EBITDA multiple (where applicable)	N/A (6.3)
Nonrecurring				
Impaired loans [a]	$ 11	Fair value of underlying collateral	Discount	00.00 - 70.00% (46.00%)

Fair Value Disclosures of Financial Instruments

The levels in the fair value hierarchy ascribed to our financial instruments and the related carrying amounts at December 31, 2017, and December 31, 2016, are shown in the following table.

	December 31, 2017						
		Fair Value					
in millions	Carrying Amount	Level 1	Level 2	Level 3	Measured at NAV	Netting Adjustment	Total
ASSETS							
Cash and short-term investments [a]	$ 5,118	$ 5,118	—	—	—	—	$ 5,118
Trading account assets [b]	836	—	$ 836	—	—	—	836
Securities available for sale [b]	18,139	—	18,119	$ 20	—	—	18,139
Held-to-maturity securities [c]	11,830	—	11,565	—	—	—	11,565
Other investments [b]	726	—	4	598	$ 124	—	726
Loans, net of allowance [d]	85,528	—	—	84,005	—	—	84,005
Loans held for sale [b]	1,107	—	70	1,037	—	—	1,107
Derivative assets [b]	669	100	999	13	—	$ (443) [f]	669
LIABILITIES							
Deposits with no stated maturity [a]	$ 93,588	—	$ 93,588	—	—	—	$ 93,588
Time deposits [e]	11,647	—	11,750	—	—	—	11,750
Short-term borrowings [a]	1,011	$ 72	939	—	—	—	1,011
Long-term debt [e]	14,333	13,407	1,219	—	—	—	14,626
Derivative liabilities [b]	291	98	809	—	—	$ (616) [f]	291

	December 31, 2016						
		Fair Value					
in millions	Carrying Amount	Level 1	Level 2	Level 3	Measured at NAV	Netting Adjustment	Total
ASSETS							
Cash and short-term investments [a]	$ 3,452	$ 3,452	—	—	—	—	$ 3,452
Trading account assets [b]	867	—	$ 867	—	—	—	867
Securities available for sale [b]	20,212	3	20,192	$ 17	—	—	20,212
Held-to-maturity securities [c]	10,232	—	10,007	—	—	—	10,007
Other investments [b]	738	—	—	569	$ 164	—	733
Loans, net of allowance [d]	85,180	—	—	83,285	—	—	83,285
Loans held for sale [b]	1,104	—	62	1,042	—	—	1,104
Derivative assets [b]	803	114	1,110	10	—	$ (431) [f]	803
LIABILITIES							
Deposits with no stated maturity [a]	$ 93,906	—	$ 93,906	—	—	—	$ 93,906
Time deposits [e]	10,181	—	10,267	—	—	—	10,267
Short-term borrowings [a]	2,310	$ 192	2,118	—	—	—	2,310
Long-term debt [e]	12,384	12,386	304	—	—	—	12,690
Derivative liabilities [b]	636	102	918	—	—	$ (384) [f]	636

Valuation Methods and Assumptions

(a) Fair value equals or approximates carrying amount. The fair value of deposits with no stated maturity does not take into consideration the value ascribed to core deposit intangibles.
(b) Information pertaining to our methodology for measuring the fair values of these assets and liabilities is included in the sections entitled "Qualitative Disclosures of Valuation Techniques" and "Assets Measured at Fair Value on a Nonrecurring Basis" in this Note.
(c) Fair values of held-to-maturity securities are determined by using models that are based on security-specific details, as well as relevant industry and economic factors. The most significant of these inputs are quoted market prices, interest rate spreads on relevant benchmark securities, and certain prepayment assumptions. We review the valuations derived from the models to ensure they are reasonable and consistent with the values placed on similar securities traded in the secondary markets.
(d) The fair value of loans is based on the present value of the expected cash flows. The projected cash flows are based on the contractual terms of the loans, adjusted for prepayments and use of a discount rate based on the relative risk of the cash flows, taking into account the loan type, maturity of the loan, liquidity risk, servicing costs, and a required return on debt and capital. In addition, an incremental liquidity discount is applied to certain loans, using historical sales of loans during periods of similar economic conditions as a benchmark. The fair value of loans includes lease financing receivables at their aggregate carrying amount, which is equivalent to their fair value.
(e) Fair values of time deposits and long-term debt are based on discounted cash flows utilizing relevant market inputs.
(f) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with applicable accounting guidance. The net basis takes into account the impact of bilateral collateral and master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Total derivative assets and liabilities include these netting adjustments.

We determine fair value based on assumptions pertaining to the factors that a market participant would consider in valuing the asset. A substantial portion of our fair value adjustments are related to liquidity. During 2016 and 2017, the fair values of our loan portfolios generally remained stable, primarily due to increasing liquidity in the loan markets. If we were to use different assumptions, the fair values shown in the preceding table could change. Also, because the applicable accounting guidance for financial instruments excludes certain financial instruments and all nonfinancial instruments from its disclosure requirements, the fair value amounts shown in the table above do not, by themselves, represent the underlying value of our company as a whole.

Education lending business. The discontinued education lending business consists of loans in portfolio recorded at carrying value with appropriate valuation reserves and loans in portfolio recorded at fair value. All of these loans were excluded from the table above as follows:

- Loans at carrying value, net of allowance, of $1.3 billion ($1.1 billion at fair value) at December 31, 2017, and $1.5 billion ($1.3 billion at fair value) at December 31, 2016;
- Portfolio loans at fair value of $2 million at December 31, 2017, and $3 million at December 31, 2016.

These loans and securities are classified as Level 3 because we rely on unobservable inputs when determining fair value since observable market data is not available.

Short-term financial instruments. For financial instruments with a remaining average life to maturity of less than six months, carrying amounts were used as an approximation of fair values.

8. Securities

The amortized cost, unrealized gains and losses, and approximate fair value of our securities available for sale and held-to-maturity securities are presented in the following tables. Gross unrealized gains and losses represent the difference between the amortized cost and the fair value of securities on the balance sheet as of the dates indicated. Accordingly, the amount of these gains and losses may change in the future as market conditions change.

December 31, *in millions*	2017 Amortized Cost	2017 Gross Unrealized Gains	2017 Gross Unrealized Losses	2017 Fair Value	2016 Amortized Cost	2016 Gross Unrealized Gains	2016 Gross Unrealized Losses	2016 Fair Value
SECURITIES AVAILABLE FOR SALE								
U.S. Treasury, Agencies, and Corporations	$ 159	—	$ 2	$ 157	$ 188	—	$ 4	$ 184
States and political subdivisions	9	—	—	9	11	—	—	11
Agency residential collateralized mortgage obligations	14,985	$ 10	335	14,660	16,652	$ 31	275	16,408
Agency residential mortgage-backed securities	1,456	3	20	1,439	1,857	6	17	1,846
Agency commercial mortgage-backed securities	1,920	—	66	1,854	1,778	—	35	1,743
Other securities	17	3	—	20	21	—	1	20
Total securities available for sale	$ 18,546	$ 16	$ 423	$ 18,139	$ 20,507	$ 37	$ 332	$ 20,212
HELD-TO-MATURITY SECURITIES								
Agency residential collateralized mortgage obligations	$ 8,055	—	$ 224	$ 7,831	$ 8,404	$ 1	$ 173	$ 8,232
Agency residential mortgage-backed securities	574	$ 1	4	571	629	—	5	624
Agency commercial mortgage-backed securities	3,186	6	44	3,148	1,184	1	49	1,136
Other securities	15	—	—	15	15	—	—	15
Total held-to-maturity securities	$ 11,830	$ 7	$ 272	$ 11,565	$ 10,232	$ 2	$ 227	$ 10,007

The following table summarizes our securities that were in an unrealized loss position as of December 31, 2017, and December 31, 2016:

in millions	Duration of Unrealized Loss Position: Less than 12 Months Fair Value	Less than 12 Months Gross Unrealized Losses	12 Months or Longer Fair Value	12 Months or Longer Gross Unrealized Losses	Total Fair Value	Total Gross Unrealized Losses
December 31, 2017						
Securities available for sale:						
U.S. Treasury, Agencies, and Corporations	$ 41	—	$ 116	$ 2	$ 157	$ 2
States and political subdivisions	—	—	—	—	—	—
Agency residential collateralized mortgage obligations	6,153	$ 74	7,270	261	13,423	335
Agency residential mortgage-backed securities	666	7	702	13	1,368	20
Agency commercial mortgage-backed securities	205	4	1,649	62	1,854	66
Other securities	—	—	—	—	—	—
Held-to-maturity securities:						
U.S. Treasury, Agencies, and Corporations	—	—	—	—	—	—
States and political subdivisions	—	—	—	—	—	—
Agency residential collateralized mortgage obligations	2,201	27	5,599	197	7,800	224
Agency residential mortgage-backed securities	252	1	206	3	458	4
Agency commercial mortgage-backed securities	1,470	12	495	32	1,965	44
Other securities[(b)]	3	—	4	—	7	—
Total temporarily impaired securities	$ 10,991	$ 125	$ 16,041	$ 570	$ 27,032	$ 695
December 31, 2016						
Securities available for sale:						
U.S. Treasury, Agencies, and Corporations	$ 182	$ 4	—	—	$ 182	$ 4
Agency residential collateralized mortgage obligations	12,345	231	$ 1,410	$ 44	13,755	275
Agency residential mortgage-backed securities	1,452	17	—	—	1,452	17
Agency commercial mortgage-backed securities	1,482	35	—	—	1,482	35
Other securities[(a)]	2	—	3	1	5	1
Held-to-maturity securities:						
Agency residential collateralized mortgage obligations	7,028	156	518	17	7,546	173
Agency residential mortgage-backed securities	547	5	—	—	547	5
Agency commercial mortgage-backed securities	996	49	—	—	996	49
Other securities[(b)]	4	—	—	—	4	—
Total temporarily impaired securities	$ 24,038	$ 497	$ 1,931	$ 62	$ 25,969	$ 559

(a) Gross unrealized losses totaled less than $1 million for other securities available for sale at December 31, 2016.
(b) Gross unrealized losses totaled less than $1 million for other securities held to maturity at December 31, 2017, and December 31, 2016.

At December 31, 2017, we had $335 million of gross unrealized losses related to 428 fixed-rate agency residential CMOs that we invested in as part of our overall A/LM strategy. These securities had a weighted-average maturity of 4.15 years at December 31, 2017. At December 31, 2017, we also had $20 million of gross unrealized losses related to 248 agency residential mortgage-backed securities positions and $66 million of gross unrealized losses related to 14 agency commercial mortgage-backed securities positions with weighted-average maturities of 3.84 years and 4.07 years, respectively, at December 31, 2017. Because these securities have a fixed interest rate, their fair value is sensitive to movements in market interest rates. These unrealized losses are considered temporary since we expect to collect all contractually due amounts from these securities. Accordingly, these investments were reduced to their fair value through OCI, not earnings.

We regularly assess our securities portfolio for OTTI. The assessments are based on the nature of the securities, the underlying collateral, the financial condition of the issuer, the extent and duration of the loss, our intent related to the individual securities, and the likelihood that we will have to sell securities prior to expected recovery. As shown in the following table, we did not have any impairment losses recognized in earnings for the year ended December 31, 2017.

in millions	
Balance at December 31, 2016	$ 4
Impairment recognized in earnings	—
Balance at December 31, 2017	**$ 4**

Realized gains and losses related to securities available for sale were as follows:

Year ended December 31, *in millions*	**2017** [(a)]	**2016** [(b)]	**2015**
Realized gains	**$ 1**	—	$ 1
Realized losses	**—**	—	1
Net securities gains (losses)	**$ 1**	—	—

(a) Realized losses totaled less than $1 million for the year ended December 31, 2017.
(b) Realized gains and losses totaled less than $1 million for the year ended December 31, 2016.

At December 31, 2017, securities available-for-sale and held-to-maturity securities totaling $7.0 billion were pledged to secure securities sold under repurchase agreements, to secure public and trust deposits, to facilitate access to secured funding, and for other purposes required or permitted by law.

The following table shows securities by remaining maturity. CMOs and other mortgage-backed securities in the available-for-sale and held-to-maturity portfolios are presented based on their expected average lives. The remaining securities, in both the available-for-sale and held-to-maturity portfolios, are presented based on their remaining contractual maturity. Actual maturities may differ from expected or contractual maturities since borrowers have the right to prepay obligations with or without prepayment penalties.

	Securities Available for Sale		**Held-to-Maturity Securities**	
December 31, 2017 *in millions*	**Amortized Cost**	**Fair Value**	**Amortized Cost**	**Fair Value**
Due in one year or less	$ 190	$ 190	$ 56	$ 56
Due after one through five years	14,990	14,635	7,977	7,776
Due after five through ten years	3,358	3,305	3,190	3,142
Due after ten years	8	9	607	591
Total	$ 18,546	$ 18,139	$ 11,830	$ 11,565

9. Derivatives and Hedging Activities

We are a party to various derivative instruments, mainly through our subsidiary, KeyBank. Derivative instruments are contracts between two or more parties that have a notional amount and an underlying variable, require a small or no net investment, and allow for the net settlement of positions. A derivative's notional amount serves as the basis for the payment provision of the contract and takes the form of units, such as shares or dollars. A derivative's underlying variable is a specified interest rate, security price, commodity price, foreign exchange rate, index, or other variable. The interaction between the notional amount and the underlying variable determines the number of units to be exchanged between the parties and influences the fair value of the derivative contract.

The primary derivatives that we use are interest rate swaps, caps, floors, and futures; foreign exchange contracts; commodity derivatives; and credit derivatives. Generally, these instruments help us manage exposure to interest rate risk, mitigate the credit risk inherent in our loan portfolio, hedge against changes in foreign currency exchange rates, and meet client financing and hedging needs. As further discussed in this note:

- interest rate risk is the risk that the EVE or net interest income will be adversely affected by fluctuations in interest rates;
- credit risk is the risk of loss arising from an obligor's inability or failure to meet contractual payment or performance terms; and
- foreign exchange risk is the risk that an exchange rate will adversely affect the fair value of a financial instrument.

At December 31, 2017, after taking into account the effects of bilateral collateral and master netting agreements, we had a negative $12 million of derivative assets and $2 million of derivative liabilities that relate to contracts entered into for hedging purposes. As of the same date, after taking into account the effects of bilateral collateral and master netting agreements and a reserve for potential future losses, we had derivative assets of $681 million and derivative liabilities of $289 million that were not designated as hedging instruments. These positions are primarily comprised of derivative contracts entered into for client accommodation purposes.

Additional information regarding our accounting policies for derivatives is provided in Note 1 ("Summary of Significant Accounting Policies") under the heading "Derivatives."

Derivatives Designated in Hedge Relationships

Net interest income and the EVE change in response to changes in the mix of assets, liabilities, and off-balance sheet instruments; associated interest rates tied to each instrument; and differences in the repricing and maturity characteristics of interest-earning assets and interest-bearing liabilities. We utilize derivatives that have been designated as part of a hedge relationship in accordance with the applicable accounting guidance to manage net interest income and EVE to within our stated risk tolerances. The primary derivative instruments used to manage interest rate risk are interest rate swaps, which convert the contractual interest rate index of agreed-upon amounts of assets and liabilities (i.e., notional amounts) to another interest rate index.

We designate certain "receive fixed/pay variable" interest rate swaps as fair value hedges. These contracts convert certain fixed-rate long-term debt into variable-rate obligations, thereby modifying our exposure to changes in interest rates. As a result, we receive fixed-rate interest payments in exchange for making variable-rate payments over the lives of the contracts without exchanging the notional amounts.

Similarly, we designate certain "receive fixed/pay variable" interest rate swaps as cash flow hedges. These contracts effectively convert certain floating-rate loans into fixed-rate loans to reduce the potential adverse effect of interest rate decreases on future interest income. Again, we receive fixed-rate interest payments in exchange for making variable-rate payments over the lives of the contracts without exchanging the notional amounts.

We also designate certain "pay fixed/receive variable" interest rate swaps as cash flow hedges. These swaps convert certain floating-rate debt into fixed-rate debt. We also use these swaps to manage the interest rate risk associated with anticipated sales of certain commercial real estate loans. The swaps protect against the possible short-term decline in the value of the loans that could result from changes in interest rates between the time they are originated and the time they are sold.

We use foreign currency forward transactions to hedge the foreign currency exposure of our net investment in various foreign equipment finance entities. These entities are denominated in a non-U.S. currency. These swaps are designated as net investment hedges to mitigate the exposure of measuring the net investment at the spot foreign exchange rate.

Derivatives Not Designated in Hedge Relationships

On occasion, we enter into interest rate swap contracts to manage economic risks but do not designate the instruments in hedge relationships. Excluding contracts addressing customer exposures, the amount of derivatives hedging risks on an economic basis at December 31, 2017, was not significant.

Like other financial services institutions, we originate loans and extend credit, both of which expose us to credit risk. We actively manage our overall loan portfolio and the associated credit risk in a manner consistent with asset quality objectives and concentration risk tolerances to mitigate portfolio credit risk. Purchasing credit default swaps enables us to transfer to a third party a portion of the credit risk associated with a particular extension of credit, including situations where there is a forecasted sale of loans. We purchase credit default swaps to reduce the credit risk associated with the debt securities held in our trading portfolio. Although we use credit default swaps for risk management purposes, they are not accounted for as hedging instruments.

We also enter into derivative contracts for other purposes, including:

- interest rate swap, cap, and floor contracts entered into generally to accommodate the needs of commercial loan clients;
- energy and base metal swap and option contracts entered into to accommodate the needs of clients;
- foreign exchange forward and option contracts entered into primarily to accommodate the needs of clients; and
- futures contracts and positions with third parties that are intended to offset or mitigate the interest rate or market risk related to client positions discussed above.

These contracts are not designated as part of hedge relationships.

Fair Values, Volume of Activity, and Gain/Loss Information Related to Derivative Instruments

The following table summarizes the fair values of our derivative instruments on a gross and net basis as of December 31, 2017, and December 31, 2016. The change in the notional amounts of these derivatives by type from December 31, 2016, to December 31, 2017, indicates the volume of our derivative transaction activity during 2017. The notional amounts are not affected by bilateral collateral and master netting agreements. The derivative asset and liability balances are presented on a gross basis, prior to the application of bilateral collateral and master netting agreements. Total derivative assets and liabilities are adjusted to take into account the impact of legally enforceable master netting agreements that allow us to settle all derivative contracts with a single counterparty on a net basis and to offset the net derivative position with the related cash collateral. Where master netting agreements are not in effect or are not enforceable under bankruptcy laws, we do not adjust those derivative assets and liabilities with counterparties. Securities collateral related to legally enforceable master netting agreements is not offset on the balance sheet. Our derivative instruments are included in “derivative assets” or “derivative liabilities” on the balance sheet, as indicated in the following table:

in millions	December 31, 2017 Notional Amount	Fair Value Derivative Assets	Fair Value Derivative Liabilities	December 31, 2016 Notional Amount	Fair Value Derivative Assets	Fair Value Derivative Liabilities
Derivatives designated as hedging instruments:						
Interest rate	**$ 26,176**	**$ 81**	**$ 46**	$ 24,237	$ 189	$ 94
Foreign exchange	**302**	**1**	**4**	282	6	4
Total	**26,478**	**82**	**50**	24,519	195	98
Derivatives not designated as hedging instruments:						
Interest rate	**61,390**	**641**	**474**	55,315	741	643
Foreign exchange	**8,317**	**129**	**120**	6,230	117	109
Commodity	**1,687**	**255**	**246**	1,474	176	165
Credit	**315**	**1**	**4**	360	1	4
Other [a]	**2,006**	**4**	**13**	390	4	1
Total	**73,715**	**1,030**	**857**	63,769	1,039	922
Netting adjustments [b]	**—**	**(443)**	**(616)**	—	(431)	(384)
Net derivatives in the balance sheet	**100,193**	**669**	**291**	88,288	803	636
Other collateral [c]	**—**	**(5)**	**(84)**	—	(21)	(97)
Net derivative amounts	**$ 100,193**	**$ 664**	**$ 207**	$ 88,288	$ 782	$ 539

(a) Other derivatives include interest rate lock commitments and forward sale commitments related to our residential mortgage banking activities, forward purchase and sales contracts consisting of contractual commitments associated with "to be announced" securities and when issued securities, and when-issued security transactions in connection with an "at-the-market" equity offering program.

(b) Netting adjustments represent the amounts recorded to convert our derivative assets and liabilities from a gross basis to a net basis in accordance with the applicable accounting guidance.

(c) Other collateral represents the amount that cannot be used to offset our derivative assets and liabilities from a gross basis to a net basis in accordance with the applicable accounting guidance. The other collateral consists of securities and is exchanged under bilateral collateral and master netting agreements that allow us to offset the net derivative position with the related collateral. The application of the other collateral cannot reduce the net derivative position below zero. Therefore, excess other collateral, if any, is not reflected above.

Fair value hedges. During the year ended December 31, 2017, we did not exclude any portion of these hedging instruments from the assessment of hedge effectiveness. While there is some immaterial ineffectiveness in our hedging relationships, all of our fair value hedges remained "highly effective" as of December 31, 2017.

The following table summarizes the pre-tax net gains (losses) on our fair value hedges for the years ended December 31, 2017, and December 31, 2016, and where they are recorded on the income statement.

in millions	Year Ended December 31, 2017 Income Statement Location of Net Gains (Losses) on Derivative	Net Gains (Losses) on Derivative	Hedged Item	Income Statement Location of Net Gains (Losses) on Hedged Item	Net Gains (Losses) on Hedged Item
Interest rate	Other income	**$ (103)**	Long-term debt	Other income	**$ 107** [a]
Interest rate	Interest expense – Long-term debt	**49**			
Total		**$ (54)**			**$ 107**

in millions	Year Ended December 31, 2016 Income Statement Location of Net Gains (Losses) on Derivative	Net Gains (Losses) on Derivative	Hedged Item	Income Statement Location of Net Gains (Losses) on Hedged Item	Net Gains (Losses) on Hedged Item
Interest rate	Other income	$ (95)	Long-term debt	Other income	$ 97 [a]
Interest rate	Interest expense – Long-term debt	96			
Total		$ 1			$ 97

(a) Net gains (losses) on hedged items represent the change in fair value caused by fluctuations in interest rates.

Cash flow hedges. During the year ended December 31, 2017, we did not exclude any portion of these hedging instruments from the assessment of hedge effectiveness. While there is some immaterial ineffectiveness in our hedging relationships, all of our cash flow hedges remained "highly effective" as of December 31, 2017.

Considering the interest rates, yield curves, and notional amounts as of December 31, 2017, we would expect to reclassify an estimated $39 million of after-tax net losses on derivative instruments from AOCI to income during the next 12 months for our cash flow hedges. In addition, we expect to reclassify approximately $3 million of net losses related to terminated cash flow hedges from AOCI to income during the next 12 months. As of December 31, 2017, the maximum length of time over which we hedge forecasted transactions is 11 years.

Net investment hedges. We enter into foreign currency forward contracts to hedge our exposure to changes in the carrying value of our investments as a result of changes in the related foreign exchange rates. At December 31, 2017, AOCI reflected unrecognized after-tax gains totaling $37 million related to cumulative changes in the fair value of our net investment hedges, which offset the unrecognized after-tax foreign currency losses on net investment balances. The ineffective portion of net investment hedging transactions is included in "other income" on the income statement, but there was no net investment hedge ineffectiveness as of December 31, 2017. We did not exclude any portion of our hedging instruments from the assessment of hedge effectiveness during the year ended December 31, 2017.

The following table summarizes the pre-tax net gains (losses) on our cash flow and net investment hedges for the years ended December 31, 2017, and December 31, 2016, and where they are recorded on the income statement. The table includes the effective portion of net gains (losses) recognized in OCI during the period, the effective portion of net gains (losses) reclassified from OCI into income during the current period, and the portion of net gains (losses) recognized directly in income, representing the amount of hedge ineffectiveness.

	Year Ended December 31, 2017				
in millions	Net Gains (Losses) Recognized in OCI (Effective Portion)	Income Statement Location of Net Gains (Losses) Reclassified From OCI Into Income (Effective Portion)	Net Gains (Losses) Reclassified From OCI Into Income (Effective Portion)	Income Statement Location of Net Gains (Losses) Recognized in Income (Ineffective Portion)	Net Gains (Losses) Recognized in Income (Ineffective Portion)
Cash Flow Hedges					
Interest rate	**$ (59)**	Interest income –Loans	**$ 19**	Other income	**—**
Interest rate	**—**	Interest expense –Long-term debt	**(4)**	Other income	**—**
Interest rate	**(1)**	Investment banking and debt placement fees	**—**	Other income	**—**
Net Investment Hedges					
Foreign exchange contracts	**(17)**	Other Income	**—**	Other income	**—**
Total	**$ (77)**		**$ 15**		**—**

	Year Ended December 31, 2016				
in millions	Net Gains (Losses) Recognized in OCI (Effective Portion)	Income Statement Location of Net Gains (Losses) Reclassified From OCI Into Income (Effective Portion)	Net Gains (Losses) Reclassified From OCI Into Income (Effective Portion)	Income Statement Location of Net Gains (Losses) Recognized in Income (Ineffective Portion)	Net Gains (Losses) Recognized in Income (Ineffective Portion)
Cash Flow Hedges					
Interest rate	$ 29	Interest income – Loans	$ 85	Other income	—
Interest rate	—	Interest expense – Long-term debt	(4)	Other income	—
Interest rate	1	Investment banking and debt placement fees	—	Other income	—
Net Investment Hedges					
Foreign exchange contracts	(2)	Other Income	—	Other income	—
Total	$ 28		$ 81		—

The after-tax change in AOCI resulting from cash flow and net investment hedges is as follows:

in millions	December 31, 2016	2017 Hedging Activity	Reclassification of Gains to Net Income	Reclassification to retained earnings resulting from new federal income tax rate	December 31, 2017
AOCI resulting from cash flow and net investment hedges	$ (14)	(48)	(10)	(14)	$ (86)

Nonhedging instruments.

The following table summarizes the pre-tax net gains (losses) on our derivatives that are not designated as hedging instruments for the years ended December 31, 2017, December 31, 2016, and December 31, 2015, and where they are recorded on the income statement.

Year ended December 31, *in millions*	2017				2016				2015		
	Corporate Services Income	Consumer Mortgage Income[a]	Other Income	Total	Corporate Services Income	Consumer Mortgage Income[a]	Other Income	Total	Corporate Services Income	Other Income	Total
NET GAINS (LOSSES)											
Interest rate	$ 29	—	$ (1)	$ 28	$ 30	—	$ 1	$ 31	$ 28	—	$ 28
Foreign exchange	41	—	—	41	40	—	—	40	36	—	36
Commodity	6	—	—	6	4	—	—	4	5	—	5
Credit	2	—	(21)	(19)	1	—	(16)	(15)	(1)	$ (15)	(16)
Other	—	$ (1)	(6)	(7)	—	$ 1	—	1	—	—	—
Total net gains (losses)	$ 78	$ (1)	$ (28)	$ 49	$ 75	$ 1	$ (15)	$ 61	$ 68	$ (15)	$ 53

(a) As a result of the First Niagara acquisition, we began recognizing net gains (losses) on other derivatives related to our residential mortgage banking activities in “consumer mortgage income” in 2016.

Counterparty Credit Risk

Like other financial instruments, derivatives contain an element of credit risk. This risk is measured as the expected positive replacement value of the contracts. We use several means to mitigate and manage exposure to credit risk on derivative contracts. We generally enter into bilateral collateral and master netting agreements that provide for the net settlement of all contracts with a single counterparty in the event of default. Additionally, we monitor counterparty credit risk exposure on each contract to determine appropriate limits on our total credit exposure across all product types. We review our collateral positions on a daily basis and exchange collateral with our counterparties in accordance with standard ISDA documentation, central clearing rules, and other related agreements. We generally hold collateral in the form of cash and highly rated securities issued by the U.S. Treasury, government-sponsored enterprises, or GNMA. The cash collateral netted against derivative assets on the balance sheet totaled $23 million at December 31, 2017, and $155 million at December 31, 2016. The cash collateral netted against derivative liabilities totaled $150 million at December 31, 2017, and $108 million at December 31, 2016.

During the first quarter of 2017, the relevant agreements that allow us to access the central clearing organizations to clear derivative transactions became qualified master netting agreements resulting in a change in how cash collateral is reflected on our balance sheet and in related disclosures. As a result, all cash collateral exchanged with central clearing organizations is now netted against the related derivative contracts on our balance sheet and related disclosures. Cash collateral exchanged with central clearing organizations was included in “short-term investments” and “NOW and money market deposit accounts” on the balance sheet in all periods prior to March 31, 2017. At December 31, 2017 and December 31, 2016, respectively, we posted $383 million and $448 million of cash collateral with clearing organizations and held $99 million and $59 million of cash collateral from clearing organizations.

Additionally, the CME amended its rulebook effective January 3, 2017, to characterize variation margin payments made to and received from the CME as settlement of derivatives, not collateral against derivative exposure. As a result, variation margin payments with the CME are presented on the balance sheet and in related disclosures as part of the gross fair value of CME-cleared derivative assets and liabilities. At December 31, 2017, we had paid $239 million and received $64 million in variation margin to settle CME-cleared derivatives. In addition, under the CME’s settlement rulebook, CME-cleared derivative assets and liabilities are offset against one another to determine the gross asset or liability exposure of CME-cleared derivatives.

Netting cash collateral exchanged with all central clearing organizations and applying variation margin payments as settlement to CME-cleared derivative transactions resulted in an increase of net derivative assets on our balance sheet of $2 million and a reduction of net derivative liabilities on our balance sheet of $283 million as of December 31, 2017, as compared to December 31, 2016.

The following table summarizes the fair value of our derivative assets by type at the dates indicated. These assets represent our gross exposure to potential loss after taking into account the effects of bilateral collateral and master netting agreements and other means used to mitigate risk.

December 31, *in millions*	2017	2016
Interest rate	**$ 401**	$ 782
Foreign exchange	**77**	62
Commodity	**163**	110
Credit	**1**	—
Other	**4**	4
Derivative assets before collateral	**646**	958
Less: Related collateral	**(23)**	155
Total derivative assets	**$ 669**	$ 803

We enter into derivative transactions with two primary groups: broker-dealers and banks, and clients. Since these groups have different economic characteristics, we have different methods for managing counterparty credit exposure and credit risk.

We enter into transactions with broker-dealers and banks for various risk management purposes. These types of transactions generally are high dollar volume. We generally enter into bilateral collateral and master netting agreements with these counterparties. We clear certain types of derivative transactions with these counterparties, whereby central clearing organizations become the counterparties to our derivative contracts. In addition, we enter into derivative contracts through swap execution facilities. Swap clearing and swap execution facilities reduce our exposure to counterparty credit risk. At December 31, 2017, we had gross exposure of $450 million to broker-dealers and banks. We had net exposure of $210 million after the application of master netting agreements and cash collateral, where such qualifying agreements exist. We had net exposure of $197 million after considering $13 million of additional collateral held in the form of securities.

We enter into transactions with clients to accommodate their business needs. These types of transactions generally are low dollar volume. We generally enter into master netting agreements with these counterparties. In addition, we mitigate our overall portfolio exposure and market risk by buying and selling U.S. Treasuries and Eurodollar futures and entering into offsetting positions and other derivative contracts, sometimes with entities other than broker-dealers and banks. Due to the smaller size and magnitude of the individual contracts with clients, we generally do not exchange collateral in connection with these derivative transactions. To address the risk of default associated with the uncollateralized contracts, we have established a credit valuation adjustment (included in “derivative assets”) in the amount of $4 million at December 31, 2017, which we estimate to be the potential future losses on amounts due from client counterparties in the event of default. At December 31, 2017, we had gross exposure of $503 million to client counterparties and other entities that are not broker-dealers or banks for derivatives that have associated master netting agreements. We had net exposure of $459 million on our derivatives with these counterparties after the application of master netting agreements, collateral, and the related reserve.

Credit Derivatives

We are a buyer and, under limited circumstances, may be a seller of credit protection through the credit derivative market. We purchase credit derivatives to manage the credit risk associated with specific commercial lending and swap obligations as well as exposures to debt securities.

The following table summarizes the fair value of our credit derivatives purchased and sold by type as of December 31, 2017, and December 31, 2016. The fair value of credit derivatives presented below does not take into account the effects of bilateral collateral or master netting agreements.

December 31, *in millions*	2017			2016		
	Purchased	Sold	Net	Purchased	Sold	Net
Single-name credit default swaps	**$ (1)**	**— $ (1)**	$ (2)	— $ (2)
Traded credit default swap indices	**(2)**	**— (2)**	(1)	— (1)
Other[(a)]	**—**	**— —**	—	— —
Total credit derivatives	**$ (3)**	**— $ (3)**	$ (3)	— $ (3)

(a) As of December 31, 2017 and December 31, 2016, the fair value of other credit derivatives purchased and sold totaled less than $1 million.

Single-name credit default swaps are bilateral contracts whereby the seller agrees, for a premium, to provide protection against the credit risk of a specific entity (the "reference entity") in connection with a specific debt obligation. The protected credit risk is related to adverse credit events, such as bankruptcy, failure to make payments, and acceleration or restructuring of obligations, identified in the credit derivative contract. A traded credit default swap index represents a position on a basket or portfolio of reference entities.

The majority of transactions represented by the "other" category shown in the above table are risk participation agreements. In these transactions, the lead participant has a swap agreement with a customer. The lead participant (purchaser of protection) then enters into a risk participation agreement with a counterparty (seller of protection), under which the counterparty receives a fee to accept a portion of the lead participant's credit risk. If the customer defaults on the swap contract, the counterparty to the risk participation agreement must reimburse the lead participant for the counterparty's percentage of the positive fair value of the customer swap as of the default date. If the customer swap has a negative fair value, the counterparty has no reimbursement requirements. If the customer defaults on the swap contract and the seller fulfills its payment obligations under the risk participation agreement, the seller is entitled to a *pro rata* share of the lead participant's claims against the customer under the terms of the swap agreement.

The following table provides information on the types of credit derivatives sold by us and held on the balance sheet at December 31, 2017, and December 31, 2016. The notional amount represents the maximum amount that the seller could be required to pay. The payment/performance risk assessment is based on the default probabilities for the underlying reference entities' debt obligations using a Moody's credit ratings matrix known as Moody's "Idealized" Cumulative Default Rates. The payment/performance risk shown in the table represents a weighted-average of the default probabilities for all reference entities in the respective portfolios. These default probabilities are directly correlated to the probability that we will have to make a payment under the credit derivative contracts.

	2017			2016		
December 31, *dollars in millions*	**Notional Amount**	**Average Term (Years)**	**Payment / Performance Risk**	**Notional Amount**	**Average Term (Years)**	**Payment / Performance Risk**
Other	**$ 15**	**3.08**	**6.64%**	$ 4	6.49	17.93%
Total credit derivatives sold	**$ 15**	**—**	**—**	$ 4	—	—

Credit Risk Contingent Features

We have entered into certain derivative contracts that require us to post collateral to the counterparties when these contracts are in a net liability position. The amount of collateral to be posted is based on the amount of the net liability and thresholds generally related to our long-term senior unsecured credit ratings with Moody's and S&P. Collateral requirements also are based on minimum transfer amounts, which are specific to each Credit Support Annex (a component of the ISDA Master Agreement) that we have signed with the counterparties. In a limited number of instances, counterparties have the right to terminate their ISDA Master Agreements with us if our ratings fall below a certain level, usually investment-grade level (i.e., "Baa3" for Moody's and "BBB-" for S&P). At December 31, 2017, KeyBank's rating was "A3" with Moody's and "A-" with S&P, and KeyCorp's rating was "Baa1" with Moody's and "BBB+" with S&P. As of December 31, 2017, the aggregate fair value of all derivative contracts with credit risk contingent features (i.e., those containing collateral posting or termination provisions based on our ratings) held by KeyBank that were in a net liability position totaled $215 million, which includes $188 million in derivative assets and $403 million in derivative liabilities. We had $202 million in cash and securities collateral posted to cover those positions as of December 31, 2017. There were no derivative contracts with credit risk contingent features held by KeyCorp at December 31, 2017.

The following table summarizes the additional cash and securities collateral that KeyBank would have been required to deliver under the ISDA Master Agreements had the credit risk contingent features been triggered for the derivative contracts in a net liability position as of December 31, 2017, and December 31, 2016. The additional collateral amounts were calculated based on scenarios under which KeyBank's ratings are downgraded one, two, or three ratings as of December 31, 2017, and December 31, 2016, and take into account all collateral already posted. A similar calculation was performed for KeyCorp, and no additional collateral would have been required at December 31, 2017, or December 31, 2016.

December 31, *in millions*	2017		2016	
	Moody's	S&P	Moody's	S&P
KeyBank's long-term senior unsecured credit ratings	A3	A-	A3	A-
One rating downgrade	$ 2	$ 2	$ 2	$ 2
Two rating downgrades	2	2	2	2
Three rating downgrades	2	2	2	2

KeyBank's long-term senior unsecured credit rating was four ratings above noninvestment grade at Moody's and S&P as of December 31, 2017, and December 31, 2016. If KeyBank's ratings had been downgraded below investment grade as of December 31, 2017, and December 31, 2016, payments of up to $12 million and $4 million, respectively, would have been required to either terminate the contracts or post additional collateral for those contracts in a net liability position, taking into account all collateral already posted. If KeyCorp's ratings had been downgraded below investment grade as of December 31, 2017, and December 31, 2016, payments of $0 and less than $1 million would have been required to either terminate the contracts or post additional collateral for those contracts in a net liability position, taking into account all collateral already posted.

10. Mortgage Servicing Assets

We originate and periodically sell commercial and residential mortgage loans but continue to service those loans for the buyers. We also may purchase the right to service commercial mortgage loans for other lenders. We record a servicing asset if we purchase or retain the right to service loans in exchange for servicing fees that exceed the going market servicing rate and are considered more than adequate compensation for servicing. Additional information pertaining to the accounting for mortgage and other servicing assets is included in Note 1 ("Summary of Significant Accounting Policies") under the heading "Servicing Assets."

Commercial

Changes in the carrying amount of commercial mortgage servicing assets are summarized as follows:

Year ended December 31, *in millions*	2017	2016
Balance at beginning of period	$ 356	$ 322
Servicing retained from loan sales	110	80
Purchases	36	41
Amortization	(90)	(87)
Balance at end of period	$ 412	$ 356
Fair value at end of period	$ 537	$ 459

The fair value of commercial mortgage servicing assets is determined by calculating the present value of future cash flows associated with servicing the commercial mortgage loans. This calculation uses a number of assumptions that are based on current market conditions. The range and weighted-average of the significant unobservable inputs used to fair value our commercial mortgage servicing assets at December 31, 2017, and December 31, 2016, along with the valuation techniques, are shown in the following table:

December 31, 2017	Valuation Technique	Significant Unobservable Input	Range (Weighted-Average)
Commercial mortgage servicing assets	Discounted cash flow	Expected defaults	1.00 - 3.00% (1.20%)
		Residual cash flows discount rate	7.00 - 15.00% (9.10%)
		Escrow earn rate	0.90 - 3.10% (2.50%)
		Servicing cost	$150 - $38,500 ($1,468)
		Loan assumption rate	0.00 - 3.00% (1.22%)
		Percentage late	0.00 - 1.30% (.25%)

December 31, 2016	Valuation Technique	Significant Unobservable Input	Range (Weighted-Average)
Commercial mortgage servicing assets	Discounted cash flow	Expected defaults	1.00 - 3.00% (1.40%)
		Residual cash flows discount rate	7.00 - 12.00% (8.00%)
		Escrow earn rate	1.10 - 3.00% (2.40%)
		Servicing cost	$150 - $2,700 ($1,124)
		Loan assumption rate	0.00 - 3.00% (1.13%)
		Percentage late	0.00 - 2.00% (.34%)

If these economic assumptions change or prove incorrect, the fair value of commercial mortgage servicing assets may also change. Expected credit losses, escrow earn rates, and discount rates are critical to the valuation of commercial mortgage servicing assets. Estimates of these assumptions are based on how a market participant would view the respective rates and reflect historical data associated with the commercial mortgage loans, industry trends, and other considerations. Actual rates may differ from those estimated due to changes in a variety of economic factors. A decrease in the value assigned to the escrow earn rates would cause a decrease in the fair value of our commercial mortgage servicing assets. An increase in the assumed default rates of commercial mortgage loans or an increase in the assigned discount rates would cause a decrease in the fair value of our commercial mortgage servicing assets. Prepayment activity on commercial serviced loans does not significantly impact the valuation of our commercial mortgage servicing assets. Unlike residential mortgages, commercial mortgages experience significantly lower prepayments due to certain contractual restrictions impacting the borrower's ability to prepay the mortgage.

The amortization of commercial mortgage servicing assets for each period, as shown in the table at the beginning of this note, is recorded as a reduction to contractual fee income. The contractual fee income from servicing commercial mortgage loans totaled $150 million for the year ended December 31, 2017, $139 million for the year ended December 31, 2016, and $142 million for the year ended December 31, 2015. This fee income was partially offset by $90 million of amortization for the year ended December 31, 2017, $87 million for the year ended December 31, 2016, and $94 million for the year ended December 31, 2015. Both the contractual fee income and the amortization are recorded, net, in "mortgage servicing fees" on the income statement.

Residential

With the First Niagara acquisition, we acquired residential mortgage servicing assets with a fair value of $28 million as of the Acquisition Date. Changes in the carrying amount of residential mortgage servicing assets are summarized as follows:

in millions	2017	2016
Balance at beginning of period	$ 28	—
Servicing retained from loan sales	7	$ 2
Purchases	—	28
Amortization	(4)	(2)
Balance at end of period	$ 31	$ 28
Fair value at end of period	$ 37	$ 33

The fair value of residential mortgage servicing assets is determined by calculating the present value of future cash flows associated with servicing the residential mortgage loans. This calculation uses a number of assumptions that are based on current market conditions. The range and weighted-average of the significant unobservable inputs used to fair value our residential mortgage servicing assets at December 31, 2017, along with the valuation techniques, are shown in the following table:

December 31, 2017	Valuation Technique	Significant Unobservable Input	Range (Weighted-Average)
Residential mortgage servicing assets	Discounted cash flow	Prepayment speed	9.16 - 51.52% (10.46%)
		Discount rate	8.50 - 11.00% (8.54%)
		Servicing cost	$76 - $4,385 ($83.11)

December 31, 2016	Valuation Technique	Significant Unobservable Input	Range (Weighted-Average)
Residential mortgage servicing assets	Discounted cash flow	Prepayment speed	7.79 - 18.61% (9.42%)
		Discount rate	8.50 - 11.00% (8.55%)
		Servicing cost	$76 - $3,335 ($83.04)

If these economic assumptions change or prove incorrect, the fair value of residential mortgage servicing assets may also change. Prepayment speed, discount rates, and servicing cost are critical to the valuation of residential mortgage servicing assets. Estimates of these assumptions are based on how a market participant would view the respective rates and reflect historical data associated with the residential mortgage loans, industry trends, and other considerations. Actual rates may differ from those estimated due to changes in a variety of economic factors. An increase in the prepayment speed would cause a negative impact on the fair value of our residential mortgage servicing assets. An increase in the assigned discount rates and servicing cost assumptions would cause a decrease in the fair value of our residential mortgage servicing assets.

The amortization of residential mortgage servicing assets for December 31, 2017, as shown in the table above, is recorded as a reduction to contractual fee income. The contractual fee income from servicing residential mortgage loans totaled $12 million for the year ended December 31, 2017. This fee income was offset by $4 million of amortization for the year ended December 31, 2017. Both the contractual fee income and the amortization are recorded, net, in “mortgage servicing fees” on the income statement.

11. Premises and Equipment

Premises and equipment at December 31, 2017, and December 31, 2016, consisted of the following:

dollars in millions	Useful life *(in years)*	December 31, 2017	2016
Land	Indefinite	**$ 138**	$ 139
Buildings and improvements	15-40	**741**	727
Leasehold improvements	1-15	**633**	663
Furniture and equipment	2-15	**931**	943
Capitalized building leases	1-15[(a)]	**27**	27
Construction in process	N/A	**38**	42
Total premises and equipment		**2,508**	2,541
Less: Accumulated depreciation and amortization		**(1,578)**	(1,563)
Premises and equipment, net		**$ 930**	$ 978

(a) Capitalized building and equipment leases are amortized over the lesser of the useful life of asset or lease term.

Depreciation and amortization expense related to premises and equipment for the years ended December 31, 2017, December 31, 2016, and December 31, 2015 was $138 million, $123 million, and $120 million, respectively. This includes amortization of assets under capital leases.

12. Goodwill and Other Intangible Assets

Our annual goodwill impairment testing is performed as of October 1 each year, or more frequently as events occur or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. Additional information pertaining to our accounting policy for goodwill and other intangible assets is summarized in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Goodwill and Other Intangible Assets.”

We conducted a quantitative Step 1 analysis as of October 1, 2017. We determined that the estimated fair value of the Key Community Bank unit was 48% greater than its carrying amount and the estimated fair value of the Key Corporate Bank unit was 39% greater than its carrying amount. As such, goodwill was not impaired. The carrying amounts of the Key Community Bank and Key Corporate Bank units represent the average equity based on risk-weighted regulatory capital for goodwill impairment testing and management reporting purposes. In 2016, we conducted a qualitative assessment and concluded that it was not more likely than not that the fair values of our reporting units were less than their respective carrying values; therefore, goodwill was not impaired.

Based on our quarterly review of impairment indicators during 2017 and 2016, it was not necessary to perform further reviews of goodwill recorded in our Key Community Bank or Key Corporate Bank units. We will continue to monitor the Key Community Bank and Key Corporate Bank units as appropriate since it is particularly dependent upon economic conditions that impact credit risk and behavior.

Changes in the carrying amount of goodwill by reporting unit are presented in the following table:

in millions	Key Community Bank	Key Corporate Bank	Total
BALANCE AT DECEMBER 31, 2015	$ 979	$ 81	$ 1,060
Acquisition of First Niagara	1,109	277	1,386
BALANCE AT DECEMBER 31, 2016	2,088	358	2,446
Fair value measurement adjustments - First Niagara acquisition	**15**	**3**	**18**
Additional ownership interest in Key Merchant Services	**4**	**—**	**4**
Acquisition of HelloWallet	**17**	**—**	**17**
Acquisition of Cain Brothers	**—**	**53**	**53**
BALANCE AT DECEMBER 31, 2017	**$ 2,124**	**$ 414**	**$ 2,538**

Additional information regarding the above acquisitions is provided in Note 2 (“Business Combination”) and Note 15 (“Acquisitions, Divestiture, and Discontinued Operations”).

As of December 31, 2017, we expected goodwill in the amount of $627 million to be deductible for tax purposes in future periods.

There were no accumulated impairment losses related to the Key Community Bank unit or the Key Corporate Bank unit at December 31, 2017, December 31, 2016, and December 31, 2015.

The following table shows the gross carrying amount and the accumulated amortization of intangible assets subject to amortization:

	2017		2016	
December 31, *in millions*	**Gross Carrying Amount**	**Accumulated Amortization**	**Gross Carrying Amount**	**Accumulated Amortization**
Intangible assets subject to amortization:				
Core deposit intangibles	**$ 461**	**$ 192**	$ 461	$ 125
PCCR intangibles	**152**	**126**	152	110
Other intangible assets [(a)]	**128**	**7**	74	68
Total	**$ 741**	**$ 325**	$ 687	$ 303

(a) Carrying amount and accumulated amortization excludes $18 million at December 31, 2016, related to the discontinued operations of Austin and the sale of Victory.

As a result of the acquisition of First Niagara on August 1, 2016, intangible assets were recognized at the acquisition date fair value of $385 million. The core deposit intangible asset recognized as part of the First Niagara merger of $356 million is being amortized over its estimated useful life of approximately ten years utilizing an accelerated method. The commercial purchased credit card relationships recognized as part of the First Niagara merger are being amortized over their estimated useful life of approximately six years utilizing an accelerated method. The consumer purchased credit card relationships recognized as part of the First Niagara merger are being amortized over their estimated useful life of approximately nine years utilizing an accelerated method.

Intangible assets acquired during the year ended December 31, 2017 were as follows:

in millions	KMS	HelloWallet	Cain Brothers	Total
Intangible assets subject to amortization:				
Customer relationships	$ 85	—	$ 29	$ 114
Trade name	—	—	1	1
Proprietary software	—	$ 12	—	12
Total	$ 85	$ 12	$ 30	$ 127

Acquired customer relationships of KMS are being amortized over an estimated useful life of ten years utilizing an accelerated method. Proprietary software intangible assets of HelloWallet are being amortized on a straight line basis over their average useful life of three years. Acquired customer relationships of Cain Brothers are being amortized on an accelerated basis over an average useful life of eight years. The Cain Brothers trade name intangible asset is being amortized on a straight line basis over the estimated useful life of three years.

The following table presents estimated intangible asset amortization expense for the next five years.

	Estimated				
	2018	2019	2020	2021	2022
Intangible asset amortization expense	$ 96	$ 79	$ 64	$ 52	$ 42

13. Variable Interest Entities

A VIE is a partnership, limited liability company, trust, or other legal entity that meets any one of the following criteria:

- The entity does not have sufficient equity to conduct its activities without additional subordinated financial support from another party.
- The entity's investors lack the power to direct the activities that most significantly impact the entity's economic performance.
- The entity's equity at risk holders do not have the obligation to absorb losses or the right to receive residual returns.
- The voting rights of some investors are not proportional to their economic interests in the entity, and substantially all of the entity's activities involve, or are conducted on behalf of, investors with disproportionately few voting rights.

Our significant VIEs are summarized below. We define a "significant interest" in a VIE as a subordinated interest that exposes us to a significant portion, but not the majority, of the VIE's expected losses or residual returns, even though we do not have the power to direct the activities that most significantly impact the entity's economic performance.

LIHTC investments. Through KCDC, we have made investments directly and indirectly in LIHTC operating partnerships formed by third parties. As a limited partner in these operating partnerships, we are allocated tax credits and deductions associated with the underlying properties. We have determined that we are not the primary beneficiary of these investments because the general partners have the power to direct the activities that most significantly influence the economic performance of their respective partnerships and have the obligation to absorb expected losses and the right to receive residual returns. As we are not the primary beneficiary of these investments, we do not consolidate them.

Our maximum exposure to loss in connection with these partnerships consists of our unamortized investment balance plus any unfunded equity commitments and tax credits claimed but subject to recapture. We had $1.3 billion and $1.2 billion of investments in LIHTC operating partnerships at December 31, 2017, and December 31, 2016, respectively. These investments are recorded in "accrued income and other assets" on our balance sheet. We do not have any loss reserves recorded related to these investments because we believe the likelihood of any loss is remote. For all legally binding unfunded equity commitments, we increase our recognized investment and recognize a liability. As of December 31, 2017, and December 31, 2016, we had liabilities of $476 million and $462 million, respectively, related to investments in qualified affordable housing projects, which are recorded in "accrued expense and other liabilities" on our balance sheet. We continue to invest in these LIHTC operating partnerships.

The assets and liabilities presented in the table below convey the size of KCDC's direct and indirect investments at December 31, 2017, and December 31, 2016. As these investments represent unconsolidated VIEs, the assets and liabilities of the investments themselves are not recorded on our balance sheet.

	Unconsolidated VIEs		
in millions	Total Assets	Total Liabilities	Maximum Exposure to Loss
December 31, 2017			
LIHTC investments	**$ 6,003**	**$ 2,943**	**$ 1,561**
December 31, 2016			
LIHTC investments	$ 4,814	$ 2,003	$ 1,465

We amortize our LIHTC investments over the period that we expect to receive the tax benefits. In 2017, we recognized $172 million of amortization and $171 million of tax credits associated with these investments within "income taxes" on our income statement. Also, in the fourth quarter of 2017, we recognized $12 million in LIHTC impairment expense related to tax reform and $3 million unrelated to tax reform within "other noninterest expense." In 2016, we recognized $131 million of amortization and $144 million of tax credits associated with these investments within "income taxes" on our income statement.

Principal investments. Through our principal investing entity, KCC, we have made investments in private equity funds engaged in venture- and growth-oriented investing. As a limited partner to these funds, KCC records these investments at fair value and receives distributions from the funds in accordance with the funds' partnership agreements. We are not the primary beneficiary of these investments as we do not hold the power to direct the activities that most significantly affect the funds' economic performance. Such power rests with the funds' general partners. In addition, we neither have the obligation to absorb the funds' expected losses nor the right to receive their residual returns. Our voting rights are also disproportionate to our economic interests, and substantially all of the funds' activities are conducted on behalf of investors with disproportionately few voting rights. Because we are not the primary beneficiary of these investments, we do not consolidate them.

Our maximum exposure to loss associated with indirect principal investments consists of the investments' fair value plus any unfunded equity commitments. The fair value of our indirect principal investments totaled $124 million and $158 million at December 31, 2017, and December 31, 2016, respectively. These investments are recorded in "other investments" on our balance sheet. Additional information on indirect principal investments is provided in Note 7 ("Fair Value Measurements"). The table below reflects the size of the private equity funds in which KCC was invested as well as our maximum exposure to loss in connection with these investments at December 31, 2017.

	Unconsolidated VIEs		
in millions	Total Assets	Total Liabilities	Maximum Exposure to Loss
December 31, 2017			
KCC indirect investments	**$ 26,817**	**$ 292**	**$ 153**
December 31, 2016			
KCC indirect investments	$ 32,755	$ 201	$ 195

Other unconsolidated VIEs. We are involved with other various entities in the normal course of business which we have determined to be VIEs. We have determined that we are not the primary beneficiary of these VIEs because we do not have the power to direct the activities that most significantly impact their economic performance. Our assets associated with these unconsolidated VIEs totaled $230 million at December 31, 2017, and $178 million at December 31, 2016. These assets are recorded in "accrued income and other assets," "other investments," "securities available for sale," and "loans, net of unearned income" on our balance sheet. We had liabilities totaling $4 million associated with these unconsolidated VIEs at December 31, 2017, and $4 million at December 31, 2016. These liabilities are recorded in "accrued expenses and other liabilities" on our balance sheet. We have excluded certain transactions with unconsolidated VIEs from the balances above where we determine our continuing involvement is not significant. In addition, where we only have a lending arrangement in the normal course of business with unconsolidated VIEs we present the balances related to the lending arrangements in Note 6 ("Asset Quality").

Consolidated VIEs. Through our principal investing entity, KPP, we have formed and funded operating entities that provide management and other related services to our investment company funds, which directly invest in portfolio companies. In return for providing services to our direct investment funds, these entities' receive a minority equity interest in the funds. This minority equity ownership is recorded at fair value on the entities' financial statements. Additional information on our direct principal investments is provided in Note 7 ("Fair Value Measurements"). While other equity investors manage the daily operations of these entities, we retain the power, through voting rights, to direct the activities of the entities that most significantly impact their economic performance. In addition, we have the obligation to absorb losses and the right to receive residual returns that could potentially be significant to these entities. As a result, we have determined that we are the primary beneficiary of these funds and have consolidated them since formation. The assets of these KPP entities that can only be used to settle the entities' obligations totaled $4 million at December 31, 2017, and $1 million at December 31, 2016. These assets are recorded in "cash and due from banks" and "accrued income and other assets" on our balance sheet. The entities had no liabilities at both December 31, 2017, and December 31, 2016, and other equity investors have no recourse to our general credit.

14. Income Taxes

Income taxes included in the income statement are summarized below. We file a consolidated federal income tax return.

Year ended December 31, *in millions*	**2017**	**2016**	**2015**
Currently payable:			
Federal	**$ 334**	$ 149	$ 337
State	**—**	19	42
Total currently payable	**334**	168	379
Deferred:			
Federal	**274**	13	(69)
State	**29**	(2)	(7)
Total deferred	**303**	11	(76)
Total income tax (benefit) expense [(a)]	**$ 637**	$ 179	$ 303

(a) There was no income tax (benefit) expense on securities transactions in 2017, 2016, and 2015. Income tax expense excludes equity- and gross receipts-based taxes, which are assessed in lieu of an income tax in certain states in which we operate. These taxes, which are recorded in "noninterest expense" on the income statement, totaled $22 million in 2017, $18 million in 2016, and $16 million in 2015.

Significant components of our deferred tax assets and liabilities included in "accrued income and other assets" and "accrued expense and other liabilities," respectively, on the balance sheet, are as follows:

December 31, *in millions*	**2017**	**2016**
Allowance for loan and lease losses	**$ 233**	$ 373
Employee benefits	**147**	276
Net unrealized securities losses	**138**	146
Federal net operating losses and credits	**205**	130
Fair value adjustments	**63**	136
Non-tax accruals	**89**	150
State net operating losses and credits	**7**	15
Other	**223**	236
Gross deferred tax assets	**1,105**	1,462
Less: Valuation Allowance	**15**	26
Total deferred tax assets	**1,090**	1,436
Leasing transactions	**588**	728
Other	**182**	101
Total deferred tax liabilities	**770**	829
Net deferred tax assets (liabilities) [(a)]	**$ 320**	$ 607

(a) From continuing operations.

On December 22, 2017, the TCJ Act was signed into law. This comprehensive tax legislation provides for significant changes to the U.S. Internal Revenue Code of 1986, as amended, that impact corporate taxation requirements, such as the reduction in the federal corporate income tax rate from 35% to 21% effective January 1, 2018. The TCJ

Act retains the low-income housing and research and development credits and repeals the corporate alternative minimum tax. Other relevant corporate changes include earlier recognition of certain revenue; accelerating expensing of investments in tangible property, including leasing assets; and limiting several deductions such as FDIC premiums, certain executive compensation, and meals and entertainment expenses.

Key is required to re-value certain tax-related assets under the provisions of the TCJ Act at December 31, 2017. Under current U.S. GAAP, deferred tax assets and liabilities are to be adjusted for the effect of a change in tax laws or rates with the effect included in income from continuing operations in the reporting period that includes the enactment date. The tax-related assets consist primarily of deferred tax assets and liabilities and investments in low-income housing transactions. Due to the close proximity of our year end to the date the TCJ Act was signed into law, we estimated the impact of the income tax effects as of December 31, 2017 based upon currently available information which resulted in a reduction to our net income of $161 million. The significant components of this reduction included a $14 million reduction in our investments in certain low-income housing that is reflected in other expenses and a $147 million, or 7.6%, increase in our income tax provision due to the reduction to our net deferred tax asset and related actions. This reduction is primarily the result of the lower federal corporate income tax rate, is based on information available at this time, and is subject to change due to a variety of factors, including among others: (i) completion of Key's 2017 federal and state income tax returns, and (ii) management's further assessment of the TCJ Act and related regulatory guidance. Adjustments may be made in future periods to these estimates as we continue to obtain, prepare and analyze information about facts and circumstances that existed as of the enactment date that, if known, would have affected the income tax effects reported as provisional amounts. Key expects to finalize this impact in the quarter ending September 30, 2018.

The accounting for the changes in tax law resulted in stranded tax effects within accumulated other comprehensive income for items that were originally recognized in other comprehensive income rather than in net income. The FASB recently issued an accounting standard update allowing companies to reclassify stranded tax effects resulting from the TCJ Act from accumulated other comprehensive income to retained earnings. We early adopted this guidance during the quarter ended December 31, 2017 and utilizing the portfolio method reclassified $141 million from accumulated other comprehensive income to retained earnings to eliminate the stranded tax effects.

We conduct quarterly assessments of all available evidence to determine the amount of deferred tax assets that are more-likely-than-not to be realized, and therefore recorded. The available evidence used in connection with these assessments includes taxable income in prior periods, projected future taxable income, potential tax-planning strategies, and projected future reversals of deferred tax items. These assessments involve a degree of subjectivity and may undergo significant change. Based on these criteria, we have recorded $15 million of valuation allowances at December 31, 2017; primarily against federal and state capital loss carryforwards acquired in the First Niagara acquisition.

At December 31, 2017, we have federal net operating loss carryforwards of $79 million, federal credit carryforwards of $189 million, and capital loss carryforwards of $15 million. The federal net operating loss carryforwards are from prior acquisitions by First Niagara and are subject to annual limitations under the tax code and, if not utilized, will expire in the years beginning 2027. We currently expect to fully utilize these losses. The federal credit carryforwards which consist primarily of AMT credit carryforwards, have no expiration under the Internal Revenue Code and general business credits which expire in 2037.

The capital loss carryforwards if not utilized, will expire in 2018 and 2019. Realization of these tax benefits is dependent upon Key's ability to generate sufficient capital gain in an appropriate tax year to offset the capital loss carryforwards. At this time, generation of sufficient capital gain income is uncertain.

We had state net operating loss carryforwards of $72 million, and state credit carryforwards of $5 million, resulting in a net state deferred tax asset of $7 million. Additionally, we had state capital loss carryforwards of $2 million. These carryforwards, if not utilized, will gradually expire through 2031.

The following table shows how our total income tax expense (benefit) and the resulting effective tax rate were derived:

Year ended December 31, *dollars in millions*	2017		2016		2015	
	Amount	Rate	Amount	Rate	Amount	Rate
Income (loss) before income taxes times 35% statutory federal tax rate	**$ 675**	**35.0%**	$ 339	35.0%	$ 428	35.0%
Amortization of tax-advantaged investments	**104**	**5.4**	88	9.0	81	6.7
Foreign tax adjustments	**1**	**.1**	1	.1	(1)	(.1)
Tax-exempt interest income	**(37)**	**(1.9)**	(25)	(2.6)	(18)	(1.5)
Corporate-owned life insurance income	**(46)**	**(2.4)**	(44)	(4.5)	(45)	(3.6)
State income tax, net of federal tax benefit	**19**	**1.0**	11	1.1	22	1.8
Tax credits	**(218)**	**(11.3)**	(208)	(21.3)	(155)	(12.7)
Tax Cuts and Jobs Act	**147**	**7.6**	—	—	—	—
Other	**(8)**	**(.5)**	17	1.7	(9)	(.8)
Total income tax expense (benefit)	**$ 637**	**33.0%**	$ 179	18.5%	$ 303	24.8%

Liability for Unrecognized Tax Benefits

The change in our liability for unrecognized tax benefits is as follows:

Year ended December 31, *in millions*	2017	2016
Balance at beginning of year	**$ 53**	$ 12
Increase for other tax positions of prior years	**3**	10
Increase from Acquisitions	**3**	33
Decrease for payments and settlements	**(4)**	—
Decrease related to tax positions taken in prior years	**(16)**	(2)
Balance at end of year	**$ 39**	$ 53

Each quarter, we review the amount of unrecognized tax benefits recorded in accordance with the applicable accounting guidance. Any adjustment to unrecognized tax benefits is recorded in income tax expense. The amount of unrecognized tax benefits that, if recognized, would affect our effective tax rate was $39 million at December 31, 2017, and $53 million at December 31, 2016. We do not currently anticipate that the amount of unrecognized tax benefits will significantly change over the next 12 months.

As permitted under the applicable accounting guidance, it is our policy to record interest and penalties related to unrecognized tax benefits in income tax expense. We recorded net interest benefit of $1.3 million and $.4 million in 2017 and 2016, respectively and net interest expense of $.6 million in 2015. We recovered state tax penalties of $1 million in 2017 and $.3 million in 2015. We did not recover any state tax penalties in 2016. At December 31, 2017, we had an accrued interest payable of $4 million, compared to $3 million at December 31, 2016. Our liability for accrued state tax penalties was $0 million at December 31, 2017, and $1 million at December 31, 2016.

The amount of unrecognized tax benefits to be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss or a tax credit carryforward if certain criteria are met at December 31, 2017, and December 31, 2016, are $17.2 million and $10.1 million, respectively.

We file federal income tax returns, as well as returns in various state and foreign jurisdictions. We are subject to income tax examination by the IRS for the tax years 2013 and forward. Currently, we are not under audit for the tax years 2013 and forward. We are not subject to income tax examinations by other tax authorities for years prior to 2007.

Pre-1988 Bank Reserves acquired in a business combination

Retained earnings of KeyBank included approximately $92 million of allocated bad debt deductions for which no income taxes have been recorded. Under current federal law, these reserves are subject to recapture into taxable income if KeyBank, or any successor, fails to maintain its bank status under the Internal Revenue Code or makes non-dividend distributions or distributions greater than its accumulated earnings and profits. No deferred tax liability has been established as these events are not expected to occur in the foreseeable future.

15. Acquisitions, Divestiture, and Discontinued Operations

Acquisitions

Cain Brothers & Company, LLC. On October 2, 2017, KBCM acquired all outstanding interests in Cain Brothers, a healthcare-focused investment banking and public finance firm. This acquisition expands KBCM's investment banking group in the healthcare vertical by adding distinctive capabilities and broadening KBCM's existing healthcare investment banking network. The acquisition is accounted for as a business combination. During the fourth quarter of 2017, Key recognized provisional identifiable intangible assets of $30 million and goodwill of $53 million as a result of this acquisition, which are deductible for tax purposes. These fair value estimates represent our best estimate of fair value and are expected to be finalized over a period of up to one year from the acquisition date. Additional information regarding acquired identifiable intangible assets and goodwill is provided in Note 12 ("Goodwill and Other Intangible Assets").

HelloWallet Holdings, Inc. On July 1, 2017, KeyBank acquired all of the outstanding capital stock of HelloWallet Holdings, Inc., the sole owner of HelloWallet, LLC, a digital financial wellness company. Key's retail banking franchise is leveraging HelloWallet's technology to provide data-driven insights to clients, allowing clients to better understand and improve their personal finances. The acquisition is accounted for as a business combination. During the third quarter of 2017, Key recognized provisional identifiable intangible assets with an estimated fair value of $12 million, comprised primarily of propriety software. Key also recognized provisional goodwill of $17 million in connection with this acquisition. These fair value estimates represent our best estimate of fair value and are expected to be finalized over a period of up to one year from the acquisition date.

Key Merchant Services, LLC. On June 30, 2017, KeyBank (consolidated) acquired an additional 51% interest in KMS, increasing our ownership interest from 49% to 100%. This acquisition enables us to grow our merchant services business and enhance our merchant product offerings. This transaction is accounted for as a business combination achieved in stages. Prior to the acquisition, KMS was operated as a merchant services joint venture and accounted for as an equity method investment in our consolidated financial statements.

As of June 30, 2017, the provisional estimated fair value of our equity interest in KMS immediately before the acquisition was $74 million. The fair value of our previously held equity interest was measured using discounted cash flow modeling that incorporates an appropriate risk premium and forecast earnings information. On June 30, 2017, we recognized a provisional non-cash holding gain of $64 million for the difference between the fair value and the book value of our previously held equity interest. In the third quarter of 2017, we recognized a measurement-period adjustment of $5 million to reduce the provisional estimated fair value of our equity interest immediately before the acquisition to $69 million, which reduced the total non-cash holding gain to $59 million. The initial gain and subsequent adjustment were included in "other income" on the income statement for the twelve months ended December 31, 2017. Upon acquisition, we recorded estimated identifiable intangible assets of $95 million and goodwill of less than $1 million. In the third quarter of 2017, we recognized a measurement-period adjustment of $10 million to reduce the fair value of acquired identifiable intangible assets to $85 million. In the fourth quarter of 2017, we recognized a measurement period adjustment increasing deferred tax assets and decreasing goodwill by $2 million. In aggregate, the measurement-period adjustments recognized as of December 31, 2017 increased goodwill recorded in connection with the KMS acquisition to $4 million. The fair value estimates related to this acquisition represent our best estimate of fair value and are expected to be finalized over a period of up to one year from the acquisition date.

First Niagara Financial Group, Inc. As previously disclosed, on October 30, 2015, KeyCorp entered into a definitive agreement and plan of merger ("Agreement") to acquire all of the outstanding capital stock of First Niagara, headquartered in Buffalo, New York. On August 1, 2016, First Niagara merged with and into KeyCorp, with KeyCorp as the surviving entity. The total consideration for the transaction was approximately $4.0 billion. Under the terms of the Agreement, at the effective time of the merger, each share of First Niagara common stock was converted into the right to receive (i) 0.680 of a share of KeyCorp common stock and (ii) $2.30 in cash. The exchange ratio of KeyCorp stock for First Niagara stock was fixed per the Agreement and did not adjust based on changes in KeyCorp's share trading price. First Niagara equity awards outstanding immediately prior to the effective time of the merger were converted into equity awards for KeyCorp common stock as provided in the Agreement. Each share of First Niagara's Fixed-to-Floating Rate Perpetual Non-Cumulative Preferred Stock, Series B, was

converted into a share of a newly created series of preferred stock of KeyCorp having substantially the same terms as First Niagara's preferred stock. For more information on the acquisition, see Note 2 ("Business Combination").

On October 7, 2016, First Niagara Bank merged with and into KeyBank, with KeyBank as the surviving entity. Systems and client conversion also occurred during the fourth quarter of 2016 in connection with the bank merger.

Divestiture

On September 9, 2016, KeyCorp sold to Northwest Bank, a wholly-owned subsidiary of Northwest Bancshares, Inc., 18 branches in the Buffalo, New York market. The branches were divested in connection with the merger between First Niagara and KeyCorp and pursuant to an agreement with the United States Department of Justice and commitments to the Board of Governors of the Federal Reserve System following a customary antitrust review in connection with the merger. The divestiture included $439 million of loans and $1.6 billion of deposits associated with the 18 branches.

Discontinued operations

Discontinued operations primarily includes our government-guaranteed education lending business. At December 31, 2017, and December 31, 2016, approximately $1.3 billion and $1.6 billion, respectively, of education loans are included in discontinued assets on the consolidated balance sheets. Net interest income after provision for credit losses for this business is not material and is included in income (loss) from discontinued operations, net of taxes on the consolidated statements of income.

16. Securities Financing Activities

The following table summarizes our securities financing agreements at December 31, 2017, and December 31, 2016:

	December 31, 2017			
in millions	Gross Amount Presented in Balance Sheet	Netting Adjustments [a]	Collateral [b]	Net Amounts
Offsetting of financial assets:				
Reverse repurchase agreements	$ 3	$ (3)	—	—
Total	$ 3	$ (3)	—	—
Offsetting of financial liabilities:				
Repurchase agreements [c]	$ 374	$ (4)	$ (370)	—
Total	$ 374	$ (4)	$ (370)	—

	December 31, 2016			
in millions	Gross Amount Presented in Balance Sheet	Netting Adjustments [a]	Collateral [b]	Net Amounts
Offsetting of financial assets:				
Reverse repurchase agreements	$ 3	$ (3)	—	—
Total	$ 3	$ (3)	—	—
Offsetting of financial liabilities:				
Repurchase agreements [c]	$ 497	$ (3)	$ (494)	—
Total	$ 497	$ (3)	$ (494)	—

(a) Netting adjustments take into account the impact of master netting agreements that allow us to settle with a single counterparty on a net basis.
(b) These adjustments take into account the impact of bilateral collateral agreements that allow us to offset the net positions with the related collateral. The application of collateral cannot reduce the net position below zero. Therefore, excess collateral, if any, is not reflected above.
(c) Repurchase agreements are collateralized by mortgaged-backed agency securities and are contracted on an overnight or continuous basis.

As of December 31, 2017, the carrying amount of assets pledged as collateral against repurchase agreements totaled $463 million. Assets pledged as collateral are reported in "available for sale" and "held-to-maturity" securities on our balance sheet. At December 31, 2017, the liabilities associated with collateral pledged were solely comprised of customer sweep financing activity and had a carrying value of $370 million. The collateral pledged under customer sweep repurchase agreements is posted to a third-party custodian and cannot be sold or repledged

by the secured party. The risk related to a decline in the market value of collateral pledged is minimal given the collateral's high credit quality and the overnight duration of the repurchase agreements.

Like other financing transactions, securities financing agreements contain an element of credit risk. To mitigate and manage credit risk exposure, we generally enter into master netting agreements and other collateral arrangements that give us the right, in the event of default, to liquidate collateral held and to offset receivables and payables with the same counterparty. Additionally, we establish and monitor limits on our counterparty credit risk exposure by product type. For the reverse repurchase agreements, we monitor the value of the underlying securities we received from counterparties and either request additional collateral or return a portion of the collateral based on the value of those securities. We generally hold collateral in the form of highly rated securities issued by the U.S. Treasury and fixed income securities. In addition, we may need to provide collateral to counterparties under our repurchase agreements. With the exception of collateral pledged against customer sweep repurchase agreements, the collateral we pledge and receive can generally be sold or repledged by the secured parties.

17. Stock-Based Compensation

We maintain several stock-based compensation plans, which are described below. Total compensation expense for these plans was $104 million for 2017, $102 million for 2016, and $59 million for 2015. The total income tax benefit recognized in the income statement for these plans was $39 million for 2017, $38 million for 2016, and $22 million for 2015.

Our compensation plans allow us to grant stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance units, other awards which may be denominated or payable in or valued by reference to our Common Shares or other factors, discounted stock purchases, and deferred compensation to eligible employees and directors. At December 31, 2017, we had 40,088,115 Common Shares available for future grant under our compensation plans. In accordance with a resolution adopted by the Compensation and Organization Committee of KeyCorp's Board of Directors, we may not grant options to purchase Common Shares, restricted stock or other shares under any long-term compensation plan in an aggregate amount that exceeds 6% of our outstanding Common Shares in any rolling three-year period.

Stock Options

Stock options granted to employees generally become exercisable at the rate of 25% per year. No option granted by KeyCorp will be exercisable less than one year after, or expire later than ten years from, the grant date. The exercise price is the closing price of our Common Shares on the grant date.

We determine the fair value of options granted using the Black-Scholes option-pricing model. This model was originally developed to determine the fair value of exchange-traded equity options, which (unlike employee stock options) have no vesting period or transferability restrictions. Because of these differences, the Black-Scholes model does not precisely value an employee stock option, but it is commonly used for this purpose. The model assumes that the estimated fair value of an option is amortized as compensation expense over the option's vesting period.

The Black-Scholes model requires several assumptions, which we developed and update based on historical trends and current market observations. Our determination of the fair value of options is only as accurate as the underlying assumptions. The assumptions pertaining to options issued during 2017, 2016, and 2015 are shown in the following table.

Year ended December 31,	2017	2016	2015
Average option life	**6.0 years**	6.0 years	6.0 years
Future dividend yield	**1.79%**	2.86%	1.84%
Historical share price volatility	**.287**	.297	.382
Weighted-average risk-free interest rate	**2.1%**	1.3%	1.7%

Under KeyCorp's 2013 Equity Compensation Plan, the Compensation and Organization Committee has authority to approve all stock option grants but may delegate some of its authority to grant awards from time to time. The committee has delegated to our Chief Executive Officer the authority to grant equity awards, including stock

options, to any employee who is not designated an “officer” for purposes of Section 16 of the Exchange Act. No more than 3,000,000 Common Shares may be issued under this authority.

The following table summarizes activity, pricing and other information for our stock options for the year ended December 31, 2017:

	Number of Options	Weighted-Average Exercise Price Per Option	Weighted-Average Remaining Life	Aggregate Intrinsic Value[(a)]
Outstanding at December 31, 2016	13,885,566	$ 13.00	4.5 years	$ 101
Granted	1,370,069	18.96		
Exercised	(3,755,177)	10.16		
Lapsed or canceled	(1,617,841)	35.15		
Outstanding at December 31, 2017	**9,882,617**	**$ 11.28**	**5.5**	**88**
Expected to vest	3,422,790	13.97	8.3	21
Exercisable at December 31, 2017	**6,183,136**	**$ 9.63**	**3.8**	**$ 65**

(a) The intrinsic value of a stock option is the amount by which the fair value of the underlying stock exceeds the exercise price of the option.

The weighted-average grant-date fair value of options was $4.60 for options granted during 2017, $2.14 for options granted during 2016, and $4.33 for options granted during 2015. Stock option exercises numbered 3,755,177 in 2017, 2,849,010 in 2016, and 2,496,965 in 2015. The aggregate intrinsic value of exercised options was $31 million for 2017, $12 million for 2016, and $14 million for 2015. As of December 31, 2017, unrecognized compensation cost related to nonvested options under the plans totaled $5 million. We expect to recognize this cost over a weighted-average period of 2.6 years.

Cash received from options exercised was $25 million, $32 million, and $22 million in 2017, 2016, and 2015, respectively. The actual tax benefit realized for the tax deductions from options exercised totaled $4 million for 2017, $2 million for 2016, and $2 million for 2015.

Long-Term Incentive Compensation Program

Our Long-Term Incentive Compensation Program (the “Program”) rewards senior executives critical to our long-term financial success. Awards are granted annually in a variety of forms:

- deferred cash payments that generally vest and are payable at the rate of 25% per year;
- time-lapsed (service condition) restricted stock units payable in stock, which generally vest at the rate of 25% per year;
- performance units payable in stock, which vest at the end of the three-year performance cycle and will not vest unless Key attains defined performance levels; and
- performance units payable in cash, which vest at the end of the three-year performance cycle and will not vest unless Key attains defined performance levels.

During 2017, the total of performance units vested numbered 887,489 and were payable in cash. The total fair value of the performance units that vested during 2017 was $14 million. Performance units vested in 2016 and payable in cash numbered 1,915,239 and had a fair value of $21 million.

The following table summarizes activity and pricing information for the nonvested shares in the Program for the year ended December 31, 2017.

	Vesting Contingent on Service Conditions		Vesting Contingent on Performance and Service Conditions	
	Number of Nonvested Shares	Weighted-Average Grant-Date Fair Value	Number of Nonvested Shares	Weighted-Average Grant-Date Fair Value
Outstanding at December 31, 2016	13,918,806	$ 11.78	2,765,622	$ 14.45
Granted	3,899,826	18.96	2,321,041	19.82
Vested	(5,324,226)	11.64	(887,489)	16.27
Forfeited	(661,450)	13.19	(51,154)	20.33
Outstanding at December 31, 2017	**11,832,956**	**$ 14.05**	**4,148,020**	**$ 17.51**

The compensation cost of time-lapsed and performance-based restricted stock or unit awards granted under the Program is calculated using the closing trading price of our Common Shares on the grant date.

Unlike time-lapsed and performance-based restricted stock or units, we do not pay dividends during the vesting period for performance shares or units that may become payable in excess of targeted performance.

The weighted-average grant-date fair value of awards granted under the Program was $19.82 during 2017, $10.49 during 2016, and $13.99 during 2015. As of December 31, 2017, unrecognized compensation cost related to nonvested shares under the Program totaled $82 million. We expect to recognize this cost over a weighted-average period of 2.2 years. The total fair value of shares vested was $76 million in 2017, $57 million in 2016, and $39 million in 2015.

Deferred Compensation and Other Restricted Stock Awards

Our deferred compensation arrangements include voluntary and mandatory deferral programs for Common Shares awarded to certain employees and directors. Mandatory deferred incentive awards vest at the rate of 25% per year beginning one year after the deferral date for awards granted in 2012 and after. Deferrals under the voluntary programs are immediately vested.

We also may grant, upon approval by the Compensation and Organization Committee (or our Chief Executive Officer with respect to her delegated authority), other time-lapsed restricted stock or unit awards under various programs to recognize outstanding performance.

The following table summarizes activity and pricing information for the nonvested shares granted under our deferred compensation plans and these other restricted stock or unit award programs for the year ended December 31, 2017.

	Number of Nonvested Shares	Weighted-Average Grant-Date Fair Value
Outstanding at December 31, 2016	3,858,152	$ 12.22
Granted	2,347,005	18.55
Dividend equivalents	14	12.54
Vested	(1,684,824)	12.50
Forfeited	(296,573)	12.14
Outstanding at December 31, 2017	**4,223,774**	**$ 15.61**

The weighted-average grant-date fair value of awards granted was $18.55 during 2017, $11.46 during 2016, and $14.22 during 2015. As of December 31, 2017, unrecognized compensation cost related to nonvested shares granted under our deferred compensation plans and the other restricted stock or unit award programs totaled $37 million. We expect to recognize this cost over a weighted-average period of 3.7 years. The total fair value of shares vested was $21 million in 2017, $16 million in 2016, and $15 million in 2015. Dividend equivalents presented in the preceding table represent the value of dividends accumulated during the vesting period.

Discounted Stock Purchase Plan

Our Discounted Stock Purchase Plan provides employees the opportunity to purchase our Common Shares at a 10% discount through payroll deductions or cash payments. Purchases are limited to $10,000 in any month and $50,000 in any calendar year, and are immediately vested. To accommodate employee purchases, we issue treasury shares on or around the fifteenth day of the month following the month employee payments are received. We issued 257,738 Common Shares at a weighted-average cost to the employee of $16.61 during 2017, 310,604 Common Shares at a weighted-average cost to the employee of $11.04 during 2016, and 250,913 Common Shares at a weighted-average cost to the employee of $12.55 during 2015.

Information pertaining to our method of accounting for stock-based compensation is included in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Stock-Based Compensation.”

18. Employee Benefits

Pension Plans

Effective December 31, 2009, we amended our cash balance pension plan and other defined benefit plans to freeze all benefit accruals and close the plans to new employees. We will continue to credit participants’ existing account balances for interest until they receive their plan benefits. We changed certain pension plan assumptions after freezing the plans. As part of the acquisition of First Niagara, Key also obtained two frozen defined benefit plans sponsored by First Niagara, both of which provide benefits based upon length of service and compensation levels. Effective September 30, 2016, the two First Niagara plans merged into another defined benefit plan maintained by Key to form the KeyCorp Consolidated Cash Balance Plan. Effective December 31, 2016, our original cash balance pension plan merged into the KeyCorp Consolidated Cash Balance Plan.

Pre-tax AOCI not yet recognized as net pension cost was $525 million at December 31, 2017, and $550 million at December 31, 2016, consisting entirely of net unrecognized losses. During 2018, we expect to recognize $17 million of net unrecognized losses in pre-tax AOCI as net pension cost.

During 2016 and 2015, lump sum payments made under certain pension plans triggered settlement accounting. In accordance with the applicable accounting guidance for defined benefit plans, we performed a remeasurement of the affected plans in conjunction with the settlement and recognized the settlement loss as reflected in the following table.

The components of net pension cost and the amount recognized in OCI for all funded and unfunded plans are as follows:

Year ended December 31, *in millions*	**2017**	**2016**	**2015**
Interest cost on PBO	**$ 48**	$ 44	$ 41
Expected return on plan assets	**(68)**	(58)	(56)
Amortization of losses	**15**	17	18
Settlement loss	**—**	18	23
Net pension cost	**$ (5)**	$ 21	$ 26
Other changes in plan assets and benefit obligations recognized in OCI:			
Net (gain) loss	**$ (10)**	$ (9)	$ 47
Amortization of gains	**(15)**	(35)	(41)
Total recognized in comprehensive income	**$ (25)**	$ (44)	$ 6
Total recognized in net pension cost and comprehensive income	**$ (30)**	$ (23)	$ 32

The information related to our pension plans presented in the following tables is based on current actuarial reports using measurement dates of December 31, 2017, and December 31, 2016.

The following table summarizes changes in the PBO related to our pension plans.

Year ended December 31, *in millions*	2017	2016
PBO at beginning of year	$ **1,338**	$ 1,136
Interest cost	**48**	44
Actuarial losses (gains)	**37**	(25)
Benefit payments	**(100)**	(85)
Plan acquisitions	**—**	268
PBO at end of year	$ **1,323**	$ 1,338

The following table summarizes changes in the FVA.

Year ended December 31, *in millions*	2017	2016
FVA at beginning of year	$ **1,133**	$ 869
Actual return on plan assets	**115**	42
Employer contributions	**15**	14
Benefit payments	**(100)**	(85)
Plan acquisitions	**—**	293
FVA at end of year	$ **1,163**	$ 1,133

The following table summarizes the funded status of the pension plans, which equals the amounts recognized in the balance sheets at December 31, 2017, and December 31, 2016.

December 31, *in millions*	2017	2016
Funded status [(a)]	$ **(160)**	$ (205)
Net prepaid pension cost recognized consists of:		
Noncurrent assets	$ **29**	—
Current liabilities	**(15)**	$ (16)
Noncurrent liabilities	**(174)**	(189)
Net prepaid pension cost recognized [(b)]	$ **(160)**	$ (205)

(a) The shortage of the FVA under the PBO.
(b) Represents the accrued benefit liability of the pension plans.

At December 31, 2017, our primary qualified cash balance pension plan was sufficiently funded under the requirements of ERISA. Consequently, we are not required to make a minimum contribution to that plan in 2018. We also do not expect to make any significant discretionary contributions during 2018.

At December 31, 2017, we expect to pay the benefits from all funded and unfunded pension plans as follows: 2018 — $115 million; 2019— $114 million; 2020 — $115 million; 2021 — $101 million; 2022 — $99 million and $412 million in the aggregate from 2023 through 2027.

The ABO for all of our pension plans was $1.3 billion at December 31, 2017, and $1.3 billion at December 31, 2016. As indicated in the table below, collectively our plans had an ABO in excess of plan assets as follows:

December 31, *in millions*	2017	2016
PBO	$ **1,323**	$ 1,338
ABO	**1,323**	1,338
Fair value of plan assets	**1,163**	1,133

To determine the actuarial present value of benefit obligations, we assumed the following weighted-average rates.

December 31,	2017	2016
Discount rate	**3.25%**	3.75%
Compensation increase rate	**N/A**	N/A

To determine net pension cost, we assumed the following weighted-average rates.

Year ended December 31,	2017	2016	2015
Discount rate	**3.75%**	3.75%	3.50%
Compensation increase rate	**N/A**	N/A	N/A
Expected return on plan assets	**6.00**	6.00	6.25

We estimate that we will recognize $5 million in net pension cost for 2018, compared to net pension benefit of $5 million in 2017, and net pension cost of $21 million for 2016. A net pension cost is expected in 2018 as compared to net pension benefit in 2017 primarily due to a reduction in the expected return on plan assets as a result of a change to the investment allocation policy of the pension fund. A benefit was recorded in 2017 as compared to cost in 2016 due to the lack of settlement loss. Costs decreased from 2015 to 2016 due to a smaller settlement loss and increased discount rate.

We estimate that a 25 basis point increase or decrease in the expected return on plan assets would either decrease or increase, respectively, our net pension cost for 2018 by approximately $3 million. Pension cost also is affected by an assumed discount rate. We estimate that a 25 basis point change in the assumed discount rate would change net pension cost for 2018 by approximately $2 million.

The expected return on plan assets is determined by considering a number of factors, the most significant of which are:

- Our expectations for returns on plan assets over the long term, weighted for the investment mix of the assets. These expectations consider, among other factors, historical capital market returns of equity, fixed income, convertible, and other securities, and forecasted returns that are modeled under various economic scenarios.
- Historical returns on our plan assets. Based on an annual reassessment of current and expected future capital market returns, our expected return on plan assets was 6% for 2017, 6% for 2016 and 6.25% for 2015. As a result of a change in our investment allocation policy, we deemed a rate of 4.75% to be appropriate in estimating 2018 pension cost.

The investment objectives of the pension fund are developed to reflect the characteristics of the plan, such as pension formulas, cash lump sum distribution features, and the liability profiles of the plan's participants. An executive oversight committee reviews the plan's investment performance at least quarterly, and compares performance against appropriate market indices. The pension fund's investment objectives are to balance total return objectives with a continued management of plan liabilities, and to minimize the mismatch between assets and liabilities. These objectives are being implemented through liability driven investing and the adoption of a de-risking glide path. The following table shows the asset target allocations prescribed by the pension fund's investment policies based on the plan's funded status at December 31, 2017.

Asset Class	Target Allocation 2017
Equity securities:	
U.S.	5%
International	4
Fixed income securities	81
Real assets	6
Other assets	4
Total	100%

Equity securities include common stocks of domestic and foreign companies, as well as foreign company stocks traded as American Depositary Shares on U.S. stock exchanges. Debt securities include investments in domestic- and foreign-issued corporate bonds, U.S. government and agency bonds, international government bonds, and mutual funds. Convertible securities include investments in convertible bonds. Real assets include an investment in a diversified real asset strategy separate account designed to provide exposure to the three core real assets: Treasury Inflation-Protected Securities, commodities, and real estate. Other assets include investments in a multi-strategy investment fund and a limited partnership.

Although the pension funds' investment policies conditionally permit the use of derivative contracts, we have not entered into any such contracts, and we do not expect to employ such contracts in the future.

The valuation methodologies used to measure the fair value of pension plan assets vary depending on the type of asset, as described below. For an explanation of the fair value hierarchy, see Note 1 (“Summary of Significant Accounting Policies”) under the heading “Fair Value Measurements.”

Equity securities. Equity securities traded on securities exchanges are valued at the closing price on the exchange or system where the security is principally traded. These securities are classified as Level 1 since quoted prices for identical securities in active markets are available.

Debt securities. Substantially all debt securities are investment grade and include domestic- and foreign-issued corporate bonds and U.S. government and agency bonds. These securities are valued using evaluated prices based on observable inputs, such as dealer quotes, available trade information, spreads, bids and offers, prepayment speeds, U.S. Treasury curves, and interest rate movements. Debt securities are classified as Level 2.

Mutual funds. Exchange-traded mutual funds listed or traded on securities exchanges are valued at the closing price on the exchange or system where the security is principally traded. These securities are classified as Level 1 because quoted prices for identical securities in active markets are available. All other investments in mutual funds are valued at their closing net asset values. Because net asset values are based primarily on observable inputs, most notably quoted prices for the underlying assets, these nonexchange-traded investments are classified as Level 2.

Collective investment funds. Investments in collective investment funds are valued at their closing net asset values. Because net asset values are based primarily on observable inputs, most notably quoted prices for the underlying assets, these investments are classified as Level 2.

Insurance investment contracts and pooled separate accounts. Deposits under insurance investment contracts and pooled separate accounts with insurance companies do not have readily determinable fair values and are valued using a methodology that is consistent with accounting guidance that allows the plan to estimate fair value based upon net asset value per share (or its equivalent, such as member units or an ownership in partners’ capital to which a proportionate share of net assets is attributed); thus, these investments are not classified within the fair value hierarchy.

Other assets. Other assets include an investment in a multi-strategy investment fund and an investment in a limited partnership. These investments do not have readily determinable fair values and are valued using a methodology consistent with accounting guidance that allows the plan to estimate fair value based upon net asset value per share (or its equivalent, such as member units or an ownership in partners’ capital to which a proportionate share of net assets is attributed); thus, these investments are not classified within the fair value hierarchy.

The following tables show the fair values of our pension plan assets by asset class at December 31, 2017, and December 31, 2016.

December 31, 2017

in millions	Level 1	Level 2	Level 3	Total
ASSET CLASS				
Cash and cash equivalents	—	—	—	—
Equity securities:				
Common — U.S.	$ 11	—	—	$ 11
Common — International	1	—	—	1
Preferred — U.S.	3	—	—	3
Debt securities:				
Corporate bonds — U.S.	—	$ 152	—	152
Corporate bonds — International	—	61	—	61
Government and agency bonds — U.S.	—	203	—	203
Government bonds — International	—	2	—	2
State and municipal bonds	—	31	—	31
Mutual funds:				
Equity — U.S.	—	—	—	—
Equity — International	7	—	—	7
Fixed income — U.S.	—	—	—	—
Fixed income — International	—	—	—	—
Real assets	—	—	—	—
Collective investment funds:				
Equity — U.S.	—	45	—	45
Equity — International	—	41	—	41
Convertible securities	—	—	—	—
Fixed income securities	—	456	—	456
Short-term investments	—	16	—	16
Real assets	—	70	—	70
Insurance investment contracts and pooled separate accounts (measured at NAV) [(a)]	—	—	—	14
Other assets (measured at NAV) [(a)]	—	—	—	50
Total net assets at fair value	$ 22	$ 1,077	—	$ 1,163

(a) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the fair value of plan assets presented elsewhere within this footnote.

December 31, 2016 *in millions*	Level 1	Level 2	Level 3	Total
ASSET CLASS				
Cash and cash equivalents	$ 14	—	—	$ 14
Equity securities:				
Common — U.S.	133	—	—	133
Common — International	15	—	—	15
Preferred — U.S.	2	—	—	2
Debt securities:				
Corporate bonds — U.S.	—	$ 90	—	90
Corporate bonds — International	—	26	—	26
Government and agency bonds — U.S.	—	101	—	101
Government bonds — International	—	1	—	1
State and municipal bonds	—	5	—	5
Mutual funds:				
Equity — U.S.	118	—	—	118
Equity — International	35	—	—	35
Fixed income — U.S.	152	—	—	152
Fixed income — International	19	—	—	19
Real assets	9	—	—	9
Collective investment funds:				
Equity — U.S.	—	15	—	15
Equity — International	—	97	—	97
Convertible securities	—	43	—	43
Fixed income securities	—	79	—	79
Short-term investments	—	18	—	18
Real assets	—	95	—	95
Insurance investment contracts and pooled separate accounts (measured at NAV)	—	—	—	14
Other assets (measured at NAV)	—	—	—	52
Total net assets at fair value	$ 497	$ 570	—	$ 1,133

(a) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the fair value of plan assets presented elsewhere within this footnote.

Other Postretirement Benefit Plans

We sponsor a retiree healthcare plan in which all employees age 55 with five years of service (or employees age 50 with 15 years of service who are terminated under conditions that entitle them to a severance benefit) are eligible to participate. Participant contributions are adjusted annually. Key may provide a subsidy toward the cost of coverage for certain employees hired before 2001 with a minimum of 15 years of service at the time of termination. We use a separate VEBA trust to fund the retiree healthcare plan. Effective November 29, 2016, an unfunded retiree welfare plan previously sponsored by First Niagara merged into our current retiree healthcare plan.

The components of pre-tax AOCI not yet recognized as net postretirement benefit cost are shown below.

December 31, *in millions*	2017	2016
Net unrecognized losses (gains)	**$ (12)**	$ (9)
Net unrecognized prior service credit	**(1)**	(2)
Total unrecognized AOCI	**$ (13)**	$ (11)

During 2018, we expect to recognize $1 million of pre-tax AOCI resulting from prior service credit as a reduction of net postretirement benefit cost.

The components of net postretirement benefit cost and the amount recognized in OCI for all funded and unfunded plans are as follows:

December 31, *in millions*	2017	2016	2015
Service cost of benefits earned	**$ 1**	$ 1	$ 1
Interest cost on APBO	**3**	2	3
Expected return on plan assets	**(2)**	(2)	(3)
Amortization of prior service credit	**(1)**	(1)	(1)
Amortization of gains	**—**	—	—
Net postretirement benefit	**$ 1**	—	—
Other changes in plan assets and benefit obligations recognized in OCI:			
Net (gain) loss	**$ (4)**	$ (4)	$ (6)
Amortization of prior service credit	**1**	1	1
Amortization of losses	**—**	—	—
Total recognized in comprehensive income	**$ (3)**	$ (3)	$ (5)
Total recognized in net postretirement benefit cost and comprehensive income	**$ (2)**	$ (3)	$ (5)

The information related to our postretirement benefit plans presented in the following tables is based on current actuarial reports using measurement dates of December 31, 2017, and December 31, 2016.

The following table summarizes changes in the APBO.

Year ended December 31, *in millions*	2017	2016
APBO at beginning of year	**$ 69**	$ 67
Service cost	**1**	1
Interest cost	**3**	2
Plan participants' contributions	**1**	2
Actuarial losses (gains)	**3**	(1)
Benefit payments	**(8)**	(6)
Plan acquisition	**—**	4
APBO at end of year	**$ 69**	$ 69

The following table summarizes changes in FVA.

Year ended December 31, *in millions*	2017	2016
FVA at beginning of year	**$ 50**	$ 49
Employer contributions	**—**	—
Plan participants' contributions	**1**	2
Benefit payments	**(8)**	(6)
Actual return on plan assets	**9**	5
FVA at end of year	**$ 52**	$ 50

The following table summarizes the funded status of the postretirement plans, which corresponds to the amounts recognized in the balance sheets at December 31, 2017, and December 31, 2016.

December 31, *in millions*	2017	2016
Funded status [(a)]	**$ (16)**	$ (19)
Accrued postretirement benefit cost recognized [(b)]	**(16)**	(19)

(a) The shortage of the FVA under the APBO.
(b) Consists entirely of noncurrent liabilities.

There are no regulations that require contributions to the VEBA trust that funds our retiree healthcare plan, so there is no minimum funding requirement. We are permitted to make discretionary contributions to the VEBA trust, subject to certain IRS restrictions and limitations. We anticipate that our discretionary contributions in 2018, if any, will be minimal.

At December 31, 2017, we expect to pay the benefits from other postretirement plans as follows: 2018 — $5 million; 2019 — $5 million; 2020 — $5 million; 2021 — $5 million; 2022 — $5 million; and $22 million in the aggregate from 2023 through 2027.

To determine the APBO, we assumed discount rates of 3.50% at December 31, 2017, and 3.75% at December 31, 2016.

To determine net postretirement benefit cost, we assumed the following weighted-average rates.

Year ended December 31,	2017	2016	2015
Discount rate	**3.75%**	4.00%	3.75%
Expected return on plan assets	**4.50**	4.50	4.50

The realized net investment income for the postretirement healthcare plan VEBA trust is subject to federal income taxes, which are reflected in the weighted-average expected return on plan assets shown above.

Assumed healthcare cost trend rates do not have a material impact on net postretirement benefit cost or obligations since the postretirement plan has cost-sharing provisions and benefit limitations.

We estimate that we will recognize a credit of $1 million in net postretirement benefit cost for 2018, compared to a credit of less than $1 million for 2017 and a break-even position of no credit or expense for 2016.

We estimate the expected returns on plan assets for the VEBA trust much the same way we estimate returns on our pension funds. The primary investment objectives of the VEBA trust are to obtain a market rate of return, take into consideration the safety and/or risk of the investment, and to diversify the portfolio in order to satisfy the trust's anticipated liquidity requirements. The following table shows the asset target allocations prescribed by the trust's investment policy.

Asset Class	Target Allocation 2017
Equity securities	80%
Fixed income securities	10
Convertible securities	5
Cash equivalents	5
Total	100%

Investments consist of mutual funds and common investment funds that invest in underlying assets in accordance with the target asset allocations shown above. Exchange-traded mutual funds are valued using quoted prices and, therefore, are classified as Level 1. Investments in common investment funds are valued at their closing net asset value. Because net asset values are based primarily on observable inputs, most notably quoted prices for the underlying assets, these nonexchange-traded investments are classified as Level 2.

The following tables show the fair values of our postretirement plan assets by asset class at December 31, 2017, and December 31, 2016.

December 31, 2017 *in millions*	Level 1	Level 2	Level 3	Total
ASSET CLASS				
Mutual funds:				
Equity — U.S.	$ **25**	**—**	**—**	$ **25**
Equity — International	**10**	**—**	**—**	**10**
Fixed income — U.S.	**4**	**—**	**—**	**4**
Fixed income — International	**3**	**—**	**—**	**3**
Common investment funds:				
Equity — U.S.	**—**	$ **10**	**—**	**10**
Total net assets at fair value	$ **42**	$ **10**	**—**	$ **52**

December 31, 2016 *in millions*	Level 1	Level 2	Level 3	Total
ASSET CLASS				
Mutual funds:				
Equity — U.S.	$ 23	—	—	$ 23
Equity — International	5	—	—	5
Fixed income — U.S.	5	—	—	5
Common investment funds:				
Equity — U.S.	—	$ 10	—	10
Short-term investments	—	7	—	7
Total net assets at fair value	$ 33	$ 17	—	$ 50

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 introduced a prescription drug benefit under Medicare and prescribes a federal subsidy to sponsors of retiree healthcare benefit plans that offer prescription drug coverage that is “actuarially equivalent” to the benefits under Medicare Part D. Based on our application of the relevant regulatory formula, we determined that the prescription drug coverage related to our retiree healthcare benefit plan is not actuarially equivalent to the Medicare benefit for the vast majority of retirees. For the years ended December 31, 2017, and December 31, 2016, we did not receive federal subsidies.

Employee 401(k) Savings Plan

A substantial number of our employees are covered under a savings plan that is qualified under Section 401(k) of the Internal Revenue Code. The plan permits employees to contribute from 1% to 100% of eligible compensation, with up to 6% being eligible for matching contributions. Commencing January 1, 2010, an automatic enrollment feature was added to the plan for all new employees. The initial default contribution percentage for employees is 2% and will increase by 1% at the beginning of each plan year until the default contribution is 10% for plan years on and after January 1, 2012. The plan also permits us to provide a discretionary annual profit sharing contribution to eligible employees who have at least one year of service. First Niagara employees who joined Key retained their years of services, and those employees that met eligibility requirements under Key’s savings plan have been included. We accrued a 2% contribution for 2017 and made contributions of 2.5% and 2% for 2016 and 2015, respectively, on eligible compensation for employees eligible on the last business day of the respective plan years. In addition to the discretionary annual profit sharing contribution, in 2017 we accrued a one-time $1,000 contribution per eligible full-time employee and $500 per eligible part-time employee within the 401(k) savings plan. Employees eligible for the additional contribution must have been employed as of December 31, 2017 and have a salary of $100,000 or less. We also maintain a deferred savings plan that provides certain employees with benefits they otherwise would not have been eligible to receive under the qualified plan once their compensation for the plan year reached the IRS contribution limits. Total expense associated with the above plans was $129 million in 2017, $94 million in 2016, and $79 million in 2015.

19. Short-Term Borrowings

Selected financial information pertaining to the components of our short-term borrowings is as follows:

December 31, *dollars in millions*	2017	2016	2015
FEDERAL FUNDS PURCHASED			
Balance at year end	**$ 3**	$ 1,005	$ 20
Average during the year	**128**	44	195
Maximum month-end balance	**2,331**	1,005	678
Weighted-average rate during the year [(a)]	**.72%**	.68%	.14%
Weighted-average rate at December 31[(a)]	**—**	.55	.05
SECURITIES SOLD UNDER REPURCHASE AGREEMENTS			
Balance at year end	**$ 374**	$ 497	$ 352
Average during the year	**389**	443	437
Maximum month-end balance	**472**	684	589
Weighted-average rate during the year [(a)]	**.08%**	.04%	.00%
Weighted-average rate at December 31[(a)]	**.08**	.07	.00
OTHER SHORT-TERM BORROWINGS			
Balance at year end	**$ 634**	$ 808	$ 533
Average during the year	**1,140**	852	572
Maximum month-end balance	**1,242**	872	1,122
Weighted-average rate during the year [(a)]	**1.34%**	1.18%	1.52%
Weighted-average rate at December 31[(a)]	**2.01**	1.11	1.78

(a) Rates exclude the effects of interest rate swaps and caps, which modify the repricing characteristics of certain short-term borrowings. For more information about such financial instruments, see Note 9 (“Derivatives and Hedging Activities”).

As described below and in Note 20 (“Long-Term Debt”), KeyCorp and KeyBank have a number of programs and facilities that support our short-term financing needs. Certain subsidiaries maintain credit facilities with third parties, which provide alternative sources of funding. KeyCorp is the guarantor of some of the third-party facilities.

Short-term credit facilities. We maintain cash on deposit in our Federal Reserve account, which has reduced our need to obtain funds through various short-term unsecured money market products. This account, which was maintained at $3.7 billion at December 31, 2017, and the unpledged securities in our investment portfolio provide a buffer to address unexpected short-term liquidity needs. We also have secured borrowing facilities at the FHLB and the Federal Reserve Bank of Cleveland to satisfy short-term liquidity requirements. As of December 31, 2017, our unused secured borrowing capacity was $23.8 billion at the Federal Reserve Bank of Cleveland and $6.6 billion at the FHLB.

20. Long-Term Debt

The following table presents the components of our long-term debt, net of unamortized discounts and adjustments related to hedging with derivative financial instruments. We use interest rate swaps and caps, which modify the repricing characteristics of certain long-term debt, to manage interest rate risk. For more information about such financial instruments, see Note 9 (“Derivatives and Hedging Activities”).

December 31, *dollars in millions*	**2017**	**2016**
Senior medium-term notes due through 2021 [a]	**$ 2,766**	$ 2,799
2.075% Subordinated notes due 2028 [b]	**161**	162
6.875% Subordinated notes due 2029 [b]	**109**	111
7.750% Subordinated notes due 2029 [b]	**141**	141
7.25% Subordinated notes due 2021 [c]	**348**	358
6.75% Senior notes due 2020 [d]	**327**	338
Other subordinated notes [b], [e]	**69**	78
Total parent company	**3,921**	3,987
Senior medium-term notes due through 2039 [f]	**8,011**	6,715
3.18% Senior remarketable notes due 2027 [g]	**202**	193
5.70% Subordinated notes due 2017 [h]	**—**	207
4.625% Subordinated notes due 2018 [h]	**100**	102
3.40% Subordinated notes due 2026 [h]	**565**	567
6.95% Subordinated notes due 2028 [h]	**299**	299
Secured borrowing due through 2021 [i]	**24**	68
Federal Home Loan Bank advances due through 2036 [j]	**1,106**	126
Investment Fund Financing due through 2052 [k]	**88**	100
Obligations under Capital Leases due through 2032 [l]	**17**	20
Total subsidiaries	**10,412**	8,397
Total long-term debt	**$ 14,333**	$ 12,384

(a) Senior medium-term notes had a weighted-average interest rate of 3.56% at December 31, 2017, and 3.57% at December 31, 2016. These notes had fixed interest rates at December 31, 2017, and December 31, 2016. These notes may not be redeemed prior to their maturity dates.
(b) See Note 21 (“Trust Preferred Securities Issued by Unconsolidated Subsidiaries”) for a description of these notes.
(c) The First Niagara subordinated debt had a weighted-average interest rate of 7.25% at December 31, 2017, and December 31, 2016. These notes may not be redeemed prior to their maturity dates.
(d) The First Niagara senior notes had a weighted-average interest rate of 6.75% at December 31, 2017, and December 31, 2016. These notes may not be redeemed prior to their maturity dates.
(e) The First Niagara variable rate trust preferred securities had a weighted-average interest rates of 3.022% at December 31, 2017, and 4.612% at December 31, 2016. These notes may be redeemed prior to their maturity dates.
(f) Senior medium-term notes had weighted-average interest rates of 2.24% at December 31, 2017, and 1.93% at December 31, 2016. These notes are a combination of fixed and floating rates. These notes may not be redeemed prior to their maturity dates.
(g) Remarketable senior medium-term notes had a fixed interest rate at December 31, 2017. These notes may not be redeemed prior to their maturity dates.
(h) These notes are all obligations of KeyBank and may not be redeemed prior to their maturity dates.
(i) The secured borrowing had weighted-average interest rates of 4.46% at December 31, 2017, and 4.45% at December 31, 2016. This borrowing is collateralized by commercial lease financing receivables, and principal reductions are based on the cash payments received from the related receivables. Additional information pertaining to these commercial lease financing receivables is included in Note 5 (“Loans and Loans Held for Sale”).
(j) Long-term advances from the Federal Home Loan Bank had a weighted-average interest rate of 2.318% at December 31, 2017, and 3.64% at December 31, 2016. These advances, which had fixed interest rates, were secured by real estate loans and securities totaling $1.1 billion at December 31, 2017, and $126 million at December 31, 2016.
(k) Investment Fund Financing had a weighted-average interest rate of 1.94% at December 31, 2017, and December 31, 2016.
(l) These are capital leases acquired in the First Niagara merger with a maturity range from June 2019 through October 2032.

At December 31, 2017, scheduled principal payments on long-term debt were as follows:

in millions	**Parent**	**Subsidiaries**	**Total**
2018	$ 746	$ 2,325	$ 3,071
2019	—	2,048	2,048
2020	1,310	1,396	2,706
2021	1,381	1,243	2,624
2022	—	1,426	1,426
All subsequent years	483	1,975	2,458

As described below, KeyBank and KeyCorp have a number of programs that support our long-term financing needs.

Global bank note program. On September 29, 2015, KeyBank updated its Global Bank Note Program, authorizing the issuance of up to $20 billion of notes domestically and abroad. Under the program, KeyBank is authorized to issue notes with original maturities of seven days or more for senior notes or five years or more for subordinated notes. Notes may be denominated in U.S. dollars or in foreign currencies. Amounts outstanding under the program and any prior bank note programs are classified as “long-term debt” on the balance sheet.

In 2016, KeyBank issued the following notes under the 2015 Global Bank Note Program: on March 8, 2016, $1 billion of 2.35% Senior Bank Notes due March 8, 2019; on May 20, 2016, $600 million of 3.40% Subordinated Bank Notes due May 20, 2026; on August 22, 2016, $500 million of 1.60% Senior Bank Notes due August 22, 2019; and on November 22, 2016, $250 million of Floating Rate Senior Notes and $500 million of 2.50% Senior Notes each due November 22, 2021.

In 2017, KeyBank issued the following notes under the 2015 Global Bank Note Program: on June 9, 2017, $600 million of 2.40% Senior Bank Notes due June 9, 2022; and on September 14, 2017, $750 million of 2.30% Senior Bank Notes due September 14, 2022. At December 31, 2017, $15.8 billion remained available for future issuance under the Global Bank Note Program.

KeyCorp shelf registration, including Medium-Term Note Program. KeyCorp has a shelf registration statement on file with the SEC under rules that allow companies to register various types of debt and equity securities without limitations on the aggregate amounts available for issuance. KeyCorp also maintains a Medium-Term Note Program that permits KeyCorp to issue notes with original maturities of nine months or more. On September 15, 2015, KeyCorp issued $1 billion of 2.90% Medium-Term Notes due September 15, 2020. At December 31, 2017, KeyCorp had authorized and available for issuance up to $4 billion of additional debt securities under the Medium-Term Note Program.

Issuances of capital securities or preferred stock by KeyCorp must be approved by the Board and cannot be objected to by the Federal Reserve.

21. Trust Preferred Securities Issued by Unconsolidated Subsidiaries

We own the outstanding common stock of business trusts formed by us that issued corporation-obligated mandatorily redeemable trust preferred securities. The trusts used the proceeds from the issuance of their trust preferred securities and common stock to buy debentures issued by KeyCorp. These debentures are the trusts' only assets; the interest payments from the debentures finance the distributions paid on the mandatorily redeemable trust preferred securities. The outstanding common stock of these business trusts is recorded in "other investments" on our balance sheet.

We unconditionally guarantee the following payments or distributions on behalf of the trusts:

- required distributions on the trust preferred securities;
- the redemption price when a capital security is redeemed; and
- the amounts due if a trust is liquidated or terminated.

The Regulatory Capital Rules implement a phase-out of trust preferred securities as Tier 1 capital, consistent with the requirements of the Dodd-Frank Act. For standardized approach banking organizations such as Key, the phase-out period began on January 1, 2015, and starting in 2016 requires us to treat our mandatorily redeemable trust preferred securities as Tier 2 capital.

During 2017, we redeemed $9 million of trust preferred that were acquired in First Niagara acquisition.

The trust preferred securities, common stock, and related debentures are summarized as follows:

dollars in millions	Trust Preferred Securities, Net of Discount [a]	Common Stock	Principal Amount of Debentures, Net of Discount [b]	Interest Rate of Trust Preferred Securities and Debentures [c]	Maturity of Trust Preferred Securities and Debentures
December 31, 2017					
KeyCorp Capital I	**$ 155**	**$ 6**	**$ 161**	**2.750%**	**2028**
KeyCorp Capital II	**105**	**4**	**109**	**6.875**	**2029**
KeyCorp Capital III	**137**	**4**	**141**	**7.750**	**2029**
HNC Statutory Trust III	**18**	**1**	**19**	**2.854**	**2035**
Willow Grove Statutory Trust I	**18**	**1**	**19**	**2.898**	**2036**
HNC Statutory Trust IV	**16**	**1**	**17**	**2.658**	**2037**
Westbank Capital Trust II	**7**	**—**	**7**	**3.815**	**2034**
Westbank Capital Trust III	**7**	**—**	**7**	**3.815**	**2034**
Total	**$ 463**	**$ 17**	**$ 480**	**4.977%**	—
December 31, 2016	$ 475	$ 17	$ 492	4.845%	—

(a) The trust preferred securities must be redeemed when the related debentures mature, or earlier if provided in the governing indenture. Each issue of trust preferred securities carries an interest rate identical to that of the related debenture. Certain trust preferred securities include basis adjustments related to fair value hedges totaling $55 million at December 31, 2017, and $59 million at December 31, 2016. See Note 9 (“Derivatives and Hedging Activities”) for an explanation of fair value hedges.

(b) We have the right to redeem these debentures. If the debentures purchased by KeyCorp Capital I, HNC Statutory Trust III, Willow Grove Statutory Trust I, HNC Statutory Trust IV, Westbank Capital Trust II, or Westbank Capital Trust III are redeemed before they mature, the redemption price will be the principal amount, plus any accrued but unpaid interest. If the debentures purchased by KeyCorp Capital II or KeyCorp Capital III are redeemed before they mature, the redemption price will be the greater of: (i) the principal amount, plus any accrued but unpaid interest, or (ii) the sum of the present values of principal and interest payments discounted at the Treasury Rate (as defined in the applicable indenture), plus 20 basis points for KeyCorp Capital II or 25 basis points for KeyCorp Capital III or 50 basis points in the case of redemption upon either a tax or a capital treatment event for either KeyCorp Capital II or KeyCorp Capital III, plus any accrued but unpaid interest. The principal amount of certain debentures includes basis adjustments related to fair value hedges totaling $55 million at December 31, 2017, and $59 million at December 31, 2016. See Note 9 for an explanation of fair value hedges. The principal amount of debentures, net of discounts, is included in “long-term debt” on the balance sheet.

(c) The interest rates for the trust preferred securities issued by KeyCorp Capital II and KeyCorp Capital III are fixed. The trust preferred securities issued by KeyCorp Capital I have a floating interest rate, equal to three-month LIBOR plus 74 basis points, that reprices quarterly. The trust preferred securities issued by HNC Statutory Trust III have a floating interest rate, equal to three-month LIBOR plus 140 basis points, that reprices quarterly. The trust preferred securities issued by Willow Grove Statutory Trust I have a floating interest rate, equal to three-month LIBOR plus 131 basis points, that reprices quarterly. The trust preferred securities issued by HNC Statutory Trust IV have a floating interest rate, equal to three-month LIBOR plus 128 basis points, that reprices quarterly. The trust preferred securities issued by Westbank Capital Trust II and Westbank Capital Trust III each have a floating interest rate, equal to three-month LIBOR plus 219 basis points, that reprices quarterly. The total interest rates are weighted-average rates.

22. Commitments, Contingent Liabilities, and Guarantees

Obligations under Noncancelable Leases

We are obligated under various noncancelable operating leases for land, buildings and other property, consisting principally of data processing equipment. Rental expense under all operating leases totaled $153 million in 2017, $118 million in 2016, and $122 million in 2015. Minimum future rental payments under noncancelable operating leases at December 31, 2017, are as follows: 2018 — $142 million; 2019 — $132 million; 2020 — $117 million; 2021 — $101 million; 2022 — $89 million; all subsequent years — $381 million.

Commitments to Extend Credit or Funding

Loan commitments provide for financing on predetermined terms as long as the client continues to meet specified criteria. These agreements generally carry variable rates of interest and have fixed expiration dates or termination clauses. We typically charge a fee for our loan commitments. Since a commitment may expire without resulting in a loan, our aggregate outstanding commitments may significantly exceed our eventual cash outlay.

Loan commitments involve credit risk not reflected on our balance sheet. We mitigate exposure to credit risk with internal controls that guide how we review and approve applications for credit, establish credit limits and, when necessary, demand collateral. In particular, we evaluate the creditworthiness of each prospective borrower on a case-by-case basis and, when appropriate, adjust the allowance for credit losses on lending-related commitments. Additional information pertaining to this allowance is included in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Liability for Credit Losses on Lending-Related Commitments,” and in Note 6 (“Asset Quality”).

We also provide financial support to private equity investments, including existing direct portfolio companies and indirect private equity funds, to satisfy unfunded commitments. These unfunded commitments are not recorded on our balance sheet. Additional information on principal investing commitments is provided in Note 7 (“Fair Value Measurements”). Other unfunded equity investment commitments at December 31, 2017, and December 31, 2016, related to tax credit investments and were primarily attributable to LIHTC investments. Unfunded tax credit

investment commitments are recorded on our balance sheet in “other liabilities.” Additional information on LIHTC commitments is provided in Note 13 (“Variable Interest Entities”).

The following table shows the remaining contractual amount of each class of commitment related to extending credit or funding principal investments as of December 31, 2017, and December 31, 2016. For loan commitments and commercial letters of credit, this amount represents our maximum possible accounting loss on the unused commitment if the borrower were to draw upon the full amount of the commitment and subsequently default on payment for the total amount of the then outstanding loan.

December 31, *in millions*	**2017**	**2016**
Loan commitments:		
Commercial and other	**$ 40,315**	$ 34,372
Commercial real estate and construction	**2,774**	3,034
Home equity	**9,673**	9,666
Credit cards	**5,890**	5,653
Total loan commitments	**58,652**	52,725
When-issued and to be announced securities commitments [(a)]	**—**	34
Commercial letters of credit	**231**	143
Purchase card commitments	**425**	293
Principal investing commitments	**29**	37
Tax credit investment commitments	**481**	466
Liabilities of certain limited partnerships and other commitments	**—**	2
Securities underwriting	**9**	—
Total loan and other commitments	**$ 59,827**	$ 53,700

(a) Beginning in first quarter of 2017, we now disclose amounts previously reported as “When-issued and to be announced securities commitments” in the Notional category of the “Other” line in the “Fair Values, Volume of Activity, and Gain/Loss Information Related to Derivative Instruments” table found in Note 9 (“Derivatives and Hedging Activities “).

Legal Proceedings

Checking Account Overdraft Litigation. In February 2010, KeyBank was named a defendant in a putative class action seeking to represent a national class of KeyBank customers allegedly harmed by KeyBank’s overdraft practices. The case was transferred and consolidated for purposes of pretrial discovery and motion proceedings to a multidistrict proceeding styled *In Re: Checking Account Overdraft Litigation* pending in the United States District Court for the Southern District of Florida (the “District Court”). KeyBank filed a notice of appeal in regard to the denial by the District Court of a motion to compel arbitration. In August 2012, the United States Court of Appeals for the Eleventh Circuit (the “Eleventh Circuit”) vacated the District Court’s order denying KeyBank’s motion to compel arbitration and remanded the case for further consideration. In June 2013, KeyBank filed with the District Court its renewed motion to compel arbitration and stay or dismiss litigation. The District Court granted KeyBank’s renewed motion to compel arbitration and dismissed the case. The plaintiff appealed. On June 18, 2014, the Eleventh Circuit vacated the District Court’s order granting KeyBank’s renewed motion to compel arbitration and remanded the case to the District Court to address the issue of the enforceability of KeyBank’s arbitration provision. On February 3, 2015, the District Court denied KeyBank’s Second Renewed Motion to Compel Arbitration and Dismiss the Complaint. KeyBank filed an appeal. On September 26, 2017, the Eleventh Circuit reversed the District Court’s order denying KeyBank’s motion to compel arbitration and remanded the case with instructions to compel arbitration. As previously reported, on October 27, 2017, the District Court ordered KeyBank’s arbitration provision to be enforced and dismissed the case.

Other litigation. From time to time, in the ordinary course of business, we and our subsidiaries are subject to various litigation, investigations, and administrative proceedings. Private, civil litigations may range from individual actions involving a single plaintiff to putative class action lawsuits with potentially thousands of class members. Investigations may involve both formal and informal proceedings, by both government agencies and self-regulatory bodies. These matters may involve claims for substantial monetary relief. At times, these matters may present novel claims or legal theories. Due to the complex nature of these various other matters, it may be years before some matters are resolved. While it is impossible to ascertain the ultimate resolution or range of financial liability, based on information presently known to us, we do not believe there is any matter to which we are a party, or involving any of our properties that, individually or in the aggregate, would reasonably be expected to have a material adverse effect on our financial condition. We continually monitor and reassess the potential materiality of these litigation matters. We note, however, that in light of the inherent uncertainty in legal proceedings there can be no assurance that the ultimate resolution will not exceed established reserves. As a result, the outcome of a particular matter, or a

combination of matters, may be material to our results of operations for a particular period, depending upon the size of the loss or our income for that particular period.

Guarantees

We are a guarantor in various agreements with third parties. The following table shows the types of guarantees that we had outstanding at December 31, 2017. Information pertaining to the basis for determining the liabilities recorded in connection with these guarantees is included in Note 1 ("Summary of Significant Accounting Policies") under the heading "Guarantees."

December 31, 2017 *in millions*	**Maximum Potential Undiscounted Future Payments**	**Liability Recorded**
Financial guarantees:		
Standby letters of credit	$ 3,142	$ 67
Recourse agreement with FNMA	3,261	6
Residential mortgage reserve	1,362	5
Return guarantee agreement with LIHTC investors	3	3
Written put options [(a)]	2,080	50
Total	$ 9,848	$ 131

(a) The maximum potential undiscounted future payments represent notional amounts of derivatives qualifying as guarantees.

We determine the payment/performance risk associated with each type of guarantee described below based on the probability that we could be required to make the maximum potential undiscounted future payments shown in the preceding table. We use a scale of low (0% to 30% probability of payment), moderate (greater than 30% to 70% probability of payment), or high (greater than 70% probability of payment) to assess the payment/performance risk, and have determined that the payment/performance risk associated with each type of guarantee outstanding at December 31, 2017, is low.

Standby letters of credit. KeyBank issues standby letters of credit to address clients' financing needs. These instruments obligate us to pay a specified third party when a client fails to repay an outstanding loan or debt instrument or fails to perform some contractual nonfinancial obligation. Any amounts drawn under standby letters of credit are treated as loans to the client; they bear interest (generally at variable rates) and pose the same credit risk to us as a loan. At December 31, 2017, our standby letters of credit had a remaining weighted-average life of 2 years, with remaining actual lives ranging from less than 1 year to as many as 17 years.

Recourse agreement with FNMA. We participate as a lender in the FNMA Delegated Underwriting and Servicing program. FNMA delegates responsibility for originating, underwriting, and servicing mortgages, and we assume a limited portion of the risk of loss during the remaining term on each commercial mortgage loan that we sell to FNMA. We maintain a reserve for such potential losses in an amount that we believe approximates the fair value of our liability. At December 31, 2017, the outstanding commercial mortgage loans in this program had a weighted-average remaining term of 7.9 years, and the unpaid principal balance outstanding of loans sold by us as a participant was $11.6 billion. The maximum potential amount of undiscounted future payments that we could be required to make under this program, as shown in the preceding table, is equal to approximately 28% of the principal balance of loans outstanding at December 31, 2017. If we are required to make a payment, we would have an interest in the collateral underlying the related commercial mortgage loan; any loss we incur could be offset by the amount of any recovery from the collateral.

Residential Mortgage Banking. We often originate and sell residential mortgage loans and retain the servicing rights. Our loan sales activity is generally conducted through loan sales in a secondary market sponsored by FNMA and FHLMC. Subsequent to the sale of mortgage loans, we do not typically retain any interest in the underlying loans except through our relationship as the servicer of the loans.

As is customary in the mortgage banking industry, we, or banks we have acquired, have made certain representations and warranties related to the sale of residential mortgage loans (including loans sold with servicing rights released) and to the performance of our obligations as servicer. The breach of any such representations or warranties could result in losses for us. Our maximum exposure to loss is equal to the outstanding principal balance of the sold loans; however, any loss would be reduced by any payments received on the loans or through the sale of collateral.

At December 31, 2017, the outstanding residential mortgage loans in this program had an original weighted-average loan to value ratio of 72%, and the unpaid principal balance outstanding of loans sold by us was $4.5 billion. The risk assessment is low for the residential mortgage product. The maximum potential amount of undiscounted future payments that we could be required to make under this program, as shown in the preceding table, is equal to approximately 30% of the principal balance of loans outstanding at December 31, 2017.

Our liability for estimated repurchase obligations on loans sold, which is included in other liabilities on our balance sheet, was $5 million at December 31, 2017.

Return guarantee agreement with LIHTC investors. KAHC, a subsidiary of KeyBank, offered limited partnership interests to qualified investors. Partnerships formed by KAHC invested in low-income residential rental properties that qualify for federal low-income housing tax credits under Section 42 of the Internal Revenue Code. In certain partnerships, investors paid a fee to KAHC for a guaranteed return that is based on the financial performance of the property and the property's confirmed LIHTC status throughout a 15-year compliance period. Typically, KAHC fulfills these guaranteed returns by distributing tax credits and deductions associated with the specific properties. If KAHC defaults on its obligation to provide the guaranteed return, KeyBank is obligated to make any necessary payments to investors. No recourse or collateral is available to offset our guarantee obligation other than the underlying income streams from the properties and the residual value of the operating partnership interests.

As shown in the previous table, KAHC maintained a reserve in the amount of $3 million at December 31, 2017, which is sufficient to cover estimated future obligations under the guarantees. The maximum exposure to loss reflected in the table represents undiscounted future payments due to investors for the return on and of their investments.

These guarantees have expiration dates that extend through 2018, but KAHC has not formed any new partnerships under this program since October 2003. Additional information regarding these partnerships is included in Note 13 ("Variable Interest Entities").

Written put options. In the ordinary course of business, we "write" put options for clients that wish to mitigate their exposure to changes in interest rates and commodity prices. At December 31, 2017, our written put options had an average life of 3 years. These instruments are considered to be guarantees, as we are required to make payments to the counterparty (the client) based on changes in an underlying variable that is related to an asset, a liability, or an equity security that the client holds. We are obligated to pay the client if the applicable benchmark interest rate or commodity price is above or below a specified level (known as the "strike rate"). These written put options are accounted for as derivatives at fair value, as further discussed in Note 9 ("Derivatives and Hedging Activities"). We mitigate our potential future payment obligations by entering into offsetting positions with third parties.

Written put options where the counterparty is a broker-dealer or bank are accounted for as derivatives at fair value but are not considered guarantees since these counterparties typically do not hold the underlying instruments. In addition, we are a purchaser and seller of credit derivatives, which are further discussed in Note 9.

Default guarantees. Some lines of business participate in guarantees that obligate us to perform if the debtor (typically a client) fails to satisfy all of its payment obligations to third parties. We generally undertake these guarantees for one of two possible reasons: (i) either the risk profile of the debtor should provide an investment return, or (ii) we are supporting our underlying investment in the debtor. We do not hold collateral for the default guarantees. If we were required to make a payment under a guarantee, we would receive a pro rata share should the third party collect some or all of the amounts due from the debtor. At December 31, 2017, we had less than $1 million default guarantees.

Other Off-Balance Sheet Risk

Other off-balance sheet risk stems from financial instruments that do not meet the definition of a guarantee as specified in the applicable accounting guidance, and from other relationships.

Indemnifications provided in the ordinary course of business. We provide certain indemnifications, primarily through representations and warranties in contracts that we execute in the ordinary course of business in connection with loan and lease sales and other ongoing activities, as well as in connection with purchases and sales of businesses. We maintain reserves, when appropriate, with respect to liability that reasonably could arise as a result of these indemnities.

Intercompany guarantees. KeyCorp, KeyBank, and certain of our affiliates are parties to various guarantees that facilitate the ongoing business activities of other affiliates. These business activities encompass issuing debt, assuming certain lease and insurance obligations, purchasing or issuing investments and securities, and engaging in certain leasing transactions involving clients.

23. Accumulated Other Comprehensive Income

Our changes in AOCI for the years ended December 31, 2017, and December 31, 2016, are as follows:

in millions	Unrealized gains (losses) on securities available for sale	Unrealized gains (losses) on derivative financial instruments	Foreign currency translation adjustment	Net pension and postretirement benefit costs	Total
Balance at December 31, 2015	$ (58)	$ 20	$ (2)	$ (365)	$ (405)
Other comprehensive income before reclassification, net of income taxes	(127)	17	(1)	5	(106)
Amounts reclassified from accumulated other comprehensive income, net of income taxes [(a)]	—	(51)	—	21	(30)
Net current-period other comprehensive income, net of income taxes	(127)	(34)	(1)	26	(136)
Balance at December 31, 2016	$ (185)	$ (14)	$ (3)	$ (339)	$ (541)
Other comprehensive income before reclassification, net of income taxes	**(69)**	**(48)**	**12**	**9**	**(96)**
Amounts reclassified from accumulated other comprehensive income, net of income taxes [(a)]	**(1)**	**(10)**	**1**	**9**	**(1)**
Amounts reclassified from accumulated other comprehensive income resulting from new federal corporate income tax rate [(b)]	**(56)**	**(14)**	**(1)**	**(70)**	**(141)**
Net current-period other comprehensive income, net of income taxes	**(126)**	**(72)**	**12**	**(52)**	**(238)**
Balance at December 31, 2017	**$ (311)**	**$ (86)**	**$ 9**	**$ (391)**	**$ (779)**

(a) See table below for details about these reclassifications.
(b) See Note 14, Income Taxes, for details about the accounting impacts resulting from the TCJ Act.

Our reclassifications out of AOCI for the years ended December 31, 2017, and December 31, 2016, are as follows:

Year ended December 31, 2017 *in millions*	**Amount Reclassified from Accumulated Other Comprehensive Income**	**Affected Line Item in the Statement Where Net Income is Presented**
Unrealized gains (losses) on available for sale securities		
Realized gains	**$ 1**	Other income
Realized losses	**—**	Other income
	1	Income (loss) from continuing operations before income taxes
	—	Income taxes
	$ 1	Income (loss) from continuing operations
Unrealized gains (losses) on derivative financial instruments		
Interest rate	**$ 19**	Interest income — Loans
Interest rate	**(4)**	Interest expense — Long-term debt
	15	Income (loss) from continuing operations before income taxes
	5	Income taxes
	$ 10	Income (loss) from continuing operations
Foreign currency translation adjustment		
	$ (1)	Corporate services income
	(1)	Income (loss) from continuing operations before income taxes
	—	Income taxes
	$ (1)	Income (loss) from continuing operations
Net pension and postretirement benefit costs		
Amortization of losses	**$ (15)**	Personnel expense
Amortization of prior service credit	**1**	Personnel expense
	(14)	Income (loss) from continuing operations before income taxes
	(5)	Income taxes
	$ (9)	Income (loss) from continuing operations

Year ended December 31, 2016 *in millions*	**Amount Reclassified from Accumulated Other Comprehensive Income**	**Affected Line Item in the Statement Where Net Income is Presented**
Unrealized gains (losses) on derivative financial instruments		
Interest rate	$ 85	Interest income — Loans
Interest rate	(4)	Interest expense — Long-term debt
	81	Income (loss) from continuing operations before income taxes
	30	Income taxes
	$ 51	Income (loss) from continuing operations
Net pension and postretirement benefit costs		
Amortization of losses	$ (17)	Personnel expense
Settlement loss	(18)	Personnel expense
Amortization of prior service credit	1	Personnel expense
	(34)	Income (loss) from continuing operations before income taxes
	(13)	Income taxes
	$ (21)	Income (loss) from continuing operations

24. Shareholders' Equity

Comprehensive Capital Plan

As previously reported and as authorized by the Board and pursuant to our 2017 capital plan (which is effective through the second quarter of 2018) submitted to and not objected to by the Federal Reserve, we have authority to repurchase up to $800 million of our Common Shares, which includes repurchases to offset issuances of Common Shares under our employee compensation plans. During 2017, we repurchased $254 million of Common Shares under our 2016 capital plan authorization and $476 million under our 2017 capital plan authorization.

Consistent with our 2016 capital plan, the Board declared a quarterly dividend of $.085 per Common Share for the first quarter of 2017, and $.095 per Common Share for the second quarter of 2017. The Board declared a quarterly dividend of $.095 per Common Share for the third quarter of 2017, and a quarterly dividend of $.105 per Common Share for the fourth quarter of 2017, consistent with our 2017 capital plan. These quarterly dividend payments brought our annual dividend to $.38 per Common Share for 2017. Our 2017 capital plan proposed an increase in our quarterly Common Share dividend, up to $.12 per Common Share, which will be considered by the Board for the second quarter of 2018.

Preferred Stock

On March 9, 2017, we announced that all of our 7.75% Noncumulative Perpetual Convertible Series A Preferred Stock would convert into KeyCorp Common Shares. On March 20, 2017, the conversion date, holders of the Series A Preferred Stock received 7.0922 Common Shares for each share of Series A Preferred Stock. Cash was paid in lieu of fractional shares. Prior to the conversion of the Series A Preferred Stock, we made a dividend payment of $1.9375 per share, or $6 million, on our Series A Preferred Stock during the first quarter of 2017.

Prior to the conversion, we had $290 million of 7.75% Noncumulative Perpetual Convertible Series A Preferred Stock outstanding at December 31, 2016. Our Series A Preferred Stock had a $1 par value and a $100 liquidation preference. There were 7,475,000 shares authorized and 2,900,234 shares outstanding at December 31, 2016.

On January 12, 2017, we provided notice of our intention to redeem all outstanding shares of the Series C Preferred Stock on February 15, 2017. On February 15, 2017, the Series C Preferred Stock was redeemed for cash at a redemption price of $25 per share. The redemption date was also a dividend payment date, and declared dividends of $.539063 per share, or $7 million, were also paid separately on February 15, 2017. The Series C Preferred Stock was initially issued in connection with the First Niagara acquisition to replace First Niagara's outstanding preferred stock.

Prior to the redemption, we had $350 million of Fixed-to-Floating Rate Perpetual Noncumulative Series C Preferred Stock. Our Series C Preferred Stock had a $1 par value with a $25 liquidation preference. There were 14,000,000 shares authorized and outstanding at December 31, 2016.

We have $525 million of depositary shares, each representing a $1/25^{th}$ ownership interest in a share of our Fixed-to-Floating Rate Perpetual Noncumulative Series D Preferred Stock outstanding at December 31, 2017, and December 31, 2016. Our Series D Preferred Stock has a $1 par value with a $25,000 liquidation preference. There are 21,000 shares authorized and 21,000 shares outstanding at December 31, 2017, and December 31, 2016. We made total payments of $50.00 per depositary share on the depositary shares related to our Series D Preferred Stock during 2017 for a total of $26 million.

We have $500 million of depositary shares, each representing a $1/40^{th}$ ownership interest in a share of our Fixed-to-Floating Rate Perpetual Noncumulative Series E Preferred Stock outstanding at December 31, 2017, and December 31, 2016. Our Series E Preferred Stock has a $1 par value with a $1,000 liquidation preference. There are 500,000 shares authorized and 500,000 shares outstanding at December 31, 2017, and December 31, 2016. We made total payments of $1.544012 per depositary share on the depositary shares related to our Series E Preferred Stock during 2017 for a total of $31 million.

Capital Adequacy

KeyCorp and KeyBank (consolidated) must meet specific capital requirements imposed by federal banking regulators. Sanctions for failure to meet applicable capital requirements may include regulatory enforcement actions that restrict dividend payments, require the adoption of remedial measures to increase capital, terminate FDIC deposit insurance, and mandate the appointment of a conservator or receiver in severe cases. In addition, failure to maintain a "well capitalized" status affects how regulators evaluate applications for certain endeavors, including acquisitions, continuation and expansion of existing activities, and commencement of new activities, and could make clients and potential investors less confident. As of December 31, 2017, KeyCorp and KeyBank (consolidated) met all regulatory capital requirements.

KeyBank (consolidated) qualified for the "well capitalized" prompt corrective action capital category at December 31, 2017, because its capital and leverage ratios exceeded the prescribed threshold ratios for that capital category and it was not subject to any written agreement, order, or directive to meet and maintain a specific capital level for any capital measure. Since that date, we believe there has been no change in condition or event that has occurred that would cause the capital category for KeyBank (consolidated) to change.

BHCs are not assigned to any of the five prompt corrective action capital categories applicable to insured depository institutions. If, however, those categories applied to BHCs, we believe that KeyCorp would satisfy the criteria for a "well capitalized" institution at December 31, 2017, and since that date, we believe there has been no change in condition or event that has occurred that would cause such capital category to change.

Because the regulatory capital categories under the prompt corrective action regulations serve a limited supervisory function, investors should not use them as a representation of the overall financial condition or prospects of KeyBank or KeyCorp.

At December 31, 2017, Key and KeyBank (consolidated) had regulatory capital in excess of all current minimum risk-based capital (including all adjustments for market risk) and leverage ratio requirements as shown in the following table.

	Actual		To Meet Minimum Capital Adequacy Requirements		To Qualify as Well Capitalized Under Federal Deposit Insurance Act	
dollars in millions	Amount	Ratio	Amount	Ratio	Amount	Ratio
December 31, 2017						
TOTAL CAPITAL TO NET RISK-WEIGHTED ASSETS						
Key	$ 15,345	12.92%	$ 9,505	8.00%	N/A	N/A
KeyBank (consolidated)	14,957	12.86	9,306	8.00	$ 11,633	10.00%
TIER 1 CAPITAL TO NET RISK-WEIGHTED ASSETS						
Key	$ 13,083	11.01%	$ 7,129	6.00%	N/A	N/A
KeyBank (consolidated)	13,110	11.27	6,980	6.00	$ 6,980	6.00%
TIER 1 CAPITAL TO AVERAGE QUARTERLY TANGIBLE ASSETS						
Key	$ 13,083	9.73%	$ 5,379	4.00%	N/A	N/A
KeyBank (consolidated)	13,110	9.91	5,293	4.00	$ 6,617	5.00%
December 31, 2016						
TOTAL CAPITAL TO NET RISK-WEIGHTED ASSETS						
Key	$ 15,638	12.85%	$ 9,734	8.00%	N/A	N/A
KeyBank (consolidated)	14,291	12.36	9,251	8.00	$ 11,564	10.00%
TIER 1 CAPITAL TO NET RISK-WEIGHTED ASSETS						
Key	$ 13,249	10.89%	$ 7,300	6.00%	N/A	N/A
KeyBank (consolidated)	12,439	10.76	6,939	6.00	$ 6,939	6.00%
TIER 1 CAPITAL TO AVERAGE QUARTERLY TANGIBLE ASSETS						
Key	$ 13,249	9.90%	$ 5,442	4.00%	N/A	N/A
KeyBank (consolidated)	12,439	9.46	5,353	4.00	$ 6,691	5.00%

25. Line of Business Results

The specific lines of business that constitute each of the major business segments (operating segments) are described below.

Key Community Bank

Key Community Bank serves individuals and small to mid-sized businesses through its 15-state branch network.

Individuals are provided branch-based deposit and investment products, personal finance services, and loans, including residential mortgages, home equity, credit card, and various types of installment loans. Key Community Bank offers personal property and casualty insurance, such as home, auto, renters, watercraft, and umbrella. Key Community Bank also purchases retail auto sales contracts via a network of auto dealerships. The auto dealerships finance the sale of automobiles as the initial lender and then assign the contracts to us pursuant to dealer agreements. In addition, financial, estate and retirement planning, asset management services, and Delaware Trust capabilities are offered to assist high-net-worth clients with their banking, trust, portfolio management, life insurance, charitable giving, and related needs.

Small businesses are provided deposit, investment and credit products, and business advisory services. Mid-sized businesses are provided products and services, some of which are delivered by Key Corporate Bank, that include commercial lending, cash management, equipment leasing, investment, insurance including Commercial Property and Casualty as well as Captive Insurance and employee benefit programs, succession planning, access to capital markets, derivatives, and foreign exchange.

Key Corporate Bank

Key Corporate Bank is a full-service corporate and investment bank focused principally on serving the needs of middle market clients in seven industry sectors: consumer, energy, healthcare, industrial, public sector, real estate, and technology. Key Corporate Bank delivers a broad suite of banking and capital markets products to its clients, including syndicated finance, debt and equity capital markets, commercial payments, equipment finance, commercial mortgage banking, derivatives, foreign exchange, financial advisory, and public finance. Key Corporate Bank is also a significant servicer of commercial mortgage loans and a significant special servicer of CMBS. Key Corporate Bank delivers many of its product capabilities to clients of Key Community Bank.

Other Segments

Other Segments consists of Corporate Treasury, Principal Investing, and various exit portfolios.

Reconciling Items

Total assets included under “Reconciling Items” primarily represent the unallocated portion of nonearning assets of corporate support functions. Reconciling Items also includes intercompany eliminations and certain items that are not allocated to the business segments because they do not reflect their normal operations including merger-related charges and certain estimated impacts of tax reform.

The table on the following pages shows selected financial data for our major business segments for the years ended December 31, 2017, 2016, and 2015.

The information was derived from the internal financial reporting system that we use to monitor and manage our financial performance. GAAP guides financial accounting, but there is no authoritative guidance for “management accounting” — the way we use our judgment and experience to make reporting decisions. Consequently, the line of business results we report may not be comparable to line of business results presented by other companies.

The selected financial data is based on internal accounting policies designed to compile results on a consistent basis and in a manner that reflects the underlying economics of the businesses. In accordance with our policies:

- Net interest income is determined by assigning a standard cost for funds used or a standard credit for funds provided based on their assumed maturity, prepayment, and/or repricing characteristics.
- Indirect expenses, such as computer servicing costs and corporate overhead, are allocated based on assumptions regarding the extent that each line of business actually uses the services.
- The consolidated provision for credit losses is allocated among the lines of business primarily based on their actual net loan charge-offs, adjusted periodically for loan growth and changes in risk profile. The amount of the consolidated provision is based on the methodology that we use to estimate our consolidated ALLL. This

methodology is described in Note 1 (“Summary of Significant Accounting Policies”) under the heading “Allowance for Loan and Lease Losses.
- Income taxes are allocated based on the 2017 statutory federal income tax rate of 35% and a blended state income tax rate (net of the federal income tax benefit) of 2.2%.
- Capital is assigned to each line of business based on economic equity.

Developing and applying the methodologies that we use to allocate items among our lines of business is a dynamic process. Accordingly, financial results may be revised periodically to reflect enhanced alignment of expense base allocation drivers, changes in the risk profile of a particular business, or changes in our organizational structure.

Year ended December 31,	Key Community Bank			Key Corporate Bank		
dollars in millions	2017	2016	2015	2017	2016	2015
SUMMARY OF OPERATIONS						
Net interest income (TE)	**$ 2,643**	$ 1,953	$ 1,487	**$ 1,190**	$ 1,049	$ 886
Noninterest income	**1,200**	925	788	**1,147**	1,013	926
Total revenue (TE) [a]	**3,843**	2,878	2,275	**2,337**	2,062	1,812
Provision for credit losses	**209**	143	90	**20**	127	83
Depreciation and amortization expense	**116**	76	56	**96**	60	43
Other noninterest expense	**2,486**	2,077	1,723	**1,161**	1,071	945
Income (loss) from continuing operations before income taxes (TE)	**1,032**	582	406	**1,060**	804	741
Allocated income taxes (benefit) and TE adjustments	**383**	217	151	**246**	178	196
Income (loss) from continuing operations	**649**	365	255	**814**	626	545
Income (loss) from discontinued operations, net of taxes	**—**	—	—	**—**	—	—
Net income (loss)	**649**	365	255	**814**	626	545
Less: Net income (loss) attributable to noncontrolling interests	**—**	—	—	**—**	(2)	1
Net income (loss) attributable to Key	**$ 649**	$ 365	$ 255	**$ 814**	$ 628	$ 544
AVERAGE BALANCES [b]						
Loans and leases	**$ 47,383**	$ 37,620	$ 30,834	**$ 37,732**	$ 31,929	$ 25,865
Total assets [a]	**51,433**	40,300	32,948	**44,521**	37,801	31,541
Deposits	**79,669**	63,873	51,163	**21,318**	20,783	19,043
OTHER FINANCIAL DATA						
Expenditures for additions to long-lived assets [a], [b]	**$ 2,438**	$ 1,478	$ 75	**$ 559**	$ 340	$ 16
Net loan charge-offs [b]	**166**	114	92	**40**	83	40
Return on average allocated equity [b]	**13.59%**	10.62%	9.42%	**28.69%**	26.80%	28.91%
Return on average allocated equity	**13.59**	10.62	9.42	**28.69**	26.80	28.91
Average full-time equivalent employees [c]	**10,924**	8,936	7,520	**2,407**	2,244	2,100

(a) Substantially all revenue generated by our major business segments is derived from clients that reside in the United States. Substantially all long-lived assets, including premises and equipment, capitalized software, and goodwill held by our major business segments, are located in the United States.
(b) From continuing operations.
(c) The number of average full-time equivalent employees was not adjusted for discontinued operations.

Other Segments			Total Segments			Reconciling Items			Key		
2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
$ (23)	$ (45)	$ (8)	**$ 3,810**	$ 2,957	$ 2,365	**$ 20**	$ (4)	$ 11	**$ 3,830**	$ 2,953	$ 2,376
151	151	183	**2,498**	2,089	1,897	**(20)**	(18)	(17)	**2,478**	2,071	1,880
128	106	175	**6,308**	5,046	4,262	**—**	(22)	(6)	**6,308**	5,024	4,256
—	(4)	(8)	**229**	266	165	**—**	—	1	**229**	266	166
3	4	8	**215**	140	107	**169**	163	148	**384**	303	255
39	35	46	**3,686**	3,183	2,714	**28**	270	(129)	**3,714**	3,453	2,585
86	71	129	**2,178**	1,457	1,276	**(197)**	(455)	(26)	**1,981**	1,002	1,250
(42)	(20)	1	**587**	375	348	**103**	(162)	(17)	**690**	213	331
128	91	128	**1,591**	1,082	928	**(300)**	(293)	(9)	**1,291**	789	919
—	—	—	**—**	—	—	**7**	1	1	**7**	1	1
128	91	128	**1,591**	1,082	928	**(293)**	(292)	(8)	**1,298**	790	920
3	2	3	**3**	—	4	**(1)**	(1)	—	**2**	(1)	4
$ 125	$ 89	$ 125	**$ 1,588**	$ 1,082	$ 924	**$ (292)**	$ (291)	$ (8)	**$ 1,296**	$ 791	$ 916
$ 1,225	$ 1,486	$ 1,852	**$ 86,340**	$ 71,035	$ 58,551	**$ 25**	$ 113	$ 43	**$ 86,365**	$ 71,148	$ 58,594
37,079	31,934	26,935	**133,033**	110,035	91,424	**686**	2,502	602	**133,719**	112,537	92,026
1,988	1,213	467	**102,975**	85,869	70,673	**(29)**	483	(43)	**102,946**	86,352	70,630
$ 19	—	—	**$ 3,016**	$ 1,818	$ 91	**$ 81**	$ 116	$ 49	**$ 3,097**	$ 1,934	$ 139
1	$ 7	$ 9	**207**	204	141	**1**	1	1	**208**	205	142
86.81%	52.66%	58.96%	**20.47%**	18.19%	19.25%	**(4.00)%**	(4.36)%	(.15)%	**8.47%**	6.25%	8.61%
86.81	52.66	58.96	**20.47**	18.19	19.25	**(3.91)**	(4.34)	(.14)	**8.51**	6.25	8.62
2	5	14	**13,333**	11,185	9,634	**5,082**	4,515	3,849	**18,415**	15,700	13,483

26. Condensed Financial Information of the Parent Company

CONDENSED BALANCE SHEETS

December 31, *in millions*	2017	2016
ASSETS		
Cash and due from banks	**$ 2,257**	$ 3,286
Short-term investments	**22**	70
Securities available for sale	**10**	10
Other investments	**29**	25
Loans to:		
Banks	**250**	250
Nonbank subsidiaries	**31**	31
Total loans	**281**	281
Investment in subsidiaries:		
Banks	**15,169**	14,564
Nonbank subsidiaries	**885**	668
Total investment in subsidiaries	**16,054**	15,232
Goodwill	**167**	167
Corporate-owned life insurance	**208**	207
Derivative assets	**29**	53
Accrued income and other assets	**353**	451
Total assets	**$ 19,410**	$ 19,782
LIABILITIES		
Accrued expense and other liabilities	**$ 466**	$ 553
Derivative liabilities	**—**	2
Long-term debt due to:		
Subsidiaries	**480**	492
Unaffiliated companies	**3,441**	3,495
Total long-term debt	**3,921**	3,987
Total liabilities	**4,387**	4,542
SHAREHOLDERS' EQUITY [(a)]	**15,023**	15,240
Total liabilities and shareholders' equity	**$ 19,410**	$ 19,782

(a) See Key's Consolidated Statements of Changes in Equity.

CONDENSED STATEMENTS OF INCOME

Year ended December 31, *in millions*	2017	2016	2015
INCOME			
Dividends from subsidiaries:			
Bank subsidiaries	**$ 750**	$ 625	$ 1,000
Nonbank subsidiaries	**—**	50	1
Interest income from subsidiaries	**10**	10	10
Other income	**9**	11	20
Total income	**769**	696	1,031
EXPENSE			
Interest on long-term debt with subsidiary trusts	**17**	14	10
Interest on other borrowed funds	**95**	69	52
Personnel and other expense	**46**	101	73
Total expense	**158**	184	135
Income (loss) before income taxes and equity in net income (loss) less dividends from subsidiaries	**611**	512	896
Income tax (expense) benefit	**29**	54	39
Income (loss) before equity in net income (loss) less dividends from subsidiaries	**640**	566	935
Equity in net income (loss) less dividends from subsidiaries	**658**	224	(15)
NET INCOME (LOSS)	**1,298**	790	920
Less: Net income attributable to noncontrolling interests	**2**	(1)	4
NET INCOME (LOSS) ATTRIBUTABLE TO KEY	**$ 1,296**	$ 791	$ 916

CONDENSED STATEMENTS OF CASH FLOWS

Year ended December 31, *in millions*	2017	2016	2015
OPERATING ACTIVITIES			
Net income (loss) attributable to Key	**$ 1,296**	$ 791	$ 916
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Deferred income taxes (benefit)	**38**	(24)	10
Stock-based compensation expense	**11**	12	9
Equity in net (income) loss less dividends from subsidiaries	**(658)**	(224)	15
Other intangible asset amortization	**—**	—	2
Net (increase) decrease in goodwill and other intangibles	**—**	—	86
Net (increase) decrease in other assets	**82**	(93)	29
Net increase (decrease) in other liabilities	**(82)**	9	(7)
Other operating activities, net	**(114)**	—	(52)
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	**573**	471	1,008
INVESTING ACTIVITIES			
Net (increase) decrease in securities available for sale and in short-term and other investments	**47**	(17)	(38)
Cash infusion from purchase of Cain Brothers	**(90)**	—	—
Cash used in acquisitions	**—**	(481)	—
Proceeds from sales, prepayments and maturities of securities available for sale	**1**	—	20
Net (increase) decrease in loans to subsidiaries	**—**	160	(146)
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES	**(42)**	(338)	(164)
FINANCING ACTIVITIES			
Net proceeds from issuance of long-term debt	**—**	—	1,000
Payments on long-term debt	**—**	(21)	(750)
Repurchase of Treasury Shares	**(730)**	(140)	(448)
Net proceeds from the issuance of Common Shares and preferred stock	**(350)**	1,041	22
Cash dividends paid	**(480)**	(335)	(267)
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	**(1,560)**	545	(443)
NET INCREASE (DECREASE) IN CASH AND DUE FROM BANKS	**(1,029)**	678	401
CASH AND DUE FROM BANKS AT BEGINNING OF YEAR	**3,286**	2,608	2,207
CASH AND DUE FROM BANKS AT END OF YEAR	**$ 2,257**	$ 3,286	$ 2,608

KeyCorp paid interest on borrowed funds totaling $120 million in 2017, $114 million in 2016, and $112 million in 2015.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, KeyCorp carried out an evaluation, under the supervision and with the participation of KeyCorp's management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of KeyCorp's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act"), to ensure that information required to be disclosed by KeyCorp in reports that it files or submits under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to KeyCorp's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. Based upon that evaluation, KeyCorp's Chief Executive Officer and Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective, in all material respects, as of the end of the period covered by this report.

Changes in Internal Control over Financial Reporting

No changes were made to KeyCorp's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the last fiscal year that materially affected, or are reasonably likely to materially affect, KeyCorp's internal control over financial reporting.

Reports Regarding Internal Controls

Management's Annual Report on Internal Control over Financial Reporting, the Report of Ernst & Young LLP, Independent Registered Public Accounting Firm on Internal Control over Financial Reporting, and the Report of Ernst & Young LLP, Independent Registered Public Accounting Firm are included in Item 8 on pages 92, 93, and 94, respectively.

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The names of our executive officers, and biographical information for each, is set forth in Item 1. Business of this report.

The other information required by this item will be set forth in the following sections of KeyCorp's Definitive Proxy Statement for the 2018 Annual Meeting of Shareholders to be held May 10, 2018 (the "2018 Proxy Statement"), and these sections are incorporated herein by reference:

- "Proposal One: Election of Directors"
- "Ownership of KeyCorp Equity Securities — Section 16(a) Beneficial Ownership Reporting Compliance"
- "Corporate Governance Documents — Code of Ethics"
- "The Board of Directors and Its Committees — Audit Committee"

KeyCorp expects to file the 2018 Proxy Statement with the SEC on or about March 23, 2018.

Any amendment to, or waiver from a provision of, the Code of Ethics that applies to KeyCorp's Chief Executive Officer, Chief Financial Officer, and Chief Accounting Officer, or any other executive officer or director, will be promptly disclosed on its website (www.key.com/ir) as required by laws, rules and regulations of the SEC.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item will be set forth in the following sections of the 2018 Proxy Statement and these sections are incorporated herein by reference:

- "Compensation Discussion and Analysis"
- "Compensation of Executive Officers and Directors"
- "Compensation and Organization Committee Report"
- "The Board of Directors and Its Committees — Oversight of Compensation Related Risks"

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

The information required by this item will be set forth in the section captioned "Ownership of KeyCorp Equity Securities" contained in the 2018 Proxy Statement, and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item will be set forth in the following sections of the 2018 Proxy Statement and these sections are incorporated herein by reference:

- “The Board of Directors and Its Committees — Director Independence”
- “The Board of Directors and Its Committees — Related Party Transactions”

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item will be set forth in the section captioned “Audit Matters — Ernst & Young’s Fees” contained in the 2018 Proxy Statement, and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENTS

(a) (1) Financial Statements

The following financial statements of KeyCorp and its subsidiaries, and the auditor's report thereon are filed as part of this report under Item 8. Financial Statements and Supplementary Data:

(a) (2) Financial Statement Schedules

All financial statement schedules for KeyCorp and its subsidiaries have been included in this Form 10-K in the consolidated financial statements or the related footnotes, or they are either inapplicable or not required.

(a) (3) Exhibits*

2.1	Agreement and Plan of Merger between KeyCorp and First Niagara Financial Group, Inc., dated as of October 30, 2015, filed as Exhibit 2.1 to Form 8-K filed on November 2, 2015.*†
3.1	Second Amended and Restated Articles of Incorporation of KeyCorp, effective August 1, 2016, filed as Exhibit 3.1 to Form 8-K on August 1, 2016.*
3.2	Amendment to Second Amended and Restated Articles of Incorporation of KeyCorp, effective September 7, 2016, filed as Exhibit 4.1 to Form 8-K on September 9, 2016.*
3.3	Amendment to Second Amended and Restated Articles of Incorporation of KeyCorp, effective December 8, 2016, filed as Exhibit 4.1 to Form 8-K on December 12, 2016.*
3.4	Second Amended and Restated Regulations of KeyCorp, effective March 23, 2016, filed as Exhibit 3 to Form 10-Q for the quarter ended March 31, 2016.*
4.1	Form of Certificate representing Fixed-to-Floating Rate Perpetual Non-Cumulative Preferred Stock, Series D, filed as Exhibit 4.2 to Form 8-K on September 9, 2016.*
4.2	Deposit Agreement, dated as of September 9, 2016, among KeyCorp, Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, and the holders from time to time of the depositary receipts described therein, filed as Exhibit 4.3 to Form 8-K on September 9, 2016.*
4.3	Form of Depositary Receipt related to Series D Preferred Stock (included as part of Exhibit 4.2), filed as Exhibit 4.4 to Form 8-K on September 9, 2016.*
4.4	Form of Certificate representing Fixed-to-Floating Rate Perpetual Non-Cumulative Preferred Stock, Series E, filed as Exhibit 4.2 to Form 8-K on December 12, 2016.*
4.5	Deposit Agreement, dated as of December 12, 2016, among KeyCorp, Computershare Inc. and Computershare Trust Company, N.A., jointly as depositary, and the holders from time to time of the depositary receipts described therein, filed as Exhibit 4.3 to Form 8-K on December 12, 2016.*
4.6	Form of Depositary Receipt related to Series E Preferred Stock (included as part of Exhibit 4.5), filed as Exhibit 4.4 to Form 8-K on December 12, 2016.*
10.1	Form of Award of Non-Qualified Stock Options (effective June 12, 2009), filed as Exhibit 10.1 to Form 10-K for the year ended December 31, 2014.*

10.2	Form of Performance Shares Award Agreement (2015-2017), filed as Exhibit 10.5 to Form 10-K for the year ended December 31, 2014.*
10.3	Form of Performance Shares Award Agreement (2016-2018), filed as Exhibit 10.5 to Form 10-K for the year ended December 31, 2015.*
10.4	Form of Performance Shares Award Agreement (2017-2019), filed as Exhibit 10.5 to Form 10-K for the year ended December 31, 2016.*
10.5	Form of Performance Shares Award Agreement (2018-2020).
10.6	Form of Stock Option Award Agreement under KeyCorp 2013 Equity Compensation Plan, filed as Exhibit 10.7 to Form 10-K for the year ended December 31, 2016.*
10.7	Form of Restricted Stock Unit Award Agreement under KeyCorp 2013 Equity Compensation Plan, filed as Exhibit 10.8 to Form 10-K for the year ended December 31, 2016.*
10.8	Form of Change of Control Agreement (Tier I) between KeyCorp and Certain Executive Officers of KeyCorp, dated as of March 8, 2012.
10.9	Form of Change of Control Agreement (Tier II Executives) between KeyCorp and Certain Executive Officers of KeyCorp, dated as of April 15, 2012.
10.10	KeyCorp 2016 Annual Performance Plan, filed as Appendix A to Schedule 14A filed on April 6, 2016.*
10.11	KeyCorp 2004 Equity Compensation Plan (effective March 18, 2004), filed as Exhibit 10.17 to Form 10-K for the year ended December 31, 2014.*
10.12	KeyCorp 2010 Equity Compensation Plan (effective March 11, 2010), filed as Exhibit 10.16 to Form 10-K for the year ended December 31, 2015.*
10.13	Director Deferred Compensation Plan (May 18, 2000 Amendment and Restatement), filed as Exhibit 10.21 to Form 10-K for the year ended December 31, 2013.*
10.14	Amendment to the Director Deferred Compensation Plan (effective December 31, 2004), filed as Exhibit 10.20 to Form 10-K for the year ended December 31, 2014.*
10.15	KeyCorp Amended and Restated Second Director Deferred Compensation Plan (effective September 18, 2013), filed as Exhibit 10.23 to Form 10-K for the year ended December 31, 2013.*
10.16	KeyCorp Directors' Deferred Share Sub-Plan (effective September 18, 2013), filed as Exhibit 10.25 to Form 10-K for the year ended December 31, 2013.*
10.17	KeyCorp Excess Cash Balance Pension Plan (effective January 1, 1998), filed as Exhibit 10.26 to Form 10-K for the year ended December 31, 2013.*
10.18	First Amendment to the KeyCorp Excess Cash Balance Pension Plan (effective July 1, 1999), filed as Exhibit 10.27 to Form 10-K for the year ended December 31, 2013.*
10.19	Second Amendment to the KeyCorp Excess Cash Balance Pension Plan (effective January 1, 2003), filed as Exhibit 10.28 to Form 10-K for the year ended December 31, 2013.*
10.20	Restated Amendment to KeyCorp Excess Cash Balance Pension Plan (effective December 31, 2004), filed as Exhibit 10.26 to Form 10-K for the year ended December 31, 2014.*
10.21	Disability Amendment to KeyCorp Excess Cash Balance Pension Plan (effective December 31, 2007).
10.22	KeyCorp Second Excess Cash Balance Pension Plan (effective February 8, 2010), filed as Exhibit 10.28 to Form 10-K for the year ended December 31, 2014.*
10.23	Trust Agreement for certain amounts that may become payable to certain executives and directors of KeyCorp, dated April 1, 1997, and amended as of August 25, 2003, filed as Exhibit 10.32 to Form 10-K for the year ended December 31, 2013.*
10.24	KeyCorp 2013 Equity Compensation Plan (effective March 14, 2013), filed as Appendix A to Schedule 14A filed on March 29, 2013.*
10.25	KeyCorp Deferred Savings Plan (effective January 1, 2015), filed as Exhibit 10.31 to Form 10-K for the year ended December 31, 2014.*
10.26	KeyCorp Deferred Equity Allocation Plan (effective May 22, 2003), filed as Exhibit 10.32 to Form 10-K for the year ended December 31, 2014.*
10.27	Form of Merger Integration Performance Shares Award Agreement, filed as Exhibit 10.32 to Form 10-K for the year ended December 31, 2015.*
10.28	Amended and Restated First Niagara Bank and First Niagara Financial Group, Inc. Directors Deferred Fees Plan, filed as Exhibit 10.28 to First Niagara Financial Group, Inc.'s Form 10-K for the year ended December 31, 2013.*

10.29	First Niagara Financial Group, Inc. Amended and Restated 2002 Long-Term Incentive Stock Benefit Plan, filed as Exhibit 10.31 to Form 10-K for the year ended December 31, 2016.*
10.30	Form of Executive Performance Based Restricted Stock Unit Agreement under First Niagara Financial Group, Inc. 2012 Equity Incentive Plan for CEO, filed as Exhibit 10.1 to First Niagara Financial Group, Inc.'s Form 10-Q for the quarter ended March 31, 2015.*
10.31	Form of Executive Time-vested Restricted Stock Unit Agreement under First Niagara Financial Group, Inc. 2012 Equity Incentive Plan for CEO, filed as Exhibit 10.2 to First Niagara Financial Group, Inc.'s Form 10-Q for the quarter ended March 31, 2015.*
10.32	Form of Stock Option Agreement under First Niagara Financial Group, Inc. 2012 Equity Incentive Plan, filed as Exhibit 10.11 to First Niagara Financial Group, Inc.'s Form 10-Q for the quarter ended March 31, 2013.*
10.33	First Niagara Financial Group, Inc. 2012 Equity Incentive Plan.
10.34	First Niagara Financial Group, Inc. 2012 Equity Incentive Plan, Amendment Number One, filed as Appendix B to First Niagara Financial Group, Inc.'s Schedule 14A filed on March 31, 2014.*
10.35	First Niagara Financial Group, Inc. 2012 Equity Incentive Plan, Amendment Number Two, filed as Appendix C to First Niagara Financial Group, Inc.'s Schedule 14A filed on March 31, 2014.*
12	Computation of Consolidated Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends.
21	Subsidiaries of the Registrant.
23	Consent of Independent Registered Public Accounting Firm.
24	Power of Attorney.
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Label Calculation Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase.

* Incorporated by reference. Copies of these Exhibits have been filed with the SEC. Exhibits that are not incorporated by reference are filed with this report. Shareholders may obtain a copy of any exhibit, upon payment of reproduction costs, by writing KeyCorp Investor Relations, 127 Public Square, Mail Code OH-01-27-0737, Cleveland, OH 44114-1306.

† Certain schedules to this agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K and KeyCorp agrees to furnish supplementally to the SEC a copy of any omitted schedule upon request.

KeyCorp hereby agrees to furnish the SEC upon request, copies of instruments, including indentures, which define the rights of long-term debt security holders. All documents listed as Exhibits 10.1 through 10.35 constitute management contracts or compensatory plans or arrangements.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

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, on the date indicated.

KEYCORP

/s/ Donald R. Kimble
Donald R. Kimble
Chief Financial Officer (Principal Financial Officer)
February 26, 2018

/s/ Douglas M. Schosser
Douglas M. Schosser
Chief Accounting Officer (Principal Accounting Officer)
February 26, 2018

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

Signature	Title
*Beth E. Mooney	Chairman, Chief Executive Officer (Principal Executive Officer), President and Director
*Donald R. Kimble	Chief Financial Officer (Principal Financial Officer)
*Douglas M. Schosser	Chief Accounting Officer (Principal Accounting Officer)
*Austin A. Adams	Director
*Bruce D. Broussard	Director
*Charles P. Cooley	Director
*Gary M. Crosby	Director
*Alexander M. Cutler	Director
*H. James Dallas	Director
*Elizabeth R. Gile	Director
*Ruth Ann M. Gillis	Director
*William G. Gisel, Jr.	Director
*Carlton L. Highsmith	Director
*Richard J. Hipple	Director
*Kristen L. Manos	Director
*Demos Parneros	Director
*Barbara R. Snyder	Director
*David K. Wilson	Director

/s/ Paul N. Harris
* By Paul N. Harris, attorney-in-fact
February 26, 2018

EXHIBIT 12

KEYCORP
COMPUTATION OF CONSOLIDATED RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS
(dollars in millions)

(unaudited)

	Year ended December 31,				
	2017	**2016**	**2015**	**2014**	**2013**
Computation of Earnings					
Net income (loss) attributable to Key	**$ 1,296**	$ 791	$ 916	$ 900	$ 910
Add: Provision for income taxes	**637**	179	303	326	271
Less: Income (loss) from discontinued operations, net of taxes	**7**	1	1	(39)	40
Income (loss) before income taxes and cumulative effect of accounting change	**1,926**	969	1,218	1,265	1,141
Fixed charges, excluding interest on deposits	**362**	246	185	160	154
Total earnings for computation, excluding interest on deposits	**2,288**	1,215	1,403	1,425	1,295
Interest on deposits	**278**	171	105	117	158
Total earnings for computation, including interest on deposits	**$ 2,566**	$ 1,386	$ 1,508	$ 1,542	$ 1,453
Computation of Fixed Charges					
Net rental expense	**$ 144**	$ 110	$ 104	$ 104	$ 111
Portion of net rental expense deemed representative of interest	**$ 27**	$ 17	$ 16	$ 16	$ 17
Interest on short-term borrowed funds	**16**	11	9	11	10
Interest on long-term debt	**319**	218	160	133	127
Total fixed charges, excluding interest on deposits	**362**	246	185	160	154
Interest on deposits	**278**	171	105	117	158
Total fixed charges, including interest on deposits	**$ 640**	$ 417	$ 290	$ 277	$ 312
Combined Fixed Charges and Preferred Stock Dividends					
Preferred stock dividend requirement on a pre-tax basis	**$ 70**	$ 37	$ 23	$ 22	$ 23
Total fixed charges, excluding interest on deposits	**362**	246	185	160	154
Combined fixed charges and preferred stock dividends, excluding interest on deposits	**432**	283	208	182	177
Interest on deposits	**278**	171	105	117	158
Combined fixed charges and preferred stock dividends, including interest on deposits	**$ 710**	$ 454	$ 313	$ 299	$ 335
Ratio of Earnings to Fixed Charges					
Excluding deposit interest	**6.32**	4.94	7.58	8.91	8.41
Including deposit interest	**4.01**	3.32	5.20	5.57	4.66
Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends					
Excluding deposit interest	**5.30**	4.29	6.75	7.83	7.32
Including deposit interest	**3.61**	3.05	4.82	5.16	4.34

EXHIBIT 23

Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements of KeyCorp:

Form S-3 No. 333-55959
Form S-3 No. 333-59175
Form S-3 No. 333-64601
Form S-3 No. 333-76619
Form S-3 No. 333-151608
Form S-3 No. 333-174865
Form S-3 No. 333-196641
Form S-3 No. 333-218629
Form S-4 No. 333-146456
Form S-8 No. 333-49609
Form S-8 No. 333-70669
Form S-8 No. 333-70703
Form S-8 No. 333-70775
Form S-8 No. 333-72189
Form S-8 No. 333-92881
Form S-8 No. 333-45320
Form S-8 No. 333-45322
Form S-8 No. 333-99493
Form S-8 No. 333-107074
Form S-8 No. 333-107075
Form S-8 No. 333-107076
Form S-8 No. 333-109273
Form S-8 No. 333-112225
Form S-8 No. 333-116120
Form S-8 No. 333-167093
Form S-8 No. 333-188703
Form S-8 No. 333-208272

of our reports dated February 26, 2018, with respect to the consolidated financial statements of KeyCorp and the effectiveness of internal control over financial reporting of KeyCorp included in this Annual Report (Form 10-K) of KeyCorp for the year ended December 31, 2017.

Cleveland, Ohio
February 26, 2018

EXHIBIT 24

KEYCORP

POWER OF ATTORNEY

Each of the undersigned, an officer, a director, or both of KeyCorp, an Ohio corporation, hereby constitutes and appoints Paul N. Harris and Kristy Berner, and each of them, as his or her true and lawful attorney-in fact with full power of substitution and resubstitution, to sign in his or her name, place, and stead and to file with the United States Securities and Exchange Commission in accordance with Securities Exchange Act of 1934, as amended, KeyCorp's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, and all exhibits, amendments and supplements thereto, with full power and authority to take such actions that the attorney-in-fact deems necessary in connection with the execution and filing of such Annual Report on Form 10-K.

This Power of Attorney may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

* * * * *

IN WITNESS WHEREOF, the undersigned has hereto set his or her hand as of February 26, 2018.

/s/ Beth E. Mooney	/s/ Donald R. Kimble
Beth E. Mooney Chairman, Chief Executive Officer, President and Director (Principal Executive Officer)	Donald R. Kimble Chief Financial Officer (Principal Financial Officer)
/s/ Douglas M. Schosser	/s/ Austin A. Adams
Douglas M. Schosser Chief Accounting Officer (Principal Accounting Officer)	Austin A. Adams, Director
/s/ Bruce D. Broussard	/s/ Charles P. Cooley
Bruce D. Broussard, Director	Charles P. Cooley, Director
/s/ Gary M. Crosby	/s/ Alexander M. Cutler
Gary M. Crosby, Director	Alexander M. Cutler, Director
/s/ H. James Dallas	/s/ Elizabeth R. Gile
H. James Dallas, Director	Elizabeth R. Gile, Director
/s/ Ruth Ann M. Gillis	/s/ William G. Gisel, Jr.
Ruth Ann M. Gillis, Director	William G. Gisel, Jr., Director
/s/ Carlton L. Highsmith	/s/ Richard J. Hipple
Carlton L. Highsmith, Director	Richard J. Hipple, Director
/s/ Kristen L. Manos	/s/ Demos Parneros
Kristen L. Manos, Director	Demos Parneros, Director
/s/ Barbara R. Snyder	/s/ David K. Wilson
Barbara R. Snyder, Director	David K. Wilson, Director

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Beth E. Mooney, certify that:

1. I have reviewed this annual report on Form 10-K of KeyCorp;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

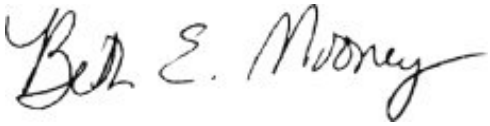
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2018



Beth E. Mooney
Chairman, Chief Executive Officer and President

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Donald R. Kimble, certify that:

1. I have reviewed this annual report on Form 10-K of KeyCorp;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2018

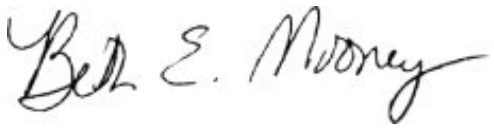
Donald R. Kimble
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. 1350, the undersigned officer of KeyCorp (the "Company"), hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2017 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2018



Beth E. Mooney
Chairman, Chief Executive Officer and President

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

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. 1350, the undersigned officer of KeyCorp (the "Company"), hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2017 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 26, 2018

Donald R. Kimble
Chief Financial Officer

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