UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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 001-09718

THE PNC FINANCIAL SERVICES GROUP, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania	**25-1435979**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

The Tower at PNC Plaza
300 Fifth Avenue
Pittsburgh, Pennsylvania 15222-2401
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code - **(888) 762-2265**

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $5.00	New York Stock Exchange
Depositary Shares Each Representing a 1/4,000 Interest in a Share of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series P	New York Stock Exchange
Depositary Shares Each Representing a 1/4,000 Interest in a Share of 5.375% Non-Cumulative Perpetual Preferred Stock, Series Q	New York Stock Exchange
Warrants (expiring December 31, 2018) to purchase Common Stock	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
$1.80 Cumulative Convertible Preferred Stock - Series B, par value $1.00

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes X 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 X

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

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

Indicate by check mark if the 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. X

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

Large accelerated filer X	Accelerated filer __
Non-accelerated filer __	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 Act). Yes __ No X

The aggregate market value of the registrant's outstanding voting common stock held by nonaffiliates on June 30, 2017, determined using the per share closing price on that date on the New York Stock Exchange of $124.87, was approximately $59.8 billion. There is no non-voting common equity of the registrant outstanding.

Number of shares of registrant's common stock outstanding at February 9, 2018: 471,590,384

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement of The PNC Financial Services Group, Inc. to be filed pursuant to Regulation 14A for the 2018 annual meeting of shareholders (Proxy Statement) are incorporated by reference into Part III of this Form 10-K.

THE PNC FINANCIAL SERVICES GROUP, INC.
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PART I

Forward-Looking Statements: From time to time, The PNC Financial Services Group, Inc. has made and may continue to make written or oral forward-looking statements regarding our outlook for earnings, revenues, expenses, capital and liquidity levels and ratios, asset levels, asset quality, financial position and other matters regarding or affecting us and our future business and operations or the impact of legal, regulatory or supervisory matters on our business operations or performance. This Annual Report on Form 10-K (the Report or Form 10-K) also includes forward-looking statements. With respect to all such forward-looking statements, you should review our Risk Factors discussion in Item 1A, our Risk Management, Critical Accounting Estimates and Judgments, and Cautionary Statement Regarding Forward-Looking Information sections included in Item 7, and Note 19 Legal Proceedings in the Notes To Consolidated Financial Statements included in Item 8 of this Report. See page 73 for a glossary of certain terms used in this Report. In this Report, "PNC", "we", "us", "the Company" or "the Corporation" refers to The PNC Financial Services Group, Inc. and its subsidiaries on a consolidated basis (except when referring to PNC as a public company, its common stock or other securities issued by PNC, which just refer to The PNC Financial Services Group, Inc.). References to The PNC Financial Services Group, Inc. or to any of its subsidiaries are specifically made where applicable.

ITEM 1 – BUSINESS

Business Overview

Headquartered in Pittsburgh, Pennsylvania, we are one of the largest diversified financial services companies in the United States. We have businesses engaged in retail banking, including residential mortgage, corporate and institutional banking and asset management, providing many of our products and services nationally. Our primary geographic markets are located in 19 states in the Mid-Atlantic, Midwest and Southeast. We also provide certain products and services internationally. At December 31, 2017, our consolidated total assets, total deposits and total shareholders’ equity were $380.8 billion, $265.1 billion and $47.5 billion, respectively.

We were incorporated under the laws of the Commonwealth of Pennsylvania in 1983 with the consolidation of Pittsburgh National Corporation and Provident National Corporation. Since 1983, we have diversified our geographical presence, business mix and product capabilities through internal growth, strategic bank and non-bank acquisitions and equity investments, and the formation of various non-banking subsidiaries.

Review of Business Segments

In addition to the following information relating to our businesses, we incorporate the information under the caption Business Segments Review in Item 7 of this Report here by reference. Also, we include the financial and other information by business in Note 22 Segment Reporting in the Notes To Consolidated Financial Statements in Item 8 of this Report here by reference.

Effective for the first quarter of 2017, as a result of changes to how we manage our businesses, we realigned our segments and, accordingly, changed the basis of presentation of our segments, resulting in four reportable business segments:

- Retail Banking
- Corporate & Institutional Banking
- Asset Management Group
- BlackRock

See the Business Segments Review section in Item 7 for additional detail on our first quarter 2017 change.

Assets, revenue and earnings attributable to foreign activities were not material in the periods presented. We periodically refine our internal methodologies as management reporting practices are enhanced. To the extent significant and practicable, retrospective application of new methodologies is made to prior period reportable business segment results and disclosures to create comparability with the current period. See Note 22 Segment Reporting in the Notes To Consolidated Financial Statements in Item 8 of this Report for information on adjustments made in the first quarter of 2017 to our internal funds transfer pricing methodology.

Retail Banking provides deposit, lending, brokerage, insurance services, investment management and cash management products and services to consumer and small business customers within our primary geographic markets. Our customers are serviced through our branch network, ATMs, call centers, online banking and mobile channels. The branch network is located primarily in Pennsylvania, Ohio, New Jersey, Michigan, Illinois, Maryland, Indiana, Florida, North Carolina, Kentucky, Washington, D.C., Delaware, Virginia, Georgia, Alabama, Missouri, Wisconsin and South Carolina. Deposit products include checking, savings and money market accounts and certificates of deposit. Lending products include residential mortgages, home equity loans and lines of credit, auto loans, credit cards, education loans and personal and small business loans and lines of credit. The residential mortgage loans are directly originated within our branch network and nationwide, and are typically underwritten to government agency and/or third-party standards, and either sold, servicing retained, or held on our balance sheet. Brokerage, investment management and cash management products and services include managed, education, retirement and trust accounts.

Our core strategy is to acquire and retain customers who maintain their primary checking and transaction relationships with us. We also seek to deepen relationships by meeting the broad range of our customers' financial needs with savings, liquidity, lending, investment and retirement solutions. A strategic priority for us is to reinvent the retail banking experience in response to changing customer preferences. A key element of this strategy is to expand the use of lower-cost alternative distribution channels, with an emphasis on digital capabilities, while continuing to optimize the traditional branch network. In addition, we have a disciplined process to continually improve the engagement of both our employees and customers, which is a strong indicator of customer growth, retention and relationship expansion.

Corporate & Institutional Banking provides lending, treasury management, and capital markets-related products and services to mid-sized and large corporations, and government and not-for-profit entities. Lending products include secured and unsecured loans, letters of credit and equipment leases. Treasury management services include cash and investment management, receivables management, disbursement services, funds transfer services, information reporting and global trade services. Capital markets-related products and services include foreign exchange, derivatives, securities underwriting, loan syndications, mergers and acquisitions advisory and equity capital markets advisory related services. We also provide commercial loan servicing and technology solutions for the commercial real estate finance industry. Products and services are provided nationally. We offer certain products and services internationally.

Corporate & Institutional Banking's strategy is to be the leading relationship-based provider of traditional banking products and services to its customers through the economic cycles. We aim to grow our market share and drive higher returns by delivering value-added solutions that help our clients better run their organizations, all while maintaining prudent risk and expense management.

Asset Management Group provides personal wealth management for high net worth and ultra high net worth clients and institutional asset management. Wealth management products and services include investment and retirement planning, customized investment management, private banking, tailored credit solutions, and trust management and administration for individuals and their families. Our Hawthorn unit provides multi-generational family planning including estate, financial, tax planning, fiduciary, investment management and consulting, private banking, personal administrative services, asset custody and customized performance reporting to ultra high net worth families. Institutional asset management provides advisory, custody and retirement administration services. The business also offers PNC proprietary mutual funds. Institutional clients include corporations, unions, municipalities, non-profits, foundations and endowments, primarily located in our geographic footprint.

Asset Management Group is focused on being a premier bank-held individual and institutional asset managers in each of the markets it serves. The business seeks to deliver high quality banking, trust and investment management services to our high net worth, ultra high net worth and institutional client sectors through a broad array of products and services. Asset Management Group's priorities are to serve our clients' financial objectives, grow and deepen customer relationships and deliver solid financial performance with prudent risk and expense management.

BlackRock, in which we hold an equity investment, is a leading publicly-traded investment management firm providing a broad range of investment, risk management and technology services to institutional and retail clients worldwide. Using a diverse platform of active and index investment strategies across asset classes, BlackRock develops investment outcomes and asset allocation solutions for clients. Product offerings include single- and multi-asset class portfolios investing in equities, fixed income, alternatives and money market instruments. BlackRock also offers an investment and risk management technology platform, risk analytics, advisory and technology services and solutions to a broad base of institutional and wealth management investors. Our equity investment in BlackRock provides us with an additional source of noninterest income and increases our overall revenue diversification. BlackRock is a publicly-traded company, and additional information regarding its business is available in its filings with the Securities and Exchange Commission (SEC).

Subsidiaries

Our corporate legal structure at December 31, 2017 consisted of one domestic subsidiary bank, including its subsidiaries, and approximately 50 active non-bank subsidiaries, in addition to various affordable housing investments. Our bank subsidiary is PNC Bank, National Association (PNC Bank), a national bank headquartered in Pittsburgh, Pennsylvania. For additional information on our subsidiaries, see Exhibit 21 to this Report.

Statistical Disclosure By Bank Holding Companies

The following statistical information is included on the indicated pages of this Report and is incorporated herein by reference:

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Supervision and Regulation

The PNC Financial Services Group, Inc. is a bank holding company (BHC) registered under the Bank Holding Company Act of 1956 (BHC Act) and a financial holding company under the Gramm-Leach-Bliley Act (GLB Act).

We are subject to numerous governmental regulations, some of which are highlighted below. See Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report for additional information regarding our regulatory matters. Applicable laws and regulations restrict our permissible activities and investments, impose conditions and requirements on the products and services we offer and the manner in which they are offered and sold, and require compliance with protections for loan, deposit, brokerage, fiduciary, investment management and other customers, among other things. They also restrict our ability to repurchase stock or pay dividends, or to receive dividends from our bank subsidiary, and impose capital adequacy and liquidity requirements. The consequences of noncompliance with these, or other applicable laws or regulations, can include substantial monetary and nonmonetary sanctions.

In addition, we are subject to comprehensive supervision and periodic examination by, among other regulatory bodies, the Board of Governors of the Federal Reserve System (Federal Reserve) and the Office of the Comptroller of the Currency (OCC). These examinations consider not only compliance with applicable laws, regulations and supervisory policies of the agency, but also capital levels, asset quality, risk management effectiveness, the ability and performance of management and the board of directors, the effectiveness of internal controls, earnings, liquidity and various other factors.

The results of examination activity by any of our federal bank regulators potentially can result in the imposition of significant limitations on our activities and growth. These regulatory agencies generally have broad discretion to impose restrictions and limitations on the operations of a regulated entity and take enforcement action, including the imposition of substantial monetary penalties and nonmonetary requirements, against a regulated entity where the relevant agency determines, among other things, that such operations fail to comply with applicable law or regulations or are conducted in an unsafe or unsound manner. This supervisory framework, including the examination reports and supervisory ratings (which are not publicly available) of the agencies, could materially impact the conduct, growth and profitability of our operations.

The Consumer Financial Protection Bureau (CFPB) is responsible for examining PNC Bank and its affiliates (including PNC) for compliance with most federal consumer financial protection laws, including the laws relating to fair lending and prohibiting unfair, deceptive or abusive acts or practices in connection with the offer, sale or provision of consumer financial products or services, and for enforcing such laws with respect to PNC Bank and its affiliates. The results of the CFPB's examinations (which are not publicly available) also can result in restrictions or limitations on the operations of a regulated entity as well as enforcement actions against a regulated entity, including the imposition of substantial monetary penalties and nonmonetary requirements.

We also are subject to regulation by the SEC by virtue of our status as a public company and by the SEC and the Commodity Futures Trading Commission (CFTC) due to the nature of some of our businesses. Our businesses with operations outside the United States are also subject to regulation by appropriate authorities in the foreign jurisdictions in which they do business.

As a regulated financial services firm, our relationships and good standing with regulators are of fundamental importance to the operation and growth of our businesses. The Federal Reserve, OCC, CFPB, SEC, CFTC and other domestic and foreign regulators have broad enforcement powers, and certain of the regulators have the power to approve, deny, or refuse to act upon our applications or notices to conduct new activities, acquire or divest businesses, assets or deposits, or reconfigure existing operations.

Among the areas that have been receiving a high level of regulatory focus are compliance with the Bank Secrecy Act and anti-money laundering laws, capital and liquidity management, fair lending and other consumer protection issues, including retail sales practices, fee assessment and collection, cyber-security, capital planning and stress testing, the oversight of arrangements with third-party vendors and suppliers, the protection of confidential customer information, and the structure and effectiveness of enterprise risk management frameworks.

New legislation, changes in rules promulgated by federal financial regulators, other federal and state regulatory authorities and self-regulatory organizations, or changes in the interpretation or enforcement of existing laws and rules, may directly affect the method of operation and profitability of our businesses. We anticipate new legislative and regulatory initiatives over the next several years, focused specifically on banking and other financial services in which we are engaged. Legislative and regulatory developments to date, as well as those that come in the future, have had and are likely to continue to have an impact on the conduct of our business. The more detailed description of the significant regulations to which we are subject included in this Report is based on current laws and regulations and is subject to potentially material change. See also the additional information included as Risk Factors in Item 1A of this Report discussing the impact of financial regulatory initiatives on the regulatory environment for us and the financial services industry, including ongoing implementation of Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) reforms.

The profitability of our businesses could also be affected by rules and regulations that impact the business and financial sectors in general, including changes to the laws governing taxation, antitrust regulation and electronic commerce.

In the fourth quarter of 2017, federal tax reform legislation, the Tax Cuts and Jobs Act, was enacted and, among other provisions, lowered the statutory tax rate for corporations to 21% from 35% effective January 1, 2018. PNC's consolidated financial statements for the fourth quarter and full year 2017 reflect reasonable estimates of the impact of the tax legislation as of December 31, 2017, and the amounts could be adjusted during the measurement period, which will end in December 2018. See the Critical Accounting Estimates and Judgments section in Item 7 of this Report for more detail.

There are numerous rules governing the regulation of financial services institutions and their holding companies. Accordingly, the following discussion is general in nature and does not purport to be complete or to describe all of the laws, regulations and supervisory policies that apply to us. To a substantial extent, the purpose of the regulation and supervision of financial services institutions and their holding companies is not to protect our shareholders and our non-customer creditors, but rather to protect our customers (including depositors) and the financial markets and financial system in general.

Banking Regulation and Supervision

Regulatory Capital Requirements, Stress Testing and Capital Planning. PNC and PNC Bank are subject to the regulatory capital requirements established by the Federal Reserve and the OCC, respectively. The foundation of the agencies' regulatory capital rules is the international regulatory capital framework developed by the Basel Committee on Banking Supervision (Basel Committee), the international body responsible for developing global regulatory standards for banking organizations for consideration and adoption by national jurisdictions. The regulatory capital rules establish minimum requirements for the ratio of a banking organization's regulatory capital to its risk-weighted assets, referred to as risk-based capital requirements, as well as for the ratio of its regulatory capital to measures of assets and other exposures, referred to as leverage capital requirements. The agencies' regulatory capital rules have undergone significant change since 2013, when the agencies adopted final rules to implement changes to the Basel Committee's international regulatory capital framework, known as "Basel III", as well as certain provisions of Dodd-Frank. Many provisions of these rules, referred to as the Basel III capital rules, are subject to multi-year phase-in periods, with the rules generally fully phased-in as of January 1, 2019. Certain provisions (described below) of these rules apply only to banking organizations that have $250 billion or more in total consolidated assets (such as PNC and PNC Bank) or that have $10 billion or more in on-balance sheet foreign exposure (referred to as advanced approaches banking organizations).

The regulatory capital rules generally divide regulatory capital into three components: common equity tier 1 (CET1) capital, additional Tier 1 capital (which, together with CET1 capital, comprises Tier 1 capital) and Tier 2 capital. CET1 capital is generally common stock, retained earnings, qualifying minority interest and, for PNC and PNC Bank as advanced approaches banking organizations, accumulated other comprehensive income related to both available for sale securities and pension and other post-retirement plans, less the deductions required to be made from CET1 capital. Additional Tier 1 capital generally includes, among other things, perpetual preferred stock and qualifying minority interests, less the deductions required to be made from additional Tier 1 capital. Tier 2 capital generally comprises qualifying subordinated debt, less any required deductions from Tier 2 capital. There are significant limits on the extent to which minority interests in consolidated subsidiaries (including minority interests in the form of REIT preferred securities) may be included in regulatory capital.

Total capital is the sum of Tier 1 capital and Tier 2 capital, less the deductions required from total capital. Significant common stock investments in unconsolidated financial institutions, as well as mortgage servicing rights and deferred tax assets, must be deducted from CET1 regulatory capital (subject to a phase-in schedule and net of associated deferred tax liabilities) to the extent such items individually exceed 10%, or in the aggregate exceed 15%, of our adjusted Basel III CET1 regulatory capital. Our common stock investment in BlackRock is treated as a significant common stock investment in an unconsolidated financial institution for these purposes.

The regulatory capital rules include a standardized approach for determining a banking organization's risk-weighted assets for purposes of calculating the risk-based capital ratios. To determine risk-weighted assets under the standardized approach, a banking organization must allocate its assets and specified off-balance sheet financial exposures and instruments into risk-weighted categories. The standardized approach for risk-weighted assets takes into account credit and market risk. To calculate risk-weighted assets under the standardized approach for credit risk, the nominal dollar amounts of assets and credit equivalent amounts of off-balance sheet items are generally multiplied by risk weights set forth in the rules, which increase as the perceived credit risk of the relevant asset or exposure increases. For certain types of exposures, such as securitization exposures, the standardized approach establishes one or more methodologies that are to be used to calculate the risk-weighted asset amount for the exposure. High volatility commercial real estate, past due, securitization and equity exposures, as well as investments in unconsolidated financial institutions, mortgage servicing rights and deferred tax assets that are not deducted from capital are generally subject to higher risk weights than other types of exposures.

Advanced approaches banking organizations (such as PNC and PNC Bank) are also required to calculate risk-weighted assets using a separate methodology, referred to as the advanced approaches, that is based on the Basel II capital framework. The Basel II framework, seeks to provide more risk-sensitive regulatory capital calculations and promote enhanced risk management practices among large, internationally active banking organizations. Advanced approaches risk-weighted assets take into account credit, market and operational risk and rely to a significant extent on internal models. Prior to fully implementing the advanced approaches to calculate risk-weighted assets, PNC and PNC Bank must successfully complete a "parallel run" qualification phase. PNC and PNC Bank entered this parallel run qualification phase on January 1, 2013. As discussed further in Item 1A Risk Factors of this Report, the Basel Committee in 2017 finalized additional, significant changes to the international capital framework for banking organizations.The extent to and manner in which these or similar changes would be implemented by the U.S. banking agencies, and the implications of any such developments on the U.S. regulatory capital framework (including the advanced approaches and the parallel run qualification period for PNC and PNC Bank) are not fully known at this time.

As a result of the phase-in period for provisions of the Basel III capital rules, as well as the fact that we remain in the parallel run qualification phase for the advanced approaches, our regulatory risk-based capital ratios in 2017 were based on the definitions of, and deductions from, regulatory capital (as such definitions and deductions were phased-in for 2017) and the standardized approach for determining risk-weighted assets. Until we have exited parallel run, our regulatory risk-based capital ratios will be calculated using the standardized approach for determining risk-weighted assets, and the definitions of, and deductions from, capital (as such definitions and deductions are phased-in). Once we exit parallel run, our regulatory risk-based capital ratios will be the lower of the ratios calculated under the standardized approach and the advanced approaches. We refer to the capital ratios calculated using the phased-in Basel III provisions as the Transitional Basel III ratios. The Transitional Basel III regulatory capital ratios of PNC and PNC Bank as of December 31, 2017 exceeded the applicable minimum levels. For additional information regarding the Transitional Basel III capital ratios of PNC and PNC Bank as of December 31, 2017, as well as the levels needed to be considered "well capitalized", see the Liquidity and Capital Management portion of the Risk Management section of Item 7 of this Report.

The risk-based capital rules establish certain minimum standards for the capital ratios of banking organizations, including PNC and PNC Bank. Banking organizations must maintain a minimum CET1 ratio of 4.5%, a Tier 1 capital ratio of 6.0%, and a total capital ratio of 8.0%, in each case in relation to risk-weighted assets, to be considered "adequately capitalized." Banking organizations also must maintain a capital conservation buffer requirement above the minimum risk-based capital ratio requirements in order to avoid limitations on capital distributions (including dividends and repurchases of any Tier 1 capital instrument, such as common and qualifying preferred stock) and certain discretionary incentive compensation payments. The capital conservation buffer requirement is subject to a multi-year phase-in period. For 2018, banking organizations (including PNC and PNC Bank) are required to maintain a risk-based CET1 capital ratio of at least 6.375%, a Tier 1 capital ratio of at least 7.875%, and a total capital ratio of at least 9.875% to avoid limitations on capital distributions and certain discretionary incentive compensation payments. When fully phased-in on January 1, 2019, banking organizations must maintain a CET1 capital ratio of at least 7.0%, a Tier 1 capital ratio of at least 8.5%, and a total capital ratio of at least 10.5%, in each case in relation to risk-weighted assets, to avoid limitations on capital distributions and certain discretionary incentive compensation payments.

For advanced approaches banking organizations (such as PNC and PNC Bank), these higher capital conservation buffer levels above the regulatory minimums could be supplemented by a countercyclical capital buffer based on U.S. credit exposures of up to an additional 2.5% of risk-weighted assets (once fully phased-in). This buffer is currently set at zero in the U.S. A 2016 Federal Reserve policy statement establishes the framework and factors the Federal Reserve would use in setting and adjusting the amount of the U.S. countercyclical capital buffer. Covered banking organizations would generally have 12 months after the announcement of any increase in the countercyclical capital buffer to meet the increased buffer requirement, unless the Federal Reserve determines to establish an earlier effective date. Under the phase-in schedule for the countercyclical capital buffer, the maximum potential countercyclical capital buffer amount is 1.875% in 2018 and 2.5% in 2019 and thereafter. When fully phased-in and if the full countercyclical buffer amount is implemented, PNC and PNC Bank could be required to maintain a risk-based CET1 capital ratio of at least 9.5%, a Tier 1 capital ratio of at least 11%, and a total capital ratio of at least 13% to avoid limitations on capital distributions and certain discretionary incentive compensation payments.

PNC and PNC Bank are not subject to the additional risk-based CET1 capital surcharge, minimum long-term debt requirement, or minimum total loss-absorbing capacity (TLAC) requirement that applies to U.S. firms identified as globally systemically important banks (GSIBs).

The regulatory capital rules also require that banking organizations maintain a minimum amount of Tier 1 capital to average consolidated assets, referred to as the leverage ratio. Banking organizations are required to maintain a minimum leverage ratio of Tier 1 capital to total assets of 4.0%. As of December 31, 2017, the leverage ratios of PNC and PNC Bank were above the required minimum level.

Advanced approaches banking organizations (such as PNC and PNC Bank) also are subject to a minimum 3.0% supplementary leverage ratio that took effect on January 1, 2018. The supplementary leverage ratio is calculated by dividing Tier 1 capital by total leverage exposure, which takes into account on-balance sheet assets as well as certain off-balance sheet items, including loan commitments and potential future exposure under derivative contracts. BHCs with total consolidated assets of more than $700 billion or assets under custody of more than $10 trillion, as well as the insured depository institution subsidiaries of these BHCs, are subject to a higher supplementary leverage ratio requirement. These higher supplementary leverage requirements do not apply to PNC or PNC Bank.

Failure to meet applicable capital requirements could subject a banking organization to a variety of enforcement remedies available to the federal banking agencies, including a limitation on the ability to pay dividends or repurchase shares, the issuance of a capital directive to increase capital and, in severe cases, the termination of deposit insurance by the Federal Deposit Insurance Corporation (FDIC), and the appointment of a conservator or receiver. In some cases, the extent of these powers depends upon whether the institution in question is considered “well capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized” or “critically undercapitalized.” Generally, the smaller an institution’s capital base in relation to its risk-weighted or total assets, the greater the scope and severity of the agencies’ powers. Business activities may also be affected by an institution’s capital classification. For example, as a financial holding company, PNC and PNC Bank must remain “well capitalized.” At December 31, 2017, PNC and PNC Bank exceeded the required ratios for classification as “well capitalized.” The thresholds at which an insured depository institution is considered “well capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized” or “critically undercapitalized” are based on (i) the institution’s CET1, Tier 1 and total risk-based capital ratios; (ii) the institution’s leverage ratio; and (iii) for the definitions of “adequately capitalized” and “undercapitalized”, the institution’s supplementary leverage ratio. For additional discussion of capital adequacy requirements, see the Liquidity and Capital Management portion of the Risk Management section of Item 7 of this Report and to Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report.

In addition to potential changes to the U.S. capital rules as a result of developments at the Basel Committee, the U.S. banking agencies also are undertaking a review of the regulatory capital rules. In September 2017, the banking agencies jointly requested public comment on a proposal that would implement certain changes to the Basel III regulatory capital rules. The proposal would reduce the risk weight (from 150 percent to 130 percent) for high-volatility commercial real estate exposures under the standardized approach, while also making certain changes to the definition of such exposures and relabeling such exposures as either high-volatility acquisition, development or construction exposures. For non-advanced approaches banking organizations, the proposal also would modify the threshold deductions from CET1 regulatory capital for significant common stock investments in unconsolidated financial institutions, mortgage servicing rights and certain deferred tax assets. The public comment period on the proposal closed on December 26, 2017.

In addition to regulatory capital requirements, we are subject to the Federal Reserve’s capital plan rule, annual capital stress testing requirements and Comprehensive Capital Analysis and Review (CCAR) process, as well as the annual and mid-year Dodd-Frank capital stress testing (DFAST) requirements of the Federal Reserve (annual and mid-cycle) and the OCC (annual). As part of the CCAR process, the Federal Reserve undertakes a supervisory assessment of the capital planning process of BHCs, including PNC, that have $50 billion or more in total consolidated assets. For us, this capital planning assessment is based on a review of a comprehensive capital plan submitted to the Federal Reserve that describes the company’s planned capital actions, such as plans to pay or increase common stock dividends, reinstate or increase common stock repurchase programs, or issue or redeem preferred stock or other regulatory capital instruments, during the nine quarter review period, as well as the results of stress tests conducted by both the company and the Federal Reserve under different hypothetical macro-economic scenarios, including a supervisory adverse scenario and severely adverse scenario provided by the Federal Reserve. The Federal Reserve can object to our capital plan for qualitative or quantitative reasons. If the Federal Reserve objects to a BHC’s capital plan, the BHC cannot make capital distributions without Federal Reserve approval.

In evaluating capital plans of advanced approaches BHCs (such as PNC) or BHCs with $75 million or more in nonbank assets, the Federal Reserve considers a number of qualitative factors, which have become increasingly important in the

CCAR process in recent years. The Federal Reserve's supervisory expectations for the capital planning and stress testing processes at large and complex BHCs, including PNC, are heightened relative to smaller and less complex BHCs. In assessing a BHC's capital planning and stress testing processes, the Federal Reserve considers whether the BHC has sound and effective governance to oversee these processes. The Federal Reserve's evaluation focuses on whether a BHC's capital planning and stress testing processes are supported by a strong risk management framework to identify, measure and assess material risks and that provides a strong foundation to capital planning. The Federal Reserve also considers the comprehensiveness of a BHC's control framework and evaluates a BHC's policy guidelines for capital planning and assessing capital adequacy. A BHC's stress testing scenario design processes and approaches for estimating the impact of stress on its capital position, including stress testing models and non-model qualitative approaches, are comprehensively reviewed to ensure that projections reflect the impact of appropriately stressful conditions, as well as risks idiosyncratic to the BHC, on its capital position. Significant deficiencies in a BHC's capital planning and stress testing processes may result in a qualitative objection by the Federal Reserve to its capital plan.

From a quantitative perspective, the Federal Reserve considers whether under different hypothetical macro-economic scenarios, including the supervisory severely adverse scenario, the BHC would be able to maintain, throughout each quarter of the nine quarter review period, projected regulatory risk-based and leverage capital ratios that exceed the applicable minimums. In making these estimates, the Federal Reserve assumes that the BHC would continue its base case capital actions in each supervisory scenario, including the severely adverse scenario. Failure to meet a minimum regulatory risk-based or leverage capital requirement on a projected stress basis is grounds for objection to a BHC's capital plan.

In connection with the 2018 CCAR exercise, we must file our capital plan and stress testing results using financial data as of December 31, 2017 with the Federal Reserve by April 5, 2018. We expect to receive the Federal Reserve's response (either a non-objection or objection) to the capital plan submitted as part of the 2018 CCAR in June 2018.

As part of the CCAR and annual DFAST processes, both we and the Federal Reserve release certain revenue, loss and capital results from stress testing exercises. For the 2018 exercises, the Federal Reserve has announced that it intends to publish its supervisory revenue, loss and capital projections for participating BHCs under the supervisory adverse and severely adverse macro-economic scenarios using the common assumptions concerning capital distributions established by the Federal Reserve in its DFAST regulations (DFAST capital action assumptions), as well as capital ratio information using the company's proposed base case capital actions. Within 15 days of the Federal Reserve publishing its DFAST results, we also are required to publicly disclose our own estimates of certain capital, revenue and loss information under the same hypothetical supervisory severely adverse macro-economic scenario and applying the DFAST capital action assumptions.

Federal Reserve regulations also require that we and other large BHCs conduct a separate, mid-cycle stress test using financial data as of June 30 and three company-derived macro-economic scenarios (base, adverse and severely adverse) and publish a summary of the results under the severely adverse scenario. For the 2018 mid-cycle stress test cycle, we must publish our results in the period between October 5 and November 4, 2018.

The Federal Reserve's capital plan rule provides that a BHC must resubmit a new capital plan prior to the annual submission date if, among other things, there has been or will be a material change in the BHC's risk profile, financial condition or corporate structure since its last capital plan submission. Under the "de minimis" safe harbor of the Federal Reserve's capital plan rule, we may make limited repurchases of common stock or other capital distributions in amounts that exceed the amounts included in our most recently approved capital plan subject to certain conditions, including that the Federal Reserve does not object to the additional repurchases or distributions. Such additional distributions may not exceed, in the aggregate, 0.25% of Tier 1 capital during the relevant 12-month period.

Regulatory Liquidity Standards and Liquidity Risk Management Requirements. The Basel Committee's Basel III framework included short-term liquidity standards (Liquidity Coverage Ratio or LCR) and long-term funding standards (Net Stable Funding Ratio or NSFR).

The U.S. banking agencies' LCR rules are designed to ensure that covered banking organizations maintain an adequate level of cash and high quality, unencumbered liquid assets (HQLA) to meet estimated net liquidity needs in a short-term stress scenario using liquidity inflow and outflow assumptions prescribed in the rules (net cash outflow). A company's LCR is the amount of its HQLA, as defined and calculated in accordance with the haircuts and limitations in the rule, divided by its net cash outflows, with the quotient expressed as a percentage. The regulatory minimum LCR that covered banking organizations are required to maintain is 100%. As of December 31, 2017, the LCR for PNC and PNC Bank exceeded the fully phased-in requirement of 100%.

Top-tier BHCs (like PNC) that are subject to the advanced approaches for regulatory capital purposes, as well as any subsidiary depository institution of such a company that has $10 billion or more in total consolidated assets (such as PNC Bank), are subject to the full LCR (rather than the less stringent modified LCR). PNC and PNC Bank are required to calculate the LCR on a daily basis. Under the full LCR, an institution required to calculate the LCR on a daily basis must promptly provide its regulator with a plan for achieving compliance with the minimum LCR requirement if its LCR is below the minimum requirement for three consecutive business days.

The Federal Reserve requires large BHCs, including PNC, to publicly disclose certain quantitative and qualitative measures of their LCR-related liquidity profile. These disclosures include major components used to calculate the LCR (*e.g.*, HQLA, cash outflows and inflows for the consolidated parent company), and a qualitative discussion of the BHC's LCR results, including, among other things, key drivers of the results, composition of HQLA and concentration of funding sources. We are required to make these disclosures starting with the second quarter of 2018.

The NSFR is designed to promote a stable maturity structure of assets and liabilities of banking organizations over a one-year time horizon. In 2016, the federal banking agencies requested comment on proposed rules that would implement the NSFR in the United States. The proposed rules would require a covered BHC to calculate its NSFR as the ratio of its available stable funding (ASF) to its required stable funding (RSF) amount, each as defined in the proposed rules, over a one-year horizon. The regulatory minimum ratio for all covered banking organizations is 100%. For BHCs with assets of $50 billion or more, but less than $250 billion, and on-balance sheet foreign exposure of less than $10 billion, the RSF amount is scaled by a factor of 70%. The proposal also includes requirements for quarterly quantitative and qualitative NSFR disclosures. Although the impact on us will not be fully known until the rules are finalized, we have taken several actions to prepare for implementation of the NSFR and we expect to be in compliance with the NSFR requirements if and when they become effective.

PNC is also subject to Federal Reserve rules that require BHCs with $50 billion or more in consolidated total assets to, among other things, conduct internal liquidity stress tests over a range of time horizons, maintain a buffer of highly liquid assets sufficient to meet projected net outflows under the BHC's 30-day liquidity stress test, and maintain a contingency funding plan that meets detailed requirements.

For additional discussion of regulatory liquidity requirements, please refer to the Liquidity and Capital Management portion of the Risk Management section of Item 7 of this Report.

Source of Parent Company Liquidity and Dividends. The principal source of our liquidity at the parent company level is dividends from PNC Bank. PNC Bank is subject to various restrictions on its ability to pay dividends to PNC Bancorp, Inc., its direct parent, which is a wholly-owned direct subsidiary of The PNC Financial Services Group, Inc. PNC Bank is also subject to federal laws limiting extensions of credit to its parent holding company and non-bank affiliates as discussed in Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report. Further information on bank level liquidity and parent company liquidity is also available in the Liquidity and Capital Management portion of the Risk Management section of Item 7 of this Report

Federal Reserve rules provide that a BHC is expected to serve as a source of financial strength to its subsidiary banks and to commit resources to support such banks if necessary. Dodd-Frank requires that the Federal Reserve jointly adopt new rules with the OCC and the FDIC to implement this source of strength requirement. These joint rules have not yet been proposed. Consistent with this source of strength policy for subsidiary banks, the Federal Reserve has stated that, as a matter of prudent banking, a BHC generally should not maintain a rate of cash dividends unless its net income available to common shareholders has been sufficient to fully fund the dividends and the prospective rate of earnings retention appears to be consistent with the corporation's capital needs, asset quality and overall financial condition. Further, in providing guidance to the large BHCs participating in the 2018 CCAR, discussed above, the Federal Reserve stated that it expects capital plans submitted in 2018 to reflect conservative dividend payout ratios, and that requests that imply common dividend payout ratios above 30% of projected after-tax net income available to common shareholders will receive particularly close scrutiny.

Enhanced Prudential Requirements. Under Federal Reserve rules, PNC (and other BHCs with total consolidated assets of $50 billion or more) are subject to enhanced prudential standards related to liquidity risk management and overall risk management. These rules, among other things, establish liquidity stress testing requirements (described further below) and certain oversight and governance responsibilities for the chief risk officer, the board of directors, and the risk committee of the board of directors of a covered company. These standards also require the Federal Reserve to impose a maximum 15-to-1 debt to equity ratio on a BHC, if the federal agencies that comprise the Financial Stability Oversight Council (FSOC), determine that the company poses a grave threat to the financial stability of the United States and that the imposition of such a debt-to-equity requirement would mitigate such risk.

The Federal Reserve is also required to establish single counterparty credit limits and early remediation requirements for BHCs with more than $50 billion in total assets. The Federal Reserve requested comment on proposed rules to implement a single counterparty credit limit in March 2016. Under those rules, the aggregate net credit exposure by PNC, to any single, unaffiliated counterparty, including its subsidiaries, would have to be calculated on a daily basis and could not exceed 25 percent of our Tier 1 capital. The proposed limit would cover credit exposure resulting from, among other transactions, extensions of credit, repurchase and reverse repurchase transactions, purchases or investments in securities, and derivative transactions, although certain exposures, including, among others, exposures to the U.S. government, would be excluded. Compliance with the proposed rules would be required one year after the effective date. The proposed rule, if finalized, would not have a material impact on our credit relationships with third parties.

The Federal Reserve is also required to establish early remediation requirements for BHCs with more than $50 billion in total assets and continues to work towards finalizing these requirements.

In addition, the Federal Reserve may continue to develop the set of enhanced prudential standards that apply to large BHCs in order to further promote the resiliency of such firms and the U.S. financial system. For additional information see Item 1A Risk Factors of this Report.

Additional Powers Under the GLB Act. The GLB Act permits a qualifying BHC to become a "financial holding company" and thereby engage in, or affiliate with financial companies engaging in, a broader range of activities than would otherwise be permitted for a BHC. Permitted affiliates include securities underwriters and dealers, insurance companies, insurance agents and companies engaged in other activities that are determined by the Federal Reserve, in consultation with the Secretary of the Treasury, to be "financial in nature or incidental thereto" or are determined by the Federal Reserve unilaterally to be "complementary" to financial activities. We became a financial holding company as of March 13, 2000. A BHC qualifies to become a financial holding company if the BHC and its subsidiary depository institutions are "well capitalized" and "well managed" and its subsidiary depository institutions have a rating under the Community Reinvestment Act (CRA) of Satisfactory or better. Among other activities, we currently rely on our status as a financial holding company to conduct merchant banking activities and securities underwriting and dealing activities. As subsidiaries of a financial holding company under the GLB Act, our non-bank subsidiaries are generally allowed to conduct new financial activities, and we are generally permitted to acquire non-bank financial companies that have less than $10 billion in assets, with after-the-fact notice to the Federal Reserve.

In addition, the GLB Act permits qualifying national banks to engage in expanded activities through a "financial subsidiary." PNC Bank has filed a financial subsidiary certification with the OCC and currently engages in insurance agency activities through financial subsidiaries. PNC Bank may also generally engage through a financial subsidiary in any activity that is determined to be financial in nature or incidental to a financial activity by the Secretary of the Treasury, in consultation with the Federal Reserve (other than insurance underwriting activities, insurance company investment activities and merchant banking). In order to establish a financial subsidiary, a national bank and each of its depository institution affiliates must be "well capitalized" and "well managed" and the national bank and each of its depository institution affiliates must have a CRA rating of Satisfactory or better.

If a financial holding company or a national bank with a financial subsidiary fails to continue to meet the applicable "well capitalized" or "well managed" criteria, the financial holding company or national bank must enter into an agreement with the Federal Reserve or the OCC, respectively, that, among other things, identifies how the capital or management deficiencies will be corrected. Until such deficiencies are corrected, the relevant agency may impose limits or conditions on the activities of the company or bank, and the company or bank may not engage in, or acquire a company engaged in, the types of expanded activities only permissible for a financial holding company or financial subsidiary without prior approval of the relevant agency.

In addition, a financial holding company generally may not engage in a new financial activity authorized by the GLB Act, or acquire a company engaged in such a new activity, if any of its insured depository institutions receives a CRA rating of less than Satisfactory rating. A national bank's financial subsidiary generally may not engage in a new financial activity authorized by the GLB Act, or acquire a company engaged in such a new financial activity, if the national bank or any of its insured depository institution affiliates received a CRA rating of less than Satisfactory.

Volcker Rule. Banking entities of any size, including PNC, are prohibited under the Volcker Rule and its implementing regulations from engaging in short-term trading as principal and having certain ownership interests in and relationships with hedge funds, private equity funds, and certain other private funds (together, "covered funds"), unless an exemption or exception applies. For example, the exemptions under the Volcker Rule allow PNC to trade as principal for securities underwriting, market making and risk-mitigating hedging purposes, subject to a variety of conditions.

To date, the prohibitions under the final Volcker Rule regulations have not had, and we do not expect them to have in the future, a material effect on our businesses or revenue. However, the conditions for engaging in exempted trading activities and having permissible relationships with a private fund under the regulations could, depending on the agencies' approach to interpreting them, cause us to forego engaging in hedging or other transactions that we would otherwise undertake in the ordinary course of business and, thus, to some extent, may limit our ability to most effectively hedge our risks, manage our balance sheet or provide products or services to our customers.

The final Volcker Rule regulations impose significant compliance and reporting obligations on banking entities. We are subject to the enhanced compliance program requirements and have adopted an enterprise Volcker compliance program. We have also divested prohibited investments in covered funds and received extensions allowing an extended conformance period for our remaining $.2 billion interests in illiquid covered funds (as defined by the applicable requirements).

Other Federal Reserve and OCC Regulation and Supervision. The federal banking agencies also possess broad powers to take corrective action as deemed appropriate for an insured depository institution and its holding company, and the Federal Reserve and the OCC have the ability to take enforcement action against PNC and PNC Bank, respectively, to prevent and remedy acts and practices that the agencies determine to be unfair or deceptive.

Moreover, less than satisfactory examination ratings, lower capital ratios than peer group institutions, or regulatory concerns regarding management, controls, assets, operations or other factors can all potentially result in practical limitations on the ability of a bank or BHC to engage in new activities, grow, acquire new businesses, repurchase its stock or pay dividends, or to continue to conduct existing activities. Furthermore, the OCC has established certain heightened risk management and governance standards for large banks, including PNC Bank, as enforceable guidelines under section 39 of the Federal Deposit Insurance Act (FDI Act). The guidelines, among other things, establish minimum standards for the design and implementation of a risk governance framework, describe the appropriate risk management roles and responsibilities of front line units, independent risk management, internal audit, and the board of directors, and provide that a covered bank should have a comprehensive written statement that articulates its risk appetite and serves as a basis for the framework (a risk appetite statement). If the OCC determines that a covered national bank is not in compliance with these or other guidelines established under section 39 of the FDI Act (including the guidelines relating to information security standards), the OCC may require the bank to submit a corrective action plan and may initiate enforcement action against the bank if an acceptable plan is not submitted or the bank fails to comply with an approved plan.

In August 2017, the Federal Reserve requested public comment on a proposal that would introduce a new supervisory rating system for BHCs with $50 billion or more in total consolidated assets, including PNC. Under the proposal, covered BHCs would receive separate ratings from the Federal Reserve for (i) capital planning and positions, (ii) liquidity risk management and positions and (iii) governance and controls. Each of these component areas would receive one of the following four ratings: (i) Satisfactory, (ii) Satisfactory Watch, (iii) Deficient-1 or (iv) Deficient-2. As proposed, a covered BHC would have to maintain a rating of Satisfactory Watch or better for each of the three components to be considered "well managed". The public comment period for the proposal closed on February 15, 2018, with initial ratings under the new framework to be assigned during 2018.

Sections 23A and 23B of the Federal Reserve Act and the Federal Reserve's implementing regulation, Regulation W, place quantitative and qualitative restrictions on covered transactions between a bank and its affiliates (for example between PNC Bank, on the one hand, and The PNC Financial Services Group, Inc. and its nonbank subsidiaries, on the other hand). In general, section 23A and Regulation W limit the total amount of covered transactions between a bank and any single affiliate to 10 percent of the bank's capital stock and surplus, limit the total amount of covered transactions between a bank and all its affiliates to 20 percent of the bank's capital stock and surplus, prohibit a bank from purchasing low-quality assets from an affiliate, and require certain covered transactions to be secured with prescribed amounts of collateral. Section 23B generally requires that transactions between a bank and its affiliates be on terms that are at least as favorable to the bank as the terms that would apply in comparable transactions between the bank and a third party. Dodd-Frank amended section 23A of the Federal Reserve Act to include as a covered transaction the credit exposure of a bank to an affiliate arising from a derivative transaction with the affiliate. The Federal Reserve has yet to propose rules to implement these revisions.

The Federal Reserve and the OCC have provided guidance regarding incentive and other elements of compensation provided to executives and other employees at financial services companies they regulate, both as general industry-wide guidance and guidance specific to select larger companies, including PNC. These guidelines are intended to ensure that the incentive compensation practices of covered banking organizations do not encourage excessive risk-taking. The Federal Reserve, the OCC, the FDIC, the SEC and two other regulatory agencies jointly proposed regulations in 2011 and again in 2016 to implement the incentive compensation requirements of Section 956 of Dodd-Frank. Regulation of compensation provided by us to our executives and other employees, whether through guidance or rules and regulations, could hamper our ability to attract and retain quality employees.

The Federal Reserve's prior approval is required whenever we propose to acquire all or substantially all of the assets of any bank, to acquire direct or indirect ownership or control of more than 5% of any class of voting securities of any bank or BHC, or to merge or consolidate with any other BHC. The BHC Act and other federal law enumerates the factors the Federal Reserve must consider when reviewing the merger of BHCs, the acquisition of banks or the acquisition of voting securities of a bank or BHC. These factors include the competitive effects of the proposal in the relevant geographic markets; the financial and managerial resources and future prospects of the companies and banks involved in the transaction; the effect of the transaction on the financial stability of the United States; the organizations' compliance with anti-money laundering laws and regulations; the convenience and needs of the communities to be served; and the records of performance under the CRA of the insured depository institutions involved in the transaction.

The Federal Reserve's prior approval is also required, and similar factors are considered, to acquire direct or indirect ownership or control of more than 5% of any class of voting securities of a savings association or savings and loan holding company, or to merge or consolidate with a savings and loan holding company. In cases involving interstate bank acquisitions, the Federal Reserve also must consider the concentration of deposits nationwide and in certain individual states. Under Dodd-Frank, a BHC is generally prohibited from merging or consolidating with, or acquiring, another company if upon consummation the resulting company would control 10% or more of deposits in the U.S or a state, or if the resulting company's liabilities would exceed 10% of the aggregate liabilities of the U.S. financial sector (including the U.S. liabilities of foreign financial companies). In extraordinary cases, the FSOC, in conjunction with the

Federal Reserve, could order the break-up of financial firms that are deemed to present a grave threat to the financial stability of the United States.

OCC prior approval is required for PNC Bank to acquire another insured bank or savings association by merger or to acquire deposits or substantially all of the assets of such institutions. In deciding whether to approve such a transaction, the OCC is required to consider factors similar to those that must be considered by the Federal Reserve in connection with the acquisition of a bank or BHC. Approval of the FDIC is required to merge a nonbank entity into PNC Bank. Our ability to grow through acquisitions or reorganize our operations could be limited by these approval requirements.

At December 31, 2017, PNC Bank had an Outstanding rating with respect to the CRA.

Based on the Federal Reserve's interpretation of the BHC Act, the Federal Reserve has indicated that it considers BlackRock to be a subsidiary of The PNC Financial Services Group, Inc. for purposes of the BHC Act due to PNC's current and historical ownership interest in, as well as other relationships with, BlackRock and, thus, subject to the supervision and regulation of the Federal Reserve.

FDIC Insurance and Related Matters. PNC Bank is insured by the FDIC and subject to deposit premium assessments. Regulatory matters could increase the cost of FDIC deposit insurance premiums to an insured bank as FDIC deposit insurance premiums are "risk based." Therefore, higher fee percentages would be charged to banks that have lower capital ratios or higher risk profiles. These risk profiles take into account, among other things, weaknesses that are found by the primary federal banking regulator through its examination and supervision of the bank and the bank's holdings of assets or liabilities classified as higher risk by the FDIC. A negative evaluation by the FDIC or a bank's primary federal banking regulator could increase the costs to a bank and result in an aggregate cost of deposit funds higher than that of competing banks in a lower risk category.

Federal banking laws and regulations also apply a variety of requirements or restrictions on insured depository institutions with respect to brokered deposits. For instance, only a "well capitalized" insured depository institution may accept brokered deposits without prior regulatory approval. In addition, brokered deposits are generally subject to higher outflow assumptions than other types of deposits for purposes of the LCR.

The FDIC has imposed a deposit insurance assessment surcharge on insured depository institutions with total consolidated assets of $10 billion or more (including PNC Bank), which will continue in effect until the earlier of (i) the date on which the Designated Reserve Ratio (the balance in the Deposit Insurance Fund divided by estimated insured deposits) reaches 1.35% (estimated by the FDIC to occur before the end of 2018), or (ii) December 31, 2018. If the ratio does not reach 1.35% by December 31, 2018, the FDIC will impose a one-time shortfall assessment on insured depository institutions with total consolidated assets of $10 billion or more (including PNC Bank).

Resolution and Recovery Planning. BHCs that have $50 billion or more in assets, such as PNC, are required to periodically submit to the Federal Reserve and the FDIC a resolution plan that includes, among other things, an analysis of how the company could be resolved in a rapid and orderly fashion if the company were to fail or experience material financial distress. The Federal Reserve and the FDIC may jointly impose restrictions on a covered BHC, including additional capital requirements or limitations on growth, if the agencies jointly determine that the company's plan is not credible or would not facilitate a rapid and orderly resolution of the company under the U.S. Bankruptcy Code (or other applicable resolution framework), and additionally could require the company to divest assets or take other actions if the company did not submit an acceptable resolution plan within two years after any such restrictions were imposed. The FDIC also requires large insured depository institutions, including PNC Bank, to periodically submit a resolution plan to the FDIC that includes, among other things, an analysis of how the institution could be resolved under the FDI Act in a manner that protects depositors and limits losses or costs to creditors of the bank in accordance with the FDI Act. PNC and PNC Bank are required to provide the Federal Reserve and FDIC a public summary of their resolution plans, which the agencies then make available to the public. Depending on how the agencies conduct their review of the resolution plans submitted by PNC and PNC Bank, these requirements could affect the ways in which PNC structures and conducts its business and result in higher compliance and operating costs.

PNC Bank also is subject to OCC guidelines under section 39 of the FDI Act that establish standards for recovery planning. These guidelines require a covered bank to develop and maintain a recovery plan that, among other things, identifies a range of options that could be undertaken by the covered bank to restore its financial strength and viability should identified triggering events occur. The recovery plan guidelines are enforceable in the same manner as the other guidelines the OCC has established under section 39 of the FDI Act.

CFPB Regulation and Supervision. The CFPB examines PNC and PNC Bank for compliance with a broad range of federal consumer financial laws and regulations, including the laws and regulations that relate to deposit products, credit card, mortgage, automobile, student and other consumer loans, and other consumer financial products and services that we offer. The CFPB also has authority to take enforcement actions to prevent and remedy acts and practices relating to consumer financial products and services that it deems to be unfair, deceptive or abusive, and to impose new disclosure requirements for any consumer financial product or service.

The CFPB may issue regulations that impact products and services offered by PNC Bank. The regulations could reduce the fees that we receive, alter the way we provide our products and services, or expose us to greater risk of private litigation or regulatory enforcement action. The CFPB may engage in rulemakings affecting prepaid cards, data on small business lending, the Home Mortgage Disclosure Act, and payday, vehicle title, and certain high-cost installment loans.

Securities and Derivatives Regulation
Our registered broker-dealer and investment adviser subsidiaries are subject to the Securities Exchange Act of 1934, and the Investment Advisers Act of 1940, respectively, and related rules and regulations promulgated by the SEC.

Our investment adviser subsidiary that serves as adviser to registered investment companies is also subject to the requirements of the Investment Company Act of 1940 and related regulations. The Financial Industry Regulatory Authority (FINRA) is the primary self-regulatory organization for our registered broker-dealer subsidiaries. Our broker-dealer and investment adviser subsidiaries also are subject to additional regulation by states or local jurisdictions.

The SEC and FINRA have active enforcement functions that oversee broker-dealers and investment advisers and can bring actions that result in fines, restitution, a limitation on permitted activities, disqualification to continue to conduct certain activities and an inability to rely on certain favorable exemptions. Certain types of infractions and violations also can affect our ability to expeditiously issue new securities into the capital markets. In addition, certain changes in the activities of a broker-dealer require approval from FINRA, and FINRA takes into account a variety of considerations in acting upon applications for such approval, including internal controls, capital levels, management experience and quality, prior enforcement and disciplinary history and supervisory concerns.

Dodd-Frank imposed comprehensive and significant regulations on the activities of financial institutions that are active in the U.S. over-the-counter derivatives and foreign exchange markets. These regulations were intended to (i) address systemic risk issues, (ii) bring greater transparency to the derivatives markets, (iii) provide enhanced disclosures and protections to customers and (iv) promote market integrity. Among other things, Dodd-Frank: (i) requires the registration of both “swap dealers” and “major swap participants” with one or both of the CFTC (in the case of non security-based swaps) and the SEC (in the case of security-based swaps); (ii) requires that most standardized swaps be centrally cleared through a regulated clearing house and traded on a centralized exchange or swap execution facility; (iii) subjects swap dealers and major swap participants to capital and margin requirements in excess of historical practice; (iv) subjects swap dealers and major swap participants to comprehensive new recordkeeping and real-time public reporting requirements; (v) subjects swap dealers and major swap participants to new business conduct requirements, including the provision of daily marks to counterparties and disclosing to counterparties (pre-execution) the material risks, material incentives, and any conflicts of interest associated with their swap; (vi) imposes special duties on swap dealers and major swap participants when transacting a swap with a “special entity” (*e.g.*, governmental agency (federal, state or local) or political subdivision thereof, pension plan or endowment); and (vii) imposes margin requirements on swaps that are not centrally cleared through a regulated clearing house.

As a registered swap dealer with the CFTC, PNC Bank's derivatives and foreign exchange businesses are subject to the regulations and requirements imposed on registered swap dealers, and the CFTC (and for certain delegated responsibilities, the National Futures Association) has a meaningful supervisory role with respect to PNC Bank’s derivatives and foreign exchange businesses. Because of the limited volume of our security-based swap activities, PNC Bank has not registered with the SEC as a security-based swap dealer. The regulations and requirements applicable to swap dealers have and will continue to impose compliance burdens on PNC Bank and introduces additional legal risks (including as a result of applicable anti-fraud and anti-manipulation provisions and private rights of action). In addition, failure to comply with the "pay-to-play" regulations that govern our swap and municipal securities businesses could result in limitations on PNC Bank's ability to conduct swap and municipal securities business with state or local governments and their authorities.

BlackRock has subsidiaries in securities and related businesses subject to SEC, other governmental agencies, state, local and FINRA regulation, and a federally chartered nondepository trust company subsidiary subject to supervision and regulation by the OCC. For additional information about the regulation of BlackRock by these agencies and otherwise, see the discussion under the “Regulation” section of Item 1 Business in BlackRock’s most recent Annual Report on Form 10-K, which may be obtained electronically at the SEC’s website at www.sec.gov.

Regulations of Other Agencies
In addition to regulations issued by the federal banking, securities and derivatives regulators, we also are subject to regulations issued by other federal agencies with respect to certain financial products and services we offer. For example, certain of our fiduciary, brokerage and investment management activities are subject to regulations issued by the Department of Labor (DOL) under the Employee Retirement Income Security Act of 1974 (ERISA), as amended, and related provisions of the Internal Revenue Code and certain of our student lending and servicing activities are subject to regulation by the Department of Education. Certain provisions of final rules issued by the DOL expanding the definition of “investment advice” for retirement accounts and certain other accounts took effect in June 2017. The rules increased the scope of activities that give rise to fiduciary status under ERISA and the Internal Revenue Code and primarily apply to aspects of our Retail Banking and Asset Management Group segments. Certain requirements of the amended rules that had been scheduled to take effect on January 1, 2018 have been delayed until July 1, 2019 and the DOL is expected to propose amendments to the rules during the delay.

Competition

We are subject to intense competition from other regulated banking organizations, as well as various other types of financial institutions and non-bank entities that can offer a number of similar products and services without being subject to bank regulatory supervision and restrictions.

PNC Bank competes for deposits and/or loans with:
- Other commercial banks,
- Savings banks,
- Credit unions,
- Consumer finance companies,
- Leasing companies,
- Other non-bank lenders,
- Financial technology companies,
- Treasury management service companies,
- Insurance companies, and
- Issuers of commercial paper and other securities, including mutual funds.

In providing asset management services, our businesses compete with:
- Investment management firms,
- Large banks and other financial institutions,
- Brokerage firms,
- Financial technology companies,
- Mutual fund complexes, and
- Insurance companies.

Our various non-bank businesses engaged in investment banking and alternative investment activities compete with:
- Commercial banks,
- Investment banking firms,
- Collateralized loan obligation (CLO) managers,
- Hedge funds,
- Mutual fund complexes,
- Merchant banks,
- Insurance companies,
- Private equity firms, and
- Other investment vehicles.

Loan pricing, structure and credit standards are extremely important in the current environment as we seek to achieve appropriate risk-adjusted returns. Traditional deposit-taking activities are also subject to pricing pressures and to customer migration as a result of intense competition for deposits and investments. Competitors may seek to compete with us through traditional channels such as physical locations or through digital channels such as internet or mobile. We include here by reference the additional information regarding competition and factors affecting our competitive position included in the Item 1A Risk Factors of this Report.

Employees

Employees totaled 52,906 at December 31, 2017. This total included 50,358 full-time and 2,548 part-time employees, of which 29,604 full-time and 2,368 part-time employees were employed by our Retail Banking business.

SEC Reports and Corporate Governance Information

We are subject to the informational requirements of the Securities Exchange Act of 1934 (Exchange Act) and, in accordance with the Exchange Act, we file annual, quarterly and current reports, proxy statements, and other information with the SEC. Our SEC File Number is 001-09718. You may read and copy this information at the SEC's Public Reference Room located at 100 F Street NE, Room 1580, Washington, D.C. 20549. You can obtain information on the operation of the Public Reference Room by calling the SEC at 800-SEC-0330. You can obtain copies of this information by mail from the Public Reference Section of the SEC, 100 F Street NE, Washington, D.C. 20549, at prescribed rates.

The SEC maintains an internet website at www.sec.gov that contains reports, including exhibits, proxy and information statements, and other information about issuers, like us, who file electronically with the SEC. You can also inspect reports, proxy statements and other information about us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

We make our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act available free of charge on our internet website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our corporate internet address is www.pnc.com and you can find this information at www.pnc.com/secfilings. Shareholders and bondholders may obtain copies of these filings without charge by contacting Shareholder Services at 800-982-7652 or via the online contact form at www.computershare.com/contactus for copies without exhibits, and by contacting Shareholder Relations at 800-843-2206 or via e-mail at investor.relations@pnc.com for copies of exhibits, including financial statement and schedule exhibits where applicable. The interactive data file (XBRL) exhibit is only available electronically.

Information about our Board of Directors and its committees and corporate governance, including our PNC Code of Business Conduct and Ethics, is available on our corporate website at www.pnc.com/corporategovernance. In addition, any future amendments to, or waivers from, a provision of the PNC Code of Business Conduct and Ethics that applies to our directors or executive officers (including our principal executive officer, principal financial officer, and principal accounting officer or controller) will be posted at this internet address.

Shareholders who would like to request printed copies of the PNC Code of Business Conduct and Ethics or our Corporate Governance Guidelines or the charters of our Board of Directors's Audit, Nominating and Governance, Personnel and Compensation, or Risk Committees (all of which are posted on our corporate website at www.pnc.com/corporategovernance) may do so by sending their requests to PNC's Corporate Secretary at corporate headquarters at The

Tower at PNC Plaza, 300 Fifth Avenue, Pittsburgh, Pennsylvania 15222-2401. Copies will be provided without charge to shareholders.

Our common stock is listed on the New York Stock Exchange (NYSE) under the symbol "PNC."

Internet Information

The PNC Financial Services Group, Inc.'s financial reports and information about its products and services are available on the internet at www.pnc.com. We provide information for investors on our corporate website under "About Us – Investor Relations." We use our Twitter account, @pncnews, as an additional way of disseminating to the public information that may be relevant to investors.

We generally post the following under "About Us – Investor Relations" shortly before or promptly following its first use or release: financially-related press releases, including earnings releases, and supplemental financial information, various SEC filings, including annual, quarterly and current reports and proxy statements, presentation materials associated with earnings and other investor conference calls or events, and access to live and recorded audio from earnings and other investor conference calls or events. In some cases, we may post the presentation materials for other investor conference calls or events several days prior to the call or event. When warranted, we will also use our website to expedite public access to time-critical information regarding PNC in advance of distribution of a press release or a filing with the SEC disclosing the same information. For earnings and other conference calls or events, we generally include in our posted materials a cautionary statement regarding forward-looking and non-GAAP financial information, and we provide GAAP reconciliations when we include non-GAAP financial information. Where applicable, we provide such GAAP reconciliations in materials for that event or in materials for prior investor presentations or in our annual, quarterly or current reports.

We are required to provide additional public disclosure regarding estimated income, losses and pro forma regulatory capital ratios under supervisory and PNC-developed hypothetical severely adverse economic scenarios, as well as information concerning our capital stress testing processes, pursuant to the stress testing regulations adopted by the Federal Reserve and the OCC. We are also required to make certain additional regulatory capital-related public disclosures about our capital structure, risk exposures, risk assessment processes, risk-weighted assets and overall capital adequacy, including market risk-related disclosures, under the regulatory capital rules adopted by the Federal banking agencies. Under these regulations, we may satisfy these requirements through postings on our website, and we have done so and expect to continue to do so without also providing disclosure of this information through filings with the SEC.

Other information posted on our corporate website that may not be available in our filings with the SEC includes information relating to our corporate governance and annual communications from our chairman to shareholders.

Where we have included internet addresses in this Report, such as our internet address and the internet address of the SEC, we have included those internet addresses as inactive textual references only. Except as specifically incorporated by reference into this Report, information on those websites is not part hereof.

ITEM 1A – RISK FACTORS

We are subject to a number of risks potentially impacting our business, financial condition, results of operations and cash flows. As a financial services organization, certain elements of risk are inherent in what we do and the business decisions we make. Thus, we encounter risk as part of the normal course of our business, and we design risk management processes to help manage these risks.

Our success is dependent on our ability to identify, understand and manage the risks presented by our business activities so that we can appropriately balance revenue generation and profitability. We categorize the risks we face as credit risk, liquidity risk, capital management, market risk, operational risk and compliance risk. We discuss our principal risk management processes and, in appropriate places, related historical performance and other metrics in the Risk Management section included in Item 7 of this Report.

The following are the key risk factors that affect us. Any one or more of these risk factors could have a material adverse impact on our business, financial condition, results of operations or cash flows, in addition to presenting other possible adverse consequences, including those described below. These risk factors and other risks we face are also discussed further in other sections of this Report.

Our business and financial performance are vulnerable to the impact of adverse economic conditions.

As a financial services company, our business and overall financial performance are affected to a significant extent by economic conditions. Adverse economic conditions generally result in reduced business activity, which may decrease the demand for our products and services, can impair the ability of borrowers to repay loans, and may lead to turmoil and volatility in financial markets. Such effects would likely have an adverse impact on financial institutions such as PNC, with the significance of the impact generally depending on the severity of the adverse economic conditions, increasing typically under recessionary conditions.

Even when economic conditions are relatively good or stable, specific economic factors can negatively affect the performance of financial institutions, especially as these factors relate to particular industries or geographical regions. For example, shifting consumer behavior with respect to retail purchases over the internet rather than in physical stores has negatively impacted performance by some retailers, potentially decreasing demand for financial services in that sector and impairing the creditworthiness of some shopping malls and retail companies.

Given the geographic scope of our business and operations, we are most exposed to issues within the United States economy and financial markets and, within the United States, most exposed to issues within our primary geographic footprint concentrated in the Mid-Atlantic, Midwest and Southeast.

International economic conditions, however, can impact our business and financial performance both directly to the extent of our international business activities and, possibly more significantly, indirectly due to the possibility that poor economic conditions impacting other major economies around the world will have an impact on the United States. For example, the prospect of the United Kingdom's impending exit from the European Union has led to uncertainty regarding the impact on the United Kingdom's economy and capital markets as well as that of the remaining countries in the European Union. It is also possible that other countries might seek to exit the European Union in the future. The extent to which these uncertainties will affect the United States economy and capital markets is unclear.

The recently enacted Tax Cuts and Jobs Act will impact PNC's business and financial results, including likely resultant changes in customer behavior.

In December 2017, Congress passed and the President signed the Tax Cuts and Jobs Act, representing the most significant change in U.S. federal tax law in decades. Although the direct impact of this legislation on PNC is likely to be positive, primarily as a result of a reduction in the corporate tax rate from 35% to 21%, there are specific aspects that will have a negative impact, including the disallowance of deductions for FDIC deposit insurance premiums and for a portion of our executive incentive compensation.

In addition, we anticipate that business and retail customers will modify behavior going forward in response to changes in the tax law, some of which are likely to be favorable to PNC over time, but some changes in customer behavior could be detrimental to our business. For example, in addition to various potential positive impacts, new or modified limitations on the ability of individuals to deduct mortgage and home equity interest expense could adversely affect demand for our home lending products. As another example, there could be reduced demand for commercial borrowing, due to factors such as improved cash flow resulting from lower tax rates or funds repatriated from outside the U.S. or utilization of other financing options.

It is not possible at present to determine the likely overall impact of the new tax law on PNC as a result of changes in economic activity and customer behavior, either in terms of magnitude or timing.

The monetary policies of governmental agencies, including the Federal Reserve, have a significant impact on interest rates and overall financial market performance.

Governmental monetary policies, including those of the Federal Reserve, have a significant impact on interest rates and overall financial market performance. These governmental policies can thus affect the activities and results of operations of banking companies such as PNC. An important function of the Federal Reserve is to regulate the national supply of bank credit and certain interest rates. The actions of the Federal Reserve influence the rates of interest that we charge on loans and that we pay on borrowings and interest-bearing deposits and can also affect the value of our on-balance sheet and off-balance sheet financial instruments. Both due to the impact on rates and by controlling access to direct funding from the Federal Reserve Banks, the Federal Reserve's policies also significantly influence our cost of funding.

We cannot predict the nature or timing of future changes in monetary policies or the precise effects that they may have on our activities and financial results. The very low interest rate environment that has prevailed since the financial crisis has had a negative impact on our ability to increase our net interest income. Although the Federal Reserve started increasing its benchmark interest rate in December 2015, ending approximately seven years of near zero rates, and has continued to do so through 2017, with expectations that it will continue to do so in 2018, there is no assurance that it will do so or that it will do so in a manner that will be consistent with market expectations. Should the Federal Reserve not continue raising rates, it could affect consumer and business behavior in ways that are adverse to us in addition to continuing to affect our net interest income. Even if the Federal Reserve continues to increase the interest rates it directly influences, there may be a prolonged period before interest rates return to more historically typical levels. Recent and pending changes in the membership of the Federal Reserve Board, including its Chair, may create additional uncertainty regarding the direction of policy by the Federal Reserve.

After an extended period during which the Federal Reserve increased its balance sheet substantially above historical levels through the purchase of debt securities, the Federal Reserve has indicated an intention to start reducing its balance sheet from these elevated levels. It is unclear what impact this will have on the economy or on the markets for and values of financial assets, including assets of the types that we hold, purchase and sell.

In addition, monetary policy actions by governmental authorities in the European Union or other countries could have an impact on global interest rates, which could affect rates in the United States as well as rates on instruments denominated in currencies other than the U.S. dollar, any of which could have one or more of the potential effects on us described above. While we have not experienced negative interest rates in the United States, and in recent periods the Federal Reserve has been gradually increasing rates, some central banks in Europe and Asia have cut interest rates below zero. If U.S. interest rates were to fall below zero, it could significantly affect our businesses and results of operation in ways that cannot easily be predicted.

Other government legislation, regulation and policy potentially impacting the economy can have an adverse effect on our business and financial performance.

Changes in law or governmental policy affecting the economy, business activity, or personal spending, investing or saving activities may cause consumers and businesses to alter behavior in ways that impact demand for our products and services. PNC may also adjust the types of transactions we seek to pursue under those circumstances. Uncertainty regarding future law or policy may have similar impacts. Concern regarding the ability of Congress and the President collectively to reach agreement on federal budgetary matters (including the debt ceiling), or prolonged stalemates leading to total or partial governmental shutdowns, also can have adverse economic consequences and create the risk of economic instability or market volatility with potential adverse consequences to our business and financial performance.

As a regulated financial services firm, we are subject to numerous governmental regulations, and the financial services industry as a whole continues to be subject to significant regulatory reform initiatives in the United States and elsewhere.

The PNC Financial Services Group, Inc. is a bank holding company (BHC) and a financial holding company and is subject to numerous governmental regulations involving both its business and organization.

Our businesses are subject to regulation by multiple banking, consumer protection, securities and derivatives regulatory bodies. In recent years, we, together with the rest of the financial services industry, have faced intense regulation, with many new regulatory initiatives and vigorous oversight and enforcement on the part of numerous regulatory bodies. Legislatures and regulators have pursued a broad array of initiatives intended to promote the safety and soundness of financial institutions, financial market stability, the transparency and liquidity of financial markets, and consumer and investor protection. As a result, we have experienced significantly increased compliance costs and have needed to adjust our business practices to accommodate new requirements and limitations, impacting some of our revenue opportunities.

Applicable laws and regulations restrict our ability to repurchase stock or to receive dividends from subsidiaries that operate in the banking and securities businesses and impose capital adequacy requirements. PNC's ability to service its obligations and pay dividends to shareholders is largely dependent on the receipt of dividends and advances from its subsidiaries, primarily PNC Bank. The Federal Reserve requires a BHC to act as a source of financial and managerial strength for its subsidiary banks. The Federal Reserve could require PNC to commit resources to PNC Bank when doing so is not otherwise in the interests of PNC or its shareholders or creditors.

Applicable laws and regulations also restrict permissible activities and investments and require compliance with provisions designed to protect loan, deposit, brokerage, fiduciary, mutual fund and other customers, and for the protection of customer information, among other things. We are also subject to laws and regulations designed to combat money laundering, terrorist financing, and transactions with persons, companies or foreign governments designated by U.S. authorities.

The current presidential administration has indicated an intent to pursue the regulation of the financial services industry differently than under the previous administration. There is, however, significant uncertainty regarding the direction this administration will take and its ability to implement its policies and objectives. In addition, the ultimate impact on potential new regulatory initiatives and the enforcement of existing laws and regulations is not known. Even to the extent that the current administration takes a different approach to regulation of the financial services industry than had previously been the case, and even if that is overall favorable to us, we would still expect compliance with regulations to be a meaningful burden presenting significant risk. In addition, there could be an increase in state regulation of aspects of our business and in foreign regulation that impacts our operations. Different approaches to regulation by different jurisdictions could increase our compliance costs.

There are currently pending numerous additional regulatory proposals, and other new initiatives are likely to be pursued in the future. The implementation of new regulatory requirements and limitations could further increase our compliance costs and the risks associated with non-compliance and could affect our ability to pursue or take full advantage of some desirable business opportunities.

A failure to comply, or to have adequate policies and procedures designed to comply, with regulatory requirements and expectations could expose us to damages, fines and regulatory penalties and other regulatory actions or consequences, such as limitations on activities otherwise permissible for us or additional requirements for engaging in new activities, and could also injure our reputation with customers and others with whom we do business.

See Supervision and Regulation in Item 1 of this Report for more information concerning the regulation of PNC and recent initiatives to reform financial institution regulation, including some of the matters discussed in this Risk Factor. Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report also discusses some of the regulation applicable to us.

Current and likely future capital and liquidity standards will result in banks and bank holding companies needing to maintain more and higher quality capital and greater liquidity than has historically been the case.

We are subject to regulatory capital and liquidity requirements established by the Federal Reserve and the OCC, and discuss these requirements and standards in the Supervision and Regulation section included in Item 1 of this Report and the Liquidity and Capital Management portion of the Risk Management section of Item 7 of this Report.

The regulatory capital requirements applicable to banks and BHCs have undergone significant changes. For example, the final rules adopted by the U.S. banking agencies in July 2013 to implement the new international guidelines for determining regulatory capital established by the Basel Committee known as "Basel III," as well as to implement certain provisions of Dodd-Frank, fundamentally altered the U.S. regulatory capital requirements for U.S. BHCs and banks. Significant parts of these rules are now effective for us, although as a result of the staggered effective dates of the rules, many provisions are being phased-in over a period of years, with the rules generally to be fully phased-in as of January 1, 2019. The Basel Committee recently finalized additional, significant changes to the international capital framework for banking organizations, including modifications that would: (i) significantly alter the international frameworks governing the market risk capital requirements for trading positions and the standardized risk weighting approach for credit risk, (ii) introduce a new standardized measure of operational risk to replace the current methodology under the advanced approaches, and (iii) establish a standardized approach floor for capital ratios calculated by banking organizations that use the advanced approaches for the risk weighting of assets. Moreover, the Basel Committee continues to consider other changes to the international regulatory capital framework to enhance the transparency and consistency of capital requirements among banks and jurisdictions, including, among others, the treatment of securitization positions. It is unclear how these or other initiatives by the Basel Committee may be implemented in the U.S. and, thus, we are unable to estimate what potential impact such initiatives may have on us.

The liquidity standards applicable to large U.S. banking organizations also are expected to be supplemented in the coming years. For example, the Basel Committee, in October 2014, released the final framework for the NSFR standard, which is designed to ensure that banking organizations maintain a stable, long-term funding profile in relation to their asset composition and off-balance sheet activities. In May 2016, the U.S. banking agencies proposed rules to implement the NSFR but these rules have not yet been finalized. Thus, the potential impact of the NSFR on us remains unclear.

The need to maintain more and higher quality capital, as well as greater liquidity, going forward than historically has been required could limit our business activities, including lending, and our ability to expand, either organically or through acquisitions. It could also result in us taking steps to increase our capital that may be dilutive to shareholders, being limited in our ability to pay dividends or otherwise return capital to shareholders, or selling or refraining from acquiring assets, for which the capital requirements appear inconsistent with the assets' underlying risks. In addition, the new liquidity standards require us to maintain holdings of highly liquid short-term investments, thereby reducing our ability to invest in longer-term or less liquid assets, even if more desirable from a balance sheet or interest rate risk management perspective. In addition, PNC, as a BHC that is subject to the advanced approaches for regulatory capital purposes, is subject to a higher LCR requirement than other BHCs that have more than $50 billion in total assets but are not subject to the advanced approaches. Until the scope and terms of pending or future rulemakings relating to capital, liquidity or liability composition are known, the extent to which such rules may apply to us and the potential impact of such rules on us will remain uncertain.

The planned discontinuance of the requirement that banks submit rates for the calculation of LIBOR presents risks to the financial instruments originated or held by PNC that use LIBOR as a reference rate.

LIBOR is the reference rate for many transactions in which we lend and borrow money, issue, purchase and sell securities and enter into derivatives to manage our or our customers' risk of these transactions. LIBOR has been the subject of recent national and international regulatory guidance and proposals for reform. The United Kingdom Financial Conduct Authority, which regulates the process for establishing LIBOR, announced in July 2017 that it intends to stop persuading or compelling banks to submit rates for the calculation of LIBOR to the administrator of LIBOR after 2021. It is not possible to predict the effect of this announcement, including whether LIBOR will continue in place, and if so what changes will be made to it, what rates may replace LIBOR in use going forward, and how LIBOR will be determined for purposes of loans, securities and derivative instruments currently referencing it if it ceases to exist at some point. Any change in the availability or calculation of LIBOR may adversely affect the yield on loans or securities held by us, amounts paid on securities we have issued, or amounts received and paid on derivative instruments we have entered into, the value of such loans, securities, or derivative instruments, the trading market for LIBOR-based securities, the terms of new loans being made using different or modified reference rates, or our ability to effectively use derivative instruments to manage risk.

Any of the reform proposals or the general increased regulatory scrutiny of LIBOR could increase the costs and risks of administering or otherwise participating in the setting of LIBOR and complying with any such regulations or requirements. Such factors may have the effect of discouraging market participants from continuing to administer or contribute to LIBOR or lead to the ultimate discontinuance or unavailability of quotes of LIBOR. It is impossible to predict whether and to what extent banks will continue to provide LIBOR submissions to the administrator of LIBOR.

Our business and financial results are subject to risks associated with the creditworthiness of our customers and counterparties.

Credit risk is inherent in the financial services business and results from, among other things, extending credit to customers, purchasing securities, and entering into financial derivative transactions and certain guarantee contracts. Credit risk is one of our most significant risks, particularly given the high percentage of our assets represented directly or indirectly by loans and securities and the importance of lending activity to our overall business. We manage credit risk by assessing and monitoring the creditworthiness of our customers and counterparties, by diversifying our loan portfolio and by investing primarily in high quality securities.

A borrower's ability to repay a loan can be adversely affected by several factors. Individual borrowers can be affected by, among other things, declines in income, job losses, health issues or family issues. Commercial borrowers can be affected by, among other things, poor business performance or catastrophe losses. A weak or deteriorating economy and changes in the domestic or global markets would typically adversely impact the ability of our borrowers to repay outstanding loans. We may also be exposed to credit risk if we fail to evaluate properly at origination the likely ability of a borrower to repay a loan or fail to identify declining creditworthiness of a borrower at a time when remedial actions may reduce our exposure. Any decrease in our borrowers' ability to repay loans would result in higher levels of nonperforming loans, net charge-offs, provision for credit losses and valuation adjustments on loans held for sale.

Financial services institutions are interrelated as a result of trading, clearing, lending, counterparty and other relationships. We have exposure to many different industries and counterparties, and we routinely execute transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds, and other institutional clients. Many of these transactions expose us to credit risk in the event of default of our counterparty or client.

Despite maintaining a diversified loan and securities portfolio, in the ordinary course of business, we may have concentrated credit exposure to a particular person or entity, industry, region or financial market. Loans secured by commercial and residential real estate represent a significant percentage of our overall credit portfolio, as well as of the assets underlying our investment securities. Events adversely affecting specific customers or counterparties, industries, regions or financial markets, including a decline in their creditworthiness or a worsening overall risk profile, could adversely affect us.

Our credit risk may be exacerbated when collateral held by us to secure obligations to us cannot be realized upon or is liquidated at prices that are not sufficient to recover the full amount of the loan or derivative exposure due us.

We reserve for credit losses on our loan and lease portfolio, as well as for unfunded loan commitments and letters of credit, through our Allowances for loan and lease losses and unfunded loan commitments and letters of credit, with changes in the allowances reflected in Net income through Provision for credit losses. An increase in credit risk would likely lead to an increase in Provision for credit losses with a resulting reduction in our Net income and would increase our allowances.

Our business and financial performance is impacted significantly by market interest rates and movements in those rates.

As a result of the high percentage of our assets and liabilities that are in the form of interest-bearing or interest-related instruments, changes in interest rates, in the shape of the yield curve, or in spreads between different market interest rates can have a material effect on our business, our profitability and the value of our financial assets and liabilities. For example:

- Changes in interest rates or interest rate spreads can affect the difference between the interest that we earn on assets and the interest that we pay on liabilities, which impacts our overall net interest income and margin as well as our profitability.
- Such changes can affect the ability of borrowers to meet obligations under variable or adjustable rate loans and other debt instruments, and can, in turn, affect our loss rates on those assets.
- Such changes may decrease the demand for interest rate-based products and services, including loans and deposit accounts.
- Such changes can also affect our ability to hedge various forms of market and interest rate risk and may decrease the effectiveness of those hedges in helping to manage such risks.
- Movements in interest rates also affect mortgage prepayment speeds and could result in impairments of mortgage servicing assets or otherwise affect the profitability of such assets.
- Increases in interest rates can lower the price we would receive on fixed-rate customer obligations if we were to sell them.

We discuss the impact of governmental monetary policy on interest rates in "The monetary policies of governmental agencies, including the Federal Reserve, have a significant impact on interest rates and overall financial market performance" Risk Factor in this Item 1A.

Our business and financial performance are vulnerable to the impact of changes in the values of financial assets.

As a financial institution, a substantial majority of our assets and liabilities are financial in nature (items such as loans, securities, servicing rights, deposits and borrowings). Such assets and liabilities will fluctuate in value, often significantly, due to movements in the financial markets or market volatility as well as developments specific to the asset or liability in question. Credit-based assets and liabilities will fluctuate in value due to changes in the perceived creditworthiness of borrowers or other counterparties and also due to changes in market interest rates.

In addition, changes in loan prepayment speeds, usually based on fluctuations in market interest rates, could adversely impact the value of our mortgage servicing rights. Additionally, the underlying value of assets under lease or securing an obligation may decrease due to supply and demand for the asset or the condition of the asset. This could cause the ability to collect fully on, or the value of, the secured obligation to decline.

In many cases, we mark our assets and liabilities to market on our financial statements, either through our Net income and Retained earnings or through adjustments to Accumulated other comprehensive income on our balance sheet. We may need to record losses in the value of financial assets even where our expectation of realizing the face value of the underlying instrument has not changed.

In addition, asset management revenue is primarily based on a percentage of the value of the assets being managed and thus is impacted by general changes in market valuations. Thus, although we are not directly impacted by changes in the value of such assets, decreases in the value of those assets would affect related noninterest income.

Our asset and liability valuations and the determination of the amount of loss allowances and impairments taken on our assets are highly subjective. Inaccurate estimates could materially impact our results of operations or financial position.

We must use estimates, assumptions and judgments when assets and liabilities are measured and reported at fair value. Assets and liabilities carried at fair value inherently result in a higher degree of financial statement volatility. Changes in underlying factors or assumptions in any of the areas underlying our estimates could materially impact our future financial condition and results of operations. During periods of market disruption, it may be more difficult to value certain assets if trading becomes less frequent and/or market data becomes less observable. There may be certain asset classes that were historically traded in active markets with significant observable data that rapidly become illiquid due to market volatility, a loss in market confidence or other factors. In addition, we have certain assets and liabilities carried at fair value that are estimated using unobservable inputs that are significant to the fair value of the assets or liabilities. Further, rapidly changing and unprecedented market conditions in any particular market could materially impact the valuation of assets as reported within our consolidated financial statements.

The determination of the amount of loss allowances and asset impairments varies by asset type and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Management updates its evaluations regularly and reflects changes in allowances and impairments in operations as such evaluations are revised. Although we have policies and procedures in place to determine loss allowance and asset impairments, due to the subjective nature of this area, there can be no assurance that our management has accurately assessed the level of impairments taken and allowances reflected in our financial statements. Furthermore, additional impairments may need to be taken or allowances provided for in the future. Historical trends may not be indicative of future impairments or allowances.

Our success depends on our ability to attract and retain customers for our products and services, which may be negatively impacted by a lack of consumer and business economic confidence as well as our actions, including our ability to anticipate and satisfy customer demands for products and services.

As a financial institution, our performance is subject to risks associated with declines in customer demand for our products and services, including as a result of a loss of economic confidence or customer trust in us.

Economic and market developments may affect consumer and business confidence levels. If customers lose confidence due to a weak or deteriorating economy or uncertainty surrounding the future of the economy, the demand for our products and services could suffer. We may also fail to attract or retain customers if we are unable to develop and market products and services that meet evolving customer needs or demands or if we are unable to deliver them effectively and securely to our customers, particularly to the extent that our competitors are better able to do so.

News or other publicity that impairs our reputation, or the reputation of our industry generally, also could cause a loss of customers. Financial companies are highly vulnerable to reputational damage when they are found to have harmed customers, particularly retail customers, through conduct that is illegal or viewed as unfair, deceptive, manipulative or otherwise wrongful. The negative impact of such reputational damage on our business may be disproportionate to the actual harm caused customers. In addition, we could suffer reputational harm and a loss of customer trust as a result of conduct of others in which we have not engaged.

If we fail to attract and retain customers, demand for our loans and other financial products and services could decrease and we could experience adverse changes in payment patterns. We could lose interest income from a decline in credit usage and noninterest income from a decline in product sales, investments and other transactions. Our customers could remove money from checking, savings or other types of deposit accounts in favor of other banks or other types of investment products. Deposits are a low cost source of funds for us. Therefore, losing deposits could increase our funding costs and reduce our net interest income.

The United States is just starting to emerge from an extended period of very low interest rates. Very low interest rates decrease the attractiveness of alternatives to bank checking and savings accounts, which may lack deposit insurance and some of the convenience associated with more traditional banking products. As interest rates rise, and the spread between the rates we offer and those offered by alternatives to bank accounts widens, customers may be less willing to maintain balances in noninterest bearing or low interest bank accounts, which could result in a relatively higher cost of funds to us and negatively affect net interest income. This could also result in a loss of noninterest income.

In our asset management business, investment performance is an important factor influencing the level of assets that we manage. Poor investment performance could impair revenue and growth as existing clients might withdraw funds in favor of better performing products. Additionally, the ability to attract funds from existing and new clients might diminish. Overall economic conditions may limit the amount that customers are able or willing to invest as well as the value of the assets they do invest. The failure or negative performance of products of other financial institutions could lead to a loss of confidence in similar products offered by us without regard to the performance of our products. Such a negative contagion could lead to withdrawals, redemptions and liquidity issues in such products and have a material adverse impact on our assets under management and asset management revenues and earnings.

We operate in a highly competitive environment, in terms of the products and services we offer and the geographic markets in which we conduct business, as well as in our labor markets where we compete for talented employees. Competition could adversely impact our customer acquisition, growth and retention, as well as our credit spreads and product pricing, causing us to lose market share and deposits and revenues.

We are subject to intense competition from various financial institutions as well as from non-bank entities that engage in many similar activities without being subject to bank regulatory supervision and restrictions. This competition is described in Item 1 of this Report under “Competition.”

In all, the principal bases for competition are pricing (including the interest rates charged on loans or paid on interest-bearing deposits), product structure, the range of products and services offered and the quality of customer service (including convenience and responsiveness to customer needs and concerns). The ability to access and use technology is an increasingly important competitive factor in the financial services industry. Having the right technology is a critically important component to customer satisfaction as it affects our ability to deliver the products and services that customers desire and in a manner that they find convenient and attractive. Banks generally are facing the risk of increased competition from products and services offered by non-bank financial technology companies, particularly related to payment services and lending.

Consolidation in our industry, including among smaller banks combining to form more competitive larger ones and between banks and non-bank entities offering financial products and services, could result in PNC facing more intense competition, particularly in impacted regions or with respect to particular products.

Another increasingly competitive factor in the financial services industry is the competition to attract and retain talented employees across many of our business and support areas. This factor presents greater risk when we are expanding into new markets, developing new product lines, or need to significantly enhance staffing in certain areas. This competition leads to increased expenses in many business areas and can also cause us to not pursue certain business opportunities. Limitations on the manner in which regulated financial institutions can compensate their officers and employees, including those contained in pending rule proposals implementing requirements of the Dodd-Frank Act, may make it more difficult for regulated financial institutions, including PNC, to compete with unregulated financial institutions for talent.

A failure to adequately address the competitive pressures we face could make it harder for us to attract and retain customers across our businesses. On the other hand, meeting these competitive pressures could require us to incur significant additional expense or to accept risk beyond what we would otherwise view as desirable under the circumstances. In addition, in our interest rate sensitive businesses, pressures to increase rates on deposits or decrease rates on loans could reduce our net interest margin with a resulting negative impact on our net interest income.

We continually encounter technological change and need to keep pace with this change in order to maintain or enhance the competitiveness of our businesses.

The financial services industry is undergoing rapid technological change with frequent introductions of new technology-driven products and services. Examples at the present time include expanded use of cloud computing, artificial intelligence and machine learning, virtual and augmented reality, biometric authentication, voice and natural language, and data protection enhancements, as well as increased on-line and mobile device interaction with customers. The effective use of technology increases efficiency and enables financial institutions to better serve customers and to reduce costs. We have been investing in technology and connectivity in order to automate functions previously performed manually, to facilitate the ability of customers to engage in financial transactions, and otherwise to enhance the customer experience with respect to our products and services. On the retail side, this has included developments such as more sophisticated ATMs (including the ability to cash checks using exact change), cashless bank branches, and expanded access to banking transactions (including mobile deposits, instant availability of funds, and real time payment processing) through the internet, smart phones, tablets and other mobile devices. These efforts have all been in response to actual and anticipated customer behavior and expectations. Our continued success depends, in part, upon our ability to address the needs of our customers by using technology to provide products and services that satisfy customer demands, including demands for faster and more secure payment services, and create efficiencies in our operations. A failure to maintain or enhance our competitive position with respect to technology, whether because we fail to anticipate customer expectations or because our technological developments fail to perform as desired or are not rolled out in a timely manner, may cause us to lose market share or incur additional expense.

We depend on the effectiveness and integrity of our employees, systems and controls to manage operational risks.

We are a large organization that offers a wide variety of products and services to a broad and diverse group of customers. We are dependent on our employees, systems and controls to assure that we properly enter into, record and manage processes, transactions and other relationships with customers, suppliers and other parties with whom we do business, as well as to assure that we identify and mitigate the risks that are inherent in these relationships.

We necessarily rely on our employees or, in some cases, employees of third parties to perform these tasks and manage the resulting risks. As a result, we are vulnerable to human error, misconduct or malfeasance, leading potentially to operational breakdowns or other errors. In addition, when we change processes or procedures or introduce new products or services, we may fail to adequately identify or manage operational risks resulting from such changes. We have taken measures to manage and mitigate this risk, but our controls may not be adequate to prevent problems resulting from human involvement in our business, including risks associated with the design, operation and monitoring of automated systems.

Errors by our employees or those of third parties, whether accidental, intentional or fraudulent, or other failures of our systems and controls, including systems and controls that are automated, could result in customer remediation costs, regulatory fines or penalties, litigation or enforcement actions, or limitations on our business activities. They also could result in damage to our reputation and to our ability to attract and retain customers, with the reputational impact likely greater to the extent that the mistakes or failures are pervasive, long-standing or affect a significant number of customers, particularly retail consumers. It is possible that the damage to our reputation may be disproportionate to the actual harm suffered by our customers or may be severe even if we fully remediate any harm suffered by our customers.

It is not possible to prevent all errors of these types, and over the last several years, financial services organizations have been reported to have failed to adequately prevent, identify or respond to a broad range of operational risk matters with resulting consequences to the other organizations of the types described above. Recent examples include unauthorized account openings, assessment of inappropriate fees, and failure to report information timely to the government.

We depend on technology, both internally and through third-parties, to conduct our business and could suffer a material adverse impact from interruptions in the effective operation of, or security breaches affecting, those systems.

As a large financial company, we handle a substantial volume of customer and other financial transactions on a continuous basis. As a result, we rely heavily on information systems to conduct our business and to process, record and monitor our transactions and those of our customers. Over time, we have increased substantially in size, scope and complexity. We have also seen more customer usage of technological solutions for financial needs as well as higher expectations of customers and regulators regarding effective and safe systems operation. We expect these trends to continue for the foreseeable future. The need to ensure proper functioning and resiliency of these systems has become more challenging, and the costs involved in that effort are greater than ever.

The risks to these systems result from a variety of factors, both internal and external. In some cases, these factors relate to the potential for bad acts on the part of hackers, criminals, foreign governments or their agents, employees and others, and to some extent will be beyond our ability to prevent. In other cases, our systems could fail to operate as needed, including failures to prevent access in an unauthorized manner, due to factors such as design or performance issues, human error, unexpected transaction volumes or inadequate measures to protect against unauthorized access or transmissions. We are also at risk for the impact of natural or other disasters, terrorism, international hostilities and the like on our systems or for the effect of outages or other failures involving power, communications, or payment, clearing and settlement systems operated by others. In addition, we face a variety of types of cyber attacks, some of which are discussed in more detail below. Cyber attacks often include efforts to disrupt our ability to provide services or to gain access to, or destroy, confidential or proprietary company and customer information.

We rely on other companies for the provision of a broad range of products and services. Many of these products and services rely on information systems maintained by third parties or involve the use of such systems in connection with providing our products or services. In some cases, these other companies provide the infrastructure that supports communications, payment, clearing and settlement systems, or information processing and storage. These other companies are generally subject to many of the same risks we face with respect to our systems. To the extent we rely on these other companies, we could be adversely affected if they are impacted by system failures, cyber attacks or employee misconduct.

All of these types of events, whether resulting from cyber attacks or other internal or external sources, expose customer and other confidential information to security risks. They also could disrupt our ability to use our accounting, deposit, loan and other systems and could cause errors in transactions or system functionality with customers, vendors or other parties.

In addition, our customers often use their own devices, such as computers, smartphones and tablets, to do business with us and may provide their PNC customer information (including passwords) to a third party in connection with obtaining services from the third party. Although we take steps to provide safety and security for our customers' transactions with us and their customer information to the extent they are utilizing their own devices or providing third parties access to their accounts, our ability to assure such safety and security is necessarily limited.

We are faced with ongoing efforts by others to breach data security at financial institutions or with respect to financial transactions. Some of these involve efforts to enter our systems directly by going through or around our security protections. Others involve the use of schemes such as "phishing" to gain access to identifying customer information, often from customers themselves. Most corporate and commercial transactions are now handled electronically, and our retail customers increasingly use online access and mobile devices to bank with us. The ability to conduct business with us in this manner depends on the transmission of confidential information, which increases the risk of data security breaches.

As our customers regularly use PNC-issued credit and debit cards to pay for transactions with retailers and other businesses, there is the risk of data security breaches at those other businesses covering PNC account information. When our customers use PNC-issued cards to make purchases from those businesses, card account information may be provided to the business. If the business's systems that process or store card account information are subject to a data security breach, holders of our cards who have made purchases from that business may experience fraud on their card accounts. We may suffer losses associated with reimbursing our customers for such fraudulent transactions on customers' card accounts, as well as for other costs related to data security compromise events, such as replacing cards associated with compromised card accounts. In addition, we provide card transaction processing services to some merchant customers under agreements we have with payment networks such as Visa and MasterCard. Under these agreements, we may be responsible for certain losses and penalties if one of our merchant customers suffers a data security breach.

Over the last few years, several large companies disclosed that they had suffered substantial data security breaches compromising millions of user accounts and credentials. To date, our losses and costs related to these breaches have not been material, but other similar events in the future could be more significant to us.

There have been other recent publicly announced cyber attacks that were not focused on gaining access to credit card or user credential information but instead sought access to a range of other types of confidential information including internal emails and other forms of customer financial information. Ransomware attacks have sought to deny access to data and possibly shut down systems and devices maintained by target companies. In a ransomware attack, system data is encrypted or access is otherwise denied, accompanied by a demand for ransom to restore access to the data.

Other types of attacks in recent years have included distributed denial of service (DDoS) attacks, in which individuals or organizations flood commercial websites with extraordinarily high volumes of traffic with the goal of disrupting the ability of commercial enterprises to process transactions and possibly making their websites unavailable to customers for extended periods of time. We (as well as other financial services companies) have been subject to such attacks.

To date, these types of attacks have not had a material financial impact on us, but attacks on others demonstrate the risks posed by new and evolving types of cyber attacks. We could suffer material financial and reputational losses in the future from any of these or other types of attacks.

Methods used by others to attack information systems change frequently (with generally increasing sophistication), often are not recognized until launched against a target, may be supported by foreign governments or other well-financed entities, and may originate from less regulated and remote areas around the world. As a result, we may be unable to address these methods in advance of attacks, including our inability to implement adequate preventive measures.

In addition to threats from people external to us, insider threats represent a significant risk to us. Insiders, having legitimate access to our systems and the information contained in them, have the easiest opportunity to make inappropriate use of the systems and information. Addressing that risk requires understanding not only how to protect us from unauthorized use and disclosure of data, but also how to engage behaviorial analytics to identify potential internal threats before any damage is done.

We have policies, procedures and systems (including business continuity programs) designed to prevent or limit the effect of possible failures, interruptions or breaches in security of information systems. We design our business continuity and other information and technology risk management programs to manage our capabilities to provide services in the case of an event resulting in material disruptions of business activities affecting our employees, facilities, technology or suppliers. We regularly seek to test the effectiveness of and enhance these policies, procedures and systems. Nonetheless, we cannot guarantee the effectiveness of our policies, procedures and systems to protect us in any particular future situation.

Our ability to mitigate the adverse consequences of such occurrences is in part dependent on the quality of our business continuity planning, our ability to understand threats to us from a holistic perspective, and our ability to anticipate the timing and nature of any such event that occurs. The adverse impact of natural and other disasters, terrorist activities, international hostilities and the like could be increased to the extent that there is a lack of preparedness on the part of national or regional governments, including emergency responders, or on the part of other organizations and businesses with which we deal, particularly those on which we depend, many of which we have little or no control over.

In recent years, we have incurred significant expense towards improving the reliability of our systems and their security against external and internal threats. Even with our proactive and defensive measures in place, there remains the risk that one or more adverse events might occur. If one does occur, we might not be able to remediate the event or its consequences timely or adequately, particularly to the extent that it represents a novel or unusual threat. To the extent that the risk relates to products or services provided by others, we seek to engage in due diligence and monitoring to limit the risk, but here, as well, we cannot eliminate it. Should an adverse event affecting another company's systems occur, we may not have indemnification or other protection from the other company sufficient to compensate us or otherwise protect us from the consequences.

The occurrence of any failure, interruption or security breach of any of our information or communications systems, or the systems of other companies on which we rely, could result in a wide variety of adverse consequences to us. This risk is greater if the issue is widespread or results in financial losses to our customers. Possible adverse consequences include damage to our reputation or a loss of customer business. We also could face litigation or additional regulatory scrutiny, which in turn could lead to liability or other sanctions, including fines and penalties or reimbursement of customers adversely affected by a systems problem or security breach. Even if we do not suffer any material adverse consequences as a result of events affecting us directly, successful attacks or systems failures at other financial institutions could lead to a general loss of customer confidence in financial institutions, including us. Also, systems problems, including those resulting from third party attacks, whether at PNC or at our competitors, would likely broadly increase regulatory and customer concerns regarding the functioning, safety and security of such systems. In that case, we would expect to incur even higher levels of costs with respect to prevention and mitigation of these risks.

There are risks resulting from the extensive use of models in our business.

We rely on quantitative models to measure risks and to estimate certain financial values. Models may be used in such processes as determining the pricing of various products, grading loans and extending credit, measuring interest rate and other market risks, predicting or estimating losses, assessing capital adequacy, and calculating economic and regulatory capital levels, as well as to estimate the value of financial instruments and balance sheet items. Poorly designed or implemented models present the risk that our business decisions based on information incorporating model output will be adversely affected due to the inadequacy of that information. Also, information we provide to the public or to our regulators based on poorly designed or implemented models could be inaccurate or misleading. Some of the decisions that our regulators make, including those related to capital distributions to our shareholders, could be affected adversely due to their perception that the quality of the models used to generate the relevant information is insufficient.

Our business and financial results could be impacted materially by adverse results in legal proceedings.

Many aspects of our business involve substantial risk of legal liability. We have been named or threatened to be named as defendants in various lawsuits arising from our business activities (and in some cases from the activities of companies we have acquired). In addition, we are regularly the subject of governmental investigations and other forms of regulatory inquiry. We also are at risk when we have agreed to indemnify others for losses related to legal proceedings they face, including litigation and governmental investigations and inquiries, such as in connection with the sale of a business or assets by us. The results of these legal proceedings could lead to significant monetary damages or penalties, restrictions on the way in which we conduct our business, or reputational harm.

Although we establish accruals for legal proceedings when information related to the loss contingencies represented by those matters indicates both that a loss is probable and that the amount of loss can be reasonably estimated, we do not have accruals for all legal proceedings where we face a risk of loss. In addition, due to the inherent subjectivity of the assessments and unpredictability of the outcome of legal proceedings, amounts accrued may not represent the ultimate loss to us from the legal proceedings in question. Thus, our ultimate losses may be higher, and possibly significantly so, than the amounts accrued for legal loss contingencies. We discuss further the unpredictability of legal proceedings and describe certain of our pending legal proceedings in Note 19 Legal Proceedings in the Notes To Consolidated Financial Statements in Item 8 of this Report.

We grow our business in part by acquiring other financial services companies or assets from time to time, and these acquisitions present a number of risks and uncertainties related both to the acquisition transactions themselves and to the integration of the acquired businesses into PNC after closing.

Acquisitions of other financial services companies, financial assets and related deposits and other liabilities present risks and uncertainties to us in addition to those presented by the nature of the business acquired.

In general, acquisitions may be substantially more expensive or take longer to complete than anticipated (including unanticipated costs incurred in connection with the integration of the acquired company). Anticipated benefits (including anticipated cost savings and strategic gains, for example resulting from being able to offer product sets to a broader potential customer base) may be significantly harder or take longer to achieve than expected or may not be achieved in their entirety as a result of unexpected factors or events.

Our ability to achieve anticipated results from acquisitions is often dependent also on the extent of credit losses in acquired loan portfolios and the extent of deposit attrition, which are, in part, related to the state of economic and financial markets.

Also, litigation and governmental investigations that may be pending at the time of the acquisition or be filed or commenced thereafter, as a result of an acquisition or otherwise, could impact the timing or realization of anticipated benefits to us.

Integration of an acquired company's business and operations into PNC, including conversion of the acquired company's different systems and procedures, may take longer or be more costly than originally anticipated or have unanticipated adverse results relating to the acquired company's or our existing businesses. In some cases, acquisitions involve our entry into new businesses or new geographic or other markets, and these situations also present risks and uncertainties in instances where we may be inexperienced in these new areas.

Our ability to analyze the risks presented by prospective acquisitions, as well as our ability to prepare in advance of closing for integration, depends, in part, on the information we can gather with respect to the target, which is more limited than the information we have regarding companies we already own. As a regulated financial institution, our ability to pursue or complete attractive acquisition opportunities could be negatively impacted by regulatory delays or other regulatory issues. In addition, our ability to make large acquisitions in the future may be negatively impacted by regulatory rules or future regulatory initiatives designed to limit systemic risk and the potential for a financial institution to become "too big to fail."

Our business and financial performance could be adversely affected, directly or indirectly, by disasters, natural or otherwise, by terrorist activities or by international hostilities.

Neither the occurrence nor the potential impact of disasters (such as earthquakes, hurricanes, tornadoes, floods and other severe weather conditions, pandemics, dislocations, fires, explosions, and other catastrophic accidents or events), terrorist activities and international hostilities can be predicted. However, these occurrences could impact us directly (for example, by causing significant damage to our facilities or preventing us from conducting our business in the ordinary course), or indirectly as a result of their impact on our borrowers, depositors, other customers, suppliers or other counterparties. We could also suffer adverse consequences to the extent that disasters, terrorist activities or international hostilities affect the financial markets or the economy in general or in any particular region. These types of impacts could lead, for example, to an increase in delinquencies, bankruptcies or defaults that could result in our experiencing higher levels of nonperforming assets, net charge-offs and provisions for credit losses.

Our ability to mitigate the adverse consequences of such occurrences is in part dependent on the quality of our resiliency planning, and our ability, if any, to anticipate the nature of any such event that occurs. The adverse impact of disasters or terrorist activities or international hostilities also could be increased to the extent that there is a lack of preparedness on the part of national or regional emergency responders or on the part of other organizations and businesses that we deal with, particularly those that we depend upon but have no control over.

ITEM 1B – UNRESOLVED STAFF COMMENTS

There are no SEC staff comments regarding PNC's periodic or current reports under the Exchange Act that are pending resolution.

ITEM 2 – PROPERTIES

Our executive and primary administrative offices are currently located at The Tower at PNC Plaza, Pittsburgh, Pennsylvania. The 33-story structure is owned by PNC Bank, National Association.

We own or lease numerous other premises for use in conducting business activities, including operations centers, offices, and branches and other facilities. We consider the facilities owned or occupied under lease by our subsidiaries to be adequate for the purposes of our business operations. We include here by reference the additional information regarding our properties in Note 8 Premises, Equipment and Leasehold Improvements in the Notes To Consolidated Financial Statements in Item 8 of this Report.

ITEM 3 – LEGAL PROCEEDINGS

See the information set forth in Note 19 Legal Proceedings in the Notes To Consolidated Financial Statements in Item 8 of this Report, which is incorporated here by reference.

ITEM 4 – MINE SAFETY DISCLOSURES

Not applicable

EXECUTIVE OFFICERS OF THE REGISTRANT

Information regarding each of our executive officers as of February 22, 2018 is set forth below. Executive officers do not have a stated term of office. Each executive officer has held the position or positions indicated or another executive position with the same entity or one of its affiliates for the past five years unless otherwise indicated below.

Name	Age	Position with PNC	Year Employed (a)
William S. Demchak	55	Chairman, President and Chief Executive Officer (b)	2002
Orlando C. Esposito	59	Executive Vice President	1988
Michael J. Hannon	61	Executive Vice President and Chief Credit Officer	1982
Vicki C. Henn	49	Executive Vice President and Chief Human Resources Officer	1994
Gregory B. Jordan	58	Executive Vice President, General Counsel and Chief Administrative Officer	2013
Stacy M. Juchno	42	Executive Vice President and General Auditor	2009
Karen L. Larrimer	55	Executive Vice President, Chief Customer Officer and Head of Retail Banking	1995
Michael P. Lyons	47	Executive Vice President, Head of Corporate & Institutional Banking and Head of Asset Management Group	2011
E William Parsley, III	52	Executive Vice President and Chief Operating Officer	2003
Robert Q. Reilly	53	Executive Vice President and Chief Financial Officer	1987
Joseph E. Rockey	53	Executive Vice President and Chief Risk Officer	1999
Steven Van Wyk	59	Executive Vice President and Head of Technology and Innovation	2013
Gregory H. Kozich	54	Senior Vice President and Controller	2010

(a) Where applicable, refers to year employed by predecessor company.
(b) Mr. Demchak also serves as a director. Biographical information for Mr. Demchak is included in "Election of Directors (Item 1)" in our proxy statement for the 2018 annual meeting of shareholders. See Item 10 of this Report.

Orlando C. Esposito was appointed Executive Vice President in April 2013 and was head of PNC's Asset Management Group from April 2013 until December 2017. He held numerous leadership positions within Corporate Banking from November 2006 to April 2013. Mr. Esposito has announced that he will retire in the spring of 2018.

Michael J. Hannon has served as Executive Vice President since February 2009. He has served as Chief Credit Officer since November 2001.

Vicki C. Henn has served as Executive Vice President and Chief Human Resources Officer of PNC since July 2014. Ms. Henn joined PNC in 1994 and has held numerous management positions. Prior to being named to her current position, Ms. Henn was responsible for Human Resources for Retail Banking.

Gregory B. Jordan joined PNC as Executive Vice President, General Counsel and Head of Regulatory and Government Affairs in October 2013. In February 2016, Mr. Jordan was also appointed Chief Administrative Officer. Prior to joining PNC, he served as the Global Managing Partner for the last 13 years of his 29 year tenure at Reed Smith LLP.

Stacy M. Juchno has served as Executive Vice President and General Auditor of PNC since April 2014. Ms. Juchno joined PNC in 2009 and previously served as Finance Governance and Oversight Director.

Karen L. Larrimer was appointed Executive Vice President in May 2013. Ms. Larrimer became head of PNC's Retail Banking in 2016. She has also served as Chief Customer Officer since April 2014, prior to which she served as Chief Marketing Officer.

Michael P. Lyons has been an Executive Vice President since November 2011 and is head of PNC's Corporate & Institutional Banking. Mr. Lyons assumed responsibility for PNC's Asset Management Group in January 2018.

E William Parsley, III has served as Executive Vice President since February 2009. In February 2018, Mr. Parsley was appointed Chief Operating Officer. Previously, he served as Treasurer and Chief Investment Officer since January 2004 and the head of Consumer Lending since the spring of 2016.

Robert Q. Reilly was appointed Chief Financial Officer in August 2013. He served as the head of PNC's Asset Management Group from 2005 until April 2013. He was appointed Executive Vice President in February 2009.

Joseph E. Rockey was appointed Executive Vice President and Chief Risk Officer in January 2015. Prior to his appointment, Mr. Rockey led enterprise risk management and the Basel office within PNC's risk management organization.

Steven Van Wyk joined PNC as Head of Technology and Operations in January 2013 and was appointed Head of Technology and Innovation in April 2017. From 2007 until joining PNC, Mr. Van Wyk served as Global Chief Operating Officer for ING. He was appointed Executive Vice President of PNC in February 2013.

Gregory H. Kozich has served as Controller of PNC since 2011. He was appointed as Senior Vice President in November 2010.

DIRECTORS OF THE REGISTRANT

The name, age and principal occupation of each of our directors as of February 22, 2018 and the year he or she first became a director is set forth below:

- Charles E. Bunch, 68, Retired Executive Chairman of PPG Industries, Inc. (*coatings, sealants and glass products*) (2007)
- Debra A. Cafaro, 60, Chairman of the Board and Chief Executive Officer of Ventas, Inc. (*real estate investment trust)* (2017)
- Marjorie Rodgers Cheshire, 49, President and Chief Operating Officer of A&R Development Corp. *(real estate development company)* (2014)
- William S. Demchak, 55, Chairman, President and Chief Executive Officer of PNC (2013)
- Andrew T. Feldstein, 53, Chief Executive Officer and Chief Investment Officer of BlueMountain Capital Management, LLC (*asset management firm)* (2013)
- Daniel R. Hesse, 64, Retired President and Chief Executive Officer of Sprint Corporation (*telecommunications*) (2016)
- Richard B. Kelson, 71, Chairman, President and Chief Executive Officer of ServCo LLC (*strategic sourcing, supply chain management*) (2002)
- Linda R. Medler, 61, Retired Brigadier General, United States Air Force and President and Chief Executive Officer of L A Medler & Associates, LLC (*cyber strategy consulting services)* (2018)
- Jane G. Pepper, 72, Retired President of the Pennsylvania Horticultural Society (*non-profit*) (1997)
- Martin Pfinsgraff, 63, Former Senior Deputy Comptroller of the Office of the Comptroller of the Currency (*federal agency*) (2018)
- Donald J. Shepard, 71, Retired Chairman of the Executive Board and Chief Executive Officer of AEGON N.V. (*insurance*) (2007)
- Lorene K. Steffes, 72, Independent Business Advisor (*executive, business management and technical expertise*) (2000)
- Dennis F. Strigl, 71, Retired President and Chief Operating Officer of Verizon Communications Inc. (*telecommunications*) (2001)
- Michael J. Ward, 67, Retired Chairman and Chief Executive Officer of CSX Corporation (*railroads, transportation*) (2016)
- Gregory D. Wasson, 59, Retired President and Chief Executive Officer of Walgreens Boots Alliance *(pharmacy, health and wellbeing enterprise)* (2015)

PART II

ITEM 5 – MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

(a) (1) Our common stock is listed on the New York Stock Exchange and is traded under the symbol "PNC." At the close of business on February 16, 2018, there were 57,157 common shareholders of record.

Holders of PNC common stock are entitled to receive dividends when declared by our Board of Directors out of funds legally available for this purpose. Our Board of Directors may not pay or set apart dividends on the common stock until dividends for all past dividend periods on any series of outstanding preferred stock and certain outstanding capital securities issued by the parent company have been paid or declared and set apart for payment. The Board of Directors presently intends to continue the policy of paying quarterly cash dividends. The amount of any future dividends will depend on economic and market conditions, our financial condition and operating results, and other factors, including contractual restrictions and applicable government regulations and policies (such as those relating to the ability of bank and non-bank subsidiaries to pay dividends to the parent company and regulatory capital limitations). The amount of our dividend is also currently subject to the results of the supervisory assessment of capital adequacy and capital planning processes undertaken by the Federal Reserve and our primary bank regulators as part of the Comprehensive Capital Analysis and Review (CCAR) process as described in the Supervision and Regulation section in Item 1 of this Report.

The Federal Reserve has the power to prohibit us from paying dividends without its approval. For further information concerning dividend restrictions and other factors that could limit our ability to pay dividends, as well as restrictions on loans, dividends or advances from bank subsidiaries to the parent company, see the Supervision and Regulation section in Item 1, Item 1A Risk Factors, the Capital and Liquidity Management portion of the Risk Management section in Item 7, and Note 10 Borrowed Funds, Note 15 Equity and Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report, which we include here by reference.

We include here by reference additional information relating to PNC common stock under the Common Stock Prices/Dividends Declared section in the Statistical Information (Unaudited) section of Item 8 of this Report.

We include here by reference the information regarding our compensation plans under which PNC equity securities are authorized for issuance as of December 31, 2017 in the table (with introductory paragraph and notes) in Item 12 of this Report.

Our stock transfer agent and registrar is:
Computershare Trust Company, N.A.
250 Royall Street
Canton, MA 02021
800-982-7652
www.computershare.com/pnc

Registered shareholders may contact Computershare regarding dividends and other shareholder services.

We include here by reference the information that appears under the Common Stock Performance Graph caption at the end of this Item 5.

(a)(2) None.
(b) Not applicable.
(c) Details of our repurchases of PNC common stock during the fourth quarter of 2017 are included in the following table:

In thousands, except per share data

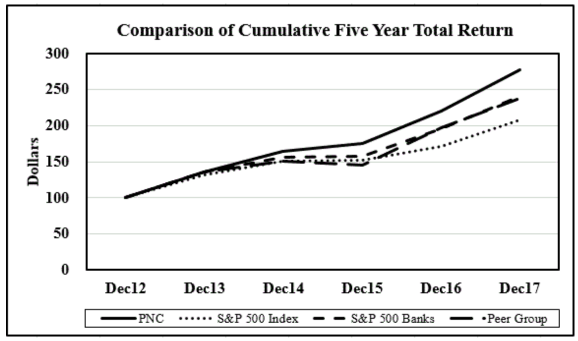
2017 period	Total shares purchased (a)	Average price paid per share	Total shares purchased as part of publicly announced programs (b)	Maximum number of shares that may yet be purchased under the programs (b)
October 1 – 31	1,092	$ 135.97	1,065	43,308
November 1 – 30	1,159	$ 134.65	1,159	42,149
December 1 – 31	1,512	$ 144.56	1,512	40,637
Total	3,763	$ 139.01		

(a) Includes PNC common stock purchased in connection with our various employee benefit plans generally related to forfeitures of unvested restricted stock awards and shares used to cover employee payroll tax withholding requirements. Note 11 Employee Benefit Plans and Note 12 Stock Based Compensation Plans in the Notes To Consolidated Financial Statements in Item 8 of this Report include additional information regarding our employee benefit and equity compensation plans that use PNC common stock.

(b) On March 11 2015, we announced that our Board of Directors approved the establishment of a stock repurchase program authorization in the amount of 100 million shares of PNC common stock, effective April 1, 2015. Repurchases are made in open market or privately negotiated transactions and the timing and exact amount of common stock repurchases will depend on a number of factors including, among others, market and general economic conditions, regulatory capital considerations, alternative uses of capital, the potential impact on our credit ratings, and contractual and regulatory limitations, including the results of the supervisory assessment of capital adequacy and capital planning processes undertaken by the Federal Reserve as part of the CCAR process. In June 2017, we announced share repurchase programs of up to $2.7 billion for the four quarter period beginning with the third quarter of 2017, including repurchases of up to $300 million related to employee benefit plans, in accordance with PNC's 2017 capital plan. In the fourth quarter of 2017,we repurchased 3.7 million shares of common stock on the open market, with an average price of $139.05 per share and an aggregate repurchase price of $.5 billion. See the Liquidity and Capital Management portion of the Risk Management section in Item 7 of this Report for more information on the share repurchase programs for the period July 1, 2017 through June 30, 2018 included in the 2017 capital plan accepted by the Federal Reserve.

Common Stock Performance Graph

This graph shows the cumulative total shareholder return (*i.e.*, price change plus reinvestment of dividends) on our common stock during the five-year period ended December 31, 2017, as compared with: (1) a selected peer group as set forth below and referred to as the "Peer Group;" (2) an overall stock market index, the S&P 500 Index; and (3) a published industry index, the S&P 500 Banks. The yearly points marked on the horizontal axis of the graph correspond to December 31 of each year. The stock performance graph assumes that $100 was invested on January 1, 2013 for the five-year period and that any dividends were reinvested. The table below the graph shows the resultant compound annual growth rate for the performance period.



	Base Period	Assumes $100 investment at Close of Market on December 31, 2012 Total Return = Price change plus reinvestment of dividends					5-Year Compound Growth Rate
	Dec. 2012	Dec. 2013	Dec. 2014	Dec. 2015	Dec. 2016	Dec. 2017	
PNC	$ 100	$ 136.45	$ 164.18	$ 175.35	$ 220.56	$ 277.82	22.67%
S&P 500 Index	$ 100	$ 132.37	$ 150.48	$ 152.55	$ 170.78	$ 208.05	15.78%
S&P 500 Banks	$ 100	$ 135.72	$ 156.78	$ 158.10	$ 196.54	$ 240.87	19.22%
Peer Group	$ 100	$ 135.48	$ 151.18	$ 145.75	$ 197.16	$ 238.65	19.00%

The Peer Group for the preceding chart and table consists of the following companies: Bank of America Corporation; BB&T Corporation; Capital One Financial Corporation; Fifth Third Bancorp; JPMorgan Chase & Co.; KeyCorp; M&T Bank Corporation; Regions Financial Corporation; SunTrust Banks, Inc.; The PNC Financial Services Group, Inc.; U.S. Bancorp; and Wells Fargo & Company. This Peer Group was approved for 2017 by the Board of Directors's Personnel and Compensation Committee. Such Committee has approved a peer group of thirteen for 2018, consisting of all the companies in the 2017 Peer Group and Citizens Financial Group, Inc.

Each yearly point for the Peer Group is determined by calculating the cumulative total shareholder return for each company in the Peer Group from December 31, 2012 to December 31 of that year (End of Month Dividend Reinvestment Assumed) and then using the median of these returns as the yearly plot point.

In accordance with the rules of the SEC, this section, captioned "Common Stock Performance Graph," is not incorporated by reference into any of our future filings made under the Securities Exchange Act of 1934 or the Securities Act of 1933. The Common Stock Performance Graph, including its accompanying table and footnotes, is not deemed to be soliciting material or to be filed under the Exchange Act or the Securities Act.

ITEM 6 – SELECTED FINANCIAL DATA

	Year ended December 31				
Dollars in millions, except per share data	2017	2016	2015	2014	2013
Summary of Operations					
Interest income	$ 10,814	$ 9,652	$ 9,323	$ 9,431	$ 10,007
Interest expense	1,706	1,261	1,045	906	860
Net interest income	9,108	8,391	8,278	8,525	9,147
Noninterest income	7,221	6,771	6,947	6,850	6,865
Total revenue	16,329	15,162	15,225	15,375	16,012
Provision for credit losses	441	433	255	273	643
Noninterest expense	10,398	9,476	9,463	9,488	9,681
Income before income taxes and noncontrolling interests	5,490	5,253	5,507	5,614	5,688
Income taxes	102	1,268	1,364	1,407	1,476
Net income	5,388	3,985	4,143	4,207	4,212
Less: Net income attributable to noncontrolling interests	50	82	37	23	11
Preferred stock dividends	236	209	220	232	237
Preferred stock discount accretion and redemptions	26	6	5	5	12
Net income attributable to common shareholders	$ 5,076	$ 3,688	$ 3,881	$ 3,947	$ 3,952
Per Common Share					
Basic earnings	$ 10.49	$ 7.42	$ 7.52	$ 7.44	$ 7.45
Diluted earnings	$ 10.36	$ 7.30	$ 7.39	$ 7.30	$ 7.36
Book value	$ 91.94	$ 85.94	$ 81.84	$ 77.61	$ 72.07
Cash dividends declared	$ 2.60	$ 2.12	$ 2.01	$ 1.88	$ 1.72
Effective tax rate (a)	1.9%	24.1%	24.8%	25.1%	25.9%

(a) The effective tax rates are generally lower than the statutory rate due to the relationship of pretax income to tax credits and earnings that are not subject to tax. The full year 2017 results benefited from the new federal tax legislation. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017. See the Critical Accounting Estimates and Judgments section in Item 7 of this Report for additional details.

Certain prior period amounts have been reclassified to conform with the current period presentation, which we believe is more meaningful to readers of our consolidated financial statements.

This Selected Financial Data should be reviewed in conjunction with the Consolidated Financial Statements and Notes included in Item 8 of this Report as well as the other disclosures in this Report concerning our historical financial performance, our future prospects and the risks associated with our business and financial performance.

Dollars in millions, except as noted	At or for the year ended December 31 2017	2016	2015	2014	2013
Balance Sheet Highlights					
Assets	$ 380,768	$ 366,380	$ 358,493	$ 345,072	$ 320,192
Loans (a)	$ 220,458	$ 210,833	$ 206,696	$ 204,817	$ 195,613
Allowance for loan and lease losses	$ 2,611	$ 2,589	$ 2,727	$ 3,331	$ 3,609
Interest-earning deposits with banks (b)	$ 28,595	$ 25,711	$ 30,546	$ 31,779	$ 12,135
Investment securities	$ 76,131	$ 75,947	$ 70,528	$ 55,823	$ 60,294
Loans held for sale (a)	$ 2,655	$ 2,504	$ 1,540	$ 2,262	$ 2,255
Equity investments (c)	$ 11,392	$ 10,728	$ 10,587	$ 10,728	$ 10,560
Mortgage servicing rights	$ 1,832	$ 1,758	$ 1,589	$ 1,351	$ 1,636
Goodwill	$ 9,173	$ 9,103	$ 9,103	$ 9,103	$ 9,074
Other assets (a)	$ 27,894	$ 27,506	$ 26,566	$ 28,180	$ 28,191
Noninterest-bearing deposits	$ 79,864	$ 80,230	$ 79,435	$ 73,479	$ 70,306
Interest-bearing deposits	$ 185,189	$ 176,934	$ 169,567	$ 158,755	$ 150,625
Total deposits	$ 265,053	$ 257,164	$ 249,002	$ 232,234	$ 220,931
Borrowed funds (a) (d)	$ 59,088	$ 52,706	$ 54,532	$ 56,768	$ 46,105
Total shareholders' equity	$ 47,513	$ 45,699	$ 44,710	$ 44,551	$ 42,334
Common shareholders' equity	$ 43,530	$ 41,723	$ 41,258	$ 40,605	$ 38,392
Accumulated other comprehensive income (loss)	$ (148)	$ (265)	$ 130	$ 503	$ 436
Period-end common shares outstanding (millions)	473	485	504	523	533
Client Investment Assets (billions)					
Discretionary client assets under management	$ 151	$ 137	$ 134	$ 135	$ 127
Nondiscretionary client assets under administration	131	120	119	123	116
Total client assets under administration (e)	282	257	253	258	243
Brokerage account client assets	49	44	43	43	41
Total	$ 331	$ 301	$ 296	$ 301	$ 284
Selected Ratios					
Net interest margin (f)	2.87%	2.73%	2.74%	3.08%	3.57%
Noninterest income to total revenue	44%	45%	46%	45%	43%
Efficiency	64%	62%	62%	62%	60%
Return on					
Average common shareholders' equity (g)	12.09%	8.85%	9.50%	9.91%	10.85%
Average assets (g)	1.45%	1.10%	1.17%	1.28%	1.38%
Loans to deposits	83%	82%	83%	88%	89%
Dividend payout	24.7%	29.0%	27.0%	25.3%	23.1%
Transitional Basel III common equity Tier 1 capital ratio (h) (i) (j)	10.4%	10.6%	10.6%	10.9%	N/A
Transitional Basel III Tier 1 risk-based capital ratio (h) (i) (j)	11.6%	12.0%	12.0%	12.6%	N/A
Pro forma fully phased-in Basel III common equity Tier 1 capital ratio (Non-GAAP) (i) (j) (k)	9.8%	10.0%	10.0%	10.0%	9.4%
Basel I Tier 1 common capital ratio (j)	N/A	N/A	N/A	N/A	10.5%
Basel I Tier 1 risk-based capital ratio (j)	N/A	N/A	N/A	N/A	12.4%
Common shareholders' equity to total assets	11.4%	11.4%	11.5%	11.8%	12.0%
Average common shareholders' equity to average assets	11.3%	11.5%	11.5%	12.1%	11.9%
Selected Statistics					
Employees	52,906	52,006	52,513	53,587	54,433
Retail Banking branches	2,459	2,520	2,616	2,697	2,714
ATMs	9,051	9,024	8,956	8,605	7,445

(a) Includes assets and liabilities for which we have elected the fair value option. See the Consolidated Balance Sheet and Note 6 Fair Value in Item 8 of this Report for additional information.
(b) Includes balances held with the Federal Reserve Bank of Cleveland of $28.3 billion, $25.1 billion, $30.0 billion, $31.4 billion and $11.7 billion as of December 31, 2017, 2016, 2015, 2014 and 2013, respectively.
(c) Includes our equity interest in BlackRock.
(d) Includes long-term borrowings of $43.1 billion, $38.3 billion, $43.6 billion, $41.5 billion and $27.6 billion for 2017, 2016, 2015, 2014 and 2013, respectively. Borrowings which mature more than one year after December 31, 2017 are considered to be long-term.
(e) As a result of certain investment advisory services performed by one of our registered investment advisors, certain assets were previously reported as both discretionary client assets under management and nondiscretionary client assets under administration. Effective for the first quarter of 2017, these amounts are only reported as discretionary assets under management. Prior periods were adjusted to remove amounts previously included in nondiscretionary assets under administration of approximately $9 billion, $6 billion, $5 billion and $4 billion at December 31, 2016, 2015, 2014 and 2013, respectively.
(f) Calculated as taxable-equivalent net interest income divided by average earning assets. To provide more meaningful comparisons of net interest margins, we use net interest income on a taxable-equivalent basis in calculating net interest margin by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on taxable investments. This adjustment is not permitted under GAAP in the Consolidated Income Statement. For additional information, see Reconciliation of Taxable-Equivalent Net Interest Income Statistical Information (Unaudited) in Item 8 of this Report.
(g) The full year 2017 results benefited from the new federal tax legislation. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017. See the Critical Accounting Estimates and Judgments section in Item 7 of this Report for additional details.
(h) Calculated using the regulatory capital methodology applicable to us during each period presented.
(i) See capital ratios discussion in the Supervision and Regulation section of Item 1 and in the Liquidity and Capital Management portion of the Risk Management section in Item 7 of this Report for additional discussion on these capital ratios.
(j) See additional information on the pro forma ratios, Transitional Basel III ratios and the Basel I ratios in the Statistical Information (Unaudited) section in Item 8 of this Report.
(k) The pro forma ratios for all periods presented were calculated under the standardized approach. The 2013 ratio has not been updated to reflect the first quarter 2014 adoption of ASU 2014-01 related to investments in low income housing tax credits.

ITEM 7 – MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

Executive Summary

Key Strategic Goals

At PNC we manage our company for the long term. We are focused on the fundamentals of growing customers, loans, deposits and revenue and improving profitability, while investing for the future and managing risk, expenses and capital. We continue to invest in our products and services, and markets and brand, and embrace our commitments to our customers, shareholders, employees and the communities where we do business.

We strive to expand and deepen customer relationships by offering a broad range of deposit, credit and fee-based products and services. We are focused on delivering those products and services to our customers with the goal of addressing their financial objectives and putting customers' needs first. Our business model is built on customer loyalty and engagement, understanding our customers' financial goals and offering our diverse products and services to help them achieve financial well-being. Our approach is concentrated on organically growing and deepening client relationships across our businesses that meet our risk/return measures.

We are focused on our strategic priorities, which are designed to enhance value over the long term, and consist of:

- Expanding our leading banking franchise to new markets and digital platforms;
- Deepening customer relationships by delivering a superior banking experience and financial solutions; and
- Leveraging technology to innovate and enhance products, services, security and processes.

Our capital priorities are to support client growth and business investment, maintain appropriate capital in light of economic conditions and the Basel III framework and return excess capital to shareholders, in accordance with the currently effective capital plan included in our Comprehensive Capital Analysis and Review (CCAR) submission to the Board of Governors of the Federal Reserve System (Federal Reserve). For more detail, see the Capital Highlights portion of this Executive Summary and the Liquidity and Capital Management portion of the Risk Management section of this Item 7 and the Supervision and Regulation section in Item 1 Business of this Report.

Key Factors Affecting Financial Performance

We face a variety of risks that may impact various aspects of our risk profile from time to time. The extent of such impacts may vary depending on factors such as the current economic, political and regulatory environment, merger and acquisition activity and operational challenges. Many of these risks and our risk management strategies are described in more detail elsewhere in this Report.

Our financial performance is substantially affected by a number of external factors outside of our control, including the following:

- Global and domestic economic conditions, including the continuity, speed and stamina of the current U.S. economic expansion;
- The monetary policy actions and statements of the Federal Reserve and the Federal Open Market Committee (FOMC);
- The level of, and direction, timing and magnitude of movement in, interest rates and the shape of the interest rate yield curve;
- The functioning and other performance of, and availability of liquidity in, the capital and other financial markets;
- Changes in the competitive and regulatory landscape;
- The impact of legislative, regulatory and administrative initiatives and actions;
- The impact of market credit spreads on asset valuations;
- The ability of customers, counterparties and issuers to perform in accordance with contractual terms, and the resulting impact on our asset quality;
- Loan demand, utilization of credit commitments and standby letters of credit; and
- The impact on customers and changes in customer behavior due to changing business and economic conditions or regulatory or legislative initiatives, including newly enacted federal tax legislation.

In addition, our success will depend upon, among other things:

- Effectively managing capital and liquidity including:
  - Continuing to maintain and grow our deposit base as a low-cost stable funding source;
  - Prudent liquidity and capital management to meet evolving regulatory capital, capital planning, stress testing and liquidity standards; and
  - Actions we take within the capital and other financial markets.
- Management of credit risk in our portfolio;
- Execution of our strategic priorities;
- Our ability to manage and implement strategic business objectives within the changing regulatory environment;
- The impact of legal and regulatory-related contingencies; and
- The appropriateness of reserves needed for critical accounting estimates and related contingencies.

For additional information, see the Cautionary Statement Regarding Forward-Looking Information section in this Item 7 and Item 1A Risk Factors in this Report.

Income Statement Highlights

Net income for 2017 was $5.4 billion, or $10.36 per diluted common share, an increase of 35% compared to $4.0 billion, or $7.30 per diluted common share, for 2016.

- Total revenue increased $1.2 billion, or 8%, to $16.3 billion.
  - Net interest income increased $717 million, or 9%, to $9.1 billion.
  - Net interest margin increased to 2.87% for 2017 compared to 2.73% for 2016.
  - Noninterest income increased $450 million, or 7%, to $7.2 billion.
- Provision for credit losses was $441 million in 2017 compared to $433 million for 2016.
- Noninterest expense increased $922 million, or 10%, to $10.4 billion.
- Income tax expense decreased to $102 million in 2017 compared to $1.3 billion in 2016.

PNC's full year and fourth quarter 2017 reported net income and earnings per share benefited from the new federal tax legislation, the Tax Cuts and Jobs Act, and were also impacted by other significant items, described in more detail below:

- Total revenue - increase of $28 million.
  - Net interest income - decrease of $26 million due to the impact of tax legislation on leveraged leases.
  - Noninterest income - increase of $54 million consisting of :
    - $254 million increase in asset management noninterest income as a result of the flow through impact of tax legislation from our equity investment in BlackRock.
    - $119 million increase in other noninterest income for appreciation of BlackRock common stock contributed to the PNC Foundation.
    - Negative fair value adjustments in the fourth quarter of 2017 of $248 million in other noninterest income related to Visa Class B derivatives and $71 million in residential mortgage noninterest income for servicing rights assumption updates.
- Noninterest expense - increase of $502 million consisting of:
  - $200 million contribution of BlackRock common stock to the PNC Foundation.
  - $197 million of charges for real estate dispositions and exits.
  - $105 million for employee cash payments and pension account credits.
- Income tax expense - benefit of $1.2 billion from tax legislation primarily attributable to revaluation of net deferred tax liabilities and $230 million from the tax effect of the aforementioned other significant items.

For additional detail, please see the Consolidated Income Statement Review section of this Item 7.

Balance Sheet Highlights

Our balance sheet was strong and well positioned at December 31, 2017. Compared to December 31, 2016:

- Total loans increased $9.6 billion, or 5%, to $220.5 billion.
  - Total commercial lending grew $9.5 billion, or 7%.
  - Total consumer lending increased $.1 billion.
- Total deposits increased $7.9 billion, or 3%, to $265.1 billion.
- Investment securities increased $.2 billion to $76.1 billion.
- Interest earning deposits with banks, primarily with the Federal Reserve Bank, increased $2.9 billion, or 11%, to $28.6 billion.

For additional detail, see the Consolidated Balance Sheet Review section of this Item 7.

Credit Quality Highlights

Overall credit quality remained stable in 2017 compared to 2016.

- Nonperforming assets decreased $339 million, or 14%, to $2.0 billion at December 31, 2017 compared to December 31, 2016.
- Overall loan delinquencies of $1.5 billion at December 31, 2017 decreased $56 million, or 4%, compared to December 31, 2016.
- Net charge-offs of $457 million in 2017 decreased compared to net charge-offs of $543 million for 2016.
- The allowance for loan and lease losses to total loans was 1.18% at December 31, 2017 compared to 1.23% at December 31, 2016.

For additional detail, see the Credit Risk Management portion of the Risk Management section of this Item 7.

Capital Highlights

We maintained a strong capital position during 2017 and continued to return capital to shareholders.

- The Transitional Basel III common equity Tier 1 capital ratio was 10.4% at December 31, 2017 compared to 10.6% at December 31, 2016.
- Pro forma fully phased-in Basel III common equity Tier 1 capital ratio, a non-GAAP financial measure, was an estimated 9.8% at December 31, 2017 compared to 10.0% at December 31, 2016 based on the standardized approach rules.
- For the full year 2017, we returned $3.6 billion of capital to shareholders through repurchases of 18.6 million common shares for $2.3 billion and dividends on common shares of $1.3 billion.
- Common shareholders' equity increased to $43.5 billion at December 31, 2017 compared to $41.7 billion at December 31, 2016.

See the Liquidity and Capital Management portion of the Risk Management section of this Item 7 for more detail on our 2017 capital and liquidity actions as well as our capital ratios.

Our ability to take certain capital actions, including plans to pay or increase common stock dividends or to repurchase shares under current or future programs, is subject to the results of the supervisory assessment of capital adequacy undertaken by the Federal Reserve as part of the CCAR process. For additional information, see the Supervision and Regulation section in Item 1 Business of this Report.

Business Outlook

Statements regarding our business outlook are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. Our forward-looking statements are subject to the risk that economic and financial market conditions will be substantially different than those we are currently expecting and do not take into account potential legal and regulatory contingencies. These statements are based on our current view that U.S. economic growth will accelerate somewhat in 2018, in light of the recently passed corporate and personal income tax cuts that are expected to support business investment and consumer spending, respectively. Further gradual improvement in the labor market this year, including job gains and rising wages, is another positive for consumer spending. Other sources of growth for the U.S. economy in 2018 will be the global economic expansion and the housing market. Although inflation slowed in 2017, it should pick up as the labor market continues to tighten. Short-term interest rates and bond yields are expected to rise throughout 2018; PNC's baseline forecast is for three increases in the federal funds rate in 2018, pushing the rate to a range of 2.00 to 2.25 percent by the end of the year. Longer-term rates are also expected to increase as the Federal Reserve slowly reduces the size of its balance sheet and the federal government borrows more, but at a slower pace than short-term rates, so we anticipate the yield curve will flatten but not invert. See the Cautionary Statement Regarding Forward-Looking Information section in this Item 7 and Item 1A Risk Factors in this Report for other factors that could cause future events to differ, perhaps materially, from those anticipated in these forward-looking statements.

Our outlook for certain financial information for full year and first quarter 2018 is compared to full year and fourth quarter 2017 results as adjusted for the tax legislation and significant items described in the Income Statement Highlights section of this Executive Summary. For additional information on financial results for the fourth quarter of 2017, see the Selected Quarterly Financial Data section in the Statistical Information (Unaudited) section of Item 8 of this Report.

For full year 2018 compared to full year 2017 on an adjusted basis, we expect:

- Loan growth to be up mid-single digits, on a percentage basis;
- Revenue to increase mid-single digits, on a percentage basis;
- Noninterest expense to increase by low-single digits, on a percentage basis; and
- The effective tax rate to be approximately 17%.

For the first quarter of 2018 compared to the fourth quarter of 2017 on an adjusted basis, we expect:

- Modest loan growth;
- Stable net interest income;
- Fee income to decrease by low mid-single digits, on a percentage basis, mainly attributable to lower first quarter client activity and elevated fourth quarter fees. Fee income consists of asset management, consumer services, corporate services, residential mortgage and service charges on deposits;
- Other noninterest income to be between $250 million and $300 million;
- Provision for credit losses to be between $100 million and $150 million; and
- Noninterest expense to decrease by low-single digits, on a percentage basis.

CONSOLIDATED INCOME STATEMENT REVIEW

Our Consolidated Income Statement is presented in Item 8 of this Report.

Net income for 2017 was $5.4 billion, or $10.36 per diluted common share, an increase of 35% compared with $4.0 billion, or $7.30 per diluted common share, for 2016. Higher net income was driven by an 8% increase in total revenue and a tax benefit from the new federal tax legislation, partially offset by a 10% increase in noninterest expense. Revenue growth resulted from a 9% increase in net interest income and a 7% increase in noninterest income.

Net Interest Income

Table 1: Summarized Average Balances and Net Interest Income (a)

Year Ended December 31 Dollars in millions	2017 Average Balances	2017 Average Yields/ Rates	2017 Interest Income/ Expense	2016 Average Balances	2016 Average Yields/ Rates	2016 Interest Income/ Expense
Assets						
Interest-earning assets						
Investment securities	$ 75,057	2.74%	$ 2,059	$ 72,046	2.62%	$ 1,889
Loans	217,271	3.86%	8,390	208,817	3.61%	7,543
Interest-earning deposits with banks	24,043	1.11%	267	26,328	.52%	136
Other	8,983	3.48%	313	7,843	3.56%	279
Total interest-earning assets/interest income	$ 325,354	3.39%	11,029	$ 315,034	3.13%	9,847
Liabilities						
Interest-bearing liabilities						
Interest-bearing deposits	$ 179,447	.35%	623	$ 172,764	.25%	430
Borrowed funds	56,889	1.90%	1,083	52,939	1.57%	831
Total interest-bearing liabilities/interest expense	$ 236,336	.72%	1,706	$ 225,703	.56%	1,261
Net interest income/margin (Non-GAAP)		2.87%	9,323		2.73%	8,586
Taxable-equivalent adjustments			(215)			(195)
Net interest income (GAAP)			$ 9,108			$ 8,391

(a) Interest income calculated as taxable-equivalent interest income. To provide more meaningful comparisons of interest income and yields for all interest-earning assets, as well as net interest margins, we use interest income on a taxable-equivalent basis in calculating average yields and net interest margins by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on taxable investments. This adjustment is not permitted under GAAP on the Consolidated Income Statement. For more information, see Reconciliation of Taxable-Equivalent Net Interest Income in the Statistical Information (Unaudited) section in Item 8 of this Report.

Changes in net interest income and margin result from the interaction of the volume and composition of interest-earning assets and related yields, interest-bearing liabilities and related rates paid, and noninterest-bearing sources of funding. See the Statistical Information (Unaudited) – Average Consolidated Balance Sheet And Net Interest Analysis and Analysis Of Year-To-Year Changes In Net Interest Income in Item 8 of this Report.

Net interest income increased $717 million, or 9%, in 2017 compared with 2016 due to increases in loan and securities balances and yields, partially offset by an increase in borrowing and deposit costs. Net interest margin increased largely reflecting the benefit to loans and securities yields from higher interest rates in 2017.

Average investment securities increased $3.0 billion, or 4%, reflecting net purchases of U.S. Treasury and government agency securities of $2.9 billion and agency residential mortgage-backed securities of $2.8 billion, partially offset by declines in average commercial mortgage-backed securities of $1.6 billion and non-agency residential mortgage-backed securities of $.8 billion. Total investment securities were 23% of average interest-earning assets in both 2017 and 2016.

Average loans grew by $8.5 billion, or 4%, reflecting an increase in average commercial lending of $8.4 billion driven by broad-based growth in our Corporate Banking, Real Estate, Equipment Finance and Business Credit businesses in our Commercial & Institutional Banking segment. Growth in Equipment Finance included the impact of the acquisition of a commercial and vendor finance business with $1.0 billion of loans and leases in the second quarter of 2017. Average consumer lending increased $.1 billion in the comparison, as growth in average residential real estate, automobile and credit card loans was substantially offset by declines in average home equity and education loans. These declines reflected run-off in the non-strategic consumer loan portfolios of brokered home equity and government guaranteed education loans. Average loans represented 67% of average interest-earning assets in 2017 compared to 66% in 2016.

Average total deposits increased $7.2 billion, or 3%, primarily due to growth in average interest-bearing deposits of $6.7 billion, or 4%, driven by higher average savings deposits of $13.1 billion. This increase reflected a shift, in part, to relationship-based savings products from money market deposits, which decreased $9.2 billion. Additionally, average interest-bearing demand deposits grew $4.3 billion, mainly attributable to the higher interest rate environment and customer growth. Average interest-bearing deposits represented 76% of average interest-bearing liabilities in 2017 compared to 77% in 2016.

Further details regarding average loans and deposits are included in the Business Segments Review section of this Item 7.

Noninterest Income

Table 2: Noninterest Income

Year ended December 31			Change	
Dollars in millions	2017	2016	$	%
Noninterest income				
Asset management	$ 1,942	$ 1,521	$ 421	28 %
Consumer services	1,415	1,388	27	2 %
Corporate services	1,621	1,504	117	8 %
Residential mortgage	350	567	(217)	(38)%
Service charges on deposits	695	667	28	4 %
Other	1,198	1,124	74	7 %
Total noninterest income	$ 7,221	$ 6,771	$ 450	7 %

Noninterest income as a percentage of total revenue was 44% for 2017 and 45% for 2016.

Asset management revenue increased reflecting higher earnings from our equity investment in BlackRock, including a $254 million flow through impact of the new federal tax legislation on our equity investment. Additionally, the impact of stronger equity markets contributed to the increase. Discretionary client assets under management in our Asset Management Group segment increased to $151 billion at December 31, 2017 compared with $137 billion at December 31, 2016, primarily attributable to higher equity markets.

Growth in consumer service fees was primarily due to a $25 million increase in credit card fees, net of rewards, and debit card fees, which reflected continued momentum in customer activity in both transaction trends and customer growth. In addition, brokerage fees increased $17 million, driven by higher brokerage assets under management. These increases were partially offset by individually insignificant items.

Corporate services revenue reflected broad based growth, including higher merger and acquisition (M&A) advisory fees of $65 million and an increase in loan syndication and agency fees of $28 million, both of which reflected continued momentum in the M&A market. Higher treasury management revenue also contributed to the increase in corporate services revenue.

Lower residential mortgage revenue reflected a decline of $122 million in residential mortgage servicing rights valuation, net of economic hedge, which included a $71 million negative adjustment for mortgage servicing rights fair value assumption updates in the fourth quarter of 2017. In addition, the decrease reflected lower loan sales revenue of $85 million, which was driven by lower origination volume and compressed pricing margins.

Higher service charges on deposits reflected net growth of $30 million related to fee income on personal deposit accounts, reflecting higher levels of customer activity.

The increase in other noninterest income included higher revenue from private equity investments of $172 million and $119 million for the appreciation of BlackRock common stock used to fund PNC's fourth quarter 2017 contribution to the PNC Foundation. The increase in revenue from private equity investments reflected positive impacts from valuation adjustments on equity investments subject to the Volcker Rule provision of Dodd-Frank. Additionally, operating lease income increased related to the commercial and vendor finance business acquired in the second quarter of 2017.

These increases were largely offset by the impact of negative derivative fair value adjustments related to Visa Class B common shares of $280 million in 2017, including $248 million in the fourth quarter primarily related to the extension of anticipated timing of litigation resolution. Derivative fair value adjustments relate to swap agreements with purchasers of Visa shares in connection with all prior sales to date. In 2016, gains on sales of Visa Class B common shares, net of derivative fair value adjustments, were $32 million.

Other noninterest income typically fluctuates from period to period depending on the nature and magnitude of transactions completed. Further details regarding our customer-related trading activities are included in the Market Risk Management – Customer-Related Trading Risk portion of the Risk Management section of this Item 7. Further details regarding private and other equity investments are included in the Market Risk Management – Equity and Other Investment Risk section, and further details regarding gains or losses related to our equity investment in BlackRock are included in the Business Segments Review section of this Item 7.

Effective for the first quarter of 2018, and as a result of the commercial and vendor finance business we acquired in the second quarter of 2017, we intend to classify operating lease income as corporate services noninterest income on the Consolidated Income Statement. In 2017 and prior years, this revenue was classified as other noninterest income, and these periods will be reclassified to reflect this change.

Provision for Credit Losses

Overall credit quality remained stable in 2017. The provision for credit losses was $441 million compared to $433 million in 2016. The provision for 2017 reflected loan growth, including an initial provision for the loan and lease portfolio obtained through the business acquired in the second quarter of 2017, mostly offset by lower provisions in the oil, gas and coal sectors.

The Credit Risk Management portion of the Risk Management section of this Item 7 includes additional information regarding factors impacting the provision for credit losses.

Noninterest Expense

Table 3: Noninterest Expense

Year ended December 31 Dollars in millions	2017	2016	Change $	Change %
Noninterest expense				
Personnel	$ 5,224	$ 4,841	$ 383	8 %
Occupancy	868	861	7	1 %
Equipment	1,065	974	91	9 %
Marketing	244	247	(3)	(1)%
Other	2,997	2,553	444	17 %
Total noninterest expense	$ 10,398	$ 9,476	$ 922	10 %

Noninterest expense increased reflecting higher levels of business activity and ongoing investments in technology and business infrastructure. The increase in personnel expense also included the fourth quarter 2017 announcement of employee cash payments and pension account credits totaling $105 million. In addition, charges for real estate dispositions and exits, including data centers, totaled $197 million in the fourth quarter of 2017, primarily within other noninterest expense.

Other noninterest expense for 2017 included the fourth quarter $200 million contribution of BlackRock common stock to the PNC Foundation. Contributions to the PNC Foundation in 2016 were $75 million.

During 2017, we completed actions and achieved our 2017 continuous improvement program savings goal of $350 million, which funded a significant portion of our business and technology investments, including our Retail branch strategy, enhanced digital capabilities and our home lending transformation. In 2018, we have a goal of $250 million in cost savings through our continuous improvement program, which we expect will partially fund our ongoing business and technology investments.

Effective Income Tax Rate

An income tax benefit of $1.2 billion was recorded in the fourth quarter of 2017 related to the new tax legislation and was primarily attributable to the revaluation of net deferred tax liabilities at the lower statutory tax rate of 21%. As a result, the effective income tax rate for 2017 was 1.9% compared with 24.1% for 2016. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017. See the Critical Accounting Estimates and Judgments section in this Item 7 for additional details.

The effective tax rate is generally lower than the statutory rate primarily due to tax credits we receive from our investments in low income housing and new markets investments, as well as earnings in other tax exempt investments.

Additional information regarding our effective tax rate is included in the Reconciliation of Statutory and Effective Tax Rates table in Note 17 Income Taxes in the Notes To Consolidated Financial Statements included in this Report.

Consolidated Balance Sheet Review

Table 4: Summarized Balance Sheet Data

Dollars in millions	December 31 2017	December 31 2016	Change $	Change %
Assets				
Interest-earning deposits with banks	$ 28,595	$ 25,711	$ 2,884	11 %
Loans held for sale	2,655	2,504	151	6 %
Investment securities	76,131	75,947	184	—
Loans	220,458	210,833	9,625	5 %
Allowance for loan and lease losses	(2,611)	(2,589)	(22)	(1)%
Mortgage servicing rights	1,832	1,758	74	4 %
Goodwill	9,173	9,103	70	1 %
Other, net	44,535	43,113	1,422	3 %
Total assets	$ 380,768	$ 366,380	$ 14,388	4 %
Liabilities				
Deposits	$ 265,053	$ 257,164	$ 7,889	3 %
Borrowed funds	59,088	52,706	6,382	12 %
Other	9,042	9,656	(614)	(6)%
Total liabilities	333,183	319,526	13,657	4 %
Equity				
Total shareholders' equity	47,513	45,699	1,814	4 %
Noncontrolling interests	72	1,155	(1,083)	(94)%
Total equity	47,585	46,854	731	2 %
Total liabilities and equity	$ 380,768	$ 366,380	$ 14,388	4 %

The summarized balance sheet data in Table 4 is based upon our Consolidated Balance Sheet in Item 8 of this Report.

Our balance sheet grew compared to December 31, 2016 and we had strong liquidity and capital positions at December 31, 2017.

- Total assets increased driven by strong loan growth and higher interest-earning deposits with banks;
- Total liabilities increased due to deposit growth and higher borrowed funds;
- Total equity increased due to higher retained earnings driven by net income, partially offset by common share repurchases and a decline in noncontrolling interests related to the redemption of Perpetual Trust Securities in the first quarter of 2017.

The following discussion provides additional information about the major components of our balance sheet. Information regarding our capital and regulatory compliance is included in the Liquidity and Capital Management portion of the Risk Management section of this Item 7 and in Note 18 Regulatory Matters in our Notes To Consolidated Financial Statements included in this Report.

Loans

Table 5: Loans

	December 31	December 31	Change	
Dollars in millions	2017	2016	$	%
Commercial lending				
Commercial	$ 110,527	$ 101,364	$ 9,163	9 %
Commercial real estate	28,978	29,010	(32)	—
Equipment lease financing	7,934	7,581	353	5 %
Total commercial lending	147,439	137,955	9,484	7 %
Consumer lending				
Home equity	28,364	29,949	(1,585)	(5)%
Residential real estate	17,212	15,598	1,614	10 %
Credit card	5,699	5,282	417	8 %
Other consumer				
Automobile	12,880	12,380	500	4 %
Education	4,454	5,159	(705)	(14)%
Other	4,410	4,510	(100)	(2)%
Total consumer lending	73,019	72,878	141	—
Total loans	$ 220,458	$ 210,833	$ 9,625	5 %

Commercial loans increased $9.2 billion, or 9%, reflecting broad based growth across our lending businesses, including Corporate Banking, Business Credit and Equipment Finance within our Corporate & Institutional Banking segment.

In Corporate Banking, commercial loans increased $3.9 billion, or 8%, largely due to increased lending related to M&A activity and strong growth in middle market lending. In Business Credit, new originations and higher utilization resulted in an increase of $2.0 billion, or 14%, in the comparison.

Additionally, commercial loans and equipment lease financing loans increased as a result of new production in the Equipment Finance business, as well as the acquisition of a commercial and vendor finance business with $1.0 billion of loans and leases during the second quarter of 2017.

For commercial loans by industry and commercial real estate loans by geography, see Loan Portfolio Characteristics and Analysis in the Credit Risk Management portion of the Risk Management section in this Item 7.

Growth in consumer lending balances was driven by higher residential real estate, automobile and credit card loans, partially offset by lower home equity and education loans.

Residential real estate loans increased as a result of growth in originations of nonconforming residential mortgage loans, both nationwide and within our branch network. Nonconforming residential mortgage loans are those with loan amounts above government agency standards for conforming loan amount limits.

Automobile loans grew in part due to continued expansion in our Southeast markets. Higher credit card balances reflected an increase in new accounts, due in part to the introduction of a new credit card product, as well as higher purchase volume. Decreases in home equity and education loans included the continued runoff in our non-strategic brokered home equity and government guaranteed education loan portfolios. The decline in home equity also reflected decreases due to paydowns and payoffs exceeding new originated volume. For information on home equity and residential real estate loans, including by geography, and automobile loans, see Loan Portfolio Characteristics and Analysis in the Credit Risk Management portion of the Risk Management section in this Item 7.

For additional information regarding our loan portfolio, see the Credit Risk Management portion of the Risk Management section in this Item 7 and Note 1 Accounting Policies, Note 3 Asset Quality and Note 4 Allowance for Loan and Lease Losses in our Notes To Consolidated Financial Statements included in Item 8 of this Report.

Investment Securities

Table 6: Investment Securities

	December 31, 2017		December 31, 2016		Ratings (a) As of December 31, 2017				
Dollars in millions	Amortized Cost	Fair Value	Amortized Cost	Fair Value	AAA/ AA	A	BBB	BB and Lower	No Rating
U.S. Treasury and government agencies	$ 15,173	$ 15,286	$ 13,627	$ 13,714	100%				
Agency residential mortgage-backed	40,037	39,847	37,319	37,109	100%				
Non-agency residential mortgage-backed	2,610	2,932	3,382	3,564	11%		3%	77%	9%
Agency commercial mortgage-backed	2,367	2,315	3,053	3,046	100%				
Non-agency commercial mortgage-backed (b)	3,141	3,161	4,590	4,602	81%	6%			13%
Asset-backed (c)	5,531	5,598	6,496	6,524	86%	3%	5%	6%	
Other debt (d)	6,279	6,459	6,679	6,810	75%	15%	7%	1%	2%
Other	587	585	603	601					100%
Total investment securities (e)	$ 75,725	$ 76,183	$ 75,749	$ 75,970	92%	2%	1%	3%	2%

(a) Ratings percentages allocated based on amortized cost.
(b) Collateralized primarily by retail properties, office buildings, lodging properties and multi-family housing.
(c) Collateralized primarily by corporate debt, government guaranteed education loans and other consumer credit products.
(d) Includes state and municipal securities.
(e) Includes available for sale and held to maturity securities, which are recorded on our balance sheet at fair value and amortized cost, respectively.

Investment securities increased $.2 billion at December 31, 2017 compared to December 31, 2016. Growth in investment securities was driven by net purchases of agency residential mortgage-backed securities of $2.7 billion and U.S. Treasury and government agencies securities of $1.6 billion, partially offset by declines in commercial mortgage-backed securities of $2.2 billion, asset-backed securities of $.9 billion and non-agency residential mortgage-backed securities of $.6 billion.

The level and composition of the investment securities portfolio fluctuates over time based on many factors including market conditions, loan and deposit growth, and balance sheet management activities. We manage our investment securities portfolio to optimize returns, while providing a reliable source of liquidity for our banking and other activities, considering LCR and other internal and external guidelines and constraints.

Table 6 presents the distribution of our investment securities portfolio by credit rating. We have included credit ratings information because we believe that the information is an indicator of the degree of credit risk to which we are exposed, which could affect our risk-weighted assets and, therefore, our risk-based regulatory capital ratios under the regulatory capital rules. Changes in credit ratings classifications could indicate increased or decreased credit risk and could be accompanied by a reduction or increase in the fair value of our investment securities portfolio.

At least quarterly, we conduct a comprehensive security-level impairment assessment on all securities. If economic conditions, including home prices, were to deteriorate from current levels, and if market volatility and liquidity were to deteriorate from current levels, or if market interest rates were to increase or credit spreads were to widen appreciably, the valuation of our investment securities portfolio would likely be adversely affected and we could incur additional other than temporary impairment (OTTI) credit losses that would impact our Consolidated Income Statement.

The duration of investment securities was 3.2 years at December 31, 2017. We estimate that at December 31, 2017 the effective duration of investment securities was 3.4 years for an immediate 50 basis points parallel increase in interest rates and 3.0 years for an immediate 50 basis points parallel decrease in interest rates. Comparable amounts at December 31, 2016 for the effective duration of investment securities were 3.1 years and 2.9 years, respectively.

Based on expected prepayment speeds, the weighted-average expected maturity of the investment securities portfolio (excluding other) was 5.2 years at December 31, 2017 compared to 5.0 years at December 31, 2016.

Table 7: Weighted-Average Expected Maturities of Mortgage and Other Asset-Backed Debt Securities

December 31, 2017	Years
Agency residential mortgage-backed	5.8
Non-agency residential mortgage-backed	6.0
Agency commercial mortgage-backed	3.6
Non-agency commercial mortgage-backed	3.5
Asset-backed	2.5

Additional information regarding our investment securities is included in Note 5 Investment Securities and Note 6 Fair Value in the Notes To Consolidated Financial Statements included in this Report.

Funding Sources

Table 8: Details of Funding Sources

	December 31	December 31	Change	
Dollars in millions	2017	2016	$	%
Deposits				
Noninterest-bearing	$ 79,864	$ 80,230	$ (366)	—
Interest-bearing				
Money market	59,735	63,946	(4,211)	(7)%
Demand	61,213	58,472	2,741	5 %
Savings	46,980	36,956	10,024	27 %
Time deposits	17,261	17,560	(299)	(2)%
Total deposits	265,053	257,164	7,889	3 %
Borrowed funds				
FHLB borrowings	21,037	17,549	3,488	20 %
Bank notes and senior debt	28,062	22,972	5,090	22 %
Subordinated debt	5,200	8,009	(2,809)	(35)%
Other	4,789	4,176	613	15 %
Total borrowed funds	59,088	52,706	6,382	12 %
Total funding sources	$ 324,141	$ 309,870	$ 14,271	5 %

Growth in savings deposits reflected, in part, a shift from consumer money market to relationship-based savings products. Money market deposits declined due to the shift to savings products, which was partially offset by growth of $3.5 billion in commercial interest-bearing money market deposits. Interest-bearing demand deposits reflected growth in consumer deposits of $1.7 billion and higher commercial deposits of $1.0 billion.

Growth in both bank notes and senior debt and FHLB borrowings were driven by new issuances outpacing maturities and calls. These increases were partially offset by subordinated debt maturities.

The level and composition of borrowed funds fluctuates over time based on many factors including market conditions, loan, investment securities and deposit growth, and capital considerations. We manage our borrowed funds to provide a reliable source of liquidity for our banking and other activities, considering LCR and other internal and external guidelines and constraints.

See the Liquidity and Capital Management portion of the Risk Management section of this Financial Review for additional information regarding our 2017 capital and liquidity activities.

Shareholders' Equity

Total shareholders' equity was $47.5 billion at December 31, 2017, an increase of $1.8 billion compared to December 31, 2016. Higher retained earnings, which reflected net income of $5.4 billion reduced by $1.5 billion of common and preferred dividends, was partially offset by common share repurchases of $2.3 billion.

Common shares outstanding were 473 million and 485 million at December 31, 2017, and December 31, 2016, respectively, as repurchases of 18.6 million shares during 2017 were partially offset by share issuances from treasury stock related to warrants exercised and stock-based compensation activity.

Business Segments Review

Effective for the first quarter of 2017, as a result of changes to how we manage our businesses, we realigned our segments and, accordingly, have changed the basis of presentation of our segments, resulting in four reportable business segments:

- Retail Banking
- Corporate & Institutional Banking
- Asset Management Group
- BlackRock

Our changes in business segment presentation resulting from the realignment included the following:

- The Residential Mortgage Banking segment was combined into Retail Banking as a result of our strategic initiative to transform the home lending process by integrating mortgage and home equity lending to enhance product capability and speed of delivery for a better customer experience and to improve efficiency. In conjunction with this shift, residential mortgages previously reported within the "Other" category were also moved to Retail Banking.
- The Non-Strategic Assets Portfolio segment was eliminated. The segment's remaining consumer assets were moved to the "Other" category as they are unrelated to the ongoing strategy of any segment, while its commercial assets were transferred to Corporate & Institutional Banking in order to continue the relationships we have with those customers.
- A portion of business banking clients was moved from Retail Banking to Corporate & Institutional Banking to facilitate enhanced product offerings to meet the financial needs of our business banking clients.

Net interest income in business segment results reflects our internal funds transfer pricing methodology. Assets receive a funding charge and liabilities and capital receive a funding credit based on a transfer pricing methodology that incorporates product repricing characteristics, tenor and other factors. Effective for the first quarter of 2017, we made certain adjustments to our internal funds transfer pricing methodology primarily relating to weighted average lives of certain non-maturity deposits based on our recent historical experience. These changes in methodology affected business segment results, primarily adversely impacting net interest income for Corporate & Institutional Banking and Retail Banking, offset by increased net interest income in the "Other" category.

All prior periods presented were revised to conform to the new segment alignment and to our change in internal funds transfer pricing methodology.

Business segment results and a description of each business are included in Note 22 Segment Reporting included in the Notes To Consolidated Financial Statements in Item 8 of this Report. Certain amounts included in this Business Segments Review differ from those amounts shown in Note 22, primarily due to the presentation in this Item 7 of business net interest revenue on a taxable-equivalent basis. Note 22 presents results of businesses for 2017, 2016 and 2015.

Our business segment results reflect the allocation of the impact of the new tax legislation to our business segments, primarily the revaluation of the net deferred tax positions allocated to the segments. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017. See the Critical Accounting Estimates and Judgments section in this Item 7 for additional details.

Total business segment financial results differ from total consolidated net income. The impact of these differences is reflected in the "Other" category in the business segment tables. "Other" includes residual activities that do not meet the criteria for disclosure as a separate reportable business, such as asset and liability management activities including net securities gains or losses, other-than-temporary impairment of investment securities, certain trading activities, certain non-strategic runoff consumer loan portfolios, private equity investments, intercompany eliminations, most corporate overhead, tax adjustments that are not allocated to business segments, gains or losses related to BlackRock transactions, integration costs, exited businesses, and differences between business segment performance reporting and financial statement reporting (GAAP), including the presentation of net income attributable to noncontrolling interests as the segments' results exclude their portion of net income attributable to noncontrolling interests.

Retail Banking
(Unaudited)

Table 9: Retail Banking Table

Year ended December 31 Dollars in millions, except as noted	2017	2016	Change $	Change %
Net interest income	$ 4,626	$ 4,511	$ 115	3 %
Noninterest income	2,236	2,693	(457)	(17)%
Total revenue	6,862	7,204	(342)	(5)%
Provision for credit losses	347	297	50	17 %
Noninterest expense	5,451	5,291	160	3 %
Pretax earnings	1,064	1,616	(552)	(34)%
Income taxes	534	593	(59)	(10)%
Earnings	$ 530	$ 1,023	$ (493)	(48)%
AVERAGE BALANCE SHEET				
Loans held for sale	$ 799	$ 942	$ (143)	(15)%
Loans				
Consumer				
Home equity	$ 25,278	$ 26,204	$ (926)	(4)%
Automobile	12,407	11,248	1,159	10 %
Education	4,832	5,562	(730)	(13)%
Credit cards	5,248	4,889	359	7 %
Other	1,773	1,789	(16)	(1)%
Total consumer	49,538	49,692	(154)	—
Commercial and commercial real estate	10,767	11,410	(643)	(6)%
Residential mortgage	12,238	10,682	1,556	15 %
Total loans	$ 72,543	$ 71,784	$ 759	1 %
Total assets	$ 88,663	$ 85,871	$ 2,792	3 %
Deposits				
Noninterest-bearing demand	$ 29,788	$ 28,364	$ 1,424	5 %
Interest-bearing demand	40,958	38,584	2,374	6 %
Money market	36,592	44,855	(8,263)	(18)%
Savings	38,802	27,340	11,462	42 %
Certificates of deposit	13,135	14,770	(1,635)	(11)%
Total deposits	$ 159,275	$ 153,913	$ 5,362	3 %
PERFORMANCE RATIOS				
Return on average assets	.60%	1.19%		
Noninterest income to total revenue	33%	37%		
Efficiency	79%	73%		

Year ended December 31 Dollars in millions, except as noted		2017		2016	Change $		Change %
SUPPLEMENTAL NONINTEREST INCOME INFORMATION							
Consumer services	$	1,079	$	1,061	$	18	2 %
Brokerage	$	312	$	295	$	17	6 %
Residential mortgage	$	350	$	567	$	(217)	(38)%
Service charges on deposits	$	668	$	639	$	29	5 %
Residential Mortgage Information							
Residential mortgage servicing statistics (in billions, except as noted) (a)							
Serviced portfolio balance (b)	$	127	$	125	$	2	2 %
Serviced portfolio acquisitions	$	19	$	19		—	—
MSR asset value (b)	$	1.2	$	1.2		—	—
MSR capitalization value (in basis points) (b)		92		94		(2)	(2)%
Servicing income: (in millions)							
Servicing fees, net (c)	$	187	$	192	$	(5)	(3)%
Mortgage servicing rights valuation, net of economic hedge	$	(30)	$	92	$	(122)	*
Residential mortgage loan statistics							
Loan origination volume (in billions)	$	9.0	$	10.6	$	(1.6)	(15)%
Loan sale margin percentage		2.80%		3.17%			
Percentage of originations represented by:							
Purchase volume (d)		53%		40%			
Refinance volume		47%		60%			
OTHER INFORMATION (b)							
Customer-related statistics (average)							
Non-teller deposit transactions (e)		53%		49%			
Digital consumer customers (f)		62%		58%			
Credit-related statistics							
Nonperforming assets (g)	$	1,129	$	1,257	$	(128)	(10)%
Net charge-offs	$	371	$	351	$	20	6 %
Other statistics							
ATMs		9,051		9,024		27	—
Branches (h)		2,459		2,520		(61)	(2)%
Brokerage account client assets (in billions) (i)	$	49	$	44	$	5	11 %

* - Not Meaningful

(a) Represents mortgage loan servicing balances for third parties and the related income.
(b) Presented as of December 31, except for customer-related statistics, which are averages for the year ended, and net charge-offs, which are for the year ended.
(c) Servicing fees net of impact of decrease in MSR value due to passage of time, including the impact from both regularly scheduled loan prepayments and loans that were paid down or paid off during the period.
(d) Mortgages with borrowers as part of residential real estate purchase transactions.
(e) Percentage of total consumer and business banking deposit transactions processed at an ATM or through our mobile banking application.
(f) Represents consumer checking relationships that process the majority of their transactions through non-teller channels.
(g) Includes nonperforming loans of $1.1 billion and $1.2 billion at December 31, 2017 and December 31, 2016, respectively.
(h) Excludes stand-alone mortgage offices and satellite offices (e.g., drive-ups, electronic branches and retirement centers) that provide limited products and/or services.
(i) Includes cash and money market balances.

Retail Banking earned $530 million in 2017 compared with $1.0 billion in 2016. The decrease in earnings was driven by lower noninterest income, increased noninterest expense and income tax expense, which reflected the impact of new federal tax legislation, partially offset by higher net interest income.

Net interest income increased due to higher interest rate spread on the value of deposits and increases in deposit balances, partially offset by interest rate spread compression on the value of loans.

Noninterest income declined in the comparison due to negative derivative fair value adjustments related to Visa Class B common shares of $280 million in 2017, including $248 million in the fourth quarter primarily related to the extension of anticipated timing of litigation resolution. Derivative fair value adjustments relate to swap agreements with purchasers of Visa shares in connection with all prior sales to date. In 2016, gains on sales of Visa Class B common shares, net of derivative fair value adjustments, were $32 million. Residential mortgage loan sales revenue declined as a result of lower origination volume and compressed pricing margins compared to 2016. Residential mortgage servicing rights valuation, net of economic hedge, decreased compared with 2016 and included a $71 million negative adjustment for residential mortgage servicing rights fair value assumption updates in the fourth quarter of 2017. These decreases were partially offset by higher debit card, brokerage and credit card fees, net of rewards, as well as higher service charges on deposits.

Provision for credit losses increased in the comparison, reflecting loan growth and higher delinquencies in auto and credit card.

The increase in noninterest expense in the comparison primarily resulted from investments in technology and higher personnel and compliance expense.

Income taxes reflected $139 million of expense as a result of the new federal tax legislation relating to the revaluation of net deferred tax assets.

Retail Banking continues to enhance the customer experience with refinements to product and service offerings that drive value for consumers and small businesses. We are focused on meeting the financial needs of our customers by providing a broad range of liquidity, banking and investment products.

The deposit strategy of Retail Banking is to remain disciplined on pricing and focused on growing and retaining relationship-based balances, executing on market-specific deposit growth strategies and providing a source of low-cost funding and liquidity to PNC. In 2017, average total deposits increased compared to 2016, driven by growth in savings deposits reflecting, in part, a shift from money market deposits to relationship-based savings products. Additionally, demand deposits increased, partially offset by a decline in certificates of deposit due to the net runoff of maturing accounts.

Retail Banking average total loans grew in 2017 compared with 2016:

- Average residential mortgages increased as a result of growth in originations of nonconforming residential mortgage loans, both nationwide and within our branch network.
- Average automobile loans increased primarily due to portfolio growth, including growth in our Southeast markets.
- Average credit card balances increased as a result of organic growth as we continued to focus on delivering on our long-term objective of deepening penetration within our existing customer base.
- Average home equity loans decreased as paydowns and payoffs on loans exceeded new originated volume. The weighted-average updated FICO scores for this portfolio were 749 at December 31, 2017 and 746 at December 31, 2016.
- Average commercial and commercial real estate loans declined as paydowns and payoffs on loans exceeded new volume.
- In 2017, average loan balances for the education and other loan portfolios decreased $746 million, or 10%, compared to 2016, driven by declines in the government guaranteed education and indirect other portfolios, which are primarily runoff portfolios.

Nonperforming assets decreased compared to December 31, 2016 due to declines in both consumer and commercial nonperforming loans.

Retail Banking continued to focus on its strategy of reinventing the retail banking experience by transforming the customer experience through transaction migration, branch network and home lending transformations and multi-channel engagement and service strategies.

- In 2017, approximately 62% of consumer customers used non-teller channels for the majority of their transactions compared with 58% for 2016.
- Deposit transactions via ATM and mobile channels increased to 53% of total deposit transactions in 2017 compared with 49% for 2016.
- We had a network of 2,459 branches and 9,051 ATMs at December 31, 2017.
- Instant debit card issuance, which enables us to print a customer's debit card in minutes, was available in 90% of the branch network as of December 31, 2017.

Retail Banking continued to make progress on its multi-year initiative to redesign the home lending process by integrating mortgage and home equity lending into a common platform to enhance product capability and improve speed of delivery and convenience.

- We implemented a new mortgage origination system in the fourth quarter of 2017.
- Loans continue to be originated primarily through direct channels under Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC) and Federal Housing Administration (FHA)/Department of Veterans Affairs agency guidelines.

Corporate & Institutional Banking
(Unaudited)

Table 10: Corporate & Institutional Banking Table

Year ended December 31 Dollars in millions, except as noted	2017	2016	Change $	Change %
INCOME STATEMENT				
Net interest income	$ 3,551	$ 3,312	$ 239	7 %
Noninterest income	2,271	2,035	236	12 %
Total revenue	5,822	5,347	475	9 %
Provision for credit losses	160	177	(17)	(10)%
Noninterest expense	2,428	2,222	206	9 %
Pretax earnings	3,234	2,948	286	10 %
Income taxes	770	1,039	(269)	(26)%
Earnings	$ 2,464	$ 1,909	$ 555	29 %
AVERAGE BALANCE SHEET				
Loans held for sale	$ 898	$ 868	$ 30	3 %
Loans				
Commercial	$ 96,937	$ 88,934	$ 8,003	9 %
Commercial real estate	27,372	26,677	695	3 %
Equipment lease financing	7,619	7,463	156	2 %
Total commercial lending	131,928	123,074	8,854	7 %
Consumer	233	424	(191)	(45)%
Total loans	$ 132,161	$ 123,498	$ 8,663	7 %
Total assets	$ 148,414	$ 140,309	$ 8,105	6 %
Deposits				
Noninterest-bearing demand	$ 47,264	$ 48,072	$ (808)	(2)%
Money market	22,464	22,543	(79)	—
Other	16,389	13,943	2,446	18 %
Total deposits	$ 86,117	$ 84,558	$ 1,559	2 %
PERFORMANCE RATIOS				
Return on average assets	1.66%	1.36%		
Noninterest income to total revenue	39%	38%		
Efficiency	42%	42%		
OTHER INFORMATION				
Consolidated revenue from: (a)				
Treasury Management (b)	$ 1,516	$ 1,348	$ 168	12 %
Capital Markets (b)	$ 1,017	$ 808	$ 209	26 %
Commercial mortgage banking activities				
Commercial mortgage loans held for sale (c)	$ 115	$ 127	$ (12)	(9)%
Commercial mortgage loan servicing income (d)	228	248	(20)	(8)%
Commercial mortgage servicing rights valuation, net of economic hedge (e)	54	44	10	23 %
Total	$ 397	$ 419	$ (22)	(5)%
MSR asset value (f)	$ 668	$ 576	$ 92	16 %
Average Loans by C&IB Business				
Corporate Banking	$ 55,701	$ 51,392	$ 4,309	8 %
Real Estate	38,235	36,493	1,742	5 %
Business Credit	15,804	14,763	1,041	7 %
Equipment Finance	13,408	11,826	1,582	13 %
Commercial	7,028	7,159	(131)	(2)%
Other	1,985	1,865	120	6 %
Total average loans	$ 132,161	$ 123,498	$ 8,663	7 %
Credit-related statistics				
Nonperforming assets (f) (g)	$ 531	$ 691	$ (160)	(23)%
Net charge-offs	$ 93	$ 180	$ (87)	(48)%

(continued on following page)

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(a) Represents consolidated amounts. See the additional revenue discussion regarding treasury management, capital markets-related products and services, and commercial mortgage banking activities in the Product Revenue section of this Corporate & Institutional Banking section.
(b) Includes amounts reported in net interest income and noninterest income, predominantly in corporate service fees.
(c) Includes other noninterest income for valuations on commercial mortgage loans held for sale and related commitments, derivative valuations, originations fees, gains on sale of loans held for sale and net interest income on loans held for sale.
(d) Includes net interest income and noninterest income (primarily in corporate service fees) from loan servicing net of reduction in commercial mortgage servicing rights due to time decay and payoffs. Commercial mortgage servicing rights valuation, net of economic hedge is shown separately.
(e) Includes amounts reported in corporate service fees.
(f) As of December 31.
(g) Includes nonperforming loans of $.5 billion and $.6 billion at December 31, 2017 and December 31, 2016, respectively.

Corporate & Institutional Banking earned $2.5 billion in 2017 compared to $1.9 billion in 2016. The increase was primarily due to higher revenue and lower income tax expense, which reflected the impact of new federal tax legislation, partially offset by higher noninterest expense. We continue to focus on building client relationships where the risk-return profile is attractive.

Net interest income increased in the comparison, reflecting higher average loan and deposit balances as well as interest rate spread expansion on deposits.

Growth in noninterest income was primarily driven by higher capital markets-related revenue, including merger and acquisition advisory fees, loan syndication fees and underwriting fees. Additionally, operating lease income increased, mainly due to the acquisition of a commercial and vendor finance business with $1.0 billion of loans and leases in the second quarter of 2017. Higher treasury management fees also contributed to the increase in noninterest income.

The decrease in provision for credit losses reflected lower provision in the oil, gas and coal sectors, partially offset by an initial provision for the loan and lease portfolio obtained through the acquired business and loan growth.

Noninterest expense increased in the comparison largely driven by higher variable compensation commensurate with increased business activity, operating expenses related to the acquired business and continued investments in technology and infrastructure.

Income tax expense reflected a benefit of $373 million as a result of the new tax legislation, primarily related to revaluation of net deferred tax liabilities.

Average loans increased compared with 2016 reflecting broad-based growth:

- Corporate Banking provides lending, treasury management and capital markets-related products and services to midsized and large corporations, government and not-for-profit entities. Average loans for this business grew in the comparison reflecting increased lending to large and midsized corporate clients as well as strong production in specialty lending verticals.
- PNC Real Estate provides banking, financing and servicing solutions for commercial real estate clients across the country. Higher average loans for this business were primarily due to growth in commercial mortgage and commercial loans, and to a lesser extent project loans.
- PNC Business Credit provides asset-based lending. The loan portfolio is relatively high yielding, with acceptable risk as the loans are mainly secured by short-term assets. Average loans for this business increased due to new originations and increased utilization, partially offset by payoffs.
- PNC Equipment Finance provides equipment financing solutions for clients throughout the U.S. and Canada. Average loans, including commercial loans and finance leases, and operating leases totaled $14.3 billion in 2017, an increase of $1.8 billion compared with 2016 due to new production and the business acquired in the second quarter of 2017.
- Commercial Banking provides lending, treasury management and capital markets-related products and services to smaller corporations and businesses. Average loans for this business decreased slightly primarily due to strategic risk/return considerations.

The deposit strategy of Corporate & Institutional Banking is to remain disciplined on pricing and focus on growing and retaining relationship-based balances over time, executing on customer and segment-specific deposit growth strategies and continuing to provide funding and liquidity to PNC. In 2017, average total deposits increased compared to 2016 driven by growth in interest-bearing demand deposits reflecting in part a shift from noninterest-bearing deposits in the rising rate environment. We continue to monitor and balance the relationship between increases in rates paid and overall profitability of our deposit balances.

In 2017, Corporate & Institutional Banking opened offices in Dallas, Kansas City and Minneapolis as part of a multi-year expansion of our middle market banking business. These locations complement national Corporate & Institutional Banking businesses with operations in these cities, and build on past success in markets where PNC's retail banking presence was limited, such as in the Southeast. We plan to offer our entire suite of commercial products and services. We have also formalized plans to expand our middle market business into the Denver, Houston and Nashville markets in 2018.

Product Revenue

In addition to credit and deposit products for commercial customers, Corporate & Institutional Banking offers other services, including treasury management, capital markets-related products and services, and commercial mortgage banking activities, for customers of all business segments. On a consolidated basis, the revenue from these other services is included in net interest income, corporate service fees and other noninterest income. From a segment perspective, the majority of the revenue and expense related to these services is reflected in the Corporate & Institutional Banking segment results and the remainder is reflected in the results of other businesses. The Other Information section in Table 10 includes the consolidated revenue to PNC for these services. A discussion of the consolidated revenue from these services follows.

Treasury management services include cash and investment management, receivables management, disbursement services, funds transfer services, information reporting and global trade services. Treasury management revenue comprises fees from products and services and net interest income from customer deposit balances. Compared with 2016, treasury management revenue increased due to liquidity-related revenue associated with customer deposit balances, including interest rate spread expansion, and higher fee income.

Capital markets-related products and services include foreign exchange, derivatives, securities underwriting, loan syndications, mergers and acquisitions advisory and equity capital markets advisory related services. The increase in revenue in the comparison was broad based across most products and services and included higher merger and acquisition advisory fees and higher fees from loan syndications and underwriting activities.

Commercial mortgage banking activities include revenue derived from commercial mortgage servicing (including net interest income and noninterest income) and revenue derived from commercial mortgage loans held for sale and related hedges. Total revenue from commercial mortgage banking activities decreased in the comparison as declines in commercial mortgage loan servicing income and commercial mortgage loans held for sale revenue were partially offset by a higher benefit from commercial mortgage servicing rights valuation, net of economic hedge.

Asset Management Group
(Unaudited)

Table 11: Asset Management Group Table

Year ended December 31 Dollars in millions, except as noted	2017	2016	Change $	Change %
INCOME STATEMENT				
Net interest income	$ 287	$ 300	$ (13)	(4)%
Noninterest income	881	851	30	4 %
Total revenue	1,168	1,151	17	1 %
Provision for credit losses (benefit)	1	(6)	7	*
Noninterest expense	863	825	38	5 %
Pretax earnings	304	332	(28)	(8)%
Income taxes	102	122	(20)	(16)%
Earnings	$ 202	$ 210	$ (8)	(4)%
AVERAGE BALANCE SHEET				
Loans				
Consumer	$ 5,018	$ 5,436	$ (418)	(8)%
Commercial and commercial real estate	715	754	(39)	(5)%
Residential mortgage	1,301	1,058	243	23 %
Total loans	$ 7,034	$ 7,248	$ (214)	(3)%
Total assets	$ 7,511	$ 7,707	$ (196)	(3)%
Deposits				
Noninterest-bearing demand	$ 1,528	$ 1,431	$ 97	7 %
Interest-bearing demand	3,628	4,013	(385)	(10)%
Money market	3,158	4,128	(970)	(23)%
Savings	3,947	2,303	1,644	71 %
Other	250	275	(25)	(9)%
Total deposits	$ 12,511	$ 12,150	$ 361	3 %
PERFORMANCE RATIOS				
Return on average assets	2.69%	2.72%		
Noninterest income to total revenue	75%	74%		
Efficiency	74%	72%		
OTHER INFORMATION				
Nonperforming assets (a) (b)	$ 49	$ 53	$ (4)	(8)%
Net charge-offs	$ 4	$ 9	$ (5)	(56)%
CLIENT ASSETS UNDER ADMINISTRATION (in billions) (a) (c) (d)				
Discretionary client assets under management	$ 151	$ 137	$ 14	10 %
Nondiscretionary client assets under administration	131	120	11	9 %
Total	$ 282	$ 257	$ 25	10 %
Discretionary client assets under management				
Personal	$ 94	$ 85	$ 9	11 %
Institutional	57	52	5	10 %
Total	$ 151	$ 137	$ 14	10 %

* - Not meaningful
(a) As of December 31.
(b) Includes nonperforming loans of $44 million at December 31, 2017 and $46 million at December 31, 2016.
(c) Excludes brokerage account client assets.
(d) Effective for the first quarter of 2017, we have adjusted nondiscretionary client assets under administration for prior periods to remove assets which, as a result of certain investment advisory services performed by one of our registered investment advisors, were previously reported as both discretionary client assets under management and nondiscretionary client assets under administration. Effective for the first quarter of 2017, these amounts are only reported as discretionary assets under management. The prior period presented was adjusted to remove approximately $9 billion as of December 31, 2016 previously included in nondiscretionary assets under administration.

Asset Management Group earned $202 million in 2017 compared with $210 million in 2016. Earnings decreased as higher revenue and lower income tax expense, which reflected the impact of new federal tax legislation, was more than offset by higher noninterest expense.

The increase in revenue in the comparison was driven by higher noninterest income from asset management fees due to stronger average equity markets. This increase was partially offset by lower net interest income due to lower average home equity loan balances and interest rate spread compression on residential mortgages.

Noninterest expense increased in 2017 compared to 2016 primarily attributable to higher compensation, technology and vendor-related expenses.

Asset Management Group's strategy is focused on growing investable assets by continually evolving the client experience and products and services. The business offers an open architecture platform with a full array of investment products and banking solutions.

Wealth Management and Hawthorn have nearly 100 offices operating in seven of the ten most affluent states in the U.S. with a majority co-located with retail banking branches. The businesses provide customized investments, wealth planning, trust and estate administration and private banking solutions to affluent individuals and ultra-affluent families.

Institutional Asset Management provides advisory, custody and retirement administration services to institutional clients such as corporations, unions, municipalities, non-profits, foundations and endowments. The business also offers PNC proprietary mutual funds and investment strategies. Institutional Asset Management is strengthening its partnership with Corporate & Institutional Banking to drive growth and is focused on building retirement capabilities and expanding product solutions for all customers.

Asset Management Group's discretionary client assets under management increased compared with 2016, primarily attributable to higher equity markets as of December 31, 2017.

BlackRock
(Unaudited)

Information related to our equity investment in BlackRock follows:

Table 12: BlackRock Table

Year ended December 31 Dollars in millions	2017	2016
Business segment earnings (a)	$ 1,764	$ 532
PNC's economic interest in BlackRock (b)	22%	22%

(a) Includes our share of BlackRock's reported GAAP earnings and income taxes on those earnings incurred by us.
(b) At December 31.

In billions	December 31, 2017	December 31, 2016
Carrying value of our investment in BlackRock (c)	$ 7.7	$ 7.0
Market value of our investment in BlackRock (d)	$ 17.9	$ 13.4

(c) We account for our investment in BlackRock under the equity method of accounting, exclusive of a related deferred tax liability of $1.6 billion at December 31, 2017 and $2.3 billion at December 31, 2016. Our voting interest in BlackRock common stock was approximately 21% at December 31, 2017.
(d) Does not include liquidity discount.

Earnings for our BlackRock segment increased compared with 2016 and included the impact of new federal tax legislation. This resulted in an income tax benefit of $972 million from the revaluation of our deferred tax liabilities related to BlackRock. Our share of BlackRock's reported GAAP earnings also included a $254 million flow through impact of the new tax legislation on the income recognized on our equity investment in BlackRock.

In addition to our investment in BlackRock reflected in Table 12, at December 31, 2017, we held approximately 0.25 million shares of BlackRock Series C Preferred Stock valued at $101 million, which are available to fund our obligation in connection with certain BlackRock long-term incentive plan (LTIP) programs. Additional information regarding the valuation of the BlackRock Series C Preferred Stock is included in Note 6 Fair Value, and additional information regarding our BlackRock LTIP share obligations is included in Note 12 Stock Based Compensation Plans, both of which are in the Notes To Consolidated Financial Statements in Item 8 of this Report.

See Note 23 Subsequent Events in Item 8 of this Report for information on our January 31, 2018 transfer of 0.1 million shares of Series C Preferred Stock to BlackRock to satisfy a portion of our LTIP obligation.

2016 Versus 2015

Consolidated Income Statement Review

Summary Results
Net income for 2016 was $4.0 billion, or $7.30 per diluted common share, a decrease of 4% compared with $4.1 billion, or $7.39 per diluted common share, for 2015. The decrease was driven by higher provision for credit losses and a 3% decline in noninterest income, partially offset by 1% increase in net interest income.

Net Interest Income
Net interest income increased by $113 million, or 1%, to $8.4 billion in 2016 compared to 2015 due to increases in loan and securities balances and higher loan yields, partially offset by an increase in borrowing costs and lower securities yields. Net interest margin was 2.73% in 2016 and 2.74% in 2015.

Noninterest Income
Noninterest income decreased $176 million, or 3%, to $6.8 billion for 2016 compared to 2015. Noninterest income as a percentage of total revenue was 45% for 2016, down from 46% for 2015.

Asset management revenue decreased $46 million, or 3%, to $1.5 billion in 2016 compared to 2015 mainly due to lower earnings from BlackRock and the impact from a $30 million trust settlement in 2015 in our asset management business segment. Discretionary client assets under management in the Asset Management Group were $137 billion at December 31, 2016 compared with $134 billion at December 31, 2015.

Consumer service fees increased $53 million, or 4%, in 2016 compared to 2015, primarily from growth in payment-related products including debit card and credit card, as well as higher brokerage fees.

Corporate service fees increased $13 million, or 1%, in 2016 compared to 2015, reflecting higher treasury management fees and a higher benefit from commercial mortgage servicing rights valuation, net of economic hedge, partially offset by lower merger and acquisition advisory fees.

Other noninterest income decreased $213 million, or 16%, to $1.1 billion in 2016 compared with $1.3 billion in 2015. The decline was primarily attributable to the impact of lower net gains on sales of Visa Class B common shares and lower revenue from private equity investments. Net gains on sale of Visa shares for 2016 were $32 million compared with $166 million in 2015. Net gains on Visa sales include derivative fair value adjustments related to swap agreements with purchasers of Visa shares in connection with all prior sales to date.

Provision For Credit Losses
The provision for credit losses increased to $433 million in 2016 compared with $255 million in 2015, primarily attributable to a higher provision for energy related loans in the oil, gas, and coal sectors. Overall credit portfolio performance and loan growth also contributed to the higher provision.

Noninterest Expense
Noninterest expense increased slightly by $13 million to $9.5 billion in 2016 compared to 2015 as we continued to focus on disciplined expense management. Higher 2016 contributions to the PNC Foundation, a new FDIC deposit insurance surcharge and investments in technology and business infrastructure were offset by net lower contingency accruals.

During 2016, we completed actions and achieved our 2016 continuous improvement program savings goal of $400 million, which largely funded our investments in technology and business infrastructure.

Effective Income Tax Rate
The effective income tax rate was 24.1% for 2016 compared with 24.8% for 2015. The effective tax rate is generally lower than the statutory rate primarily due to tax credits we receive from our investments in low income housing and new markets investments, as well as earnings in other tax exempt investments. The decline in the comparison reflected the tax favorability of the 2016 PNC Foundation contributions.

Consolidated Balance Sheet Review

Summary Results
Our balance sheet reflected asset growth and strong liquidity and capital positions at December 31, 2016. Total assets increased in 2016 compared to 2015 primarily due to increases in investment securities and loan balances. Total liabilities increased in 2016 compared to 2015 mainly due to deposit growth. Total equity increased in 2016 compared to 2015, reflecting increased retained earnings driven by net income, partially offset by share repurchases.

Loans
Loans increased $4.1 billion to $210.8 billion as of December 31, 2016 compared with December 31, 2015. Loan growth was driven by an increase in total commercial lending driven by higher commercial and commercial real estate loans, partially offset by a decline in consumer lending due to lower home equity and education loans.

Average total loans increased by $3.5 billion to $208.8 billion in 2016, which resulted from growth in average commercial real estate loans of $3.6 billion and average commercial loans of $2.2 billion, partially offset by a decrease in consumer loans of $2.6 billion. The decline in consumer loans was primarily attributable to lower nonstrategic consumer and government guaranteed education loan portfolios.

Investment Securities
Investment securities increased $5.4 billion to $75.9 billion at December 31, 2016 compared to December 31, 2015. Growth in investment securities was driven by net purchases of U.S. Treasury and government agency securities and agency residential mortgage-backed securities, partially offset by prepayments of non-agency commercial mortgage-backed and non-agency residential mortgage-backed securities.

Average investment securities increased to $72.0 billion during 2016 compared to $61.7 billion during 2015, primarily due to increases in average agency residential mortgage-backed securities and U.S. Treasury and government agency securities, partially offset by a decrease in average non-agency residential mortgage-backed securities.

The weighted-average expected maturity of the investment securities portfolio (excluding other) was 5.0 years at December 31, 2016 and 4.8 years at December 31, 2015.

Funding Sources
Total deposits increased $8.2 billion to $257.2 billion at December 31, 2016 compared with December 31, 2015, due to strong growth in demand and savings deposits which reflected in part a shift from money market deposits to relationship-based savings products.

Average total deposits increased $10.5 billion to $250.8 billion in 2016 compared to 2015, primarily due to an increase in average interest-bearing deposits, which reflected higher average savings deposits and higher average interest-bearing demand deposits.

Total borrowed funds decreased $1.8 billion to $52.7 billion at December 31, 2016 compared with December 31, 2015 as maturities of FHLB borrowings were partially offset by higher bank notes and senior debt.

Shareholders' Equity
Total shareholders' equity grew $1.0 billion to $45.7 billion at December 31, 2016 compared with December 31, 2015. The increase was primarily due to higher retained earnings and capital surplus, which included the issuance of Series S preferred stock, partially offset by common share repurchases of $2.0 billion and a decrease in accumulated other comprehensive income primarily related to net unrealized securities losses. The growth in retained earnings resulted from 2016 net income of $4.0 billion, reduced by $1.3 billion of common and preferred dividends declared. Common shares outstanding were 485 million and 504 million at December 31, 2016 and 2015, respectively, reflecting repurchases of 22.8 million shares during 2016.

RISK MANAGEMENT

Enterprise Risk Management

We encounter risk as part of the normal course of operating our business. Accordingly, we design risk management processes to help manage this risk. We manage risk in light of our risk appetite to optimize long-term shareholder value while supporting our employees, customers and communities.

Our Enterprise Risk Management (ERM) Framework is structurally aligned with enhanced prudential standards that establish minimum requirements for the design and implementation of a risk governance framework. This Risk Management section describes our ERM Framework which consists of risk culture, enterprise strategy (including risk appetite, strategic planning, capital planning and stress testing), risk governance and oversight, risk identification, risk assessments, risk controls and monitoring, and risk aggregation and reporting. The overall Risk Management section of this Item 7 also provides an analysis of our key areas of risk, which include but are not limited to credit, liquidity and capital, market, operational and compliance. Our use of financial derivatives as part of our overall asset and liability risk management process is also addressed within this Risk Management section.

We operate within a rapidly evolving regulatory environment. Accordingly, we are actively focused on the timely adoption of regulatory pronouncements within our ERM Framework.

We view risk management as a cohesive combination of the following risk elements which form our ERM Framework:

Risk Culture

A strong risk culture helps us make well-informed decisions, ensures individuals conform to the established culture, reduces an individual's ability to do something for personal gain, and rewards employees working toward a common goal rather than individual interests. Our risk culture reinforces the appropriate protocols for responsible and ethical behavior. These protocols are especially critical in terms of our risk awareness, risk-taking behavior and risk management practices.

Managing risk is every one of our employee's responsibility. All of our employees individually and collectively assume responsibility for ensuring the organization is performing with the utmost integrity, is applying sound risk management practices and is striving to achieve our stated objectives rather than pursuing individual interests. All employees are responsible for understanding our Enterprise Risk Appetite Statement, the ERM Framework and how risk management applies to their respective roles and responsibilities. Employees are encouraged to collaborate across groups to identify and mitigate risks and elevate issues as required. We reinforce risk management responsibilities through a performance management system where employee performance goals include risk management objectives and incentives for employees to reinforce balanced measures of risk-adjusted performance.

Proactive communication, between groups and up to the Board of Directors, facilitates timely identification and resolution of risk issues. Our multi-level risk committee structure provides a formal channel to identify and report risk.

Enterprise Strategy

We ensure that our overall enterprise strategy is within acceptable risk parameters through our risk appetite, strategic planning, capital planning and stress testing processes. These components are reviewed and approved at least annually by the Board of Directors.

Risk Appetite: Our risk appetite represents the organization's desired enterprise risk position, set within our capital based risk and liquidity capacity to achieve our strategic objectives and business plans. The Enterprise Risk Appetite Statement qualitatively describes the aggregate level of risk we are willing to accept in order to execute our business strategies. Qualitative guiding principles further define each of the risks within our taxonomy to support the risk appetite statement. Risk appetite metrics and limits, including forward-looking metrics, quantitatively measure whether we are operating within our stated Risk Appetite. Our risk appetite metrics reflect material risks, align with our established Risk Appetite Framework, balance risk and reward, leverage analytics, and adjust in a timely manner to changes in the external and internal risk environments.

Strategic Planning: Our enterprise and line of business strategic plans outline major objectives, strategies and goals which are expected to be achieved over the next five years while seeking to ensure we remain compliant with all capital, risk appetite and liquidity targets and guidelines. Our CEO and CFO lead the development of the strategic plan, the strategic objectives and the comprehensive identification of material risks that could hinder successful implementation and execution of strategies. Strategic planning is linked to our risk management and capital planning processes.

Capital Planning and Stress Testing: Capital planning helps to ensure we are maintaining safe and sound operations and viability. The capital planning process and the resulting capital plan evolve as our overall risks, activities and risk management practices change. Capital planning aligns with our strategic planning process.

Stress testing is an essential element of the capital planning process. Effective stress testing enables us to consider the estimated effect on capital of various hypothetical scenarios.

Risk Governance and Framework

We employ a comprehensive risk management governance framework to help ensure that risks are identified, balanced decisions are made that consider risk and return, and risks are adequately monitored and managed. Risk committees established within this risk governance and oversight framework provide oversight for risk management activities at the Board of Directors, executive, corporate and business levels. Committee composition is designed to provide effective oversight balanced across the three lines of defense in accordance with the OCC's heightened risk management and governance expectations and guidelines. See discussion of the enhanced prudential standards in the Supervision and Regulation section in Item 1 of this Report.

To ensure the appropriate risks are being taken and effectively managed and controlled, risk is managed across three lines of defense. The Board of Directors' and each line of defense's responsibilities are detailed below:

Board of Directors – The Board of Directors oversees our risk-taking activities and is responsible for exercising sound, independent judgment when assessing risk.

First line of defense – The front line units are accountable for identifying, owning and managing risks to within acceptable levels while adhering to the risk management framework established by the Independent Risk Management department. Our businesses strive to enhance risk management and internal control processes within their areas. Integrated and comprehensive processes are designed to adequately identify, measure, manage, monitor and report risks which may significantly impact each business.

Second line of defense – The second line of defense is independent from the first line of defense and is responsible for establishing the standards for identifying, measuring, monitoring and controlling aggregate risks. As the second line of defense, the independent risk areas monitor the risks generated by the first line of defense, review and challenge the implementation of effective risk management practices, and report any issues or exceptions. The risk areas help to ensure the first line of defense is properly designed and operating as intended, and they may intervene directly in modifying and developing first line of defense risk processes and controls.

Third line of defense – As the third line of defense, Internal Audit is independent from the first and second lines of defense. Internal Audit provides the Board of Directors and executive management comprehensive assurance on the effectiveness of risk management practices across the organization.

Within the three lines of defense, the independent risk organization has sufficient authority to influence material decisions. Our business oversight and decision-making is supported through a governance structure at the Board of Directors and management level. Specific responsibilities include:

Board of Directors – Our Board of Directors oversees our business and affairs as managed by our officers and employees. The Board of Directors may receive assistance in carrying out its duties and may delegate authority through the following standing committees:

- *Audit Committee*: monitors the integrity of our consolidated financial statements; monitors internal control over financial reporting; monitors compliance with our code of ethics; evaluates and monitors the qualifications and independence of our independent auditors; and evaluates and monitors the performance of our Internal Audit function and our independent auditors.
- *Nominating and Governance Committee*: oversees the implementation of sound corporate governance principles and practices while promoting our best interests and those of our shareholders
- *Personnel and Compensation Committee*: oversees the compensation of our executive officers and other specified responsibilities related to personnel compensation matters affecting us.
- *Risk Committee*: oversees enterprise-wide risk structure and the processes established to identify, measure, monitor and manage the organization's risks and evaluates and approves our risk governance framework. The Risk Committee has formed a Technology Subcommittee and a Compliance Subcommittee to facilitate Board-level oversight of risk management in these areas.

Corporate Committees – The corporate committees are responsible for overseeing risk standards and strategies, recommending risk limits, policies and metrics, monitoring risk exposures, reviewing risk profiles and key risk issues, and approving significant transactions and initiatives. We have established several senior management-level corporate committees to facilitate the review, evaluation and management of risk. The management-level Executive Committee is the corporate committee that is responsible for developing enterprise-wide strategy and achieving our strategic objectives. The Executive Committee evaluates risk management, in part, by monitoring risk reporting from the other corporate committees which are the supporting committees for the Executive Committee.

Working Committees – The working committees are generally subcommittees of the corporate committees. Working committees are intended to assist in the implementation of key enterprise-level activities within a business or function; recommend and/or approve risk
appetite metrics and limits; recommend and/or approve policies that are generally within the standards outlined in the applicable enterprise policy; and review and/or approve certain significant transactions or initiatives.

Policies and Procedures – We have established risk management policies and procedures to provide direction, guidance and clarity on roles and responsibilities to management and the Board of Directors. These policies and procedures are organized in a multi-tiered framework and require periodic review and approval by relevant committees within the governance structure.

We have established risk management policies, programs and procedures to support our ERM Framework, articulate our risk culture, define the parameters and processes within which employees are to manage risk and conduct our business activities and to provide direction, guidance and clarity on roles and responsibilities to management and the Board of Directors. These policies, programs and procedures are organized in a multi-tiered framework and require periodic review and approval by relevant committees within the governance structure.

Risk Identification
Risk identification takes place across a variety of risk types throughout the organization. These risk types consist of, but are not limited to, credit, liquidity and capital, market, operational and compliance. Risks are identified based on a balanced use of analytical tools and management judgment for both on- and off-balance sheet exposures. Our governance structure supports risk identification by facilitating assessment of key risk issues, emerging risks and idiosyncratic risks and implementation of mitigation strategies as appropriate. These risks are prioritized based on quantitative and qualitative analysis and assessed against the risk appetite. Multiple tools and approaches are used to help identify and prioritize risks, including Risk Appetite Metrics, Key Risk Indicators, Key Performance Indicators, Risk Control and Self-Assessments, scenario analysis, stress testing and special investigations.

Risks are aggregated and assessed within and across risk functions or businesses. The aggregated risk information is reviewed and reported at an enterprise level for adherence to the Risk Appetite Framework and approved by the Board of Directors or by appropriate committees. This enterprise aggregation and reporting approach promotes the identification and appropriate escalation of material risks across the organization and supports an understanding of the cumulative impact of risk in relation to our risk appetite.

Risk Assessment
Once risks are identified, they are evaluated based on quantitative and qualitative analysis to determine whether they are material. Risk assessments support the overall management of an effective ERM Framework and allow us to control and monitor our actual risk level through the use of risk measures. Comprehensive, accurate and timely assessments of risk are essential to an effective ERM Framework. Effective risk measurement practices will uncover reoccurring risks that have been experienced in the past; make the known risks easy to see, understand, compare and report; and reveal unanticipated risks that may not be easy to understand or predict.

Risk Controls and Monitoring
Our ERM Framework consists of policies, processes, personnel and control systems. Risk controls and limits provide the linkage from our Risk Appetite Statement and associated guiding principles to the risk taking activities of our businesses. In addition to risk appetite limits, a system of more detailed internal controls exists which oversees and monitors our various processes and functions. These control systems measure performance, help employees make correct decisions, ensure information is accurate and reliable, and document compliance with laws and regulations.

Our monitoring and evaluation of risks and controls provides assurance that policies, procedures and controls are effective and also results in the identification of control improvement recommendations. Risk monitoring is a daily, on-going process used by both the first and second line of defense to ensure compliance with our ERM Framework. Risk monitoring is accomplished in many ways, including performing risk assessments at the prime process and risk assessment unit level, monitoring an area's key controls, the timely reporting of issues, and establishing a quality assurance and/or quality control function, as applicable.

Risk Aggregation and Reporting
Risk reporting is a comprehensive way to: (i) aggregate risks; (ii) identify concentrations; (iii) help ensure we remain within our established risk appetite; (iv) serve as a basis for monitoring our risk profile in relation to our risk appetite and (v) communicate risks to the Board of Directors and executive management.

Risk reports are produced at the line of business, functional risk and enterprise levels. The enterprise level risk report aggregates risks identified in the functional and business reports to define the enterprise risk profile. The enterprise risk profile is a point-in-time assessment of enterprise risk and represents our overall risk position in relation to the desired enterprise risk appetite. The determination of the enterprise risk profile is based on analysis of quantitative reporting of risk limits and other measures along with qualitative assessments. Quarterly aggregation of our risk profile enables a clear view of our risk level relative to our quantitative risk appetite. The enterprise level report is provided through the governance structure to the Board of Directors.

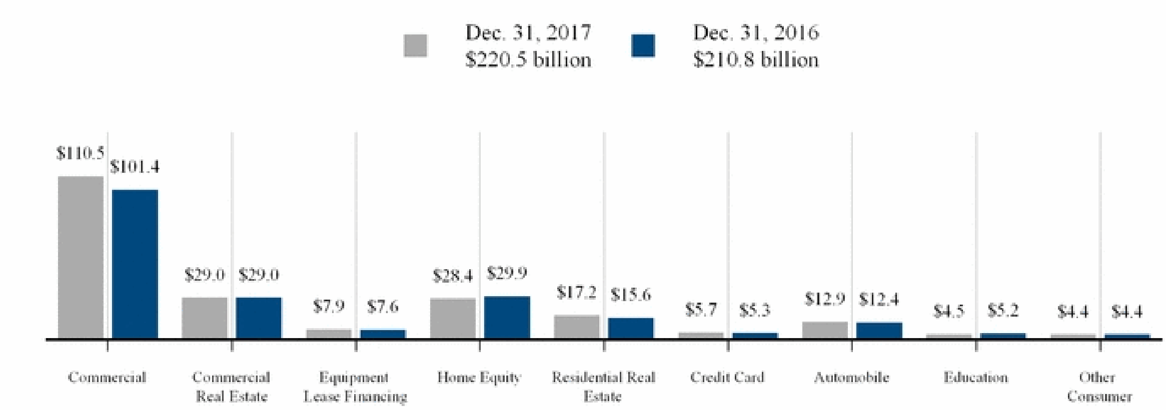
Each individual risk report includes an assessment of inherent risk, quality of risk management, residual risk, risk appetite, and risk outlook. The enterprise level risk report includes an aggregate view of risks identified in the individual report and provides a summary of our overall risk profile compared to our risk appetite.

Credit Risk Management

Credit risk represents the possibility that a customer, counterparty or issuer may not perform in accordance with contractual terms. Credit risk is inherent in the financial services business and results from extending credit to customers, purchasing securities, and entering into financial derivative transactions and certain guarantee contracts. Credit risk is one of our most significant risks. Our processes for managing credit risk are embedded in our risk culture and in our decision-making processes using a systematic approach whereby credit risks and related exposures are identified and assessed, managed through specific policies and processes, measured and evaluated against our risk appetite and credit concentration limits, and reported, along with specific mitigation activities, to management and the Board of Directors through our governance structure. Our most significant concentration of credit risk is in our loan portfolio.

Loan Portfolio Characteristics and Analysis

Table 13: Details of Loans
Dollars in billions



We use several asset quality indicators, as further detailed in Note 3 Asset Quality, to monitor and measure our exposure to credit risk within our loan portfolio. The following provides additional information about our significant loan classes.

Commercial

Commercial loans comprised 50% and 48% of our total loan portfolio at December 31, 2017 and December 31, 2016, respectively. Most of our commercial loans are secured by collateral that provides a secondary source of repayment for the loan should the borrower experience cash generation difficulties. Examples of this collateral include short-term assets, such as accounts receivable, inventory and securities, and long-lived assets, such as equipment, real estate and other business assets.

We actively manage our commercial loans to assess any changes (both positive and negative) in the level of credit risk at both the borrower and portfolio level. To evaluate the level of credit risk, we assign an internal risk rating reflecting the borrower's probability of default (PD) and loss given default (LGD). This two-dimensional credit risk rating methodology provides granularity in the risk monitoring process and is updated on an ongoing basis through our credit risk management processes. In addition to continual monitoring of the level of credit risk, we also monitor concentrations of credit risk pertaining to both specific industries and geography that may exist in our portfolio. Our portfolio remains stable and well-diversified as evidenced by the following table which provides a breakout of our commercial loans by industry classification (classified based on the North American Industry Classification System (NAICS)).

Table 14: Commercial Loans by Industry

	December 31, 2017		December 31, 2016	
Dollars in millions	Amount	% of Total	Amount	% of Total
Commercial				
Manufacturing	$ 20,578	19%	$ 18,891	19%
Retail/wholesale trade	17,846	16%	16,752	17%
Service providers	15,100	14%	14,707	15%
Real estate related (a)	12,496	11%	11,920	12%
Health care	9,739	9%	9,491	9%
Financial services	8,532	8%	7,241	7%
Transportation and warehousing	5,609	5%	5,170	5%
Other industries	20,627	18%	17,192	16%
Total commercial loans	$ 110,527	100%	$ 101,364	100%

(a) Includes loans to customers in the real estate and construction industries.

Commercial Real Estate

Commercial real estate loans comprised $15.3 billion of real estate project loans and $13.7 billion related to commercial mortgages as of December 31, 2017. Comparable amounts were $16.3 billion and $12.7 billion, respectively, as of December 31, 2016.

We monitor credit risk associated with our commercial real estate projects and commercial mortgages similar to commercial loans by analyzing PD and LGD. Additionally, risks associated with types of credit activities tend to be correlated to the loan structure, collateral location, project progress and business environment. These attributes are also monitored and utilized in assessing credit risk. The portfolio is geographically diverse due to the nature of our business involving clients throughout the U.S. The following table presents our commercial real estate loans by geographic market.

Table 15: Commercial Real Estate Loans by Geography

	December 31, 2017		December 31, 2016	
Dollars in millions	Amount	% of Total	Amount	% of Total
Geography				
California	$ 4,192	14%	$ 4,045	14%
Florida	2,221	8%	2,263	8%
Maryland	2,104	7%	2,189	7%
Texas	1,639	6%	1,531	5%
Virginia	1,609	5%	1,666	6%
Pennsylvania	1,394	5%	1,424	5%
Illinois	1,325	5%	1,135	4%
New York	1,163	4%	1,384	5%
Ohio	1,134	4%	1,128	4%
New Jersey	964	3%	1,079	4%
All other states	11,233	39%	11,166	38%
Total commercial real estate loans	$ 28,978	100%	$ 29,010	100%

Home Equity

Home equity loans comprised $16.8 billion of primarily variable-rate home equity lines of credit and $11.6 billion of closed-end home equity installment loans at December 31, 2017. Comparable amounts were $17.7 billion and $12.2 billion, respectively, as of December 31, 2016.

We track borrower performance monthly, including obtaining original loan-to-value ratios (LTV), updated FICO scores at least quarterly, updated LTVs at least semi-annually, and other credit metrics at least quarterly, including the historical performance of any related mortgage loans regardless of lien position that we do or do not hold. This information is used for internal reporting and risk management. For internal reporting and risk management we also segment the population into pools based on product type (*e.g.*, home equity loans, brokered home equity loans, home equity lines of credit, brokered home equity lines of credit). As part of our overall risk analysis and monitoring, we also segment the portfolio based upon the loan delinquency, nonperforming status, modification and bankruptcy status, FICO scores, LTV, lien position and geographic concentration.

The portfolio is primarily originated within our primary geographic markets, with only 5% of the portfolio in states outside of those markets as of December 31, 2017. The credit quality of newly originated loans in 2017 was strong overall as evidenced by a weighted- average LTV on originations of 67% and a weighted-average FICO score of 776.

The credit performance of the majority of the home equity portfolio where we hold the first lien position is superior to the portion of the portfolio where we hold the second lien position, but do not hold the first lien. Lien position information is generally based upon original LTV at the time of origination. We use an industry-leading third-party service provider to obtain updated loan, lien and collateral data that is aggregated from public and private sources.

The following table presents our home equity loans by geographic market and lien type.

Table 16: Home Equity Loans by Geography and by Lien Priority

	December 31, 2017		December 31, 2016	
Dollars in millions	Amount	% of Total	Amount	% of Total
Geography				
Pennsylvania	$ 6,792	24%	$ 7,259	24%
New Jersey	4,252	15%	4,364	15%
Ohio	3,413	12%	3,616	12%
Illinois	1,801	6%	1,907	6%
Maryland	1,572	6%	1,629	6%
Michigan	1,442	5%	1,483	5%
North Carolina	1,266	5%	1,338	5%
Florida	1,255	4%	1,275	4%
Kentucky	1,138	4%	1,206	4%
Indiana	924	3%	1,000	3%
All other states	4,509	16%	4,872	16%
Total home equity loans	$ 28,364	100%	$ 29,949	100%
Lien type				
1st lien		58%		55%
2nd lien		42%		45%
Total home equity loans		100%		100%

Residential Real Estate
Residential real estate loans primarily consisted of residential mortgage loans at both December 31, 2017 and December 31, 2016.

We track borrower performance of this portfolio monthly similar to home equity loans. This information is used for internal reporting and risk management. For internal reporting and risk management we also segment the mortgage portfolio into pools based on product type (e.g., FHA, conforming, etc.). As part of our overall risk analysis and monitoring, we also segment the portfolio based upon loan delinquency, nonperforming status, modification and bankruptcy status, FICO scores, LTV and geographic concentrations. Loan performance is evaluated by source originators and loan servicers.

The credit quality of newly originated loans that we retained on our balance sheet in 2017 was strong overall as evidenced by a weighted-average LTV on originations of 71% and a weighted-average FICO score of 768.

We originate residential mortgage loans nationwide through our national mortgage business as well as within our branch network. Residential mortgage loans underwritten to government agency standards, including conforming loan amount limits, are typically sold with servicing retained by us. We also originate residential mortgage loans above the conforming loan amount limits, known as nonconforming mortgage loans, which we retain on our balance sheet. In recent years, including in 2017, we have increased the volume of nonconforming loans that we originate, including in California.

The following presents our residential real estate loans by geographic market.

Table 17: Residential Real Estate Loans by Geography

	December 31, 2017		December 31, 2016	
Dollars in millions	Amount	% of Total	Amount	% of Total
Geography				
California	$ 3,676	21%	$ 2,842	18%
Florida	1,529	9%	1,511	10%
New Jersey	1,503	9%	1,285	8%
Illinois	1,230	7%	1,263	8%
Pennsylvania	962	5%	843	5%
Maryland	902	5%	857	6%
New York	847	5%	722	5%
Virginia	824	5%	772	5%
North Carolina	821	5%	797	5%
Ohio	684	4%	649	4%
All other states	4,234	25%	4,057	26%
Total residential real estate loans	$ 17,212	100%	$ 15,598	100%

Automobile
Within auto loans, $11.4 billion resided in the indirect auto portfolio, $1.4 billion in the direct auto portfolio and $.1 billion in securitized portfolios as of December 31, 2017. Comparable amounts as of December 31, 2016 were $10.8 billion, $1.3 billion and $.3 billion, respectively. The indirect auto portfolio relates to loan applications generated from franchised automobile dealers. This business is strategically aligned with our core retail business.

We continue to focus on a strong origination profile as evidenced by a weighted-average loan origination FICO score during 2017 of 745 for indirect auto loans and 767 for direct auto loans. The weighted-average term of loan originations during 2017 was 72 months for indirect auto loans and 62 months for direct auto loans. We offer both new and used automobile financing to customers through our various channels. The portfolio was composed of 54% new vehicle loans and 46% used vehicle loans at December 31, 2017.

The auto loan portfolio's performance is measured monthly, including updated collateral values that are obtained monthly and updated FICO scores that are obtained at least quarterly. For internal reporting and risk management, we analyze the portfolio by product channel and product type and regularly evaluate default and delinquency experience. As part of our overall risk analysis and monitoring, we segment the portfolio by loan structure, collateral attributes and credit metrics which include FICO score, LTV and term.

Nonperforming Assets and Loan Delinquencies

Nonperforming Assets
Nonperforming assets include nonperforming loans and leases for which ultimate collectability of the full amount of contractual principal and interest is not probable and include nonperforming troubled debt restructurings (TDRs), other real estate owned (OREO), foreclosed and other assets. Loans held for sale, certain government insured or guaranteed loans, purchased impaired loans and loans accounted for under the fair value option are excluded from nonperforming loans. Additional information regarding our nonperforming loans and nonaccrual policies is included in Note 1 Accounting Policies in the Notes To Consolidated Financial Statements in Item 8 of this report. A summary of the major categories of nonperforming assets are presented in Table 18. See Note 3 Asset Quality in the Notes To Consolidated Financial Statements in Item 8 of this Report for further detail of nonperforming asset categories.

Table 18: Nonperforming Assets by Type

Dollars in millions	December 31 2017	December 31 2016	Change $	Change %
Nonperforming loans				
Commercial lending	$ 554	$ 655	$ (101)	(15)%
Consumer lending (a)	1,311	1,489	(178)	(12)%
Total nonperforming loans	1,865	2,144	(279)	(13)%
OREO, foreclosed and other assets	170	230	(60)	(26)%
Total nonperforming assets	$ 2,035	$ 2,374	$ (339)	(14)%
Amount of TDRs included in nonperforming loans	$ 964	$ 1,112	$ (148)	(13)%
Percentage of total nonperforming loans	52%	52%		
Nonperforming loans to total loans	.85%	1.02%		
Nonperforming assets to total loans, OREO, foreclosed and other assets	.92%	1.12%		
Nonperforming assets to total assets	.53%	.65%		
Allowance for loan and lease losses to total nonperforming loans	140%	121%		

(a) Excludes most consumer loans and lines of credit not secured by residential real estate, which are charged off after 120 to 180 days past due and are not placed on nonperforming status.

Table 19: Change in Nonperforming Assets

In millions	2017	2016
January 1	$ 2,374	$ 2,425
New nonperforming assets	1,376	1,835
Charge-offs and valuation adjustments	(585)	(604)
Principal activity, including paydowns and payoffs	(638)	(697)
Asset sales and transfers to loans held for sale	(178)	(336)
Returned to performing status	(314)	(249)
December 31	$ 2,035	$ 2,374

As of December 31, 2017, approximately 90% of total nonperforming loans were secured by collateral which lessened reserve requirements and is expected to reduce credit losses in the event of default. As of December 31, 2017, commercial lending nonperforming loans were carried at approximately 62% of their unpaid principal balance, due to charge-offs recorded to date, before consideration of the Allowance for loan and lease losses (ALLL).

Within consumer nonperforming loans, residential real estate TDRs comprise 75% of total residential real estate nonperforming loans at December 31, 2017, up from 70% at December 31, 2016. Home equity TDRs comprise 50% of home equity nonperforming loans at December 31, 2017
and 52% at December 31, 2016. TDRs generally remain in nonperforming status until a borrower has made at least six
consecutive months of both principal and interest payments under the modified terms or ultimate resolution occurs. Loans where borrowers have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us and loans to borrowers not currently obligated to make both principal and interest payments under the restructured terms are not returned to accrual status.

At December 31, 2017, our largest nonperforming asset was $44 million in the Wholesale Trade industry. The ten largest individual nonperforming assets represented 12% of total nonperforming assets as of December 31, 2017.

Loan Delinquencies

We regularly monitor the level of loan delinquencies and believe these levels may be a key indicator of loan portfolio asset quality. Measurement of delinquency status is based on the contractual terms of each loan. Loans that are 30 days or more past due in terms of payment are considered delinquent. Loan delinquencies exclude loans held for sale and purchased impaired loans, but include government insured or guaranteed loans and loans accounted for under the fair value option.

Table 20: Accruing Loans Past Due (a)

	Amount				Percentage of Total Loans Outstanding	
			Change			
Dollars in millions	December 31, 2017	December 31, 2016	$	%	December 31, 2017	December 31, 2016
Early stage loan delinquencies						
Accruing loans past due 30 to 59 days	$ 545	$ 562	$ (17)	(3)%	.25%	.27%
Accruing loans past due 60 to 89 days	238	232	6	3 %	.11%	.11%
Total	783	794	(11)	(1)%	.36%	.38%
Late stage loan delinquencies						
Accruing loans past due 90 days or more	737	782	(45)	(6)%	.33%	.37%
Total	$ 1,520	$ 1,576	$ (56)	(4)%	.69%	.75%

(a) Past due loan amounts include government insured or guaranteed loans of $.9 billion at both December 31, 2017 and December 31, 2016.

Accruing loans past due 90 days or more decreased at December 31, 2017 compared to December 31, 2016 driven by declines in government insured residential real estate, and government insured education loans within other consumer. Accruing loans past due 90 days or more are not included in nonperforming loans and continue to accrue interest because they are well secured by collateral and are in the process of collection, or are managed in homogenous portfolios with specified charge-off timeframes adhering to regulatory guidelines, or are certain government insured or guaranteed loans.

Loan Modifications and Troubled Debt Restructurings

Consumer Loan Modifications

We modify loans under government and PNC-developed programs based upon our commitment to help eligible homeowners and borrowers avoid foreclosure, where appropriate. Initially, a borrower is evaluated for a modification under a government program. If a borrower does not qualify under a government program, the borrower is then evaluated under a PNC program. Our programs utilize both temporary and permanent modifications and typically reduce the interest rate, extend the term and/or defer principal. Loans that are either temporarily or permanently modified under programs involving a change to loan terms are generally classified as TDRs. Further, loans that have certain types of payment plans and trial payment arrangements which do not include a contractual change to loan terms may be classified as TDRs.

A temporary modification, with a term up to 24 months, involves a change in original loan terms for a period of time and reverts to a calculated exit rate for the remaining term of the loan as of a specific date. A permanent modification, with a term greater than 24 months, is a modification in which the terms of the original loan are changed. Permanent modification programs generally result in principal forgiveness, interest rate reduction, term extension, capitalization of past due amounts, interest-only period or deferral of principal.

We also monitor the success rates and delinquency status of our loan modification programs to assess their effectiveness in serving our borrowers' and servicing customers' needs while mitigating credit losses. Table 21 provides the number of accounts and unpaid principal balance of modified consumer real estate related loans at the end of each year presented.

Table 21: Consumer Real Estate Related Loan Modifications

	December 31, 2017		December 31, 2016	
Dollars in millions	Number of Accounts	Unpaid Principal Balance	Number of Accounts	Unpaid Principal Balance
Temporary modifications	3,033	$ 217	3,484	$ 258
Permanent modifications	23,270	2,581	23,904	2,693
Total consumer real estate related loan modifications	26,303	$ 2,798	27,388	$ 2,951

Commercial Loan Modifications

Modifications of terms for commercial loans are based on individual facts and circumstances. Commercial loan modifications may involve reduction of the interest rate, extension of the loan term and/or forgiveness of principal. Modified commercial loans are usually already nonperforming prior to modification. We evaluate these modifications for TDR classification based upon whether we granted a concession to a borrower experiencing financial difficulties.

Troubled Debt Restructurings

A TDR is a loan whose terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties. TDRs result from our loss mitigation activities and include rate reductions, principal forgiveness, postponement/reduction of scheduled amortization and extensions, which are intended to minimize economic loss and to avoid foreclosure or repossession of collateral. Additionally, TDRs also result from court imposed concessions (*e.g.* a Chapter 7 bankruptcy where the debtor is discharged from personal liability to us and a court approved Chapter 13 bankruptcy repayment plan).

Table 22: Summary of Troubled Debt Restructurings (a)

In millions	December 31 2017	December 31 2016	Change $	Change %
Total commercial lending	$ 409	$ 428	$ (19)	(4)%
Total consumer lending	1,652	1,793	(141)	(8)%
Total TDRs	$ 2,061	$ 2,221	$ (160)	(7)%
Nonperforming	$ 964	$ 1,112	$ (148)	(13)%
Accruing (b)	1,097	1,109	(12)	(1)%
Total TDRs	$ 2,061	$ 2,221	$ (160)	(7)%

(a) Amounts in table represent recorded investment, which includes the unpaid principal balance plus accrued interest and net accounting adjustments, less any charge-offs. Recorded investment does not include any associated valuation allowance.

(b) Accruing loans include consumer credit card loans and loans that have demonstrated a period of at least six months of performance under the restructured terms and are excluded from nonperforming loans.

Excluded from TDRs are $1.2 billion of consumer loans held for sale, loans accounted for under the fair value option and pooled purchased impaired loans, as well as certain government insured or guaranteed loans at both December 31, 2017 and December 31, 2016. Nonperforming TDRs represented approximately 52% of total nonperforming loans at both December 31, 2017 and December 31, 2016 , while representing 47% and 50% of total TDRs at December 31, 2017 and December 31, 2016, respectively. The remaining portion of TDRs represents TDRs that have been returned to accrual accounting after performing under the restructured terms for at least six consecutive months.

Allowances for Loan and Lease Losses and Unfunded Loan Commitments and Letters of Credit

We maintain an ALLL to absorb losses from the loan and lease portfolio and determine this allowance based on quarterly assessments of the estimated probable credit losses incurred in the loan and lease portfolio. Our total ALLL of $2.6 billion at December 31, 2017 consisted of $1.6 billion and $1.0 billion established for the commercial lending and consumer lending categories, respectively. We maintain the ALLL at a level that we believe to be appropriate to absorb estimated probable credit losses incurred in the loan and lease portfolio as of the balance sheet date. The reserve calculation and determination process is dependent on the use of key assumptions. Key reserve assumptions and estimation processes react to and are influenced by observed changes in loan and lease portfolio performance experience, the financial strength of the borrower, and economic conditions. Key reserve assumptions are periodically updated.

Reserves are established for non-impaired commercial loan classes based primarily on PD and LGD.

Our commercial pool reserve methodology is sensitive to changes in key risk parameters such as PD and LGD. The results of these parameters are then applied to the loan balance and unfunded loan commitments and letters of credit to determine the amount of the respective reserves. The majority of the commercial portfolio is secured by collateral, including loans to asset-based lending customers, which generally demonstrate lower LGD compared to loans not secured by collateral. Our PDs and LGDs are primarily determined using internal commercial loan loss data. This internal data is supplemented with third-party data and management judgment, as deemed necessary. We continue to evaluate and enhance our use of internal commercial loss data and will periodically update our PDs and LGDs as well as consider third-party data, regulatory guidance and management judgment.

Allowances for non-impaired consumer loan classes are primarily based upon transition matrices, including using a roll-rate model. The roll-rate model uses statistical relationships, calculated from historical data that estimate the movement of loan outstandings through the various stages of delinquency and ultimately charge-off.

We establish specific allowances for loans considered impaired using methods prescribed by GAAP. All impaired loans are subject to individual analysis, except leases and large groups of smaller-balance homogeneous loans which may include, but are not limited to, credit card, residential real estate secured and consumer installment loans. Specific allowances for individual loans (including commercial and consumer TDRs) are determined based on an analysis of the present value of expected future cash flows from the loans discounted at their effective interest rate, observable market price or the fair value of the underlying collateral.

A portion of the ALLL is related to qualitative measurement factors. These factors may include, but are not limited to, the following:

- Industry concentrations and conditions,
- Recent credit quality trends,
- Recent loss experience in particular portfolios,
- Recent macro-economic factors,
- Model imprecision,
- Changes in lending policies and procedures,
- Timing of available information, including the performance of first lien positions, and
- Limitations of available historical data.

Our determination of the ALLL for non-impaired loans is sensitive to the risk grades assigned to commercial loans and loss rates for consumer loans. There are several other qualitative and quantitative factors considered in determining the ALLL. This sensitivity analysis does not necessarily reflect the nature and extent of future changes in the ALLL. It is intended to provide insight into the impact of adverse changes to risk grades and loss rates only and does not imply any expectation of future deterioration in the risk ratings or loss rates. Given the current processes used, we believe the risk grades and loss rates currently assigned are appropriate.

Purchased impaired loans are initially recorded at fair value and applicable accounting guidance prohibits the carry over or creation of valuation allowances at acquisition. Because the initial fair values of these loans already reflect a credit component, additional reserves are established when performance is expected to be worse than our expectations as of the acquisition date. At December 31, 2017, we had established reserves of $.3 billion for purchased impaired loans. In addition, loans (purchased impaired and non-impaired) acquired after January 1, 2009 were recorded at fair value. No allowance for loan losses was carried over and no allowance was created at the date of acquisition.

In determining the appropriateness of the ALLL, we make specific allocations to impaired loans and allocations to portfolios of commercial and consumer loans. We also allocate reserves to provide coverage for probable losses incurred in the portfolio at the balance sheet date based upon current market conditions, which may not be reflected in historical loss data. Commercial lending is the largest category of credits and is sensitive to changes in assumptions and judgments underlying the determination of the ALLL.

In addition to the ALLL, we maintain an allowance for unfunded loan commitments and letters of credit. We report this allowance as a liability on our Consolidated Balance Sheet. We maintain the allowance for unfunded loan commitments and letters of credit at a level we believe is appropriate to absorb estimated probable losses on these unfunded credit facilities. We determine this amount using estimates of the probability of the ultimate funding and losses related to those credit exposures. Other than the estimation of the probability of funding, this methodology is very similar to the one we use for determining our ALLL.

See Note 1 Accounting Policies and Note 3 Asset Quality in the Notes To Consolidated Financial Statements in Item 8 of this Report for further information on certain key asset quality indicators that we use to evaluate our portfolios and establish the allowances.

Table 23: Allowance for Loan and Lease Losses

Dollars in millions	2017	2016
January 1	$ 2,589	$ 2,727
Total net charge-offs	(457)	(543)
Provision for credit losses	441	433
Net decrease / (increase) in allowance for unfunded loan commitments and letters of credit	4	(40)
Other	34	12
December 31	$ 2,611	$ 2,589
Net charge-offs to average loans (for the year ended)	.21%	.26%
Allowance for loan and lease losses to total loans	1.18%	1.23%
Commercial lending net charge-offs	$ (105)	$ (185)
Consumer lending net charge-offs	(352)	(358)
Total net charge-offs	$ (457)	$ (543)
Net charge-offs to average loans (for the year ended)		
Commercial lending	.07%	.14%
Consumer lending	.49%	.50%

At December 31, 2017, total ALLL to total nonperforming loans was 140%. The comparable amount for December 31, 2016 was 121%. These ratios are 102% and 89%, respectively, when excluding the $.7 billion of ALLL at both December 31, 2017 and December 31, 2016 allocated to consumer loans and lines of credit not secured by residential real estate and purchased impaired loans. We have excluded these amounts from ALLL in these ratios as these asset classes are not included in nonperforming loans. See Table 18 within this Credit Risk Management section for additional information.

The ALLL balance increases or decreases across periods in relation to fluctuating risk factors, including asset quality trends, net charge-offs and changes in aggregate portfolio balances. During 2017, overall credit quality remained stable, which resulted in an essentially flat ALLL balance as of December 31, 2017 compared to December 31, 2016.

The following table summarizes our loan charge-offs and recoveries.

Table 24: Loan Charge-Offs and Recoveries

Year ended December 31 Dollars in millions	Gross Charge-offs	Recoveries	Net Charge-offs / (Recoveries)	Percent of Average Loans
2017				
Commercial	$ 186	$ 81	$ 105	.10 %
Commercial real estate	24	28	(4)	(.01)%
Equipment lease financing	11	7	4	.05 %
Home equity	123	91	32	.11 %
Residential real estate	9	18	(9)	(.06)%
Credit card	182	21	161	3.06 %
Other consumer	251	83	168	.77 %
Total	$ 786	$ 329	$ 457	.21 %
2016				
Commercial	$ 332	$ 117	$ 215	.21 %
Commercial real estate	26	51	(25)	(.09)%
Equipment lease financing	5	10	(5)	(.07)%
Home equity	143	84	59	.19 %
Residential real estate	14	9	5	.03 %
Credit card	161	19	142	2.90 %
Other consumer	205	53	152	.70 %
Total	$ 886	$ 343	$ 543	.26 %

See Note 1 Accounting Policies and Note 4 Allowance for Loan and Lease Losses in the Notes To Consolidated Financial Statements in Item 8 of this Report for additional information on the ALLL.

Liquidity and Capital Management

Liquidity risk has two fundamental components. The first is potential loss assuming we were unable to meet our funding requirements at a reasonable cost. The second is the potential inability to operate our businesses because adequate contingent liquidity is not available. We manage liquidity risk at the consolidated company level (bank, parent company, and nonbank subsidiaries combined) to help ensure that we can obtain cost-effective funding to meet current and future obligations under both normal "business as usual" and stressful circumstances, and to help ensure that we maintain an appropriate level of contingent liquidity.

Management monitors liquidity through a series of early warning indicators that may indicate a potential market, or PNC-specific, liquidity stress event. In addition, management performs a set of liquidity stress tests over multiple time horizons with varying levels of severity and maintains a contingency funding plan to address a potential liquidity stress event. In the most severe liquidity stress simulation, we assume that our liquidity position is under pressure, while the market in general is under systemic pressure. The simulation considers, among other things, the impact of restricted access to both secured and unsecured external sources of funding, accelerated run-off of customer deposits, valuation pressure on assets and heavy demand to fund committed obligations. Parent company liquidity guidelines are designed to help ensure that sufficient liquidity is available to meet our parent company obligations over the succeeding 24-month period. Liquidity-related risk limits are established within our Enterprise Liquidity Management Policy and supporting policies. Management committees, including the Asset and Liability Committee, and the Board of Directors and its Risk Committee regularly review compliance with key established limits.

In addition to these liquidity monitoring measures and tools described above, we also monitor our liquidity by reference to the Liquidity Coverage Ratio (LCR) which is further described in the Supervision and Regulation section in Item 1 of this Report. PNC and PNC Bank calculate the LCR on a daily basis and as of December 31, 2017, the LCR for PNC and PNC Bank exceeded the fully phased-in requirement of 100%.

We provide additional information regarding regulatory liquidity requirements and their potential impact on us in the Supervision and Regulation section of Item 1 Business and Item 1A Risk Factors of this Report.

Sources of Liquidity

Our largest source of liquidity on a consolidated basis is the customer deposit base generated by our banking businesses. These deposits provide relatively stable and low-cost funding. Total deposits increased to $265.1 billion at December 31, 2017 from $257.2 billion at December 31, 2016, driven by higher consumer and commercial deposits. Consumer deposits reflected in part a shift from money market deposits to relationship-based savings products. Commercial deposits reflected a shift from demand deposits to money market deposits primarily due to higher interest rates in 2017. Additionally, certain assets determined by us to be liquid and unused borrowing capacity from a number of sources are also available to manage our liquidity position.

At December 31, 2017, our liquid assets consisted of short-term investments (Federal funds sold, resale agreements, trading securities and interest-earning deposits with banks) totaling $33.0 billion and securities available for sale totaling $57.6 billion. The level of liquid assets fluctuates over time based on many factors, including market conditions, loan and deposit growth and balance sheet management activities. Of our total liquid assets of $90.6 billion, we had $3.2 billion of securities available for sale and trading securities pledged as collateral to secure public and trust deposits, repurchase agreements and for other purposes. In addition, $4.9 billion of securities held to maturity were also pledged as collateral for these purposes.

We also obtain liquidity through various forms of funding, including long-term debt (senior notes, subordinated debt and FHLB advances) and short-term borrowings (securities sold under repurchase agreements, commercial paper and other short-term borrowings). See Note 10 Borrowed Funds and the Funding Sources section of the Consolidated Balance Sheet Review in this Report for additional information related to our Borrowings.

Total senior and subordinated debt, on a consolidated basis, increased due to the following activity:

Table 25: Senior and Subordinated Debt

In billions	2017
January 1	$ 31.0
Issuances	7.1
Calls and maturities	(4.6)
Other	(.2)
December 31	$ 33.3

Bank Liquidity

Under PNC Bank's 2014 bank note program, as amended, PNC Bank may from time to time offer up to $40.0 billion aggregate principal amount outstanding at any one time of its unsecured senior and subordinated notes with maturity dates more than nine months (in the case of senior notes) and five years or more (in the case of subordinated notes) from their date of issue. At December 31, 2017, PNC Bank had $26.7 billion of notes outstanding under this program of which $23.1 billion were senior bank notes and $3.6 billion were subordinated bank notes. The following table details issuances for the three months ended December 31, 2017:

Table 26: PNC Bank Notes Issued During Fourth Quarter 2017

Issuance Date	Amount	Description of Issuance
October 23, 2017	$1 billion	Senior notes with a maturity date of October 25, 2027. Interest is payable semi-annually at a fixed rate of 3.100% on April 25 and October 25 of each year, beginning April 25, 2018.
October 23, 2017	$750 million	Senior notes with a maturity date of November 5, 2020. Interest is payable semi-annually at a fixed rate of 2.450% on May 5 and November 5 of each year, beginning November 5, 2017. Following the re-opening, the aggregate outstanding principal amount of this series of notes initially issued on November 3, 2015 increased to $1.5 billion.

See Note 23 Subsequent Events for information on the January 2018 issuances of $900 million and $700 million of senior fixed rate notes and $400 million of senior floating rate notes by PNC Bank.

PNC Bank maintains additional secured borrowing capacity with the FHLB-Pittsburgh and through the Federal Reserve Bank discount window. The Federal Reserve Bank, however, is not viewed as a primary means of funding our routine business activities, but rather as a potential source of liquidity in a stressed environment or during a market disruption. At December 31, 2017, our unused secured borrowing capacity at the FHLB-Pittsburgh and the Federal Reserve Bank totaled $41.0 billion.

PNC Bank has the ability to offer up to $10.0 billion of its commercial paper to provide additional liquidity. As of December 31, 2017, there were no issuances outstanding under this program.

Parent Company Liquidity

In addition to managing liquidity risk at the bank level, we monitor the parent company's liquidity. The parent company's contractual obligations consist primarily of debt service related to parent company borrowings and funding non-bank affiliates. Additionally, the parent company maintains adequate liquidity to fund discretionary activities such as paying dividends to our shareholders, share repurchases, and acquisitions.

As of December 31, 2017, available parent company liquidity totaled $5.7 billion. Parent company liquidity is primarily held in intercompany short-term investments, the terms of which provide for the availability of cash in 31 days or less. Investments with longer durations may also be acquired, but if so, the related maturities are aligned with scheduled cash needs, such as the maturity of parent company debt obligations.

The principal source of parent company liquidity is the dividends it receives from PNC Bank, which may be impacted by the following:

- Bank-level capital needs,
- Laws and regulations,
- Corporate policies,
- Contractual restrictions, and
- Other factors.

There are statutory and regulatory limitations on the ability of a national bank to pay dividends or make other capital distributions or to extend credit to the parent company or its non-bank subsidiaries. See Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report for a further discussion of these limitations.

In addition to dividends from PNC Bank, other sources of parent company liquidity include cash and investments, as well as dividends and loan repayments from other subsidiaries and dividends or distributions from equity investments. We can also generate liquidity for the parent company and PNC's non-bank subsidiaries through the issuance of debt and equity securities, including certain capital instruments, in public or private markets and commercial paper. The parent company has the ability to offer up to $5.0 billion of commercial paper to provide additional liquidity. As of December 31, 2017, there was $.1 billion of commercial paper issuances outstanding.

The parent company has an effective shelf registration statement pursuant to which we can issue additional debt, equity and other capital instruments.

Parent company senior and subordinated debt outstanding totaled $6.8 billion at December 31, 2017 compared with $6.2 billion at December 31, 2016.

Commitments

The following tables set forth contractual obligations and various other commitments as of December 31, 2017.

Table 27: Contractual Obligations

December 31, 2017 – in millions	Total	Payment Due By Period: Less than one year	One to three years	Four to five years	After five years
Remaining contractual maturities of time deposits	$ 17,261	$ 12,138	$ 1,976	$ 1,868	$ 1,279
Borrowed funds (a)	59,088	15,961	26,086	8,634	8,407
Minimum annual rentals on noncancellable leases	2,555	382	645	477	1,051
Nonqualified pension and postretirement benefits	474	54	102	97	221
Purchase obligations (b)	1,025	405	362	135	123
Total contractual cash obligations	$ 80,403	$ 28,940	$ 29,171	$ 11,211	$ 11,081

(a) Includes basis adjustment relating to accounting hedges and purchase accounting adjustments.
(b) Includes purchase obligations for goods and services covered by noncancellable contracts and contracts including cancellation fees.

Our contractual obligations totaled $74.3 billion at December 31, 2016. The increase in the comparison is primarily attributable to the increase in borrowed funds. See Funding Sources in the Consolidated Balance Sheet Review section of this Item 7 for additional information regarding our funding sources.

Table 28: Other Commitments (a)

December 31, 2017 – in millions	Total Amounts Committed	Amount Of Commitment Expiration By Period: Less than one year	One to three years	Four to five years	After five years
Commitments to extend credit (b)	$ 159,641	$ 59,713	$ 57,573	$ 41,532	$ 823
Net outstanding standby letters of credit (c)	8,651	4,787	2,946	886	32
Reinsurance agreements (d)	1,654	7	16	11	1,620
Standby bond purchase agreements	843	301	542		
Other commitments (e)	1,732	1,333	305	60	34
Total commitments	$ 172,521	$ 66,141	$ 61,382	$ 42,489	$ 2,509

(a) Other commitments are funding commitments that could potentially require performance in the event of demands by third parties or contingent events. Loan commitments are reported net of syndications, assignments and participations.
(b) Commitments to extend credit, or net unfunded loan commitments, represent arrangements to lend funds or provide liquidity subject to specified contractual conditions.
(c) Includes $3.5 billion of standby letters of credit that support remarketing programs for customers' variable rate demand notes.
(d) Reinsurance agreements are with third-party insurers related to insurance sold to or placed on behalf of our customers. Balances represent estimates based on availability of financial information.
(e) Includes other commitments of $.9 billion that were not on our Consolidated Balance Sheet. The remaining $.8 billion of other commitments were included in Other liabilities on our Consolidated Balance Sheet.

Our total commitments were $163.9 billion at December 31, 2016. The increase in the comparison is primarily attributable to an increase in commitments to extend credit and other commitments, partially offset by declines in reinsurance agreements.

Credit Ratings
PNC's credit ratings affect the cost and availability of short and long-term funding, collateral requirements for certain derivative instruments and the ability to offer certain products.

In general, rating agencies base their ratings on many quantitative and qualitative factors, including capital adequacy, liquidity, asset quality, business mix, level and quality of earnings, and the current legislative and regulatory environment, including implied government support. In addition, rating agencies themselves have been subject to scrutiny arising from the most recent financial crisis and could make or be required to make substantial changes to their ratings policies and practices, particularly in response to legislative and regulatory changes. Potential changes in the legislative and regulatory environment and the timing of those changes could impact our ratings, which as noted above, could impact our liquidity and financial condition. A decrease, or potential decrease, in credit ratings could impact access to the capital markets and/or increase the cost of debt, and thereby adversely affect liquidity and financial condition.

Table 29: Credit Ratings as of December 31, 2017 for PNC and PNC Bank

	Moody's	Standard & Poor's	Fitch
PNC			
Senior debt	A3	A-	A+
Subordinated debt	A3	BBB+	A
Preferred stock	Baa2	BBB-	BBB-
PNC Bank			
Senior debt	A2	A	A+
Subordinated debt	A3	A-	A
Long-term deposits	Aa2	A	AA-
Short-term deposits	P-1	A-1	F1+
Short-term notes	P-1	A-1	F1

Capital Management
We manage our funding and capital positions by making adjustments to our balance sheet size and composition, issuing or redeeming debt, issuing equity or other capital instruments, executing treasury stock transactions and capital redemptions or repurchases, and managing dividend policies and retaining earnings.

For the full year 2017, we returned $3.6 billion of capital to shareholders. Repurchases totaled 18.6 million common shares for $2.3 billion and dividends on common shares were $1.3 billion.

We repurchase shares of PNC common stock under share repurchase authorization provided by our Board of Directors
in the amount of up to 100 million shares and consistent with capital plans submitted to, and accepted by, the Federal Reserve. Repurchases are made on the open market or in privately negotiated transactions and the extent and timing of share repurchases under authorizations depend on a number of factors including, among others, market and general economic conditions, economic and regulatory capital considerations, alternative uses of capital, the potential impact on our credit ratings, contractual and regulatory limitations, and the results of supervisory assessments of capital adequacy and capital planning processes undertaken by the Federal Reserve as part of the CCAR and DFAST processes.

In relation to the 2016 capital plan accepted by the Federal Reserve, we announced new share repurchase programs of up to $2.0 billion for the four quarter period ended June 30, 2017, including repurchases of up to $.2 billion related to employee benefit plans. In January 2017, we announced a $.3 billion increase in our share repurchase programs for the four quarter period. For the four quarter period ended June 30, 2017, we repurchased 21.5 million shares of PNC common stock for $2.3 billion. Of the total repurchased, 10.7 million shares for $1.3 billion occurred in the first two quarters of 2017.

In connection with the 2017 CCAR process, the Federal Reserve accepted our capital plan, as approved by our Board of Directors, and did not object to our proposed capital actions in June 2017. As provided for in the 2017 capital plan, we announced new share repurchase programs of up to $2.7 billion for the four quarter period beginning in the third quarter of 2017, including repurchases of up to $.3 billion related to employee benefit plans. We repurchased 7.9 million common shares for $1.1 billion during the third and fourth quarters of 2017 under these share repurchase programs.

The quarterly cash dividend on common stock was increased to 75 cents from 55 cents effective with the August 5, 2017 dividend payment date.

See the Supervision and Regulation section of Item 1 Business in this Report for further information concerning the CCAR process and the factors the Federal Reserve takes into consideration in its evaluation of capital plans.

Table 30: Basel III Capital

Dollars in millions	December 31, 2017 — 2017 Transitional Basel III (a)	December 31, 2017 — Pro forma Fully Phased-In Basel III (Non-GAAP) (estimated) (b)(c)
Common equity Tier 1 capital		
Common stock plus related surplus, net of treasury stock	$ 8,195	$ 8,195
Retained earnings	35,481	35,481
Accumulated other comprehensive income for securities currently and those transferred from available for sale	270	337
Accumulated other comprehensive income for pension and other postretirement plans	(436)	(544)
Goodwill, net of associated deferred tax liabilities	(8,988)	(8,988)
Other disallowed intangibles, net of deferred tax liabilities	(255)	(319)
Other adjustments/(deductions)	(138)	(141)
Total common equity Tier 1 capital before threshold deductions	34,129	34,021
Total threshold deductions (d)	(1,983)	(2,928)
Common equity Tier 1 capital	32,146	31,093
Additional Tier 1 capital		
Preferred stock plus related surplus	3,985	3,985
Other adjustments/(deductions)	(124)	(146)
Tier 1 capital	36,007	34,932
Additional Tier 2 capital		
Qualifying subordinated debt	3,482	3,433
Trust preferred capital securities	100	
Eligible credit reserves includable in Tier 2 capital	2,907	2,907
Total Basel III capital	$ 42,496	$ 41,272
Risk-weighted assets		
Basel III standardized approach risk-weighted assets (e)	$ 309,460	$ 316,120
Basel III advanced approaches risk-weighted assets (f)	N/A	$ 285,226
Average quarterly adjusted total assets	$ 364,999	$ 363,967
Supplementary leverage exposure (g)	$ 435,731	$ 434,698
Basel III risk-based capital and leverage ratios		
Common equity Tier 1	10.4%	9.8% (h)(i)
Tier 1	11.6%	11.1% (h)(j)
Total	13.7%	13.1% (h)(k)
Leverage (l)	9.9%	9.6%
Supplementary leverage ratio (m)	8.3%	8.0%

(a) Calculated using the regulatory capital methodology applicable to us during 2017.
(b) PNC utilizes the pro forma fully phased-in Basel III capital ratios to assess its capital position (without the benefit of phase-ins), as these ratios represent the regulatory capital standards that may ultimately be applicable to PNC under the final Basel III rules. Pro forma fully phased-in capital amounts, ratios and risk-weighted and leverage-related assets are estimates.
(c) Basel III capital ratios and estimates may be impacted by additional regulatory guidance or analysis and, in the case of those ratios calculated using the advanced approaches, may be subject to variability based on the ongoing evolution, validation and regulatory approval of PNC's models integral to the calculation of advanced approaches risk-weighted assets.
(d) Under the Basel III rules, certain items such as significant common stock investments in unconsolidated financial institutions (primarily BlackRock), mortgage servicing rights and deferred tax assets must be deducted from capital (subject to a phase-in schedule and net of associated deferred tax liabilities) to the extent they individually exceed 10%, or in the aggregate exceed 15%, of PNC's adjusted common equity Tier 1 capital.
(e) Includes credit and market risk-weighted assets.
(f) Basel III advanced approaches risk-weighted assets are estimated based on the Basel III advanced approaches rules, and include credit, market, and operational risk-weighted assets. During the parallel run qualification phase, PNC has refined the data, models, and internal processes used as part of the advanced approaches for determining risk-weighted assets. We anticipate additional refinements to this estimate through the parallel run qualification phase.
(g) Supplementary leverage exposure is the sum of Adjusted average assets and certain off-balance sheet exposures including undrawn credit commitments and derivative potential future exposures.
(h) Pro forma fully phased-in Basel III capital ratio based on Basel III standardized approach risk-weighted assets and rules.
(i) For comparative purposes only, the pro forma fully phased-in advanced approaches Basel III Common equity Tier 1 capital ratio estimate is 10.9%. This capital ratio is calculated using pro forma fully phased-in Common equity Tier 1 capital and dividing by estimated Basel III advanced approaches risk-weighted assets.
(j) For comparative purposes only, the pro forma fully phased-in advanced approaches Basel III Tier 1 risk-based capital ratio estimate is 12.2%. This capital ratio is calculated using fully phased-in Tier 1 capital and dividing by estimated Basel III advanced approaches risk-weighted assets.
(k) For comparative purposes only, the pro forma fully phased-in advanced approaches Basel III Total capital risk-based capital ratio estimate is 13.5%. This ratio is calculated using fully phased-in Total Basel III capital, which under the advanced approaches, Additional Tier 2 capital includes allowance for loan and lease losses in excess of Basel expected credit losses, if any, up to 0.6% of credit risk-weighted assets, and dividing by estimated Basel III advanced approaches risk-weighted assets.

(l) Leverage ratio is calculated based on Tier 1 capital divided by Average quarterly adjusted total assets.
(m) Supplementary leverage ratio is calculated based on Tier 1 capital divided by Supplementary leverage exposure. As advanced approaches banking organizations, PNC and PNC Bank are subject to a 3% minimum supplementary leverage ratio effective January 1, 2018.

For detailed information on regulatory capital requirements, see the Banking Regulation and Supervision portion of the Supervision and Regulation section of Item 1 Business.

We refer to the capital ratios calculated using the phased-in Basel III provisions in effect for 2017 and, for the risk-based ratios, standardized approach risk-weighted assets, as the 2017 Transitional Basel III ratios.

Federal banking regulators have stated that they expect the largest U.S. bank holding companies, including PNC, to have a level of regulatory capital well in excess of the regulatory minimum and have required the largest U.S. bank holding companies, including PNC, to have a capital buffer sufficient to withstand losses and allow them to meet the credit needs of their customers through estimated stress scenarios. We seek to manage our capital consistent with these regulatory principles, and believe that our December 31, 2017 capital levels were aligned with them.

At December 31, 2017, PNC and PNC Bank, our sole bank subsidiary, were both considered "well capitalized," based on applicable U.S. regulatory capital ratio requirements. To qualify as "well capitalized", PNC must have Transitional Basel III capital ratios of at least 6% for Tier 1 risk-based capital and 10% for Total risk-based capital, and PNC Bank must have Transitional Basel III capital ratios of at least 6.5% for Common equity Tier 1 risk-based capital, 8% for Tier 1 risk-based capital, 10% for Total risk-based capital and a Leverage ratio of at least 5%.

We provide additional information regarding regulatory capital requirements and some of their potential impacts on us in Item 1A Risk Factors and Note 18 Regulatory Matters in the Notes To Consolidated Financial Statements in Item 8 of this Report. See the Statistical Information (Unaudited) section of this Report for details on our December 31, 2016 Transitional Basel III and Pro forma fully phased-in Basel III common equity tier 1 capital ratios.

Market Risk Management

Market risk is the risk of a loss in earnings or economic value due to adverse movements in market factors such as interest rates, credit spreads, foreign exchange rates, commodity prices and equity prices. We are exposed to market risk primarily by our involvement in the following activities, among others:

- Traditional banking activities of gathering deposits and extending loans,
- Equity and other investments and activities whose economic values are directly impacted by market factors, and
- Fixed income securities, derivatives and foreign exchange activities, as a result of customer activities and securities underwriting.

We have established enterprise-wide policies and methodologies to identify, measure, monitor and report market risk. Market Risk Management provides independent oversight by monitoring compliance with established guidelines and reporting significant risks in the business to the Risk Committee of the Board of Directors.

Market Risk Management – Interest Rate Risk

Interest rate risk results primarily from our traditional banking activities of gathering deposits and extending loans. Many factors, including economic and financial conditions, movements in interest rates and consumer preferences, affect the difference between the interest that we earn on assets and the interest that we pay on liabilities and the level of our noninterest-bearing funding sources. Due to the repricing term mismatches and embedded options inherent in certain of these products, changes in market interest rates not only affect expected near-term earnings, but also the economic values of these assets and liabilities.

Our Asset and Liability Management group centrally manages interest rate risk as prescribed in our risk management policies, which are approved by management's Asset and Liability Committee and the Risk Committee of the Board of Directors.

Sensitivity results and market interest rate benchmarks for the fourth quarters of 2017 and 2016 follow:

Table 31: Interest Sensitivity Analysis

	Fourth Quarter 2017	Fourth Quarter 2016
Net Interest Income Sensitivity Simulation (a)		
Effect on net interest income in first year from gradual interest rate change over the following 12 months of:		
100 basis point increase	2.7 %	2.6 %
100 basis point decrease	(3.2)%	(4.2)%
Effect on net interest income in second year from gradual interest rate change over the preceding 12 months of:		
100 basis point increase	5.0 %	4.7 %
100 basis point decrease	(8.1)%	(8.3)%
Duration of Equity Model (a)		
Base case duration of equity (in years)	(1.7)	(2.5)
Key Period-End Interest Rates		
One-month LIBOR	1.56 %	.77 %
Three-year swap	2.17 %	1.69 %

(a) Given the inherent limitations in certain of these measurement tools and techniques, results become less meaningful as interest rates approach zero.

In addition to measuring the effect on net interest income assuming parallel changes in current interest rates, we routinely simulate the effects of a number of nonparallel interest rate environments. Table 32 reflects the percentage change in net interest income over the next two 12-month periods assuming (i) the PNC Economist's most likely rate forecast, (ii) implied market forward rates and (iii) yield curve slope flattening (a 100 basis point yield curve slope flattening between one-month and ten-year rates superimposed on current base rates) scenario.

Table 32: Net Interest Income Sensitivity to Alternative Rate Scenarios (Fourth Quarter 2017)

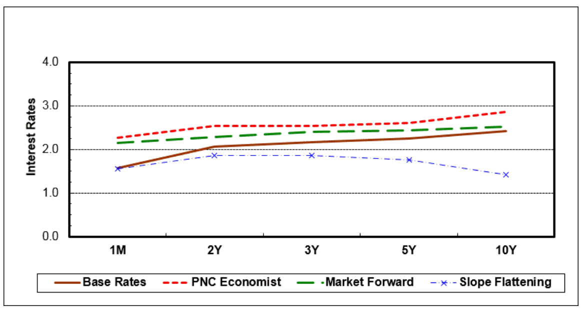
	PNC Economist	Market Forward	Slope Flattening
First year sensitivity	.7%	.5%	(.8)%
Second year sensitivity	1.8%	.4%	(3.8)%

All changes in forecasted net interest income are relative to results in a base rate scenario where current market rates are assumed to remain unchanged over the forecast horizon.

When forecasting net interest income, we make assumptions about interest rates and the shape of the yield curve, the volume and characteristics of new business and the behavior of existing on- and off-balance sheet positions. These assumptions determine the future level of simulated net interest income in the base interest rate scenario and the other interest rate scenarios presented in Tables 31 and 32. These simulations assume that as assets and liabilities mature, they are replaced or repriced at then current market rates.

The following graph presents the LIBOR/Swap yield curves for the base rate scenario and each of the alternate scenarios one year forward.

Table 33: Alternate Interest Rate Scenarios: One Year Forward



The fourth quarter 2017 interest sensitivity analyses indicate that our Consolidated Balance Sheet is positioned to benefit from an increase in interest rates and an upward sloping interest rate yield curve. We believe that we have the deposit funding base and balance sheet flexibility to adjust, where appropriate and permissible, to changing interest rates and market conditions.

Market Risk Management – Customer-Related Trading Risk

We engage in fixed income securities, derivatives and foreign exchange transactions to support our customers' investing and hedging activities. These transactions, related hedges and the credit valuation adjustment related to our customer derivatives portfolio are marked-to-market daily and reported as customer-related trading activities. We do not engage in proprietary trading of these products.

We use value-at-risk (VaR) as the primary means to measure and monitor market risk in customer-related trading activities. VaR is used to estimate the probability of portfolio losses based on the statistical analysis of historical market risk factors. A diversified VaR reflects empirical correlations across different asset classes. We calculate a diversified VaR at a 95% confidence interval and the results for 2017 and 2016 were within our acceptable limits.

To help ensure the integrity of the models used to calculate VaR for each portfolio and enterprise-wide, we use a process known as backtesting. The backtesting process consists of comparing actual observations of gains or losses against the VaR levels that were calculated at the close of the prior day. Our VaR measure assumes that exposures remain constant and that recent market variability is a good predictor of future variability. Actual observations include customer related revenue and intraday hedging which helps to reduce losses and can reduce the number of instances actual losses exceed the prior day VaR measure. There were one and two instances during 2017 and 2016, respectively, under our diversified VaR measure where actual losses exceeded the prior day VaR measure and those losses were insignificant. Our portfolio and enterprise-wide VaR models utilize a historical approach with a 500 day look back period.

Customer-related trading revenue was $255 million for full year 2017 compared with $203 million for full year 2016 and is recorded in Other noninterest income and Other interest income on our Consolidated Income Statement. The increase was mainly due to higher revenue from credit valuations on customer-related derivative activities and higher foreign exchange client sales revenues.

Market Risk Management – Equity And Other Investment Risk

Equity investment risk is the risk of potential losses associated with investing in both private and public equity markets. In addition to extending credit, taking deposits, underwriting securities and trading financial instruments, we make and manage direct investments in a variety of transactions, including management buyouts, recapitalizations and growth financings in a variety of industries. We also have investments in affiliated and non-affiliated funds that make similar investments in private equity. The economic and/or book value of these investments and other assets are directly affected by changes in market factors.

Various PNC business units manage our equity and other investment activities. Our businesses are responsible for making investment decisions within the approved policy limits and associated guidelines.

A summary of our equity investments follows:

Table 34: Equity Investments Summary

In millions	December 31 2017	December 31 2016	Change $	Change %
BlackRock	$ 7,576	$ 6,886	$ 690	10 %
Tax credit investments	2,148	2,090	58	3 %
Private equity and other	1,668	1,752	(84)	(5)%
Total	$ 11,392	$ 10,728	$ 664	6 %

BlackRock
We owned approximately 35 million common stock equivalent shares of BlackRock equity at December 31, 2017, accounted for under the equity method. The Business Segments Review section of this Item 7 includes additional information about BlackRock.

Tax Credit Investments
Included in our equity investments are direct tax credit investments and equity investments held by consolidated entities. These tax credit investment balances included unfunded commitments totaling $.8 billion and $.7 billion at December 31, 2017 and December 31, 2016, respectively. These unfunded commitments are included in Other Liabilities on our Consolidated Balance Sheet.

Note 2 Loan Sale and Servicing Activities and Variable Interest Entities in the Notes To Consolidated Financial Statements in Item 8 of this Report has further information on Tax Credit Investments.

Private Equity and Other
The majority of our other equity investments consists of our private equity portfolio. The private equity portfolio is an illiquid portfolio consisting of mezzanine and equity investments that vary by industry, stage and type of investment. Private equity investments carried at estimated fair value totaled $1.3 billion and $1.4 billion at December 31, 2017 and December 31, 2016, respectively. As of December 31, 2017, $1.1 billion was invested directly in a variety of companies and $.2 billion was invested indirectly through various private equity funds. See Item 1 Business – Supervision and Regulation of this Report for discussion of the potential impacts of the Volcker Rule provisions of Dodd-Frank on our interests in and of private funds covered by the Volcker Rule, including the five-year extension we received in February 2017 to conform certain equity investments subject to the Volcker Rule.

Included in our other equity investments are Visa Class B common shares, which are recorded at cost. At December 31, 2017, the estimated value of our investment in Visa Class B common shares was approximately $661 million and our cost basis was not significant. Visa Class B common shares that we own are transferable only under limited circumstances until they can be converted into shares of the publicly-traded class of stock, which cannot happen until the settlement of the pending interchange litigation. See Note 6 Fair Value and Note 19 Legal Proceedings in the Notes To Consolidated Financial Statements in Item 8 of this Report for additional information regarding our Visa agreements. In the fourth quarter of 2017, we recorded a negative derivative fair value adjustment of $248 million related to swap agreements with purchasers of Visa Class B common shares. These fair value adjustments were primarily related to the extension of anticipated timing of litigation resolution.

We also have certain other equity investments, the majority of which represent investments in affiliated and non-affiliated funds with both traditional and alternative investment strategies. Net gains related to these investments were not significant during 2017 and 2016.

Impact of Inflation
Our assets and liabilities are primarily financial in nature and typically have varying maturity dates. Accordingly, future changes in prices do not affect the obligations to pay or receive fixed and determinable amounts of money. However, during periods of inflation, there may be a subsequent impact affecting certain fixed costs or expenses, an erosion of consumer and customer purchasing power, and fluctuations in the need or demand for our products and services. Should significant levels of inflation occur, our business could potentially be impacted by, among other things, reducing our tolerance for extending credit or causing us to incur additional credit losses resulting from possible increased default rates.

Financial Derivatives
We use a variety of financial derivatives as part of the overall asset and liability risk management process to help manage exposure to market and credit risk inherent in our business activities. Substantially all such instruments are used to manage risk related to changes in interest rates. Interest rate swaps, interest rate caps and floors, swaptions, options, forwards and futures contracts are the primary instruments we use for interest rate risk management. We also enter into derivatives with customers to facilitate their risk management activities.

Financial derivatives involve, to varying degrees, market and credit risk. Periodic cash payments are exchanged for interest rate swaps, options and future contracts. Premiums are also exchanged for options contracts. Therefore, cash requirements and exposure to credit risk are significantly less than the notional amount on these instruments.

Further information on our financial derivatives is presented in Note 1 Accounting Policies, Note 6 Fair Value and Note 13 Financial Derivatives in the Notes To Consolidated Financial Statements in Item 8 of this Report, which is incorporated here by reference.

Not all elements of market and credit risk are addressed through the use of financial derivatives, and such instruments may be ineffective for their intended purposes due to unanticipated market changes, among other reasons.

Operational Risk Management

Operational risk is the risk to the current or projected financial condition and resilience arising from inadequate or failed internal processes or systems, human errors or misconduct, or adverse external events. Operational risk is inherent to the entire organization.

Operational risk management is embedded in our culture and decision-making processes through a systematic approach whereby operational risks and exposures are: 1) identified and assessed; 2) managed through the design and implementation of controls; 3) measured and evaluated against our risk tolerance limits; and 4) appropriately reported to management and the Risk Committee. Strong operational risk management and well-informed risk-based decisions benefit us by improving the customer experience, enhancing compliance, reducing reputational risk, minimizing losses, and establishing an appropriate amount of required operational risk capital held by us.

The Operational Risk Management Framework supports our effective and consistent management of operational risk. The primary purpose of the framework is to enable us to understand our operational risks and manage them to the desired risk profile, in line with our Risk Appetite. Additionally, the guidance established within the framework enables management to make well-informed risk-based business decisions.

The framework provides a disciplined and structured process for us to manage operational risk across eight operational risk domains. These domains provide a comprehensive view of operational risk and allow us to discuss operational risk in a standard way, facilitating reporting and ongoing risk mitigation.

The operational risk domains are:

- Operations: Risk resulting from inadequate or failed internal processes, misconduct or errors of people or fraud.
- Compliance: Risk of legal or regulatory sanctions, financial loss, or damage to reputation resulting from failure to comply with laws, regulations, rules, self-regulatory standards, or other regulatory requirements.
- Data Management: Risk associated with incomplete or inaccurate data.
- Model: Risk associated with the design, implementation, and ongoing use and management of a model.
- Technology and Systems: Risk associated with the use, operation, and adoption of technology.
- Information Security: Risk resulting from the failure to protect information and ensure appropriate access to, and use and handling of information assets.
- Business Continuity: Risk of potential disruptive events to business activities.
- Third Party: Risk arising from failure of third party providers to conduct activity in a safe and sound manner and in compliance with contract provisions and applicable laws and regulations.

We utilize operational risk management programs within the framework, including Risk Control and Self-Assessments, scenario analysis, and internal and external loss event review and analysis, to assess existing risks, determine potential/emerging risks and evaluate the effectiveness of internal controls. The program tools and methodology enable our business managers to identify potential risks and control gaps.

Lines of business are responsible for identifying, owning, managing, and monitoring the operational risks and controls associated with its business activities and product or service offerings to within acceptable levels. Centralized functions, such as Business Continuity, Enterprise Third Party Management, and Information Security, are responsible for the development, implementation and management of their individual programs and for the development and maintenance of the policies, procedures, methodologies, tools, and technology utilized across the enterprise to identify, assess, monitor, and report program risks. Additionally, independent risk management reviews and challenges line of business adherence to the framework to ensure proper controls are in place and appropriate risk mitigation plans are established as necessary.

Compliance Risk

Enterprise Compliance is responsible for coordinating the compliance risk component of our Operational Risk Management Framework. Compliance issues are identified and tracked through enterprise-wide monitoring and tracking programs. Key compliance risk issues are escalated through a comprehensive risk reporting process at both a business and enterprise level and incorporated, as appropriate, into the development and assessment of our operational risk profile. A committee, chaired by the Chief Compliance Officer, is responsible for oversight of compliance and fiduciary risk management programs across PNC. In order to help understand and proactively address emerging regulatory issues where appropriate, Enterprise Compliance communicates regularly with various regulators having supervisory or regulatory responsibilities with respect to us, our subsidiaries, or businesses and participates in forums focused on regulatory and compliance matters in the financial services industry.

Critical Accounting Estimates and Judgments

Our consolidated financial statements are prepared by applying certain accounting policies. Note 1 Accounting Policies in the Notes To Consolidated Financial Statements in Item 8 of this Report describes the most significant accounting policies that we use. Certain of these policies require us to make estimates or economic assumptions that may vary under different assumptions or conditions and such variations may significantly affect our reported results and financial position for the period or in future periods.

Fair Value Measurements

We must use estimates, assumptions, and judgments when assets and liabilities are required to be recorded at, or adjusted to reflect, fair value. Assets and liabilities carried at fair value inherently result in a higher degree of financial statement volatility. Fair values and the information used to record valuation adjustments for certain assets and liabilities are based on either quoted market prices or are provided by independent third-party sources, including appraisers and valuation specialists, when available. When such third-party information is not available, we estimate fair value primarily by using cash flow and other financial modeling techniques. Changes in underlying factors, assumptions, or estimates in any of these areas could materially impact our future financial condition and results of operations.

We apply ASC 820 – Fair Value Measurements. This guidance defines fair value as the price that would be received to sell a financial asset or paid to transfer a financial liability in an orderly transaction between market participants at the measurement date. This guidance requires a three level hierarchy for disclosure of assets and liabilities recorded at fair value. The classification of assets and liabilities within the hierarchy is based on whether the inputs to the valuation methodology used in the measurement are observable or unobservable.

The following table summarizes the assets and liabilities measured at fair value on a recurring basis at December 31, 2017 and December 31, 2016, respectively, and the portions of such assets and liabilities that are classified within Level 3 of the valuation hierarchy. Level 3 assets and liabilities are those where the fair value is estimated using significant unobservable inputs.

Table 35: Fair Value Measurements – Summary

	December 31, 2017		December 31, 2016	
Dollars in millions	Total Fair Value	Level 3	Total Fair Value	Level 3
Total assets	$ 69,673	$ 6,475	$ 74,608	$ 8,830
Total assets at fair value as a percentage of consolidated assets	18%		20%	
Level 3 assets as a percentage of total assets at fair value		9%		12%
Level 3 assets as a percentage of consolidated assets		2%		2%
Total liabilities	$ 4,233	$ 531	$ 4,818	$ 433
Total liabilities at fair value as a percentage of consolidated liabilities	1%		2%	
Level 3 liabilities as a percentage of total liabilities at fair value		13%		9%
Level 3 liabilities as a percentage of consolidated liabilities		<1%		<1%

The majority of assets recorded at fair value are included in the securities available for sale portfolio. The majority of Level 3 assets represent non-agency residential mortgage-backed securities in the securities available for sale portfolio, equity investments and mortgage servicing rights. The decline in Level 3 assets was driven by the transfer of certain commercial mortgage loans held for sale to Level 2 and settlements related to residential mortgage-backed securities available for sale during the period. For further information on fair value, see Note 6 Fair Value in the Notes To the Consolidated Financial Statements in Item 8 of this Report.

Allowances for Loan and Lease Losses and Unfunded Loan Commitments and Letters of Credit

We maintain the ALLL and the Allowance for Unfunded Loan Commitments and Letters of Credit at levels that we believe to be appropriate to absorb estimated probable credit losses incurred in the loan and lease portfolios and on these unfunded credit facilities as of the balance sheet date. Our determination of the allowances is based on periodic evaluations of the loan and lease portfolios and unfunded credit facilities and other relevant factors. These critical estimates include significant use of our own historical data and complex methods to interpret them. We have an ongoing process to evaluate and enhance the quality, quantity and timeliness of our data and interpretation methods used in the determination of these allowances. These evaluations are inherently subjective, as they require material estimates and may be susceptible to significant change, and include, among others:

- Probability of default (PD),
- Loss given default (LGD),
- Outstanding balance of the loan,
- Movement through delinquency stages,
- Amounts and timing of expected future cash flows,
- Value of collateral, which may be obtained from third parties, and
- Qualitative factors, such as changes in current economic conditions, that may not be reflected in modeled results.

For all loans, the ALLL is the sum of three components: (i) asset specific/individual impaired reserves, (ii) quantitative (formulaic or pooled) reserves and (iii) qualitative (judgmental) reserves. The reserve calculation and determination process is dependent on the use of key assumptions. Key reserve assumptions and estimation processes react to and are influenced by observed changes in loan portfolio performance experience, the financial strength of the borrower, and economic conditions. For unfunded commitments, the reserve estimate also includes estimation of the probability of funding. Key reserve assumptions are periodically updated.

To the extent actual outcomes differ from our estimates, additional provision for credit losses may be required that would reduce future earnings. See the following for additional information:

- Allowances For Loan And Lease Losses And Unfunded Loan Commitments And Letters Of Credit in the Credit Risk Management section of this Item 7, and
- Note 1 Accounting Policies and Note 4 Allowance for Loan and Lease Losses in the Notes To Consolidated Financial Statements and Allocation of Allowance for Loan and Lease Losses in the Statistical Information (Unaudited) section of Item 8 of this Report.

Goodwill

Goodwill arising from business acquisitions represents the value attributable to unidentifiable intangible elements in the business acquired. Most of our goodwill relates to value inherent in the Retail Banking and Corporate & Institutional Banking businesses.

The value of goodwill is supported by earnings, which is driven by our invested assets and transaction volume and, for certain businesses, the market value of assets under administration or for which processing services are provided. Lower earnings and realized profitability resulting from a lack of growth or our inability to deliver cost-effective services over sustained periods can lead to impairment of goodwill, which could result in a current period charge to earnings. At least annually, in the fourth quarter, or more frequently if events occur or circumstances have changed significantly from the annual test date, management reviews the current operating environment and strategic direction of each reporting unit taking into consideration any events or changes in circumstances that may have an effect on the unit. For this review, inputs are generated and used in calculating the fair value of the reporting unit, which is compared to its carrying amount ("Step 1" of the goodwill impairment test) as further discussed below. The fair values of our reporting units are determined using a discounted cash flow valuation model with assumptions based upon market comparables. Additionally, we may also evaluate certain financial metrics that are indicative of fair value, including market quotes, price to earnings ratios and recent acquisitions involving other financial institutions. A reporting unit is defined as an operating segment or one level below an operating segment. If the fair value of the reporting unit is less than its carrying amount, the reporting unit's goodwill would be evaluated for impairment. In this circumstance, the implied fair value of reporting unit goodwill, which is determined as if the reporting unit had been acquired in a business combination, would be compared to the carrying amount of that goodwill ("Step 2" of the goodwill impairment test). If the carrying amount of goodwill exceeds the implied fair value of goodwill, the difference is recognized as an impairment loss.

The results of our annual 2017 impairment test indicated that the estimated fair values of our reporting units with goodwill exceeded their carrying values by at least 10% and are not considered to be at risk of not passing Step 1. By definition, assumptions utilized in estimating the fair value of a reporting unit are judgmental and inherently uncertain, but absent a significant change in economic conditions of a reporting unit, we would not expect the fair values of these reporting units to decrease below their respective carrying values. Similarly, there were no impairment charges related to goodwill in 2016 or 2015.

See Note 7 Goodwill and Mortgage Servicing Rights in the Notes To Consolidated Financial Statements in Item 8 of this Report for additional information.

Residential and Commercial Mortgage Servicing Rights

We elect to measure our residential and commercial mortgage servicing rights (MSRs) at fair value. This election was made to be consistent with our risk management strategy to hedge changes in the fair value of these assets. The fair value of residential and commercial MSRs is estimated by using a discounted cash flow valuation model which calculates the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs, and other factors which are determined based on current market conditions.

We employ risk management strategies designed to protect the value of MSRs from changes in interest rates and related market factors. The values of the residential and commercial MSRs are economically hedged with securities and derivatives, including interest-rate swaps, options, and forward mortgage-backed and futures contracts. As interest rates change, these financial instruments are expected to have changes in fair value negatively correlated to the change in fair value of the hedged MSR portfolios. The hedge relationships are actively managed in response to changing market conditions over the life of the MSRs. Selecting appropriate financial instruments to economically hedge residential or commercial MSRs requires significant management judgment to assess how mortgage rates and prepayment speeds could affect the future values of MSRs. Hedging results can frequently be less predictable in the short term, but over longer periods of time are expected to protect the economic value of the MSRs.

The following sections of this Report provide further information on residential and commercial MSRs:

- Note 6 Fair Value included in the Notes To Consolidated Financial Statements in Item 8 of this Report.
- Note 7 Goodwill and Mortgage Servicing Rights included in the Notes To Consolidated Financial Statements in Item 8 of this Report.

Income Taxes

In the normal course of business, we and our subsidiaries enter into transactions for which the tax treatment is unclear or subject to varying interpretations. In addition, filing requirements, methods of filing and the calculation of taxable income in various state and local jurisdictions are subject to differing interpretations.

We evaluate and assess the relative risks and merits of the tax treatment of transactions, filing positions, filing methods and taxable income calculations after considering statutes, regulations, judicial precedent, and other information, and maintain tax accruals consistent with our evaluation of these relative risks and merits. The result of our evaluation and assessment is by its nature an estimate. We and our subsidiaries are routinely subject to audit and challenges from taxing authorities. In the event we resolve a challenge for an amount different than amounts previously accrued, we will account for the difference in the period in which we resolve the matter.

Where our accounting of certain income tax effects of the Tax Cuts and Jobs Act enacted on December 22, 2017 is complete, these tax effects have been included in the financial statements. However, to the extent our accounting for certain income tax effects is incomplete, but can be reasonably estimated, the estimated effects are included as provisional amounts in the financial statements. During the measurement period, which will end on December 21, 2018, these estimates may be adjusted upon obtaining or analyzing additional information about facts and circumstances or clarification of uncertain aspects of the newly enacted tax law. If known, the adjustments would have affected the initially reported provisional amounts.

Legal Contingencies

For a description of the significant estimates and judgments associated with establishing reserves for legal contingencies, see Note 19 Legal Proceedings in the Notes To Consolidated Financial Statements in Item 8 of this Report.

Recently Issued Accounting Standards

Revenue Recognition

In May 2014, the Financial Accounting Standard Board (FASB) issued Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers* (Topic 606). This ASU clarifies the principles for recognizing revenue and replaces nearly all existing revenue recognition guidance in U.S. GAAP with one accounting model. The core principle of the guidance is that an entity should recognize revenue when it satisfies a performance obligation by transferring a promised good or service to a customer. The ASU requires additional qualitative and quantitative disclosures relating to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

We adopted this standard as of January 1, 2018 under the modified retrospective approach. The impact of adoption was immaterial to PNC's consolidated results of operations and financial position. The most significant impact of adoption will be expanded disclosures relating to disaggregation of in-scope revenue, which will be included in our first quarter 2018 Form 10-Q.

Financial Instruments

In January 2016, the FASB issued ASU 2016-01, Financial Instruments – Overall (Subtopic 825-10): *Recognition and Measurement of Financial Assets and Financial Liabilities.* This ASU changes the accounting for certain equity investments, financial liabilities under the fair value option and presentation and disclosure requirements for financial instruments. Equity investments not accounted for under the equity method of accounting will be measured at fair value with any changes in fair value recognized in net income. For an equity investment which does not have a readily determinable fair value, an election can be made to measure the investment at cost, less any impairment, plus or minus changes in value resulting from observable price changes in identical or similar instruments of the issuer. The ASU also simplifies the impairment assessment of equity investments for which fair value is not readily determinable.

We adopted this standard as of January 1, 2018 under the modified retrospective approach, except for the amendment related to equity securities without readily determinable fair values, which is applied prospectively. The impact of adoption was immaterial to PNC's consolidated results of operations and financial position.

Leases

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842*)*. The primary change in the new guidance is the recognition of lease assets and lease liabilities by lessees for operating leases. The ASU requires lessees to recognize a right-of-use asset and related lease liability for all leases with lease terms of more than 12 months. The recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessee will depend on its classification as a finance or operating lease. The ASU is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2018 using a modified retrospective approach through a cumulative-effect adjustment. Early adoption is permitted.

Our implementation efforts are ongoing, including the deployment of a lease accounting software solution. We are currently evaluating the impact of various accounting policy elections, the discount rate to present value the future minimum payments under operating leases, and the impact of new disclosure requirements. We are substantially complete with the evaluation of our initial lease population. We expect, at a minimum, to recognize lease liabilities and corresponding right-of-use assets commensurate with the present value of the future minimum payments required under operating leases as disclosed in Note 8 Premises, Equipment and Leasehold Improvements in the Notes To Consolidated Financial Statements in this Report. We do not expect a material change to the timing of our expense recognition.

Credit Losses
In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): *Measurement of Credit Losses on Financial Instruments*. The ASU requires the use of an expected credit loss methodology; specifically, current expected credit losses (CECL) for the remaining life of the asset will be recognized at the time of origination or acquisition. The CECL methodology will apply to loans, debt securities, and other financial assets and net investment in leases not accounted for at fair value through net income. It will also apply to off-balance sheet credit exposures except for unconditionally cancellable commitments. Assets in the scope of the ASU will be presented at the net amount expected to be collected after deducting the allowance for credit losses from the amortized cost basis of the assets. Enhanced credit quality disclosures will be required including disaggregation of credit quality indicators by vintage. The ASU is effective for us for the first quarter of 2020 using a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. We do not plan to adopt the standard at its early adoption date in the first quarter of 2019.

The CECL methodology and new disclosures requires significant data collection, building or enhancement of loss models, and process re-development prior to adoption. We established a company-wide, cross-functional governance structure in the third quarter of 2016, which oversees overall strategy for implementation of Topic 326, including model methodology, technology, development, data enhancements and governance issues. We continue to design and develop CECL estimation methodologies and technological solutions. Concurrently, we are assessing and analyzing whether data that is required to comply with the standard is available and accurate.

We continue to believe that the adoption of the standard will result in an overall increase in the allowance for loan losses to cover credit losses over the estimated life of the financial assets. However, the magnitude of the increase in our allowance for loan losses at the adoption date will depend upon the nature and characteristics of the portfolio at the adoption date, as well as macroeconomic conditions and forecasts at that date.

Statement of Cash Flows
In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): *Classification of Certain Cash Receipts and Cash Payments.* The ASU provides guidance on eight specific issues related to classification within the statement of cash flows with the objective of reducing existing diversity in practice. The specific issues cover cash payments for debt prepayment or debt extinguishment costs; cash outflows for settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant; contingent consideration payments that are not made soon after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; distributions received from equity method investees; beneficial interests received in securitization transactions; and clarifies that when no specific GAAP guidance exists and the source of the cash flows are not separately identifiable, then the predominant source of cash flows should be used to determine the classification for the item. We adopted the standard as of January 1, 2018 under the retrospective transition method. The impact of adoption was immaterial to our consolidated statement of cash flows.

Derivatives and Hedging
In August 2017, the FASB issued ASU 2017-12, Derivatives and Hedging (Topic 815): *Targeted Improvements to Accounting for Hedging Activities*. The ASU simplifies the application of hedge accounting by easing the requirements for effectiveness testing, hedge documentation and the application of critical terms match method. The ASU also provides new alternatives for applying hedge accounting to additional hedging strategies and measuring the hedged item in fair value hedges of interest rate risk.

The ASU is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2018 with early adoption permitted. All transition requirements and elections should be applied to hedging relationships existing on the date of adoption and the effect of adoption is required to be reflected as of the beginning of the fiscal year of adoption (i.e. modified retrospective application) through a cumulative-effect adjustment. The amended presentation and disclosure guidance is required only prospectively. One-time transition elections are available to modify existing hedge documentation.

We adopted the standard on January 1, 2018 using the modified retrospective approach with the cumulative effect of initially applying ASU 2017-12 recognized at the date of initial application. The impact of adoption was immaterial to PNC's consolidated results of operations and financial position.

Comprehensive Income
In February 2018, the FASB issued ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. This ASU permits the reclassification to retained earnings of the income tax effects stranded within accumulated other comprehensive income (AOCI) as a result of the enactment of the Tax Cuts and Jobs Act. This standard requires qualitative disclosures of the accounting policy relating to releasing income tax effects from AOCI and if the reclassification election is made, the impacts of the change on the financial statements. We adopted this standard as of January 1, 2018 and have elected to reclassify the income tax effects from AOCI to retained earnings at the beginning of the period of adoption. The impact of adoption was immaterial to PNC's consolidated balance sheet.

Recently Adopted Accounting Pronouncements
See Note 1 Accounting Policies in the Notes To the Consolidated Financial Statements in Item 8 of this Report regarding the impact of new accounting pronouncements which we have adopted.

Off-Balance Sheet Arrangements and Variable Interest Entities

We engage in a variety of activities that involve entities that are not consolidated or otherwise reflected in our Consolidated Balance Sheet that are generally referred to as "off-balance sheet arrangements." Additional information on these types of activities is included in the following sections of this Report:

- Commitments, including contractual obligations and other commitments, included within the Risk Management section of this Item 7, and
- Note 2 Loan Sale and Servicing Activities and Variable Interest Entities,
- Note 10 Borrowed Funds,
- Note 15 Equity, and
- Note 20 Commitments, all of which are in the Notes To Consolidated Financial Statements included in Item 8 of this Report.

A summary and further description of variable interest entities (VIEs) as of December 31, 2017 and December 31, 2016 is included in Note 1 Accounting Policies and Note 2 Loan Sale and Servicing and Variable Interest Entities in the Notes To Consolidated Financial Statements included in Item 8 of this Report.

Trust Preferred Securities and REIT Preferred Securities

See Note 10 Borrowed Funds and Note 15 Equity in the Notes To Consolidated Financial Statements in Item 8 of this Report for additional information on trust preferred securities issued by PNC Capital Trust C including information on contractual limitations potentially imposed on payments (including dividends) with respect to PNC's equity securities and for additional information on the redemption of the REIT preferred securities issued by PNC Preferred Funding Trust I and PNC Preferred Funding Trust II.

Glossary Of Terms

Adjusted average total assets – Primarily consisted of total average quarterly (or annual) assets plus/less unrealized losses (gains) on investment securities, less goodwill and certain other intangible assets (net of eligible deferred taxes).

Basel III common equity Tier 1 capital – Common stock plus related surplus, net of treasury stock, plus retained earnings, plus accumulated other comprehensive income for securities currently and those transferred from available for sale and pension and other postretirement benefit plans, subject to phase-in limits, less goodwill, net of associated deferred tax liabilities, less other disallowed intangibles, net of deferred tax liabilities and plus/less other adjustments. Significant common stock investments in unconsolidated financial institutions, as well as mortgage servicing rights and deferred tax assets, must then be deducted to the extent such items individually exceed 10%, or in the aggregate exceed 15%, of our adjusted Basel III common equity Tier 1 capital .

Basel III common equity Tier 1 capital ratio – Common equity Tier 1 capital divided by period-end risk-weighted assets (as applicable).

Basel III Tier 1 capital – Common equity Tier 1 capital, plus qualifying preferred stock, plus certain trust preferred capital securities, plus certain noncontrolling interests that are held by others and plus/less other adjustments.

Basel III Tier 1 capital ratio – Tier 1 capital divided by period-end risk-weighted assets (as applicable).

Basel III Total capital – Tier 1 capital plus qualifying subordinated debt, plus certain trust preferred securities, plus, under the Basel III transitional rules and the standardized approach, the allowance for loan and lease losses included in Tier 2 capital and other.

Basel III Total capital ratio – Total capital divided by period-end risk-weighted assets (as applicable).

Charge-off – Process of removing a loan or portion of a loan from our balance sheet because it is considered uncollectible. We also record a charge-off when a loan is transferred from portfolio holdings to held for sale by reducing the loan carrying amount to the fair value of the loan, if fair value is less than carrying amount.

Combined loan-to-value ratio (CLTV) – This is the aggregate principal balance(s) of the mortgages on a property divided by its appraised value or purchase price.

Common shareholders' equity – Total shareholders' equity less the liquidation value of preferred stock.

Credit valuation adjustment – Represents an adjustment to the fair value of our derivatives for our own and counterparties' non-performance risk.

Criticized commercial loans – Loans with potential or identified weaknesses based upon internal risk ratings that comply with the regulatory classification definitions of "Special Mention," "Substandard" or "Doubtful."

Discretionary client assets under management – Assets over which we have sole or shared investment authority for our customers/clients. We do not include these assets on our Consolidated Balance Sheet.

Duration of equity – An estimate of the rate sensitivity of our economic value of equity. A negative duration of equity is associated with asset sensitivity (*i.e.*, positioned for rising interest rates), while a positive value implies liability sensitivity (*i.e.*, positioned for declining interest rates). For example, if the duration of equity is -1.5 years, the economic value of equity increases by 1.5% for each 100 basis point increase in interest rates.

Earning assets – Assets that generate income, which include: interest-earning deposits with banks; loans held for sale; loans; investment securities; and certain other assets.

Effective duration – A measurement, expressed in years, that, when multiplied by a change in interest rates, would approximate the percentage change in value of on- and off- balance sheet positions.

Efficiency – Noninterest expense divided by total revenue.

Fair value – The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fee income – When referring to the components of Noninterest income, we use the term fee income to refer to the following categories within Noninterest income: Asset management; Consumer services; Corporate services; Residential mortgage; and Service charges on deposits.

FICO score – A credit bureau-based industry standard score created by Fair Isaac Co. which predicts the likelihood of borrower default. We use FICO scores both in underwriting and assessing credit risk in our consumer lending portfolio. Lower FICO scores indicate likely higher risk of default, while higher FICO scores indicate likely lower risk of default. FICO scores are updated on a periodic basis.

Foreign exchange contracts – Contracts that provide for the future receipt and delivery of foreign currency at previously agreed-upon terms.

Futures and forward contracts – Contracts in which the buyer agrees to purchase and the seller agrees to deliver a specific financial instrument at a predetermined price or yield. May be settled either in cash or by delivery of the underlying financial instrument.

GAAP – Accounting principles generally accepted in the United States of America.

Home price index (HPI) – A broad measure of the movement of single-family house prices in the U.S.

Impaired loans – Loans are determined to be impaired when, based on current information and events, it is probable that all contractually required payments will not be collected. Impaired loans include commercial nonperforming loans and consumer and commercial TDRs, regardless of nonperforming status. Excluded from impaired loans are nonperforming leases, loans held for sale, loans accounted for under the fair value option, smaller balance homogenous type loans and purchased impaired loans.

Interest rate swap contracts – Contracts that are entered into primarily as an asset/liability management strategy to reduce interest rate risk. Interest rate swap contracts are exchanges of interest rate payments, such as fixed-rate payments for floating-rate payments, based on notional principal amounts.

Intrinsic value – The difference between the price, if any, required to be paid for stock issued pursuant to an equity compensation arrangement and the fair market value of the underlying stock.

Leverage ratio – Tier 1 capital divided by average quarterly adjusted total assets.

LIBOR – Acronym for London InterBank Offered Rate. LIBOR is the average interest rate charged when banks in the London wholesale money market (or interbank market) borrow unsecured funds from each other. LIBOR rates are used as a benchmark for interest rates on a global basis. Our product set includes loans priced using LIBOR as a benchmark.

Loan-to-value ratio (LTV) – A calculation of a loan's collateral coverage that is used both in underwriting and assessing credit risk in our lending portfolio. LTV is the sum total of loan obligations secured by collateral divided by the market value of that same collateral. Market values of the collateral are based on an independent valuation of the collateral. For example, a LTV of less than 90% is better secured and has less credit risk than a LTV of greater than or equal to 90%.

Loss given default (LGD) – An estimate of loss, net of recovery based on collateral type, collateral value, loan exposure, and other factors. Each loan has its own LGD. The LGD risk rating measures the percentage of exposure of a specific credit obligation that we expect to lose if default occurs. LGD is net of recovery, through any means, including but not limited to the liquidation of collateral or deficiency judgments rendered from foreclosure or bankruptcy proceedings.

Nonaccrual loans – Loans for which we do not accrue interest income. Nonaccrual loans include nonperforming loans, in addition to loans accounted for under fair value option and loans accounted for as held for sale for which full collection of contractual principal and/or interest is not probable.

Nondiscretionary client assets under administration – Assets we hold for our customers/clients in a nondiscretionary, custodial capacity. We do not include these assets on our Consolidated Balance Sheet.

Nonperforming assets – Nonperforming assets include nonperforming loans and OREO, foreclosed and other assets, but exclude certain government insured or guaranteed loans for which we expect to collect substantially all principal and interest, loans held for sale, loans accounted for under the fair value option and purchased impaired loans. We do not accrue interest income on assets classified as nonperforming.

Nonperforming loans – Loans accounted for at amortized cost for which we do not accrue interest income. Nonperforming loans include loans to commercial, commercial real estate, equipment lease financing, home equity, residential real estate, credit card and other consumer customers as well as TDRs which have not returned to performing status. Nonperforming loans exclude certain government insured or guaranteed loans for which we expect to collect substantially all principal and interest, loans held for sale, loans accounted for under the fair value option and purchased impaired loans. Nonperforming loans exclude purchased impaired loans as we are currently accreting interest income over the expected life of the loans.

Notional amount – A number of currency units, shares, or other units specified in a derivative contract.

Operating leverage – The period to period dollar or percentage change in total revenue (GAAP basis) less the dollar or percentage change in noninterest expense. A positive variance indicates that revenue growth exceeded expense growth (*i.e.*, positive operating leverage) while a negative variance implies expense growth exceeded revenue growth (*i.e.*, negative operating leverage).

Options – Contracts that grant the purchaser, for a premium payment, the right, but not the obligation, to either purchase or sell the associated financial instrument at a set price during a specified period or at a specified date in the future.

Other real estate owned (OREO), foreclosed and other assets –Assets taken in settlement of troubled loans primarily through deed-in-lieu of foreclosure or foreclosure. Foreclosed and other assets include real and personal property, equity interests in corporations, partnerships, and limited liability companies. Excludes certain assets that have a government guarantee which are classified as other receivables.

Probability of default (PD) – An internal risk rating that indicates the likelihood that a credit obligor will enter into default status.

Recovery – Cash proceeds received on a loan that we had previously charged off. We credit the amount received to the allowance for loan and lease losses.

Risk – The potential that an event or series of events could occur that would threaten our ability to achieve our strategic objectives, thereby negatively affecting shareholder value or reputation.

Risk appetite – A dynamic, forward-looking view on the aggregate amount of risk we are willing and able to take in executing business strategy in light of the current business environment.

Risk limits – Quantitative measures based on forward looking assumptions that allocate the firm's aggregate risk appetite (*e.g.* measure of loss or negative events) to business lines, legal entities, specific risk categories, concentrations and as appropriate, other levels.

Risk profile – The risk profile is a point-in-time assessment of risk. The profile represents overall risk position in relation to the desired risk appetite. The determination of the risk profile's position is based on qualitative and quantitative analysis of reported risk limits, metrics, operating guidelines and qualitative assessments.

Risk-weighted assets – Computed by the assignment of specific risk-weights (as defined by the Board of Governors of the Federal Reserve System) to assets and off-balance sheet instruments.

Servicing rights – An intangible asset or liability created by an obligation to service assets for others. Typical servicing rights include the right to receive a fee for collecting and forwarding payments on loans and related taxes and insurance premiums held in escrow.

Taxable-equivalent interest income – The interest income earned on certain assets that is completely or partially exempt from federal income tax. These tax-exempt instruments typically yield lower returns than taxable investments. To provide more meaningful comparisons of yields and margins for all interest-earning assets, we use interest income on a taxable-equivalent basis in calculating average yields and net interest margins by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on other taxable investments. This adjustment is not permitted under GAAP on the Consolidated Income Statement.

Transitional Basel III common equity Tier 1 capital – Common equity Tier 1 capital calculated under Basel III using phased-in definitions and deductions applicable to us during the related presentation period and standardized approach risk-weighted assets.

Troubled debt restructuring (TDR) – A loan whose terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties.

Value-at-risk (VaR) – A statistically-based measure of risk that describes the amount of potential loss which may be incurred due to adverse market movements. The measure is of the maximum loss which should not be exceeded on 95 out of 100 days for a 95% VaR.

Yield curve – A graph showing the relationship between the yields on financial instruments or market indices of the same credit quality with different maturities. For example, a "normal" or "positive" yield curve exists when long-term bonds have higher yields than short-term bonds. A "flat" yield curve exists when yields are the same for short-term and long-term bonds. A "steep" yield curve exists when yields on long-term bonds are significantly higher than on short-term bonds. An "inverted" or "negative" yield curve exists when short-term bonds have higher yields than long-term bonds.

Cautionary Statement Regarding Forward-Looking Information

We make statements in this Report, and we may from time to time make other statements, regarding our outlook for earnings, revenues, expenses, tax rates, capital and liquidity levels and ratios, asset levels, asset quality, financial position, and other matters regarding or affecting us and our future business and operations that are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Forward-looking statements are typically identified by words such as "believe," "plan," "expect," "anticipate," "see," "look," "intend," "outlook," "project," "forecast," "estimate," "goal," "will," "should" and other similar words and expressions. Forward-looking statements are subject to numerous assumptions, risks and uncertainties, which change over time.

Forward-looking statements speak only as of the date made. We do not assume any duty to update forward-looking statements. Actual results or future events could differ, possibly materially, from those anticipated in forward-looking statements, as well as from historical performance.

Our forward-looking statements are subject to the following principal risks and uncertainties.

- Our businesses, financial results and balance sheet values are affected by business and economic conditions, including the following:
  - Changes in interest rates and valuations in debt, equity and other financial markets.
  - Disruptions in the U.S. and global financial markets.
  - Actions by the Federal Reserve Board, U.S. Treasury and other government agencies, including those that impact money supply and market interest rates.
  - Changes in customer behavior due to newly enacted tax legislation, changing business and economic conditions or legislative or regulatory initiatives.
  - Changes in customers', suppliers' and other counterparties' performance and creditworthiness.
  - Slowing or reversal of the current U.S. economic expansion.
  - Commodity price volatility.
- Our forward-looking financial statements are subject to the risk that economic and financial market conditions will be substantially different than those we are currently expecting and do not take into account potential legal and regulatory contingencies. These statements are based on our current view that the U.S. economic growth will accelerate somewhat in 2018, in light of stimulus from recently passed corporate and personal income tax cuts that are expected to support business investment and consumer spending, respectively. Further gradual improvement in the labor market this year, including job gains and rising wages, is another positive for consumer spending. Other sources of growth for the U.S. economy in 2018 will be the global economic expansion and the housing market. Although inflation slowed in 2017, it should pick up as the labor market continues to tighten. Short-term interest rates and bond yields are expected to rise throughout 2018; our baseline forecast is for three increases in the federal funds rate in 2018, pushing the rate to a range of 2.00 to 2.25 percent by the end of the year. Longer-term rates are also expected to increase as the Federal Reserve slowly reduces the size of its balance sheet and the federal government borrows more, but at a slower pace than the short-term rates, so we anticipate the yield curve will flatten but not invert.
- Our ability to take certain capital actions, including returning capital to shareholders, is subject to review by the Federal Reserve Board as part of our comprehensive capital plan for the applicable period in connection with the Federal Reserve Board's Comprehensive Capital Analysis and Review (CCAR) process and to the acceptance of such capital plan and non-objection to such capital actions by the Federal Reserve Board.
- Our regulatory capital ratios in the future will depend on, among other things, the company's financial performance, the scope and terms of final capital regulations then in effect (particularly those implementing the international regulatory capital framework developed by the Basel Committee on Banking Supervision (Basel Committee), and management actions affecting the composition of our balance sheet. In addition, our ability to determine, evaluate and forecast regulatory capital ratios, and to take actions (such as capital distributions) based on actual or forecasted capital ratios, will be dependent at least in part on the development, validation and regulatory approval of related models.
- Legal and regulatory developments could have an impact on our ability to operate our businesses, financial condition, results of operations, competitive position, reputation, or pursuit of attractive acquisition opportunities. Reputational impacts could affect matters such as business generation and retention,

liquidity, funding, and ability to attract and retain management. These developments could include:
  - Changes resulting from legislative and regulatory reforms, including changes affecting oversight of the financial services industry, consumer protection, pension, bankruptcy and other industry aspects, and changes in accounting policies and principles.
  - Changes to regulations governing bank capital and liquidity standards, including due to the Dodd-Frank Act and initiatives of the Basel Committee.
  - Unfavorable resolution of legal proceedings or other claims and regulatory and other governmental investigations or other inquiries. These matters may result in monetary judgments or settlements or other remedies, including fines, penalties, restitution or alterations in our business practices, and in additional expenses and collateral costs, and may cause reputational harm to us.
  - Results of the regulatory examination and supervision process, including our failure to satisfy requirements of agreements with governmental agencies.
  - Impact on business and operating results of any costs associated with obtaining rights in intellectual property claimed by others and of adequacy of our intellectual property protection in general.
- Business and operating results are affected by our ability to identify and effectively manage risks inherent in our businesses, including, where appropriate, through effective use of systems and controls, third-party insurance, derivatives, and capital management techniques, and to meet evolving regulatory capital and liquidity standards.
- Business and operating results also include impacts relating to our equity interest in BlackRock, Inc. and rely to a significant extent on information provided to us by BlackRock. Risks and uncertainties that could affect BlackRock are discussed in more detail by BlackRock in its SEC filings.
- We grow our business in part through acquisitions. Acquisition risks and uncertainties include those presented by the nature of the business acquired, including in some cases those associated with our entry into new businesses or new geographic or other markets and risks resulting from our inexperience in those new areas, as well as risks and uncertainties related to the acquisition transactions themselves, regulatory issues, and the integration of the acquired businesses into PNC after closing.
- Competition can have an impact on customer acquisition, growth and retention and on credit spreads and product pricing, which can affect market share, deposits and revenues. Our ability to anticipate and respond to technological changes can also impact our ability to respond to customer needs and meet competitive demands.
- Business and operating results can also be affected by widespread natural and other disasters, pandemics, dislocations, terrorist activities, system failures, security breaches, cyberattacks or international hostilities through impacts on the economy and financial markets generally or on us or our counterparties specifically.

We provide greater detail regarding these as well as other factors in this Report, and elsewhere in this Report, including in the Risk Factors and Risk Management sections and the Legal Proceedings and Commitments Notes of the Notes To Consolidated Financial Statements in this Report. Our forward-looking statements may also be subject to other risks and uncertainties, including those discussed elsewhere in this Report or in our other filings with the SEC.

ITEM 7A – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

This information is set forth in the Risk Management section of Item 7 and in Note 1 Accounting Policies, Note 6 Fair Value, and Note 13 Financial Derivatives in the Notes To Consolidated Financial Statements in Item 8 of this Report.

ITEM 8 – FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of The PNC Financial Services Group, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of The PNC Financial Services Group, Inc. and its subsidiaries as of December 31, 2017 and December 31, 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, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework (*2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and December 31, 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company 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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

/s/ PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania
February 28, 2018

We have served as the Company's auditor since 2007.

CONSOLIDATED INCOME STATEMENT

THE PNC FINANCIAL SERVICES GROUP, INC.

	Year ended December 31		
In millions, except per share data	2017	2016	2015
Interest Income			
Loans	$ 8,238	$ 7,414	$ 7,203
Investment securities	1,998	1,826	1,679
Other	578	412	441
Total interest income	10,814	9,652	9,323
Interest Expense			
Deposits	623	430	403
Borrowed funds	1,083	831	642
Total interest expense	1,706	1,261	1,045
Net interest income	9,108	8,391	8,278
Noninterest Income			
Asset management	1,942	1,521	1,567
Consumer services	1,415	1,388	1,335
Corporate services	1,621	1,504	1,491
Residential mortgage	350	567	566
Service charges on deposits	695	667	651
Other	1,198	1,124	1,337
Total noninterest income	7,221	6,771	6,947
Total revenue	16,329	15,162	15,225
Provision For Credit Losses	441	433	255
Noninterest Expense			
Personnel	5,224	4,841	4,831
Occupancy	868	861	842
Equipment	1,065	974	925
Marketing	244	247	249
Other	2,997	2,553	2,616
Total noninterest expense	10,398	9,476	9,463
Income before income taxes and noncontrolling interests	5,490	5,253	5,507
Income taxes	102	1,268	1,364
Net income	5,388	3,985	4,143
Less: Net income attributable to noncontrolling interests	50	82	37
Preferred stock dividends	236	209	220
Preferred stock discount accretion and redemptions	26	6	5
Net income attributable to common shareholders	$ 5,076	$ 3,688	$ 3,881
Earnings Per Common Share			
Basic	$ 10.49	$ 7.42	$ 7.52
Diluted	$ 10.36	$ 7.30	$ 7.39
Average Common Shares Outstanding			
Basic	481	494	514
Diluted	486	500	521

See accompanying Notes To Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

THE PNC FINANCIAL SERVICES GROUP, INC.

	Year ended December 31		
In millions	2017	2016	2015
Net income	$ 5,388	$ 3,985	$ 4,143
Other comprehensive income (loss), before tax and net of reclassifications into Net income:			
Net unrealized gains (losses) on non-OTTI securities	16	(369)	(569)
Net unrealized gains (losses) on OTTI securities	172	63	(13)
Net unrealized gains (losses) on cash flow hedge derivatives	(287)	(153)	127
Pension and other postretirement benefit plan adjustments	169	1	(54)
Other	61	(59)	(42)
Other comprehensive income (loss), before tax and net of reclassifications into Net income	131	(517)	(551)
Income tax benefit (expense) related to items of other comprehensive income	(14)	122	178
Other comprehensive income (loss), after tax and net of reclassifications into Net income	117	(395)	(373)
Comprehensive income	5,505	3,590	3,770
Less: Comprehensive income attributable to noncontrolling interests	50	82	37
Comprehensive income attributable to PNC	$ 5,455	$ 3,508	$ 3,733

See accompanying Notes To Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEET

THE PNC FINANCIAL SERVICES GROUP, INC.

In millions, except par value	December 31 2017	December 31 2016
Assets		
Cash and due from banks	$ 5,249	$ 4,879
Interest-earning deposits with banks	28,595	25,711
Loans held for sale (a)	2,655	2,504
Investment securities – available for sale	57,618	60,104
Investment securities – held to maturity	18,513	15,843
Loans (a)	220,458	210,833
Allowance for loan and lease losses	(2,611)	(2,589)
Net loans	217,847	208,244
Equity investments	11,392	10,728
Mortgage servicing rights	1,832	1,758
Goodwill	9,173	9,103
Other (a)	27,894	27,506
Total assets	$ 380,768	$ 366,380
Liabilities		
Deposits		
Noninterest-bearing	$ 79,864	$ 80,230
Interest-bearing	185,189	176,934
Total deposits	265,053	257,164
Borrowed funds		
Federal Home Loan Bank borrowings	21,037	17,549
Bank notes and senior debt	28,062	22,972
Subordinated debt	5,200	8,009
Other (b)	4,789	4,176
Total borrowed funds	59,088	52,706
Allowance for unfunded loan commitments and letters of credit	297	301
Accrued expenses and other liabilities	8,745	9,355
Total liabilities	333,183	319,526
Equity		
Preferred stock (c)		
Common stock ($5 par value, Authorized 800 shares, issued 542 shares)	2,710	2,709
Capital surplus	16,374	16,651
Retained earnings	35,481	31,670
Accumulated other comprehensive income (loss)	(148)	(265)
Common stock held in treasury at cost: 69 and 57 shares	(6,904)	(5,066)
Total shareholders' equity	47,513	45,699
Noncontrolling interests	72	1,155
Total equity	47,585	46,854
Total liabilities and equity	$ 380,768	$ 366,380

(a) Our consolidated assets included the following for which we have elected the fair value option: Loans held for sale of $1.7 billion, Loans of $.9 billion, and Other assets of $.3 billion at December 31, 2017 and Loans held for sale of $2.4 billion, Loans of $.9 billion, and Other assets of $.5 billion at December 31, 2016.

(b) Our consolidated liabilities included Other borrowed funds of $.1 billion at both December 31, 2017 and December 31, 2016, for which we have elected the fair value option.

(c) Par value less than $.5 million at each date.

See accompanying Notes To Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

THE PNC FINANCIAL SERVICES GROUP, INC.

		Shareholders' Equity								
In millions	Shares Outstanding Common Stock	Common Stock	Capital Surplus - Preferred Stock	Capital Surplus - Common Stock and Other	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Noncontrolling Interests	Total Equity
Balance at January 1, 2015 (a)	523	$ 2,705	$ 3,946	$ 12,627	$26,200	$ 503	$ (1,430)	$ 1,523	$46,074
Net income					4,106			37	4,143
Other comprehensive income, net of tax						(373)			(373)
Cash dividends declared									
Common ($2.01 per share)					(1,038)				(1,038)
Preferred					(219)				(219)
Preferred stock discount accretion			6		(6)				
Preferred stock redemption – Series K (b)			(500)						(500)
Common stock activity	1	3		46					49
Treasury stock activity	(20)			(56)			(1,938)		(1,994)
Other				128				(290)	(162)
Balance at December 31, 2015 (a)	504	$ 2,708	$ 3,452	$ 12,745	$29,043	$ 130	$ (3,368)	$ 1,270	$45,980
Net income					3,903			82	3,985
Other comprehensive income (loss), net of tax						(395)			(395)
Cash dividends declared									
Common ($2.12 per share)					(1,061)				(1,061)
Preferred					(209)				(209)
Preferred stock discount accretion			6		(6)				
Preferred stock issuance – Series S (c)			519						519
Common stock activity (d)		1		18					19
Treasury stock activity	(19)			(131)			(1,698)		(1,829)
Other				42				(197)	(155)
Balance at December 31, 2016 (a)	485	$ 2,709	$ 3,977	$ 12,674	$31,670	$ (265)	$ (5,066)	$ 1,155	$46,854
Net income					5,338			50	5,388
Other comprehensive income (loss), net of tax						117			117
Cash dividends declared									
Common ($2.60 per share)					(1,266)				(1,266)
Preferred					(236)				(236)
Preferred stock discount accretion			6		(6)				
Redemption of noncontrolling interests (e)					(19)			(981)	(1,000)
Common stock activity (d)		1		17					18
Treasury stock activity	(12)			(309)			(1,838)		(2,147)
Other			2	7				(152)	(143)
Balance at December 31, 2017 (a)	473	$ 2,710	$ 3,985	$ 12,389	$35,481	$ (148)	$ (6,904)	$ 72	$47,585

(a) The par value of our preferred stock outstanding was less than $.5 million at each date and, therefore, is excluded from this presentation.
(b) On May 4, 2015, we redeemed all 50,000 shares of our Series K preferred stock, as well as all 500,000 Depositary Shares representing fractional interests in such shares, resulting in net outflow of $500 million.
(c) On November 1, 2016, PNC issued 5,250 shares of Series S preferred stock with a $1 par value.
(d) Common stock activity totaled less than .5 million shares issued.
(e) Relates to the redemption of Perpetual Trust Securities in the first quarter of 2017. See Note 15 Equity for additional information.

See accompanying Notes To Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS
THE PNC FINANCIAL SERVICES GROUP, INC.

In millions	Year ended December 31 2017	2016	2015
Operating Activities			
Net income	$ 5,388	$ 3,985	$ 4,143
Adjustments to reconcile net income to net cash provided (used) by operating activities			
Provision for credit losses	441	433	255
Depreciation and amortization	1,117	1,193	1,088
Deferred income taxes	(403)	326	404
Changes in fair value of mortgage servicing rights	323	179	274
Gain on sales of Visa Class B common shares		(126)	(169)
Undistributed earnings of BlackRock	(727)	(361)	(407)
Net change in			
Trading securities and other short-term investments	305	(1,167)	203
Loans held for sale	(1,148)	(935)	393
Other assets	757	(644)	1,568
Accrued expenses and other liabilities	(704)	652	(1,788)
Other	350	100	(439)
Net cash provided (used) by operating activities	$ 5,699	$ 3,635	$ 5,525
Investing Activities			
Sales			
Securities available for sale	$ 5,647	$ 3,456	$ 6,723
Loans	2,001	1,897	2,040
Repayments/maturities			
Securities available for sale	10,734	11,061	7,920
Securities held to maturity	2,948	3,209	2,032
Purchases			
Securities available for sale	(13,605)	(19,495)	(26,367)
Securities held to maturity	(5,605)	(4,305)	(4,896)
Loans	(841)	(1,334)	(748)
Net change in			
Federal funds sold and resale agreements	(245)	126	481
Interest-earning deposits with banks	(2,884)	4,835	1,233
Loans	(10,483)	(5,940)	(3,972)
Net cash paid for acquisition	(1,342)		
Other	(1,340)	(952)	(706)
Net cash provided (used) by investing activities	$ (15,015)	$ (7,442)	$ (16,260)

(continued on following page)

CONSOLIDATED STATEMENT OF CASH FLOWS

THE PNC FINANCIAL SERVICES GROUP, INC.

(continued from previous page)

In millions	Year ended December 31 2017	2016	2015
Financing Activities			
Net change in			
Noninterest-bearing deposits	$ (264)	$ 1,212	$ 5,765
Interest-bearing deposits	8,255	7,367	10,812
Federal funds purchased and repurchase agreements	(148)	18	(1,733)
Commercial paper	100		
Other borrowed funds	459	272	(9)
Sales/issuances			
Federal Home Loan Bank borrowings	11,000	1,000	2,250
Bank notes and senior debt	7,062	5,601	8,173
Commercial paper			1,394
Other borrowed funds	427	165	694
Preferred stock		519	
Common and treasury stock	132	151	139
Repayments/maturities			
Federal Home Loan Bank borrowings	(7,512)	(3,559)	(2,147)
Bank notes and senior debt	(1,800)	(3,750)	(2,624)
Subordinated debt	(2,758)	(488)	(524)
Commercial paper		(14)	(6,219)
Other borrowed funds	(318)	(541)	(1,622)
Preferred stock redemption			(500)
Redemption of noncontrolling interests	(1,000)		
Acquisition of treasury stock	(2,447)	(2,062)	(2,152)
Preferred stock cash dividends paid	(236)	(209)	(219)
Common stock cash dividends paid	(1,266)	(1,061)	(1,038)
Net cash provided (used) by financing activities	9,686	4,621	10,440
Net Increase (Decrease) In Cash And Due From Banks	370	814	(295)
Cash and due from banks at beginning of period	4,879	4,065	4,360
Cash and due from banks at end of period	$ 5,249	$ 4,879	$ 4,065
Supplemental Disclosures			
Interest paid	$ 1,743	$ 1,317	$ 1,005
Income taxes paid	$ 72	$ 658	$ 919
Income taxes refunded	$ 24	$ 111	$ 286
Non-cash Investing and Financing Items			
Transfer from loans to loans held for sale, net	$ 419	$ 606	$ 285
Transfer from loans to foreclosed assets	$ 215	$ 281	$ 435
Transfer from trading securities to investment securities	$ 192		

See accompanying Notes To Consolidated Financial Statements.

BUSINESS

The PNC Financial Services Group, Inc. (PNC) is one of the largest diversified financial services companies in the United States and is headquartered in Pittsburgh, Pennsylvania.

We have businesses engaged in retail banking, including residential mortgage, corporate and institutional banking and asset management, providing many of our products and services nationally. Our primary geographic markets are located in 19 states in the Mid-Atlantic, Midwest and Southeast. We also provide certain products and services internationally.

NOTE 1 ACCOUNTING POLICIES

Basis of Financial Statement Presentation

Our consolidated financial statements include the accounts of the parent company and its subsidiaries, most of which are wholly-owned, certain partnership interests, and variable interest entities.

We prepared these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (GAAP). We have eliminated intercompany accounts and transactions. We have also reclassified certain prior year amounts to conform to the 2017 presentation, which did not have a material impact on our consolidated financial condition or results of operations.

We have also considered the impact of subsequent events on these consolidated financial statements.

Use of Estimates

We prepared these consolidated financial statements using financial information available at the time of preparation, which requires us to make estimates and assumptions that affect the amounts reported. Our most significant estimates pertain to our fair value measurements and allowances for loan and lease losses and unfunded loan commitments and letters of credit. Actual results may differ from the estimates and the differences may be material to the consolidated financial statements.

Investment in BlackRock, Inc.

We account for our investment in the common stock and Series B Preferred Stock of BlackRock (deemed to be in-substance common stock) under the equity method of accounting. The investment in BlackRock is reflected on our Consolidated Balance Sheet in Equity investments, while our equity in earnings of BlackRock is reported on our Consolidated Income Statement in Asset management noninterest income.

We also hold shares of Series C Preferred Stock of BlackRock pursuant to our obligation to partially fund a portion of certain BlackRock long-term incentive plan (LTIP) programs. Since these preferred shares are not deemed to be in-substance common stock, we have elected to account for these preferred shares at fair value and the changes in fair value will offset the impact of marking-to-market the obligation to deliver these shares to BlackRock. Our investment in the BlackRock Series C Preferred Stock is included on our Consolidated Balance Sheet in Other assets. Our obligation to transfer these shares to BlackRock is classified as a derivative not designated as a hedging instrument under GAAP as disclosed in Note 13 Financial Derivatives.

Variable Interest Entities

A variable interest entity (VIE) is a corporation, partnership, limited liability company, or any other legal structure used to conduct activities or hold assets generally that either:

- Does not have equity investors with voting rights that can directly or indirectly make decisions about the entity's activities through those voting rights or similar rights, or
- Has equity investors that do not provide sufficient equity for the entity to finance its activities without additional subordinated financial support.

A VIE often holds financial assets, including loans or receivables, real estate or other property.

VIEs are assessed for consolidation under ASC 810 –Consolidation when we hold a variable interest in these entities. We consolidate a VIE if we are its primary beneficiary. The primary beneficiary of a VIE is determined to be the party that meets both of the following criteria: (i) has the power to make decisions that most significantly affect the economic performance of the VIE; and (ii) has the obligation to absorb losses or the right to receive benefits that in either case could potentially be significant to the VIE. Upon consolidation of a VIE, we recognize all of the VIE's assets, liabilities and noncontrolling interests on our Consolidated Balance Sheet. On a quarterly basis, we determine whether any changes occurred requiring a reassessment of whether we are the primary beneficiary of an entity.

See Note 2 Loan Sale and Servicing Activities and Variable Interest Entities for information about VIEs that we consolidate as well as those that we do not consolidate but in which we hold a significant variable interest.

Revenue Recognition

We earn interest and noninterest income from various sources, including:

- Lending,
- Securities portfolio,
- Asset management,
- Customer deposits,
- Loan sales, loan securitizations, and servicing,
- Brokerage services,
- Sale of loans and securities,
- Certain private equity activities, and
- Securities, derivatives and foreign exchange activities.

We earn fees and commissions from:

- Issuing loan commitments, standby letters of credit and financial guarantees,
- Selling various insurance products,
- Providing treasury management services,
- Providing merger and acquisition advisory and related services
- Debit and credit card transactions, and
- Participating in certain capital markets transactions.

Our Asset management noninterest income includes asset management fees, which are generally based on a percentage of the fair value of the assets under management. Additionally, it includes our share of the earnings of BlackRock recognized under the equity method of accounting.

Service charges on deposit accounts are recognized when earned. Brokerage fees and gains and losses on the sale of securities and certain derivatives are recognized on a trade-date basis.

We record private equity income or loss based on changes in the valuation of the underlying investments or when we dispose of our interest.

We recognize gain/(loss) on changes in the fair value of certain financial instruments where we have elected the fair value option. These financial instruments include certain commercial and residential mortgage loans originated for sale, certain residential mortgage portfolio loans, resale agreements and our investment in BlackRock Series C preferred stock. We also recognize gain/(loss) on changes in the fair value of residential and commercial mortgage servicing rights (MSRs).

We recognize revenue from servicing residential mortgages, commercial mortgages and other consumer loans as earned based on the specific contractual terms. These revenues are reported on the Consolidated Income Statement in the line items Residential mortgage, Corporate services and Consumer services. We recognize revenue from securities, derivatives and foreign exchange customer-related trading, as well as securities underwriting activities, as these transactions occur or as services are provided. We generally recognize gains from the sale of loans upon receipt of cash. Mortgage revenue recognized is reported net of mortgage repurchase reserves.

Cash and Cash Equivalents

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

Investments

We hold interests in various types of investments. The accounting for these investments is dependent on a number of factors including, but not limited to, items such as:

- Ownership interest,
- Our plans for the investment, and
- The nature of the investment.

Debt Securities

Debt securities are recorded on a trade-date basis. We classify debt securities as held to maturity and carry them at amortized cost if we have the positive intent and ability to hold the securities to maturity. Debt securities that we purchase for certain risk management activities or customer-related trading activities are carried at fair value and classified as trading securities and are reported in the Other assets line item on our Consolidated Balance Sheet. Realized and unrealized gains and losses on trading securities are included in Other noninterest income.

Debt securities not classified as held to maturity or trading are designated as securities available for sale and carried at fair value with unrealized gains and losses, net of income taxes, reflected in Accumulated other comprehensive income (loss).

On at least a quarterly basis, we review all debt securities that are in an unrealized loss position for other than temporary impairment (OTTI). An investment security is deemed impaired if the fair value of the investment is less than its amortized cost. Amortized cost includes adjustments (if any) made to the cost basis of an investment for accretion, amortization, previous other-than-temporary impairments and hedging gains and losses. After an investment security is determined to be impaired, we evaluate whether the decline in value is other-than-temporary. Declines in the fair value of available for sale and held to maturity debt securities that are deemed other-than-temporary and are attributable to credit deterioration are recognized in Other noninterest income on our Consolidated Income Statement in the period in which the determination is made. Declines in fair value which are deemed other-than-temporary and attributable to factors other than credit deterioration are recognized in Accumulated other comprehensive income (loss) on our Consolidated Balance Sheet.

We include all interest on debt securities, including amortization of premiums and accretion of discounts on investment securities, in net interest income using the constant effective yield method generally calculated over the contractual lives of the securities. Effective yields reflect either the effective interest rate implicit in the security at the date of acquisition or the effective interest rate determined based on improved cash flows subsequent to impairment. We compute gains and losses realized on the sale of available for sale debt securities on a specific security basis. These securities gains/(losses) are included in Other noninterest income on the Consolidated Income Statement.

Equity Securities and Partnership Interests

We account for equity securities and equity investments other than BlackRock and private equity investments under one of the following methods:

- Marketable equity securities are recorded on a trade-date basis and are accounted for based on the securities' quoted market prices from a national securities exchange. Those purchased with the intention of selling in the near term are classified as trading and included in Other assets on our Consolidated Balance Sheet. Both realized and unrealized gains and losses on trading securities are included in Noninterest income. Marketable equity securities not classified as trading are designated as securities available for sale with unrealized gains and losses, net of income taxes, reflected in Accumulated other comprehensive income (loss). Any unrealized losses that we have determined to be other-than-temporary on securities classified as available for sale are recognized in current period earnings.
- For investments in limited partnerships, limited liability companies and other investments that are not required to be consolidated, we use either the equity method or the cost method of accounting. We use the equity method for general and limited partner ownership interests and limited liability companies in which we are considered to have significant influence over the operations of the investee. Under the equity method, we record our equity ownership share of net income or loss of the investee in Noninterest income and any dividends received on equity method investments are recorded as a reduction to the investment balance. When an equity investment experiences an other-than-temporary decline in value, we may be required to record a loss on the investment. We use the cost method for all other investments. Under the cost method, there is no change to the cost basis unless there is an other-than-temporary decline in value or dividends received are considered a return on investment. If the decline is determined to be other-than-temporary, we write down the cost basis of the investment to a new cost basis that represents realizable value. The amount of the write-down is accounted for as a loss included in Noninterest income. Distributions received from the income of an investee on cost method investments are included in Noninterest income. Investments described above are included in Equity investments on our Consolidated Balance Sheet.

Private Equity Investments

We report private equity investments, which include direct investments in companies, affiliated partnership interests and indirect investments in private equity funds, at estimated fair value. These estimates are based on available information and may not necessarily represent amounts that we will ultimately realize through distribution, sale or liquidation of the investments. Fair values of publicly-traded direct investments are determined using quoted market prices and are subject to various discount factors arising from security level restrictions, when appropriate. The valuation procedures applied to direct investments and indirect investments are detailed in Note 6 Fair Value. We include all private equity investments within Equity investments on our Consolidated Balance Sheet. Changes in fair value of private equity investments are recognized in Noninterest income.

We consolidate affiliated partnerships when we have determined that we have control of the partnership or are the primary beneficiary if the entity is a VIE. The portion we do not own is reflected in Noncontrolling interests on our Consolidated Balance Sheet.

Loans

Loans are classified as held for investment when management has both the intent and ability to hold the loan for the foreseeable future, or until maturity or payoff. Management's intent and view of the foreseeable future may change based on changes in business strategies, the economic environment, market conditions and the availability of government programs.

Measurement of delinquency status is based on the contractual terms of each loan. Loans that are 30 days or more past due in terms of payment are considered delinquent.

Except as described below, loans held for investment are stated at the principal amounts outstanding, net of unearned income, unamortized deferred fees and costs on originated loans, and premiums or discounts on purchased loans. Interest on performing loans (excluding interest on purchased impaired loans, which is further discussed below) is accrued based on the principal amount outstanding and recorded in Interest income as earned using the constant effective yield method. Loan origination fees, direct loan origination costs, and loan premiums and discounts are deferred and accreted or amortized into Net interest income using the constant effective yield method, over the contractual life of the loan.

In addition to originating loans, we also acquire loans through portfolio purchases or acquisitions of other financial services companies. For certain acquired loans that have experienced a deterioration of credit quality, we follow the guidance contained in ASC 310-30 – Loans and Debt Securities Acquired with Deteriorated Credit Quality. Under this guidance, acquired purchased impaired loans are to be recorded at fair value without the carryover of any existing valuation allowances. When evidence of credit quality deterioration and evidence that it is probable that we will be unable to collect all contractual amounts due exist, we consider the loans to be purchased credit impaired and we estimate the amount and timing of undiscounted expected cash flows at acquisition for each loan either individually or on a pool basis. The excess of undiscounted cash flows expected to be collected on a purchased impaired loan (or pool of loans) over its carrying value represents the accretable yield which is recognized into interest income over the remaining life of the loan (or pool of loans) using the constant effective yield method. Subsequent decreases in expected cash flows that are attributable, at least in part, to credit quality are recognized as impairments through a charge to the provision for credit losses resulting in an increase in the Allowance for Loan and Lease Losses (ALLL). Subsequent increases in expected cash flows are recognized as a provision recapture of previously recorded ALLL or prospectively through an adjustment of the loan's or pool's yield over its remaining life.

Loans Held for Sale

We designate loans as held for sale when we have the intent to sell them. We transfer loans to the Loans held for sale category at the lower of cost or estimated fair value less cost to sell. At the time of transfer, write-downs on the loans are recorded as charge-offs. We establish a new cost basis upon transfer. Any subsequent lower-of-cost-or-market adjustment is determined on an individual loan basis and is recognized as a valuation allowance with any charges included in Other noninterest income.

We have elected to account for certain commercial and residential mortgage loans held for sale at fair value. The changes in the fair value of the commercial mortgage loans are measured and recorded in Other noninterest income while the residential mortgage loans are measured and recorded in Residential mortgage noninterest income each period. See Note 6 Fair Value for additional information.

Interest income with respect to loans held for sale is accrued based on the principal amount outstanding and the loan's contractual interest rate.

In certain circumstances, loans designated as held for sale may be transferred to held for investment based on a change in strategy. We transfer these loans at the lower of cost or estimated fair value; however, any loans originated or purchased for held for sale and designated at fair value remain at fair value for the life of the loan.

Leases

We provide financing for various types of equipment, including aircraft, energy and power systems, and vehicles through a variety of lease arrangements. Direct financing leases are carried at the aggregate of lease payments plus estimated residual value of the leased equipment, less unearned income. Leveraged leases, a form of financing lease, are carried net of nonrecourse debt. We recognize income over the term of the lease using the constant effective yield method. Lease residual values are reviewed for impairment at least annually. Gains or losses on the sale of leased assets are included in Other noninterest income while valuation adjustments on lease residuals are included in Other noninterest expense.

Loan Sales, Loan Securitizations and Retained Interests

We recognize the sale of loans or other financial assets when the transferred assets are legally isolated from our creditors and the appropriate accounting criteria are met. We have sold mortgage and other loans through securitization transactions. In a securitization, financial assets are transferred into trusts or to special purpose entities (SPEs) in transactions to effectively legally isolate the assets from us.

In a securitization, the trust or SPE issues beneficial interests in the form of senior and subordinated securities backed or collateralized by the assets sold to the trust. The senior classes of the asset-backed securities typically receive investment grade credit ratings at the time of issuance. These ratings are generally achieved through the creation of lower-rated subordinated classes of asset-backed securities, as well as subordinated or residual interests. In certain cases, we may retain a portion or all of the securities issued, interest-only strips, one or more subordinated tranches, servicing rights and, in some cases, cash reserve accounts. Securitized loans are removed from the balance sheet and a net gain or loss is recognized in Noninterest income at the time of initial sale. Gains or losses recognized on the sale of the loans depend on the fair value of the loans sold and the retained interests at the date of sale. We generally estimate the fair value of the retained interests based on the present value of future expected cash flows using assumptions as to discount rates, interest rates, prepayment speeds, credit losses and servicing costs, if applicable.

With the exception of loan sales to certain U.S. government-chartered entities, our loan sales and securitizations are generally structured without recourse to us except for representations and warranties and with no restrictions on the retained interests. We originate, sell and service commercial mortgage loans under the Federal National Mortgage Association (FNMA) Delegated Underwriting and Servicing (DUS) program. Under the provisions of the DUS program, we participate in a loss-sharing arrangement with FNMA. When we are obligated for loss-sharing or recourse, our policy is to record such liabilities initially at fair value and subsequently reserve for estimated losses in accordance with guidance contained in applicable GAAP.

Nonperforming Loans and Leases

The matrix below summarizes our policies for classifying certain loans as nonperforming loans and/or discontinuing the accrual of loan interest income.

Commercial loans	
Loans Classified as Nonperforming and Accounted for as Nonaccrual	• Loans accounted for at amortized cost where: – The loan is 90 days or more past due. – The loan is rated substandard or worse due to the determination that full collection of principal and interest is not probable as demonstrated by the following conditions: • The collection of principal or interest is 90 days or more past due; • Reasonable doubt exists as to the certainty of the borrower's future debt service ability, according to the terms of the credit arrangement, regardless of whether 90 days have passed or not; • The borrower has filed or will likely file for bankruptcy; • The bank advances additional funds to cover principal or interest; • We are in the process of liquidating a commercial borrower; or • We are pursuing remedies under a guarantee.
Loans Excluded from Nonperforming Classification but Accounted for as Nonaccrual	• Loans accounted for under the fair value option and full collection of principal and interest is not probable. • Loans accounted for at the lower of cost or market less costs to sell (held for sale) and full collection of principal and interest is not probable.
Loans Excluded from Nonperforming Classification and Nonaccrual Accounting	• Loans that are well secured and in the process of collection.

Consumer loans	
Loans Classified as Nonperforming and Accounted for as Nonaccrual	• Loans accounted for at amortized cost where full collection of contractual principal and interest is not deemed probable as demonstrated in the policies below: – The loan is 90 days past due for home equity and installment loans, and 180 days past due for well secured residential real estate loans; – The loan has been modified and classified as a troubled debt restructuring (TDR); – Notification of bankruptcy has been received within the last 60 days; – The bank holds a subordinate lien position in the loan and the first lien mortgage loan is seriously stressed (i.e., 90 days or more past due); – Other loans within the same borrower relationship have been placed on nonaccrual or charge-offs have been taken on them; – The bank has repossessed non-real estate collateral securing the loan; or – The bank has charged-off the loan to the value of the collateral.
Loans Excluded from Nonperforming Classification but Accounted for as Nonaccrual	• Loans accounted for under the fair value option and full collection of principal and interest is not probable. • Loans accounted for at the lower of cost or market less costs to sell (held for sale) and full collection of principal and interest is not probable.
Loans Excluded from Nonperforming Classification and Nonaccrual Accounting	• Purchased impaired loans because interest income is accreted through the accounting model. • Certain government insured loans where substantially all principal and interest is insured. • Residential real estate loans that are well secured and in the process of collection. • Consumer loans and lines of credit, not secured by residential real estate or automobiles, as permitted by regulatory guidance.

See Note 3 Asset Quality in this Report for additional detail on nonperforming assets and asset quality indicators for commercial and consumer loans.

Commercial Loans

We generally charge off Commercial Lending (Commercial, Commercial Real Estate, and Equipment Lease Financing) nonperforming loans when we determine that a specific loan, or portion thereof, is uncollectible. This determination is based on the specific facts and circumstances of the individual loans. In making this determination, we consider the viability of the business or project as a going concern, the past due status when the asset is not well-secured, the expected cash flows to repay the loan, the value of the collateral, and the ability and willingness of any guarantors to perform.

Additionally, in general, for smaller commercial loans of $1 million or less, a partial or full charge-off occurs at 120 days past due for term loans and 180 days past due for revolvers. Certain small business credit card balances that are placed on nonaccrual status when they become 90 days or more past due are charged-off at 180 days past due.

Consumer Loans
Home equity installment loans, home equity lines of credit, and residential real estate loans that are not well-secured and in the process of collection are charged-off at no later than 180 days past due. At that time, the basis in the loan is reduced to the fair value of the collateral less costs to sell. In addition to this policy, the bank recognizes a charge-off on a secured consumer loan when:

- The bank holds a subordinate lien position in the loan and a foreclosure notice has been received on the first lien loan;
- The bank holds a subordinate lien position in the loan which is 30 days or more past due with a combined loan to value ratio of greater than or equal to 110% and the first lien loan is seriously stressed (*i.e*., 90 days or more past due);
- The loan is modified or otherwise restructured in a manner that results in the loan becoming collateral dependent;
- Notification of bankruptcy has been received within the last 60 days;
- The borrower has been discharged from personal liability through Chapter 7 bankruptcy and has not formally reaffirmed his or her loan obligation to us; or
- The collateral securing the loan has been repossessed and the value of the collateral is less than the recorded investment of the loan outstanding.

For loans that continue to meet any of the above policies, collateral values are updated annually and subsequent declines in collateral values are charged-off resulting in incremental provision for credit loss.

Most consumer loans and lines of credit, not secured by residential real estate, are charged off after 120-180 days past due.

Accounting for Nonperforming Assets and Leases and Other Nonaccrual Loans
For accrual loans, interest income is accrued on a monthly basis and certain fees and costs are deferred upon origination and recognized in income over the term of the loan utilizing an effective yield method. For nonaccrual loans, interest income accrual and deferred fee/cost recognition is discontinued. Additionally, the current year accrued and uncollected interest is reversed through Net interest income and prior year accrued and uncollected interest is charged-off. Nonaccrual loans may also be charged-off to reduce the basis to the fair value of collateral less costs to sell.

If payment is received on a nonaccrual loan, generally the payment is first applied to the recorded investment; payments are then applied to recover any charged-off amounts related to the loan. Finally, if both recorded investment and any charge-offs have been recovered, then the payment will be recorded as fee and interest income. For certain consumer loans, the receipt of interest payments is recognized as interest income on a cash basis. Cash basis income recognition is applied if a loan's recorded investment is deemed fully collectible and the loan has performed for at least six months.

For TDRs, payments are applied based upon their contractual terms unless the related loan is deemed non-performing. TDRs are generally included in nonperforming and nonaccrual loans. However, after a reasonable period of time in which the loan performs under restructured terms and meets other performance indicators, it is returned to performing/accruing status. This return to performing/accruing status demonstrates that the bank expects to collect all of the loan's remaining contractual principal and interest. TDRs resulting from 1) borrowers that have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us and 2) borrowers that are not currently obligated to make both principal and interest payments under the restructured terms are not returned to accrual status.

Other nonaccrual loans are generally not returned to accrual status until the borrower has performed in accordance with the contractual terms and other performance indicators for at least six months, the period of time which was determined to demonstrate the expected collection of the loan's remaining contractual principal and interest. When a nonperforming loan is returned to accrual status, it is then considered a performing loan.

See Note 3 Asset Quality and Note 4 Allowance for Loan and Lease Losses in this Report for additional TDR information.

Foreclosed assets consist of any asset seized or property acquired through a foreclosure proceeding or acceptance of a deed-in-lieu of foreclosure. Other real estate owned comprises principally commercial and residential real estate properties obtained in partial or total satisfaction of loan obligations. After obtaining a foreclosure judgment, or in some jurisdictions the initiation of proceedings under a power of sale in the loan instruments, the property will be sold. When we are awarded title or completion of deed-in-lieu of foreclosure, we transfer the loan to foreclosed assets included in Other assets on our Consolidated Balance Sheet. Property obtained in satisfaction of a loan is initially recorded at estimated fair value less cost to sell. Based upon the estimated fair value less cost to sell, the recorded investment of the loan is adjusted and, typically, a charge-off/recovery is recognized to the ALLL. We estimate fair values primarily based on appraisals, or sales agreements with third parties. Subsequently, foreclosed assets are valued at the lower of the amount recorded at acquisition date or estimated fair value less cost to sell. Valuation adjustments on these assets and gains or losses realized from disposition of such property are reflected in Other noninterest expense.

For certain mortgage loans that have a government guarantee, we establish a separate other receivable upon foreclosure. The receivable is measured based on the loan balance (inclusive of principal and interest) that is expected to be recovered from the guarantor.

Allowance for Loan and Lease Losses

We maintain the ALLL at a level that we believe to be appropriate to absorb estimated probable credit losses incurred in the loan and lease portfolios as of the balance sheet date. Our determination of the allowance is based on periodic evaluations of these loan and lease portfolios and other relevant factors. This critical estimate includes significant use of our own historical data and complex methods to interpret this data. These evaluations are inherently subjective, as they require material estimates and may be susceptible to significant change, and include, among others:

- Probability of default (PD),
- Loss given default (LGD),
- Outstanding balance of the loan,
- Movement through delinquency stages,
- Amounts and timing of expected future cash flows,
- Value of collateral, which may be obtained from third parties, and
- Qualitative factors, such as changes in current economic conditions, that may not be reflected in modeled results.

For all loans, except purchased impaired loans, the ALLL is the sum of three components: (i) asset specific/individual impaired reserves, (ii) quantitative (formulaic or pooled) reserves and (iii) qualitative (judgmental) reserves.

The reserve calculation and determination process is dependent on the use of key assumptions. Key reserve assumptions and estimation processes react to and are influenced by observed changes in loan portfolio performance experience, the financial strength of the borrower, and economic conditions. Key reserve assumptions are periodically updated.

See Note 4 Allowance for Loan and Lease Losses for additional detail on our ALLL.

Asset Specific/Individual Component

Nonperforming loans that are considered impaired under ASC 310 – Receivables, which include all commercial and consumer TDRs, are evaluated for a specific reserve. Specific reserve allocations are determined as follows:

- For commercial nonperforming loans and commercial TDRs greater than or equal to a defined dollar threshold, specific reserves are based on an analysis of the present value of the loan's expected future cash flows, the loan's observable market price or the fair value of the collateral.
- For commercial nonperforming loans and commercial TDRs below the defined dollar threshold, the individual loan's loss given default (LGD) percentage is multiplied by the loan balance and the results are aggregated for purposes of measuring specific reserve impairment.
- Consumer nonperforming loans are collectively reserved for unless classified as consumer TDRs. For consumer TDRs, specific reserves are determined through an analysis of the present value of the loan's expected future cash flows, except for those instances where loans have been deemed collateral dependent, including loans where borrowers have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us. Once that determination has been made, those TDRs are charged down to the fair value of the collateral less costs to sell at each period end.

Commercial Lending Quantitative Component

The estimates of the quantitative component of ALLL for incurred losses within the commercial lending portfolio segment are determined through statistical loss modeling utilizing PD, LGD and outstanding balance of the loan. Based upon loan risk ratings, we assign PDs and LGDs. Each of these statistical parameters is determined based on internal historical data and market data. PD is influenced by such factors as liquidity, industry, obligor financial structure, access to capital and cash flow. LGD is influenced by collateral type, original and/or updated loan-to-value ratio (LTV), facility structure and other factors.

Consumer Lending Quantitative Component

Quantitative estimates within the consumer lending portfolio segment are calculated primarily using transition matrices, including using a roll-rate model. The roll-rate model uses statistical relationships, calculated from historical data that estimate the movement of loan outstandings through the various stages of delinquency and ultimately charge-off over our loss emergence period.

Qualitative Component

While our reserve methodologies strive to reflect all relevant risk factors, there continues to be uncertainty associated with, but not limited to, potential imprecision in the estimation process due to the inherent time lag of obtaining information and normal variations between estimates and actual outcomes. We provide additional reserves that are designed to provide coverage for losses attributable to such risks. The ALLL also includes factors that may not be directly measured in the determination of specific or pooled reserves. Such qualitative factors may include:

- Industry concentrations and conditions,
- Recent credit quality trends,
- Recent loss experience in particular portfolios,
- Recent macro-economic factors,
- Model imprecision,
- Changes in lending policies and procedures,
- Timing of available information, including the performance of first lien positions, and
- Limitations of available historical data.

Allowance for Purchased Non-Impaired Loans

ALLL for purchased non-impaired loans is determined based upon a comparison between the methodologies described above and the remaining acquisition date fair value discount that has yet to be accreted into interest income. After making the comparison, an ALLL is recorded for the amount greater than the discount, or no ALLL is recorded if the discount is greater.

Allowance for Purchased Impaired Loans
ALLL for purchased impaired loans is determined in accordance with ASC 310-30 by comparing the net present value of management's best estimate of cash flows expected to be collected over the life of the loan (or pool of loans) to the recorded investment for a given loan (or pool of loans). In cases where the net present value of expected cash flows is lower than the recorded investment, ALLL is established.

Allowance for Unfunded Loan Commitments and Letters of Credit

We maintain the allowance for unfunded loan commitments and letters of credit at a level we believe is appropriate to absorb estimated probable credit losses incurred on these unfunded credit facilities as of the balance sheet date. We determine the allowance based on periodic evaluations of the unfunded credit facilities, including an assessment of the probability of commitment usage, credit risk factors, and, solely for commercial lending, the terms and expiration dates of the unfunded credit facilities. Other than the estimation of the probability of funding, the reserve for unfunded loan commitments is estimated in a manner similar to the methodology used for determining reserves for funded exposures. The allowance for unfunded loan commitments and letters of credit is recorded as a liability on the Consolidated Balance Sheet. Net adjustments to the allowance for unfunded loan commitments and letters of credit are included in the provision for credit losses.

Mortgage Servicing Rights

We provide servicing under various loan servicing contracts for commercial and residential loans. These contracts are either purchased in the open market or retained as part of a loan securitization or loan sale. All acquired or originated servicing rights are measured at fair value. Fair value is based on the present value of the expected future net cash flows, including assumptions as to:
- Deposit balances and interest rates for escrow and commercial reserve earnings,
- Discount rates,
- Estimated prepayment speeds, and
- Estimated servicing costs.

We measure commercial and residential MSRs at fair value in order to reduce any potential measurement mismatch between our economic hedges and the MSRs. We manage the risk by hedging the fair value of the MSR with derivatives and securities which are expected to increase in value when the value of the servicing right declines. Changes in the fair value of MSRs are recognized as gains/(losses). The fair value of these servicing rights is estimated by using a discounted cash flow valuation model which calculates the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs, and other factors which are determined based on current market conditions.

Fair Value of Financial Instruments

The fair value of financial instruments and the methods and assumptions used in estimating fair value amounts and financial assets and liabilities for which fair value was elected are detailed in Note 6 Fair Value.

Goodwill

We assess goodwill for impairment at least annually, in the fourth quarter, or when events or changes in circumstances indicate the assets might be impaired.

Depreciation and Amortization

For financial reporting purposes, we depreciate premises and equipment, net of salvage value, principally using the straight-line method over their estimated useful lives.

We use estimated useful lives for furniture and equipment ranging from one to 10 years, and depreciate buildings over an estimated useful life of up to 40 years. We amortize leasehold improvements over their estimated useful lives of up to 15 years or the respective lease terms, whichever is shorter.

We purchase, as well as internally develop and customize, certain software to enhance or perform internal business functions. Software development costs incurred in the planning and post-development project stages are charged to Noninterest expense. Costs associated with designing software configuration and interfaces, installation, coding programs and testing systems are capitalized and amortized using the straight-line method over periods ranging from one to 10 years.

Other Comprehensive Income

Other comprehensive income, on an after-tax basis, primarily consists of unrealized gains or losses, excluding OTTI attributable to credit deterioration, on investment securities classified as available for sale, unrealized gains or losses on derivatives designated as cash flow hedges, and changes in pension and other postretirement benefit plan liability adjustments. Details of each component are included in Note 16 Other Comprehensive Income.

Treasury Stock

We record common stock purchased for treasury at cost. At the date of subsequent reissue, the treasury stock account is reduced by the cost of such stock on the first-in, first-out basis.

Derivative Instruments and Hedging Activities

We use a variety of financial derivatives as part of our overall asset and liability risk management process to help manage exposure to interest rate, market and credit risk inherent in our business activities. Interest rate and total return swaps, swaptions, interest rate caps and floors, options, forwards, and futures contracts are the primary instruments we use for interest rate risk management.

Financial derivatives involve, to varying degrees, interest rate, market and credit risk. We manage these risks as part of our asset and liability management process and through credit policies and procedures.

We recognize all derivative instruments at fair value as either Other assets or Other liabilities on the Consolidated Balance Sheet and the related cash flows in the Operating Activities section of the Consolidated Statement of Cash Flows. Adjustments for counterparty credit risk are included in the determination of fair value. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a cash flow or net investment hedging relationship. For all other derivatives, changes in fair value are recognized in earnings.

We utilize a net presentation for derivative instruments on the Consolidated Balance Sheet taking into consideration the effects of legally enforceable master netting agreements. Cash collateral exchanged with counterparties is also netted against the applicable derivative exposures by offsetting obligations to return, or general rights to reclaim, cash collateral against the fair values of the net derivatives being collateralized.

For those derivative instruments that are designated and qualify as accounting hedges, we designate the hedging instrument, based on the exposure being hedged, as a fair value hedge, a cash flow hedge or a hedge of the net investment in a foreign operation.

We formally document the relationship between the hedging instruments and hedged items, as well as the risk management objective and strategy, before undertaking an accounting hedge. To qualify for hedge accounting, the derivatives and related hedged items must be designated as a hedge at inception of the hedge relationship. For accounting hedge relationships, we formally assess, both at the inception of the hedge and on an ongoing basis, if the derivatives are highly effective in offsetting designated changes in the fair value or cash flows of the hedged item. If it is determined that the derivative instrument is not highly effective, hedge accounting is discontinued.

For derivatives that are designated as fair value hedges (*i.e*., hedging the exposure to changes in the fair value of an asset or a liability attributable to a particular risk, such as changes in LIBOR), changes in the fair value of the hedging instrument are recognized in earnings and offset by also recognizing in earnings the changes in the fair value of the hedged item attributable to the hedged risk. To the extent the change in fair value of the derivative does not offset the change in fair value of the hedged item, the difference or ineffectiveness is reflected in the Consolidated Income Statement in the same financial statement category as the hedged item.

For derivatives designated as cash flow hedges (*i.e*., hedging the exposure to variability in expected future cash flows), the effective portions of the gain or loss on derivatives are reported as a component of Accumulated other comprehensive income (loss) and subsequently reclassified to income in the same period or periods during which the hedged transaction affects earnings. The change in fair value attributable to the ineffective portion of the hedging instrument is recognized immediately in Interest income.

For derivatives designated as a hedge of net investment in a foreign operation, the effective portions of the gain or loss on the derivatives are reported as a component of Accumulated other comprehensive income (loss). The change in fair value attributable to the ineffective portion of the hedging instrument is recognized immediately in Noninterest income.

We discontinue hedge accounting when it is determined that the derivative no longer qualifies as an effective hedge; the derivative expires or is sold, terminated or exercised; or the derivative is de-designated as a fair value or cash flow hedge or, for a cash flow hedge, it is no longer probable that the forecasted transaction will occur by the end of the originally specified time period. We did not terminate any cash flow hedges in 2017, 2016 or 2015 due to a determination that a forecasted transaction was no longer probable of occurring.

We purchase or originate financial instruments that contain an embedded derivative. At the inception of the transaction, we assess if the economic characteristics of the embedded derivative are clearly and closely related to the economic characteristics of the host contract, whether the hybrid financial instrument is measured at fair value with changes in fair value reported in earnings, and whether a separate instrument with the same terms as the embedded derivative would be a derivative. If the embedded derivative does not meet all of these conditions, the embedded derivative is recorded separately from the host contract with changes in fair value recorded in earnings, unless we elect to account for the hybrid instrument at fair value.

We have elected, on an instrument-by-instrument basis, fair value measurement for certain financial instruments with embedded derivatives.

We enter into commitments to originate residential and commercial mortgage loans for sale. We also enter into commitments to purchase or sell commercial and residential real estate loans. These commitments are accounted for as free-standing derivatives which are recorded at fair value in Other assets or Other liabilities on the Consolidated Balance Sheet. Any gain or loss from the change in fair value after the inception of the commitment is recognized in Noninterest income.

Income Taxes

We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that we expect will apply at the time when we believe the differences will reverse. Changes in tax rates and tax law are accounted for in the period of enactment. Thus, at the enactment date, deferred taxes are remeasured and the change is recognized in Income Tax expense. The recognition of deferred tax assets requires an assessment to determine the realization of such assets.

Realization refers to the incremental benefit achieved through the reduction in future taxes payable or refunds receivable from the deferred tax assets, assuming that the underlying deductible differences and carryforwards are the last items to enter into the determination of future taxable income. We establish a valuation allowance for tax assets when it is more likely than not that they will not be realized, based upon all available positive and negative evidence.

We use the deferral method of accounting on investments that generate investment tax credits. Under this method, the investment tax credits are recognized as a reduction to the related asset.

Earnings Per Common Share

Basic earnings per common share is calculated using the two-class method to determine income attributable to common shareholders. Unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents are considered participating securities under the two-class method. Distributed dividends and dividend equivalents related to participating securities and an allocation of undistributed net income to participating securities reduce the amount of income attributable to common shareholders. Income attributable to common shareholders is then divided by the weighted-average common shares outstanding for the period.

Diluted earnings per common share is calculated under the more dilutive of either the treasury method or the two-class method. For the diluted calculation, we increase the weighted-average number of shares of common stock outstanding by the assumed conversion of outstanding convertible preferred stock from the beginning of the year or date of issuance, if later, and the number of shares of common stock that would be issued assuming the exercise of stock options and warrants and the issuance of incentive shares using the treasury stock method.
These adjustments to the weighted-average number of shares of common stock outstanding are made only when such adjustments will dilute earnings per common share. See Note 14 Earnings Per Share for additional information.

PNC Foundation - Related Party Transactions

During 2017 and 2016, we contributed $200 million and $75 million, respectively, of BlackRock common stock to the PNC Foundation.

Recently Adopted Accounting Standards

We did not adopt any new accounting standards that had a significant impact during 2017.

Note 2 Loan Sale and Servicing Activities and Variable Interest Entities

Loan Sale and Servicing Activities

We have transferred residential and commercial mortgage loans in securitization or sales transactions in which we have continuing involvement. These transfers have occurred through Agency securitization, Non-agency securitization, and loan sale transactions. Agency securitizations consist of securitization transactions with FNMA, Federal Home Loan Mortgage Corporation (FHLMC) and Government National Mortgage Association (GNMA) (collectively the Agencies). FNMA and FHLMC generally securitize our transferred loans into mortgage-backed securities for sale into the secondary market through SPEs that they sponsor. We, as an authorized GNMA issuer/servicer, pool Federal Housing Administration (FHA) and Department of Veterans Affairs (VA) insured loans into mortgage-backed securities for sale into the secondary market. In Non-agency securitizations, we have transferred loans into securitization SPEs. In other instances, third-party investors have also purchased our loans in loan sale transactions and in certain instances have subsequently sold these loans into securitization SPEs. Securitization SPEs utilized in the Agency and Non-agency securitization transactions are variable interest entities (VIEs).

Our continuing involvement in the FNMA, FHLMC, and GNMA securitizations, Non-agency securitizations, and loan sale transactions generally consists of servicing, repurchasing previously transferred loans under certain conditions and loss share arrangements, and, in limited circumstances, holding of mortgage-backed securities issued by the securitization SPEs.

Depending on the transaction, we may act as the master, primary, and/or special servicer to the securitization SPEs or third-party investors. Servicing responsibilities typically consist of collecting and remitting monthly borrower principal and interest payments, maintaining escrow deposits, performing loss mitigation and foreclosure activities, and, in certain instances, funding of servicing advances. Servicing advances, which are generally reimbursable, are made for principal and interest and collateral protection and are carried in Other assets at cost.

We earn servicing and other ancillary fees for our role as servicer and, depending on the contractual terms of the servicing arrangement, we can be terminated as servicer with or without cause. At the consummation date of each type of loan transfer where we retain the servicing, we recognize a servicing right at fair value. See Note 6 Fair Value and Note 7 Goodwill and Mortgage Servicing Rights for further discussion of our servicing rights.

Certain loans transferred to the Agencies contain removal of account provisions (ROAPs). Under these ROAPs, we hold an option to repurchase at par individual delinquent loans that meet certain criteria. In other limited cases, GNMA has granted us the right to repurchase current loans when we intend to modify the borrower's interest rate under established guidelines. When we have the unilateral ability to repurchase a loan, effective control over the loan has been regained and we recognize an asset (in either Loans or Loans held for sale) and a corresponding liability (in Other borrowed funds) on the balance sheet regardless of our intent to repurchase the loan.

The Agency and Non-agency mortgage-backed securities issued by the securitization SPEs that are purchased and held on our balance sheet are typically purchased in the secondary market. We do not retain any credit risk on our Agency mortgage-backed security positions as FNMA, FHLMC, and the U.S. Government (for GNMA) guarantee losses of principal and interest.

We also have involvement with certain Agency and Non-agency commercial securitization SPEs where we have not transferred commercial mortgage loans. These SPEs were sponsored by independent third-parties and the loans held by these entities were purchased exclusively from other third-parties. Generally, our involvement with these SPEs is as servicer with servicing activities consistent with those described above.

We recognize a liability for our loss exposure associated with contractual obligations to repurchase previously transferred loans due to possible breaches of representations and warranties and also for loss sharing arrangements (recourse obligations) with the Agencies. Other than providing temporary liquidity under servicing advances and our loss exposure associated with our repurchase and recourse obligations, we have not provided nor are we required to provide any type of credit support, guarantees, or commitments to the securitization SPEs or third-party investors in these transactions.

The following table provides cash flows associated with our loan sale and servicing activities:

Table 36: Cash Flows Associated with Loan Sale and Servicing Activities

In millions	Residential Mortgages	Commercial Mortgages (a)
CASH FLOWS - Year ended December 31, 2017		
Sales of loans (b)	$ 5,759	$ 5,276
Repurchases of previously transferred loans (c)	$ 464	
Servicing fees (d)	$ 374	$ 126
Servicing advances recovered/(funded), net	$ 101	$ 48
Cash flows on mortgage-backed securities held (e)	$ 1,527	$ 206
CASH FLOWS - Year ended December 31, 2016		
Sales of loans (b)	$ 6,913	$ 3,810
Repurchases of previously transferred loans (c)	$ 534	
Servicing fees (d)	$ 374	$ 125
Servicing advances recovered/(funded), net	$ 109	$ (14)
Cash flows on mortgage-backed securities held (e)	$ 1,727	$ 283

(a) Represents cash flow information associated with both commercial mortgage loan transfer and servicing activities.
(b) Gains/losses recognized on sales of loans were insignificant for the periods presented.
(c) Includes residential mortgage government insured or guaranteed loans eligible for repurchase through the exercise of our removal of account provision option, and loans repurchased due to alleged breaches of origination covenants or representations and warranties made to purchasers.
(d) Includes contractually specified servicing fees, late charges and ancillary fees.
(e) Represents cash flows on securities we hold issued by a securitization SPE in which we transferred to and/or services loans. The carrying values of such securities held were $8.8 billion in residential mortgage-backed securities and $.6 billion in commercial mortgage-backed securities at December 31, 2017 and $6.9 billion in residential mortgage-backed securities and $.9 billion in commercial mortgage-backed securities at December 31, 2016.

Table 37 presents information about the principal balances of transferred loans that we service and are not recorded on our Consolidated Balance Sheet. We would only experience a loss on these transferred loans if we were required to repurchase a loan due to a breach in representations and warranties or a loss sharing arrangement associated with our continuing involvement with these loans. The estimate of losses related to breaches in representations and warranties was insignificant at December 31, 2017.

Table 37: Principal Balance, Delinquent Loans and Net Charge-offs Related to Serviced Loans For Others

In millions	Residential Mortgages	Commercial Mortgages (a)
December 31, 2017		
Total principal balance	$ 58,320	$ 49,116
Delinquent loans (b)	$ 899	$ 355
December 31, 2016		
Total principal balance	$ 66,081	$ 45,855
Delinquent loans (b)	$ 1,422	$ 941
Year ended December 31, 2017		
Net charge-offs (c)	$ 78	$ 965
Year ended December 31, 2016		
Net charge-offs (c)	$ 97	$ 1,439

(a) Represents information at the securitization level in which we have sold loans and we are the servicer for the securitization.
(b) Serviced delinquent loans are 90 days or more past due or are in process of foreclosure.
(c) Net charge-offs for Residential mortgages represent credit losses less recoveries distributed and as reported to investors during the period. Net charge-offs for Commercial mortgages represent credit losses less recoveries distributed and as reported by the trustee for commercial mortgage backed securitizations. Realized losses for Agency securitizations are not reflected as we do not manage the underlying real estate upon foreclosure and, as such, do not have access to loss information.

Variable Interest Entities (VIEs)

We are involved with various entities in the normal course of business that are deemed to be VIEs. We assess VIEs for consolidation based upon the accounting policies described in Note 1 Accounting Policies. Our consolidated VIEs were insignificant at both December 31, 2017 and December 31, 2016. We have not provided additional financial support to these entities which we are not contractually required to provide.

The following table provides a summary of non-consolidated VIEs with which we have significant continuing involvement but are not the primary beneficiary. We do not consider our continuing involvement to be significant when it relates to a VIE where we only invest in securities issued by the VIE and were not involved in the design of the VIE or where no transfers have occurred between us and the VIE. We have excluded certain transactions with non-consolidated VIEs from the balances presented in Table 38 where we have determined that our continuing involvement is not significant. In addition, where we only have lending arrangements in the normal course of business with entities that could be VIEs, we have excluded these transactions with non-consolidated entities from the balances presented in Table 38. These loans are included as part of the asset quality disclosures that we make in Note 3 Asset Quality.

Table 38: Non-Consolidated VIEs

In millions	PNC Risk of Loss (a)	Carrying Value of Assets Owned by PNC	Carrying Value of Liabilities Owned by PNC
December 31, 2017			
Mortgage-Backed Securitizations (b)	$ 9,738	$ 9,738 (c)	
Tax Credit Investments and Other	3,069	3,001 (d)	$ 858 (e)
Total	$ 12,807	$ 12,739	$ 858
December 31, 2016			
Mortgage-Backed Securitizations (b)	$ 8,003	$ 8,003 (c)	
Tax Credit Investments and Other	3,083	3,043 (d)	$ 823 (e)
Total	$ 11,086	$ 11,046	$ 823

(a) This represents loans, investments and other assets related to non-consolidated VIEs, net of collateral (if applicable).
(b) Amounts reflect involvement with securitization SPEs where we transferred to and/or services loans for an SPE and we hold securities issued by that SPE. Values disclosed in the PNC Risk of Loss column represent our maximum exposure to loss for those securities' holdings.
(c) Included in Investment securities, Mortgage servicing rights and Other assets on our Consolidated Balance Sheet.
(d) Included in Investment securities, Loans, Equity investments and Other assets on our Consolidated Balance Sheet.
(e) Included in Deposits and Other liabilities on our Consolidated Balance Sheet.

Mortgage-Backed Securitizations

In connection with each Agency and Non-agency residential and commercial mortgage-backed securitization discussed above, we evaluate each SPE utilized in these transactions for consolidation. In performing these assessments, we evaluate our level of continuing involvement in these transactions as the nature of our involvement ultimately determines whether or not we hold a variable interest and/or are the primary beneficiary of the SPE. Factors we consider in our consolidation assessment include the significance of (i) our role as servicer, (ii) our holdings of mortgage-backed securities issued by the securitization SPE, and (iii) the rights of third-party variable interest holders.

The first step in our assessment is to determine whether we hold a variable interest in the securitization SPE. We hold variable interests in Agency and Non-agency securitization SPEs through our holding of residential and commercial mortgage-backed securities issued by the SPEs and/or our recourse obligations. Each SPE in which we hold a variable interest is evaluated to determine whether we are the primary beneficiary of the entity. For Agency securitization transactions, our contractual role as servicer does not give us the power to direct the activities that most significantly affect the economic performance of the SPEs. Thus, we are not the primary beneficiary of these entities. For Non-agency securitization transactions, we would be the primary beneficiary to the extent our servicing activities give us the power to direct the activities that most significantly affect the economic performance of the SPE and we hold a more than insignificant variable interest in the entity.

Details about the Agency and Non-agency securitization SPEs where we hold a variable interest and are not the primary beneficiary are included in Table 38. Our maximum exposure to loss as a result of our involvement with these SPEs is the carrying value of the mortgage-backed securities, servicing assets, servicing advances, and our liabilities associated with our recourse obligations. Creditors of the securitization SPEs have no recourse to our assets or general credit.

Tax Credit Investments and Other

For tax credit investments in which we do not have the right to make decisions that will most significantly impact the economic performance of the entity, we are not the primary beneficiary and thus do not consolidate the entity. These investments are disclosed in Table 38. The table also reflects our maximum exposure to loss exclusive of any potential tax credit recapture. Our maximum exposure to loss is equal to our legally binding equity commitments adjusted for recorded impairment, partnership results, or amortization for qualifying low income housing tax credit investments when applicable. For all legally binding unfunded equity commitments, we increase our recognized investment and recognize a liability. As of December 31, 2017, we had a liability for unfunded commitments of $.5 billion related to investments in qualified affordable housing projects which is reflected in Other liabilities on our Consolidated Balance Sheet.

Table 38 also includes our involvement in lease financing transactions with limited liability companies (LLCs) engaged in solar power generation that to a large extent provided returns in the form of tax credits. The outstanding financings and operating lease assets are reflected as Loans and Other assets, respectively, on our Consolidated Balance Sheet, whereas related liabilities are reported in Deposits and Other liabilities.

We make certain equity investments in various tax credit limited partnerships or LLCs. The purpose of these investments is to achieve a satisfactory return on capital and to assist us in achieving goals associated with the Community Reinvestment Act. During 2017 and 2016, we recognized $.2 billion of amortization, $.2 billion of tax credits, and $.1 billion of other tax benefits associated with qualified investments in low income housing tax credits within Income taxes.

NOTE 3 ASSET QUALITY

We closely monitor economic conditions and loan performance trends to manage and evaluate our exposure to credit risk. Trends in delinquency rates may be a key indicator, among other considerations, of credit risk within the loan portfolios. The measurement of delinquency status is based on the contractual terms of each loan. Loans that are 30 days or more past due in terms of payment are considered delinquent. Loan delinquencies exclude loans held for sale, purchased impaired loans, nonperforming loans and loans accounted for under the fair value option which are on nonaccrual status, but include government insured or guaranteed loans and accruing loans accounted for under the fair value option.

Nonperforming assets include nonperforming loans and leases, OREO, foreclosed and other assets. Nonperforming loans are those loans accounted for at amortized cost whose credit quality has deteriorated to the extent that full collection of contractual principal and interest is not probable. Interest income is not recognized on these loans. Loans accounted for under the fair value option are reported as performing loans as these loans are accounted for at fair value. However, when nonaccrual criteria is met, interest income is not recognized on these loans. Additionally, certain government insured or guaranteed loans for which we expect to collect substantially all principal and interest are not reported as nonperforming loans and continue to accrue interest. Purchased impaired loans are excluded from nonperforming loans as we are currently accreting interest income over the expected life of the loans.

See Note 1 Accounting Policies for additional information on our loan related policies.

The following tables display the delinquency status of our loans and our nonperforming assets at December 31, 2017 and December 31, 2016, respectively.

Table 39: Analysis of Loan Portfolio (a)

	Accruing								
Dollars in millions	Current or Less Than 30 Days Past Due	30-59 Days Past Due	60-89 Days Past Due	90 Days Or More Past Due	Total Past Due (b)	Nonperforming Loans	Fair Value Option Nonaccrual Loans (c)	Purchased Impaired Loans	Total Loans (d)
December 31, 2017									
Commercial Lending									
Commercial	$ 109,989	$ 45	$ 25	$ 39	$ 109	$ 429			$ 110,527
Commercial real estate	28,826	27	2		29	123			28,978
Equipment lease financing	7,914	17	1		18	2			7,934
Total commercial lending	146,729	89	28	39	156	554			147,439
Consumer Lending									
Home equity	26,561	78	26		$ 104	818		$ 881	28,364
Residential real estate	14,389	151	74	486	711 (b)	400	$ 197	1,515	17,212
Credit card	5,579	43	26	45	114	6			5,699
Other consumer									
Automobile	12,697	79	20	8	107	76			12,880
Education and other	8,525	105	64	159	328 (b)	11			8,864
Total consumer lending	67,751	456	210	698	1,364	1,311	197	2,396	73,019
Total	$ 214,480	$ 545	$ 238	$ 737	$ 1,520	$ 1,865	$ 197	$ 2,396	$ 220,458
Percentage of total loans	97.29%	.25%	.11%	.33%	.69%	.85%	.09%	1.08%	100.00%
December 31, 2016									
Commercial Lending									
Commercial	$ 100,710	$ 81	$ 20	$ 39	$ 140	$ 496		$ 18	$ 101,364
Commercial real estate	28,769	5	2		7	143		91	29,010
Equipment lease financing	7,535	29	1		30	16			7,581
Total commercial lending	137,014	115	23	39	177	655		109	137,955
Consumer Lending									
Home equity	27,820	64	30		94	914		1,121	29,949
Residential real estate	12,425	159	68	500	727 (b)	501	$ 219	1,726	15,598
Credit card	5,187	33	21	37	91	4			5,282
Other consumer									
Automobile	12,257	51	12	5	68	55			12,380
Education and other	9,235	140	78	201	419 (b)	15			9,669
Total consumer lending	66,924	447	209	743	1,399	1,489	219	2,847	72,878
Total	$ 203,938	$ 562	$ 232	$ 782	$ 1,576	$ 2,144	$ 219	$ 2,956	$ 210,833
Percentage of total loans	96.73%	.27%	.11%	.37%	.75%	1.02%	.10%	1.40%	100.00%

(a) Amounts in table represent recorded investment and exclude loans held for sale. Recorded investment in a loan includes the unpaid principal balance plus net accounting adjustments, less any charge-offs. Recorded investment does not include any associated valuation allowance.

(b) Past due loan amounts exclude purchased impaired loans, even if contractually past due (or if we do not expect to receive payment in full based on the original contractual terms), as we are currently accreting interest income over the expected life of the loans. Past due loan amounts include government insured or guaranteed Residential real estate mortgages totaling $.6 billion at both December 31, 2017 and December 31, 2016, and Education and other consumer loans totaling $.3 billion and $.4 billion at December 31, 2017 and December 31, 2016, respectively.

(c) Consumer loans accounted for under the fair value option for which we do not expect to collect substantially all principal and interest are subject to nonaccrual accounting and classification upon meeting any of our nonaccrual policies. Given that these loans are not accounted for at amortized cost, these loans have been excluded from the nonperforming loan population.

(d) Net of unearned income, net deferred loan fees, unamortized discounts and premiums, and purchase discounts and premiums totaling $1.2 billion and $1.3 billion at December 31, 2017 and December 31, 2016, respectively.

In the normal course of business, we originate or purchase loan products with contractual characteristics that, when concentrated, may increase our exposure as a holder of those loan products. Possible product features that may create a concentration of credit risk would include a high original or updated LTV ratio, terms that may expose the borrower to future increases in repayments above increases in market interest rates, and interest-only loans, among others.

We originate interest-only loans to commercial borrowers. Such credit arrangements are usually designed to match borrower cash flow expectations (*e.g.*, working capital lines, revolvers). These products are standard in the financial services industry and product features are considered during the underwriting process to mitigate the increased risk that the interest-only feature may result in borrowers not being able to make interest and principal payments when due. We do not believe that these product features create a concentration of credit risk.

At December 31, 2017, we pledged $18.7 billion of commercial loans to the Federal Reserve Bank (FRB) and $62.8 billion of residential real estate and other loans to the Federal Home Loan Bank (FHLB) as collateral for the ability to borrow, if necessary. The comparable amounts at December 31, 2016 were $22.0 billion and $60.8 billion, respectively.

Table 40: Nonperforming Assets

Dollars in millions	December 31 2017	December 31 2016
Nonperforming loans		
Total commercial lending	$ 554	$ 655
Total consumer lending (a)	1,311	1,489
Total nonperforming loans	1,865	2,144
OREO, foreclosed and other assets	170	230
Total nonperforming assets	$ 2,035	$ 2,374
Nonperforming loans to total loans	.85%	1.02%
Nonperforming assets to total loans, OREO, foreclosed and other assets	.92%	1.12%
Nonperforming assets to total assets	.53%	.65%
Interest on nonperforming loans (b)		
Computed on original terms	$ 114	$ 111
Recognized prior to nonperforming status	$ 19	$ 21

(a) Excludes most consumer loans and lines of credit not secured by residential real estate, which are charged off after 120 to 180 days past due and are not placed on nonperforming status.
(b) Amounts are for the year ended.

Nonperforming loans also include certain loans whose terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties. In accordance with applicable accounting guidance, these loans are considered TDRs. See Note 1 Accounting Policies and the TDR section of this Note 3.

Total nonperforming loans in Table 40 include TDRs of $1.0 billion at December 31, 2017 and $1.1 billion at December 31, 2016. TDRs that are performing, including consumer credit card TDR loans, totaled $1.1 billion at both December 31, 2017 and December 31, 2016, and are excluded from nonperforming loans. Nonperforming TDRs are returned to accrual status and classified as performing after demonstrating a period of at least six months of consecutive performance under the restructured terms. Loans where borrowers have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us and loans to borrowers not currently obligated to make both principal and interest payments under the restructured terms are not returned to accrual status. See the TDRs section of this Note 3 for more information on TDRs.

Additional Asset Quality Indicators

We have two overall portfolio segments – Commercial Lending and Consumer Lending. Each of these two segments comprises multiple loan classes. Classes are characterized by similarities in initial measurement, risk attributes and the manner in which we monitor and assess credit risk. The Commercial Lending segment is composed of the commercial, commercial real estate and equipment lease financing loan classes. The Consumer Lending segment is composed of the home equity, residential real estate, credit card and other consumer loan classes.

Commercial Lending Asset Classes

Commercial Loan Class

For commercial loans, we monitor the performance of the borrower in a disciplined and regular manner based upon the level of credit risk inherent in the loan. To evaluate the level of credit risk, we assign an internal risk rating reflecting the borrower's PD and LGD. This two-dimensional credit risk rating methodology provides granularity in the risk monitoring process on an ongoing basis. These ratings are reviewed and updated, generally at least once per year. Additionally, no less frequently than on an annual basis, we review PD rates related to each rating grade based upon internal historical data. These rates are updated as needed and augmented by market data as deemed necessary. For small balance homogeneous pools of commercial loans, mortgages and leases, we apply statistical modeling to assist in determining the probability of default within these pools. Further, on a periodic basis, we update our LGD estimates associated with each rating grade based upon historical data. The combination of the PD and LGD ratings assigned to commercial loans, capturing both the combination of expectations of default and loss severity in event of default, reflects the relative estimated likelihood of loss at the reporting date. In general, loans with better PD and LGD tend to have a lower likelihood of loss compared to loans with worse PD and LGD. The loss amount also considers an estimate of exposure at date of default, which we also periodically update based upon historical data.

Based upon the amount of the lending arrangement and our risk rating assessment, we follow a formal schedule of written periodic review. Quarterly, we conduct formal reviews of a market's or business unit's entire loan portfolio, focusing on those loans which we perceive to be of higher risk, based upon PDs and LGDs, or loans for which credit quality is weakening. If circumstances warrant, it is our practice to review any customer obligation and its level of credit risk more frequently. We attempt to proactively manage our loans by using various procedures that are customized to the risk of a given loan, including ongoing outreach, contact, and assessment of obligor financial conditions, collateral inspection and appraisal.

Commercial Real Estate Loan Class
We manage credit risk associated with our commercial real estate projects and commercial mortgages similar to commercial loans by analyzing PD and LGD. Additionally, risks associated with commercial real estate projects and commercial mortgage activities tend to be correlated to the loan structure and collateral location, project progress and business environment. As a result, these attributes are also monitored and utilized in assessing credit risk.

As with the commercial class, a formal schedule of periodic review is also performed to assess market/geographic risk and business unit/industry risk. Often as a result of these overviews, more in-depth reviews and increased scrutiny are placed on areas of higher risk, including adverse changes in risk ratings, deteriorating operating trends, and/or areas that concern management. These reviews are designed to assess risk and take actions to mitigate our exposure to such risks.

Equipment Lease Financing Loan Class
We manage credit risk associated with our equipment lease financing loan class similar to commercial loans by analyzing PD and LGD.

Based upon the dollar amount of the lease and the level of credit risk, we follow a formal schedule of periodic review. Generally, this occurs quarterly, although we have established practices to review such credit risk more frequently if circumstances warrant. Our review process entails analysis of the following factors: equipment value/residual value, exposure levels, jurisdiction risk, industry risk, guarantor requirements, and regulatory compliance as applicable.

Table 41: Commercial Lending Asset Quality Indicators (a)

		Criticized Commercial Loans			
In millions	Pass Rated	Special Mention (b)	Substandard (c)	Doubtful (d)	Total Loans
December 31, 2017					
Commercial	$ 105,280	$ 1,858	$ 3,331	$ 58	$ 110,527
Commercial real estate	28,380	148	435	15	28,978
Equipment lease financing	7,754	77	102	1	7,934
Total commercial lending	$ 141,414	$ 2,083	$ 3,868	$ 74	$ 147,439
December 31, 2016					
Commercial	$ 96,231	$ 1,612	$ 3,449	$ 72	$ 101,364
Commercial real estate	28,561	98	327	24	29,010
Equipment lease financing	7,395	89	91	6	7,581
Total commercial lending	$ 132,187	$ 1,799	$ 3,867	$ 102	$ 137,955

(a) Loans are classified as "Pass", "Special Mention", "Substandard" and "Doubtful" based on the Regulatory Classification definitions. We use PDs and LGDs to rate commercial loans.
(b) Special Mention rated loans have a potential weakness that deserves management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of repayment prospects at some future date. These loans do not expose us to sufficient risk to warrant a more adverse classification at the reporting date.
(c) Substandard rated loans have a well-defined weakness or weaknesses that jeopardize the collection or liquidation of debt. They are characterized by the distinct possibility that we will sustain some loss if the deficiencies are not corrected.
(d) Doubtful rated loans possess all the inherent weaknesses of a Substandard loan with the additional characteristics that the weakness makes collection or liquidation in full improbable due to existing facts, conditions, and values.

Consumer Lending Asset Classes

Home Equity and Residential Real Estate Loan Classes
We use several credit quality indicators, including delinquency information, nonperforming loan information, updated credit scores, originated and updated loan-to-value (LTV) ratios, and geography, to monitor and manage credit risk within the home equity and residential real estate loan classes. We evaluate mortgage loan performance by source originators and loan servicers. A summary of asset quality indicators follows:

Delinquency/Delinquency Rates: We monitor trending of delinquency/delinquency rates for home equity and residential real estate loans. See Table 39 for additional information.

Nonperforming Loans: We monitor trending of nonperforming loans for home equity and residential real estate loans. See Table 39 for additional information.

Credit Scores: We use a national third-party provider to update FICO credit scores for home equity loans and lines of credit and residential real estate loans at least quarterly. The updated scores are incorporated into a series of credit management reports, which are utilized to monitor the risk in the loan classes.

LTV (inclusive of combined loan-to-value (CLTV) for first and subordinate lien positions): At least annually, we update the property values of real estate collateral and calculate an updated LTV ratio. For open-end credit lines secured by real estate in regions experiencing significant declines in property values, more frequent valuations may occur. We examine LTV migration and stratify LTV into categories to monitor the risk in the loan classes.

Historically, we used, and we continue to use, a combination of original LTV and updated LTV for internal risk management and reporting purposes (*e.g.*, line management, loss mitigation strategies). In addition to the fact that estimated property values by their nature are estimates, given certain data limitations it is important to note that updated LTVs may be based upon management's assumptions (*e.g.*, if an updated LTV is not provided by the third-party service provider, home price index (HPI) changes will be incorporated in arriving at management's estimate of updated LTV).

Updated LTV is estimated using modeled property values. The related estimates and inputs are based upon an approach that uses a combination of third-party automated valuation models (AVMs), broker price opinions (BPOs), HPI indices, property location, internal and external balance information, origination data and management assumptions. We generally utilize origination lien balances provided by a third-party, where applicable, which do not include an amortization assumption when calculating updated LTV. Accordingly, the results of the calculations do not represent actual appraised loan level collateral or updated LTV based upon lien balances held by others, and as such, are necessarily imprecise and subject to change as we refine our methodology.

Geography: Geographic concentrations are monitored to evaluate and manage exposures. Loan purchase programs are sensitive to, and focused within, certain regions to manage geographic exposures and associated risks.

A combination of updated FICO scores, originated and updated LTV ratios and geographic location assigned to home equity loans and lines of credit and residential real estate loans is used to monitor the risk in the loan classes. Loans with higher FICO scores and lower LTVs tend to have a lower level of risk. Conversely, loans with lower FICO scores, higher LTVs, and in certain geographic locations tend to have a higher level of risk.

The following table presents asset quality indicators for home equity and residential real estate balances, excluding consumer purchased impaired loans of $2.4 billion and $2.8 billion at December 31, 2017 and 2016, respectively, and government insured or guaranteed residential real estate mortgages of $.8 billion at both December 31, 2017 and 2016, respectively.

Table 42: Asset Quality Indicators for Home Equity and Residential Real Estate Loans – Excluding Purchased Impaired and Government Insured or Guaranteed Loans (a)

	Home Equity			
December 31, 2017 – in millions	1st Liens	2nd Liens	Residential Real Estate	Total
Current estimated LTV ratios				
Greater than or equal to 125% and updated FICO scores:				
Greater than 660	$ 108	$ 385	$ 126	$ 619
Less than or equal to 660 (b)	21	64	23	108
Missing FICO	1	5	1	7
Greater than or equal to 100% to less than 125% and updated FICO scores:				
Greater than 660	300	842	253	1,395
Less than or equal to 660 (b)	46	143	45	234
Missing FICO	2	9	5	16
Greater than or equal to 90% to less than 100% and updated FICO scores:				
Greater than 660	331	890	324	1,545
Less than or equal to 660	55	134	55	244
Missing FICO	2	9	4	15
Less than 90% and updated FICO scores:				
Greater than 660	13,954	8,066	13,445	35,465
Less than or equal to 660	1,214	774	507	2,495
Missing FICO	42	57	95	194
Total home equity and residential real estate loans	$ 16,076	$ 11,378	$ 14,883	$ 42,337

	Home Equity			
December 31, 2016 – in millions	1st Liens	2nd Liens	Residential Real Estate	Total
Current estimated LTV ratios				
Greater than or equal to 125% and updated FICO scores:				
Greater than 660	$ 161	$ 629	$ 174	$ 964
Less than or equal to 660 (b)	32	110	35	177
Missing FICO	1	9	2	12
Greater than or equal to 100% to less than 125% and updated FICO scores:				
Greater than 660	394	1,190	345	1,929
Less than or equal to 660 (b)	66	211	76	353
Missing FICO	3	10	7	20
Greater than or equal to 90% to less than 100% and updated FICO scores:				
Greater than 660	453	1,100	463	2,016
Less than or equal to 660	77	171	78	326
Missing FICO	1	8	6	15
Less than 90% and updated FICO scores:				
Greater than 660	14,047	7,913	11,153	33,113
Less than or equal to 660	1,323	822	586	2,731
Missing FICO	42	55	102	199
Missing LTV and updated FICO scores:				
Greater than 600			1	1
Total home equity and residential real estate loans	$ 16,600	$ 12,228	$ 13,028	$ 41,856

(a) Amounts shown represent recorded investment.
(b) Higher risk loans are defined as loans with both an updated FICO score of less than or equal to 660 and an updated LTV greater than or equal to 100%. The following states had the highest percentage of higher risk loans at December 31, 2017: New Jersey 17%, Pennsylvania 13%, Illinois 13%, Ohio 9%, Maryland 8%, Florida 6%, North Carolina 5% and Michigan 4%. The remainder of the states had lower than 4% of the higher risk loans individually, and collectively they represent approximately 25% of the higher risk loans. The following states had the highest percentage of higher risk loans at December 31, 2016: New Jersey 16%, Pennsylvania 14%, Illinois 12%, Ohio 10%, Florida 7%, Maryland 6%, Michigan 4% and North Carolina 4%. The remainder of the states had lower than 4% of the high risk loans individually, and collectively they represent approximately 27% of the higher risk loans.

Credit Card and Other Consumer Loan Classes

We monitor a variety of asset quality information in the management of the credit card and other consumer loan classes. Other consumer loan classes include education, automobile, and other secured and unsecured lines and loans. Along with the trending of delinquencies and losses for each class, FICO credit score updates are generally obtained monthly, as well as a variety of credit bureau attributes. Loans with high FICO scores tend to have a lower likelihood of loss. Conversely, loans with low FICO scores tend to have a higher likelihood of loss.

Table 43: Credit Card and Other Consumer Loan Classes Asset Quality Indicators

	Credit Card		Other Consumer (a)	
Dollars in millions	Amount	% of Total Loans Using FICO Credit Metric	Amount	% of Total Loans Using FICO Credit Metric
December 31, 2017				
FICO score greater than 719	$ 3,457	61%	$ 10,366	63%
650 to 719	1,596	28%	4,352	27%
620 to 649	250	4%	659	4%
Less than 620	272	5%	715	4%
No FICO score available or required (b)	124	2%	314	2%
Total loans using FICO credit metric	5,699	100%	16,406	100%
Consumer loans using other internal credit metrics (a)			5,338	
Total loan balance	$ 5,699		$ 21,744	
Weighted-average updated FICO score (b)		735		741
December 31, 2016				
FICO score greater than 719	$ 3,244	61%	$ 10,247	65%
650 to 719	1,466	28%	3,873	25%
620 to 649	215	4%	552	3%
Less than 620	229	4%	632	4%
No FICO score available or required (b)	128	3%	489	3%
Total loans using FICO credit metric	5,282	100%	15,793	100%
Consumer loans using other internal credit metrics (a)			6,256	
Total loan balance	$ 5,282		$ 22,049	
Weighted-average updated FICO score (b)		736		744

(a) We use updated FICO scores as an asset quality indicator for non-government guaranteed or insured education loans, automobile loans and other secured and unsecured lines and loans. We use internal credit metrics, such as delinquency status, geography or other factors, as an asset quality indicator for government guaranteed or insured education loans and consumer loans to high net worth individuals, as internal credit metrics are more relevant than FICO scores for these types of loans.

(b) Credit card loans and other consumer loans with no FICO score available or required generally refers to new accounts issued to borrowers with limited credit history, accounts for which we cannot obtain an updated FICO score (e.g., recent profile changes), cards issued with a business name and/or cards secured by collateral. Management proactively assesses the risk and size of this loan portfolio and, when necessary, takes actions to mitigate the credit risk. Weighted-average updated FICO score excludes accounts with no FICO score available or required.

Troubled Debt Restructurings (TDRs)

A TDR is a loan whose terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulty. TDRs result from our loss mitigation activities, and include rate reductions, principal forgiveness, postponement/reduction of scheduled amortization, and extensions, which are intended to minimize economic loss and to avoid foreclosure or repossession of collateral. Additionally, TDRs also result from borrowers that have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us. In those situations where principal is forgiven, the amount of such principal forgiveness is immediately charged off.

Some TDRs may not ultimately result in the full collection of principal and interest, as restructured, and result in potential incremental losses. These potential incremental losses have been factored into our overall ALLL estimate. The level of any subsequent defaults will likely be affected by future economic conditions. Once a loan becomes a TDR, it will continue to be reported as a TDR until it is ultimately repaid in full, the collateral is foreclosed upon, or it is fully charged off. We held specific reserves in the ALLL of $.2 billion and $.3 billion at December 31, 2017 and December 31, 2016, respectively, for the total TDR portfolio.

Table 44 quantifies the number of loans that were classified as TDRs as well as the change in the loans' recorded investment as a result of becoming a TDR during the years 2017, 2016 and 2015. Additionally, the table provides information about the types of TDR concessions. The Principal Forgiveness TDR category includes principal forgiveness and accrued interest forgiveness. The Rate Reduction TDR category includes reduced interest rate and interest deferral. The Other TDR category primarily includes consumer borrowers that have been discharged from personal liability through Chapter 7 bankruptcy and have not formally reaffirmed their loan obligations to us, as well as postponement/reduction of scheduled amortization and contractual extensions for both consumer and commercial borrowers.

In some cases, there have been multiple concessions granted on one loan. This is most common within the commercial loan portfolio. When there have been multiple concessions granted in the commercial loan portfolio, the principal forgiveness concession was prioritized for purposes of determining the inclusion in Table 44. Second in priority would be rate reduction. In the event that multiple concessions are granted on a consumer loan, concessions resulting from discharge from personal liability through Chapter 7 bankruptcy without formal affirmation of the loan obligations to us would be prioritized and included in the Other type of concession in Table 44. After that, consumer loan concessions would follow the previously discussed priority of concessions for the commercial loan portfolio.

Table 44: Financial Impact and TDRs by Concession Type (a)

			Post-TDR Recorded Investment (c)			
During the year ended December 31, 2017 Dollars in millions	Number of Loans	Pre-TDR Recorded Investment (b)	Principal Forgiveness	Rate Reduction	Other	Total
Total commercial lending	120	$ 293	$ 18	$ 7	$ 227	$ 252
Total consumer lending	11,993	248		146	97	243
Total TDRs	12,113	$ 541	$ 18	$ 153	$ 324	$ 495
During the year ended December 31, 2016 Dollars in millions						
Total commercial lending	143	$ 524		$ 57	$ 413	$ 470
Total consumer lending	11,262	245		157	76	233
Total TDRs	11,405	$ 769		$ 214	$ 489	$ 703
During the year ended December 31, 2015 Dollars in millions						
Total commercial lending	158	$ 284	$ 22	$ 4	$ 198	$ 224
Total consumer lending	10,962	311		190	106	296
Total TDRs	11,120	$ 595	$ 22	$ 194	$ 304	$ 520

(a) Impact of partial charge-offs at TDR date are included in this table.
(b) Represents the recorded investment of the loans as of the quarter end prior to TDR designation, and excludes immaterial amounts of accrued interest receivable.
(c) Represents the recorded investment of the TDRs as of the end of the quarter in which the TDR occurs, and excludes immaterial amounts of accrued interest receivable.

After a loan is determined to be a TDR, we continue to track its performance under its most recent restructured terms. We consider a TDR to have subsequently defaulted when it becomes 60 days past due after the most recent date the loan was restructured. The recorded investment of loans that were both (i) classified as TDRs or were subsequently modified during each 12-month period preceding January 1, 2017, 2016 and 2015, and (ii) subsequently defaulted during the 12-month period following each of January 1, 2017, 2016 and 2015, totaled $.1 billion, $.2 billion and $.1 billion, respectively.

Impaired Loans

Impaired loans include commercial and consumer nonperforming loans and TDRs, regardless of nonperforming status. TDRs that were previously recorded at amortized cost and are now classified and accounted for as held for sale are also included. Excluded from impaired loans are nonperforming leases, loans accounted for as held for sale other than the TDRs described in the preceding sentence, loans accounted for under the fair value option, smaller balance homogeneous type loans and purchased impaired loans. We did not recognize any interest income on impaired loans that have not returned to performing status, while they were impaired during the year ended December 31, 2017 and December 31, 2016. The following table provides further detail on impaired loans individually evaluated for impairment and the associated ALLL. Certain commercial and consumer impaired loans do not have a related ALLL as the valuation of these impaired loans exceeded the recorded investment.

Table 45: Impaired Loans

In millions	Unpaid Principal Balance	Recorded Investment	Associated Allowance	Average Recorded Investment (a)
December 31, 2017				
Impaired loans with an associated allowance				
Total commercial lending	$ 580	$ 353	$ 76	$ 419
Total consumer lending	1,061	1,014	195	1,072
Total impaired loans with an associated allowance	1,641	1,367	271	1,491
Impaired loans without an associated allowance				
Total commercial lending	494	366		330
Total consumer lending	1,019	638		648
Total impaired loans without an associated allowance	1,513	1,004		978
Total impaired loans	$ 3,154	$ 2,371	$ 271	$ 2,469
December 31, 2016				
Impaired loans with an associated allowance				
Total commercial lending	$ 742	$ 477	$ 105	$ 497
Total consumer lending	1,237	1,185	226	1,255
Total impaired loans with an associated allowance	1,979	1,662	331	1,752
Impaired loans without an associated allowance				
Total commercial lending	447	322		365
Total consumer lending	982	608		604
Total impaired loans without an associated allowance	1,429	930		969
Total impaired loans	$ 3,408	$ 2,592	$ 331	$ 2,721

(a) Average recorded investment is for the years ended December 31, 2017 and 2016.

NOTE 4 ALLOWANCE FOR LOAN AND LEASE LOSSES

We maintain the ALLL at levels that we believe to be appropriate to absorb estimated probable credit losses incurred in the portfolios as of the balance sheet date. We use the two main portfolio segments – Commercial Lending and Consumer Lending, and develop and document the ALLL under separate methodologies for each of these portfolio segments. See Note 1 Accounting Policies for a description of the accounting policies for ALLL. A rollforward of the ALLL and associated loan data follows.

Table 46: Rollforward of Allowance for Loan and Lease Losses and Associated Loan Data

Dollars in millions	Commercial Lending	Consumer Lending	Total
December 31, 2017			
Allowance for Loan and Lease Losses			
January 1	$ 1,534	$ 1,055	$ 2,589
Charge-offs	(221)	(565)	(786)
Recoveries	116	213	329
Net (charge-offs)	(105)	(352)	(457)
Provision for credit losses	147	294	441
Net decrease / (increase) in allowance for unfunded loan commitments and letters of credit	5	(1)	4
Other	1	33	34
December 31	$ 1,582	$ 1,029	$ 2,611
TDRs individually evaluated for impairment	$ 35	$ 195	$ 230
Other loans individually evaluated for impairment	41		41
Loans collectively evaluated for impairment	1,506	561	2,067
Purchased impaired loans		273	273
December 31	$ 1,582	$ 1,029	$ 2,611
Loan Portfolio			
TDRs individually evaluated for impairment	$ 409	$ 1,652	$ 2,061
Other loans individually evaluated for impairment	310		310
Loans collectively evaluated for impairment	146,720	68,102	214,822
Fair value option loans (a)		869	869
Purchased impaired loans		2,396	2,396
December 31	$ 147,439	$ 73,019	$ 220,458
Portfolio segment ALLL as a percentage of total ALLL	61%	39%	100%
Ratio of the allowance for loan and lease losses to total loans	1.07%	1.41%	1.18%
December 31, 2016			
Allowance for Loan and Lease Losses			
January 1	$ 1,605	$ 1,122	$ 2,727
Charge-offs	(363)	(523)	(886)
Recoveries	178	165	343
Net (charge-offs)	(185)	(358)	(543)
Provision for credit losses	153	280	433
Net (increase) in allowance for unfunded loan commitments and letters of credit	(39)	(1)	(40)
Other		12	12
December 31	$ 1,534	$ 1,055	$ 2,589
TDRs individually evaluated for impairment	$ 45	$ 226	$ 271
Other loans individually evaluated for impairment	60		60
Loans collectively evaluated for impairment	1,392	546	1,938
Purchased impaired loans	37	283	320
December 31	$ 1,534	$ 1,055	$ 2,589
Loan Portfolio			
TDRs individually evaluated for impairment	$ 428	$ 1,793	$ 2,221
Other loans individually evaluated for impairment	371		371
Loans collectively evaluated for impairment	137,047	67,345	204,392
Fair value option loans (a)		893	893
Purchased impaired loans	109	2,847	2,956
December 31	$ 137,955	$ 72,878	$ 210,833
Portfolio segment ALLL as a percentage of total ALLL	59%	41%	100%

Ratio of the allowance for loan and lease losses to total loans (b)	1.11%	1.45%	1.23%

In millions	Commercial Lending	Consumer Lending	Total
December 31, 2015			
Allowance for Loan and Lease Losses			
January 1	$ 1,571	$ 1,760	$ 3,331
Charge-offs	(255)	(550)	(805)
Recoveries	240	179	419
Net charge-offs	(15)	(371)	(386)
Provision for credit losses	55	200	255
Net (increase) / decrease in allowance for unfunded loan commitments and letters of credit	(3)	1	(2)
Other (b)	(3)	(468)	(471)
December 31	$ 1,605	$ 1,122	$ 2,727
TDRs individually evaluated for impairment	$ 43	$ 276	$ 319
Other loans individually evaluated for impairment	76		76
Loans collectively evaluated for impairment	1,437	585	2,022
Purchased impaired loans	49	261	310
December 31	$ 1,605	$ 1,122	$ 2,727
Loan Portfolio			
TDRs individually evaluated for impairment	$ 434	$ 1,917	$ 2,351
Other loans individually evaluated for impairment	309		309
Loans collectively evaluated for impairment	132,632	66,977	199,609
Fair value option loans (a)		905	905
Purchased impaired loans	169	3,353	3,522
December 31	$ 133,544	$ 73,152	$ 206,696
Portfolio segment ALLL as a percentage of total ALLL	59%	41%	100%
Ratio of the allowance for loan and lease losses to total loans	1.20%	1.53%	1.32%

(a) Loans accounted for under the fair value option are not evaluated for impairment as these loans are accounted for at fair value. Accordingly there is no allowance recorded on these loans.
(b) Includes $468 million in write-offs of purchased impaired loans due to the change in derecognition policy effective December 31, 2015 for certain consumer purchased impaired loans. See Note 1 Accounting Policies in our 2015 Form 10-K for additional information.

Net interest income less the provision for credit losses was $8.7 billion, $8.0 billion and $8.0 billion for 2017, 2016 and 2015, respectively.

NOTE 5 INVESTMENT SECURITIES

Table 47: Investment Securities Summary

In millions	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
December 31, 2017				
Securities Available for Sale				
Debt securities				
U.S. Treasury and government agencies	$ 14,432	$ 173	$ (84)	$ 14,521
Residential mortgage-backed				
Agency	25,534	121	(249)	25,406
Non-agency	2,443	336	(21)	2,758
Commercial mortgage-backed				
Agency	1,960	2	(58)	1,904
Non-agency	2,603	19	(9)	2,613
Asset-backed	5,331	74	(8)	5,397
Other debt	4,322	129	(17)	4,434
Total debt securities	56,625	854	(446)	57,033
Other	587		(2)	585
Total securities available for sale	$ 57,212	$ 854	$ (448)	$ 57,618
Securities Held to Maturity				
Debt securities				
U.S. Treasury and government agencies	$ 741	$ 37	$ (13)	$ 765
Residential mortgage-backed				
Agency	14,503	77	(139)	14,441
Non-agency	167	7		174
Commercial mortgage-backed				
Agency	407	4		411
Non-agency	538	10		548
Asset-backed	200	1		201
Other debt	1,957	88	(20)	2,025
Total securities held to maturity	$ 18,513	$ 224	$ (172)	$ 18,565
December 31, 2016				
Securities Available for Sale				
Debt securities				
U.S. Treasury and government agencies	$ 13,100	$ 151	$ (77)	$ 13,174
Residential mortgage-backed				
Agency	26,245	170	(287)	26,128
Non-agency	3,191	227	(52)	3,366
Commercial mortgage-backed				
Agency	2,150	3	(34)	2,119
Non-agency	4,023	29	(27)	4,025
Asset-backed	5,938	52	(22)	5,968
Other debt	4,656	104	(37)	4,723
Total debt securities	59,303	736	(536)	59,503
Other	603		(2)	601
Total securities available for sale	$ 59,906	$ 736	$ (538)	$ 60,104
Securities Held to Maturity				
Debt securities				
U.S. Treasury and government agencies	$ 527	$ 35	$ (22)	$ 540
Residential mortgage-backed				
Agency	11,074	68	(161)	10,981
Non-agency	191	7		198
Commercial mortgage-backed				
Agency	903	24		927
Non-agency	567	10		577
Asset-backed	558		(2)	556
Other debt	2,023	76	(12)	2,087

Total securities held to maturity	$	15,843	$	220	$	(197)	$	15,866

The fair value of investment securities is impacted by interest rates, credit spreads, market volatility and liquidity conditions. Net unrealized gains and losses in the securities available for sale portfolio are included in Shareholders' equity as Accumulated other comprehensive income or loss, net of tax, unless credit-related. Securities held to maturity are carried at amortized cost. At December 31, 2017, Accumulated other comprehensive income included pretax gains of $54 million from derivatives that hedged the purchase of investment securities classified as held to maturity. The gains will be accreted into interest income as an adjustment of yield on the securities.

Table 48 presents gross unrealized losses and fair value of debt securities at December 31, 2017 and December 31, 2016. The securities are segregated between investments that have been in a continuous unrealized loss position for less than twelve months and twelve months or more based on the point in time that the fair value declined below the amortized cost basis. The table includes debt securities where the noncredit portion of OTTI has been recognized in Accumulated other comprehensive income (loss).

Table 48: Gross Unrealized Loss and Fair Value of Debt Securities

In millions	Unrealized loss position less than 12 months		Unrealized loss position 12 months or more		Total	
	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value
December 31, 2017						
Securities Available for Sale						
Debt securities						
U.S. Treasury and government agencies	$ (42)	$ 6,099	$ (42)	$ 1,465	$ (84)	$ 7,564
Residential mortgage-backed						
Agency	(47)	8,151	(202)	9,954	(249)	18,105
Non-agency			(21)	383	(21)	383
Commercial mortgage-backed						
Agency	(11)	524	(47)	1,302	(58)	1,826
Non-agency	(3)	400	(6)	333	(9)	733
Asset-backed	(4)	1,697	(4)	462	(8)	2,159
Other debt	(3)	966	(14)	798	(17)	1,764
Total debt securities available for sale	$ (110)	$ 17,837	$ (336)	$ 14,697	$ (446)	$ 32,534
Securities Held to Maturity						
Debt securities						
U.S. Treasury and government agencies	$ (3)	$ 195	$ (10)	$ 255	$ (13)	$ 450
Residential mortgage-backed						
Agency	(10)	3,167	(129)	6,168	(139)	9,335
Other debt	(12)	83	(8)	67	(20)	150
Total debt securities held to maturity	$ (25)	$ 3,445	$ (147)	$ 6,490	$ (172)	$ 9,935
December 31, 2016						
Securities Available for Sale						
Debt securities						
U.S. Treasury and government agencies	$ (57)	$ 3,108	$ (20)	$ 2,028	$ (77)	$ 5,136
Residential mortgage-backed						
Agency	(267)	16,942	(20)	922	(287)	17,864
Non-agency	(1)	109	(51)	1,119	(52)	1,228
Commercial mortgage-backed						
Agency	(33)	1,577	(1)	86	(34)	1,663
Non-agency	(14)	880	(13)	987	(27)	1,867
Asset-backed	(5)	1,317	(17)	902	(22)	2,219
Other debt	(33)	1,827	(4)	243	(37)	2,070
Total debt securities available for sale	$ (410)	$ 25,760	$ (126)	$ 6,287	$ (536)	$ 32,047
Securities Held to Maturity						
Debt securities						
U.S. Treasury and government agencies	$ (22)	$ 238			$ (22)	$ 238
Residential mortgage-backed						
Agency	(153)	8,041	$ (8)	$ 161	(161)	8,202
Asset-backed			(2)	451	(2)	451
Other debt	(12)	146		1	(12)	147
Total debt securities held to maturity	$ (187)	$ 8,425	$ (10)	$ 613	$ (197)	$ 9,038

Evaluating Investment Securities for Other-than-Temporary Impairments

For the securities in Table 48, as of December 31, 2017 we do not intend to sell and believe we will not be required to sell the securities prior to recovery of the amortized cost basis.

On at least a quarterly basis, we review all debt securities that are in an unrealized loss position for OTTI, as discussed in Note 1 Accounting Policies. For those securities on our balance sheet at December 31, 2017, where during our quarterly security-level impairment assessments we determined losses represented OTTI, we have recorded cumulative credit losses of $1.1 billion in earnings and accordingly have reduced the amortized cost of our securities.

The majority of these cumulative impairment charges related to non-agency residential mortgage-backed and asset-backed securities rated BB or lower. During 2017, 2016 and 2015, the OTTI credit losses recognized in noninterest income and the OTTI noncredit losses recognized in accumulated other comprehensive income (loss), net of tax, on securities were not significant.

Information relating to gross realized securities gains and losses from the sales of securities is set forth in the following table.

Table 49: Gains (Losses) on Sales of Securities Available for Sale

In millions	Proceeds	Gross Gains	Gross Losses	Net Gains	Tax Expense
Year ended December 31					
2017	$ 5,722	$ 38	$ (31)	$ 7	$ 2
2016	$ 3,489	$ 24	$ (8)	$ 16	$ 6
2015	$ 6,829	$ 56	$ (13)	$ 43	$ 15

The following table presents, by remaining contractual maturity, the amortized cost, fair value and weighted-average yield of debt securities at December 31, 2017.

Table 50: Contractual Maturity of Debt Securities

December 31, 2017 Dollars in millions	1 Year or Less	After 1 Year through 5 Years	After 5 Years through 10 Years	After 10 Years	Total
Securities Available for Sale					
U.S. Treasury and government agencies	$ 85	$ 8,780	$ 4,449	$ 1,118	$ 14,432
Residential mortgage-backed					
Agency	3	45	561	24,925	25,534
Non-agency				2,443	2,443
Commercial mortgage-backed					
Agency	2	259	624	1,075	1,960
Non-agency			451	2,152	2,603
Asset-backed	13	1,846	1,897	1,575	5,331
Other debt	521	2,032	670	1,099	4,322
Total debt securities available for sale	$ 624	$ 12,962	$ 8,652	$ 34,387	$ 56,625
Fair value	$ 626	$ 12,958	$ 8,695	$ 34,754	$ 57,033
Weighted-average yield, GAAP basis	2.73%	2.12%	2.29%	2.97%	2.67%
Securities Held to Maturity					
U.S. Treasury and government agencies			$ 377	$ 364	$ 741
Residential mortgage-backed					
Agency		$ 67	346	14,090	14,503
Non-agency				167	167
Commercial mortgage-backed					
Agency	$ 172	177	4	54	407
Non-agency				538	538
Asset-backed			114	86	200
Other debt	49	394	854	660	1,957
Total debt securities held to maturity	$ 221	$ 638	$ 1,695	$ 15,959	$ 18,513
Fair value	$ 221	$ 654	$ 1,751	$ 15,939	$ 18,565
Weighted-average yield, GAAP basis	3.58%	3.92%	3.44%	3.21%	3.26%

Weighted-average yields are based on historical cost with effective yields weighted for the contractual maturity of each security. At December 31, 2017, there were no securities of a single issuer, other than FNMA, that exceeded 10% of Total shareholders' equity. The FNMA investments had a total amortized cost of $31.0 billion and fair value of $30.8 billion.

The following table presents the fair value of securities that have been either pledged to or accepted from others to collateralize outstanding borrowings.

Table 51: Fair Value of Securities Pledged and Accepted as Collateral

In millions	December 31 2017	December 31 2016
Pledged to others	$ 8,175	$ 9,493
Accepted from others:		
Permitted by contract or custom to sell or repledge	$ 1,152	$ 912
Permitted amount repledged to others	$ 1,097	$ 799

The securities pledged to others include positions held in our portfolio of investment securities, trading securities, and securities accepted as collateral from others that we are permitted by contract or custom to sell or repledge, and were used to secure public and trust deposits, repurchase agreements, and for other purposes.

NOTE 6 FAIR VALUE

Fair Value Measurement

We measure certain financial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or the price that would be paid to transfer a liability on the measurement date, determined using an exit price in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The fair value hierarchy established by GAAP requires us to maximize the use of observable inputs when measuring fair value. The three levels of the fair value hierarchy are:

- **Level 1:** Fair value is determined using a quoted price in an active market for identical assets or liabilities. Level 1 assets and liabilities may include debt securities, equity securities and listed derivative contracts that are traded in an active exchange market and certain U.S. Treasury securities that are actively traded in over-the-counter markets.
- **Level 2:** Fair value is estimated using inputs other than quoted prices included within Level 1 that are observable for assets or liabilities, either directly or indirectly. The majority of Level 2 assets and liabilities include debt securities, equity securities and listed derivative contracts with quoted prices that are traded in markets that are not active, and certain debt and equity securities and over-the-counter derivative contracts whose fair value is determined using a pricing model without significant unobservable inputs.
- **Level 3:** Fair value is estimated using unobservable inputs that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models and discounted cash flow methodologies, or similar techniques for which the significant valuation inputs are not observable and the determination of fair value requires significant management judgment or estimation.

We characterize active markets as those where transaction volumes are sufficient to provide objective pricing information, with reasonably narrow bid/ask spreads and where dealer quotes received do not vary widely and are based on current information. Inactive markets are typically characterized by low transaction volumes, price quotations that vary substantially among market participants or are not based on current information, wide bid/ask spreads, a significant increase in implied liquidity risk premiums, yields, or performance indicators for observed transactions or quoted prices compared to historical periods, a significant decline or absence of a market for new issuance, or any combination of the above factors. We also consider nonperformance risks including credit risk as part of our valuation methodology for all assets and liabilities measured at fair value.

Assets and liabilities measured at fair value, by their nature, result in a higher degree of financial statement volatility. Assets and liabilities classified within Level 3 inherently require the use of various assumptions, estimates and judgments when measuring their fair value. As observable market activity is commonly not available to use when estimating the fair value of Level 3 assets and liabilities, we must estimate fair value using various modeling techniques. These techniques include the use of a variety of inputs/assumptions including credit quality, liquidity, interest rates or other relevant inputs across the entire population of our Level 3 assets and liabilities. Changes in the significant underlying factors or assumptions (either an increase or a decrease) in any of these areas underlying our estimates may result in a significant increase/decrease in the Level 3 fair value measurement of a particular asset and/or liability from period to period.

Any models used to determine fair values or to validate dealer quotes are subject to review and independent testing as part of our model validation and internal control testing processes. Our Model Risk Management Group reviews significant models on at least an annual basis. In addition, the Valuation Committee approves valuation methodologies and reviews the results of independent valuation reviews and processes for assets and liabilities measured at fair value on a recurring basis.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Securities Available for Sale and Trading Securities
Securities accounted for at fair value include both the available for sale and trading portfolios. We primarily use prices obtained from pricing services, dealer quotes, or recent trades to determine the fair value of securities. The majority of securities were priced by third-party vendors. The third-party vendors use a variety of methods when pricing securities that incorporate relevant market data to arrive at an estimate of what a buyer in the marketplace would pay for a security under current market conditions. We monitor and validate the reliability of vendor pricing on an ongoing basis through pricing methodology reviews, including detailed reviews of the assumptions and inputs used by the vendor to price individual securities, and through price validation testing. Securities not priced by one of our pricing vendors may be valued using a dealer quote, which are also subject to price validation testing. Price validation testing is performed independent of the risk-taking function and involves corroborating the prices received from third-party vendors and dealers with prices from another third party or through other sources, such as internal valuations or sales of similar securities. Security prices are also validated through actual cash settlement upon sale of a security.

Securities are classified within the fair value hierarchy after giving consideration to the activity level in the market for the security type and the observability of the inputs used to determine the fair value. When a quoted price in an active market exists for the identical security, this price is used to determine fair value and the security is classified within Level 1 of the hierarchy. Level 1 securities include U.S. Treasury securities and money-market mutual funds. When a quoted price in an active market for the identical security is not available, fair value is estimated using either an alternative market approach, such as a recent trade or matrix pricing, or an income approach, such as a discounted cash flow pricing model. If the inputs to the valuation are based primarily on market observable information, then the security is classified within Level 2 of the hierarchy. Level 2 securities include agency debt securities, agency residential mortgage-backed securities, agency and non-agency commercial mortgage-backed securities, certain non-agency residential mortgage-backed securities, asset-backed securities collateralized by non-mortgage-related consumer loans, municipal securities, and other debt securities. Level 2 securities are predominantly priced by third parties, either a pricing vendor or dealer.

In certain cases where there is limited activity or less transparency around the inputs to the valuation, securities are classified within Level 3 of the hierarchy. Securities classified as Level 3 consist primarily of non-agency residential mortgage-backed and asset-backed securities collateralized by first- and second-lien residential mortgage loans. Fair value for these securities is primarily estimated using pricing obtained from third-party vendors. In some cases, fair value is estimated using a dealer quote, by reference to prices of securities of a similar vintage and collateral type or by reference to recent sales of similar securities. Market activity for these security types is limited with little price transparency. As a result, these securities are generally valued by the third-party vendor using a discounted cash flow approach that incorporates significant unobservable inputs and observable market activity where available. Significant inputs to the valuation include prepayment projections and credit loss assumptions (default rate and loss severity) and discount rates that are deemed representative of current market conditions. Significant increases (decreases) in any of those assumptions in isolation would result in a significantly lower (higher) fair value measurement.

Certain infrequently traded debt securities within Other debt securities available-for-sale and Trading securities are also classified in Level 3 and are included in the Insignificant Level 3 assets, net of liabilities line item in Table 54. The significant unobservable inputs used to estimate the fair value of these securities include an estimate of expected credit losses and a discount for liquidity risk. These inputs are incorporated into the fair value measurement by either increasing the spread over the benchmark curve or by applying a credit and liquidity discount to the par value of the security. Significant increases (decreases) in credit and/or liquidity risk could result in a significantly lower (higher) fair value estimate.

Residential Mortgage Loans Held for Sale
We account for certain residential mortgage loans originated for sale at fair value on a recurring basis. The election of the fair value option aligns the accounting for the residential mortgages with the related hedges. 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.

Commercial Mortgage Loans Held for Sale
We account for certain commercial mortgage loans classified as held for sale in whole loan transactions at fair value. We determine the fair value of commercial mortgage loans held for sale based upon discounted cash flows. Fair value is determined using sale valuation assumptions that management believes a market participant would use in pricing the loans.

Valuation assumptions may include observable inputs based on the benchmark interest rate swap curve, whole loan sales and agency sales transactions. The significant unobservable input for commercial mortgage loans held for sale, excluding those to be sold to agencies, is management's assumption of the spread applied to the benchmark rate. The spread over the benchmark curve includes management's assumptions of the impact of credit and liquidity risk. Significant increases (decreases) in the spread applied to the benchmark would result in a significantly lower (higher) asset value. The wide range of the spread over the benchmark curve is due to the varying risk and underlying property characteristics within our portfolio. Based on the significance of the unobservable input we classified this portfolio as Level 3.

For loans to be sold to agencies with servicing retained, the fair value is adjusted for the estimated servicing cash flows, which is an unobservable input. This adjustment is not considered significant given the relative insensitivity of the value to changes in the input to the fair value of the loans. Accordingly, commercial mortgage loans held for sale to agencies are classified as Level 2 as of December 31, 2017.

Loans
Loans accounted for at fair value consist primarily of residential mortgage loans. These loans are generally valued similarly to residential mortgage loans held for sale and are classified as Level 2. However, similar to residential mortgage loans held for sale, if these loans are repurchased and unsalable, they are classified as Level 3. In addition, repurchased VA loans, where only a portion of the principal will be reimbursed, are classified as Level 3. The fair value is determined using a discounted cash flow calculation based on our historical loss rate. We have elected to account for certain home equity lines of credit at fair value. These loans are classified as Level 3. Significant inputs to the valuation of these loans include credit and liquidity discount, cumulative default rate, loss severity and gross discount rate and are deemed representative of current market conditions. Significant increases (decreases) in any of these assumptions would result in a significantly lower (higher) fair value measurement.

Equity Investments
The valuation of direct and indirect private equity investments requires significant management judgment due to the absence of quoted market prices, inherent lack of liquidity and the long-term nature of such investments. Various valuation techniques are used for direct investments, including multiples of adjusted earnings of the entity, independent appraisals, anticipated financing and sale transactions with third parties, or the pricing used to value the entity in a recent financing transaction. A multiple of adjusted earnings calculation is the valuation technique utilized most frequently and is the most significant unobservable input used in such calculation. Significant decreases (increases) in the multiple of earnings could result in a significantly lower (higher) fair value measurement. Direct equity investments are classified as Level 3.

Indirect investments are not redeemable; however, we receive distributions over the life of the partnerships from liquidation of the underlying investments by the investee, which we expect to occur over the next twelve years. We value indirect investments in private equity funds using consensus pricing and the net asset value (NAV) practical expedient as provided in the financial statements that we receive from fund managers. Due to the time lag in our receipt of the financial information and based on a review of investments and valuation techniques applied, adjustments to the manager-provided value are made when available recent portfolio company information or market information indicates a significant change in value from that provided by the manager of the fund. Indirect investments valued using NAV are not classified in the fair value hierarchy.

Mortgage Servicing Rights (MSRs)
MSRs are carried at fair value on a recurring basis. Assumptions incorporated into the MSRs valuation model reflect management's best estimate of factors that a market participant would use in valuing the MSRs. Although sales of MSRs do occur and can offer some market insight, MSRs do not trade in an active, open market with readily observable prices so the precise terms and conditions of sales are not available.

Residential MSRs
As a benchmark for the reasonableness of our residential MSRs fair value, we obtained opinions of value from independent brokers. These brokers provided a range (+/-10 bps) based upon their own discounted cash flow calculations of our portfolio that reflect conditions in the secondary market and any recently executed servicing transactions. We compare our internally-developed residential

MSRs value to the ranges of values received from the brokers. If our residential MSRs fair value falls outside of the brokers' ranges, management will assess whether a valuation adjustment is warranted. For the periods presented, our residential MSRs value did not fall outside of the brokers' ranges. We consider our residential MSRs value to represent a reasonable estimate of fair value.

Due to the nature of the unobservable valuation inputs, residential MSRs are classified as Level 3. The significant unobservable inputs used in the fair value measurement of residential MSRs are constant prepayment rates and spread over the benchmark curve. Significant increases (decreases) in prepayment rates and spread over the benchmark curve would result in lower (higher) fair market value of residential MSRs.

Commercial MSRs

The fair value of commercial MSRs is estimated by using a discounted cash flow model incorporating unobservable inputs for assumptions such as constant prepayment rates, discount rates and other factors. Due to the nature of the unobservable valuation inputs and the limited availability of market pricing, commercial MSRs are classified as Level 3. Significant increases (decreases) in constant prepayment rates and discount rates would result in significantly lower (higher) commercial MSR value determined based on current market conditions and expectations.

Financial Derivatives

Exchange-traded derivatives are valued using quoted market prices and are classified as Level 1. The majority of derivatives that we enter into are executed over-the-counter and are valued using internal models. These derivatives are primarily classified as Level 2 as the readily observable market inputs to these models are validated to external sources such as industry pricing services, or are corroborated through recent trades, dealer quotes, yield curves, implied volatility or other market-related data. Level 2 financial derivatives are primarily estimated using a combination of Eurodollar future prices and observable benchmark interest rate swaps to construct projected discounted cash flows.

Financial derivatives that are priced using significant management judgment or assumptions are classified as Level 3. Unobservable inputs related to interest rate contracts include probability of funding of residential mortgage loan commitments and estimated servicing cash flows of commercial and residential mortgage loan commitments. Probability of default and loss severity are the significant unobservable inputs used in the valuation of risk participation agreements. The fair values of Level 3 assets and liabilities related to these financial derivatives as of December 31, 2017 and 2016 are included in the Insignificant Level 3 assets, net of liabilities line item in Table 54 of this Note 6.

In connection with the sales of portions of our Visa Class B common shares, we entered into swap agreements with the purchasers of the shares to retain any future risk of decreases in the conversion rate of Class B common shares to Class A common shares resulting from increases in the escrow funded by Visa to pay for the costs of resolution of specified litigation (see Note 19 Legal Proceedings). These swaps also require PNC to make periodic payments based on the market price of the Class A common shares and a fixed rate of interest until the Visa litigation is resolved. An increase in the estimated length of litigation resolution date, a decrease in the estimated conversion rate, or an increase in the estimated growth rate of the Class A share price will each have a negative impact on the fair value of the swaps and vice versa.

The fair values of our derivatives include a credit valuation adjustment to reflect our own and our counterparties' nonperformance risk. Our credit valuation adjustment is computed using new loan pricing and considers externally available bond spreads, in conjunction with internal historical recovery observations.

Other Assets and Liabilities

Other assets held at fair value on a recurring basis primarily include assets related to PNC's deferred compensation and supplemental incentive savings plans and BlackRock Series C Preferred Stock.

The assets related to PNC's deferred compensation and supplemental incentive savings plans primarily consist of a prepaid forward contract referencing an amount of shares of PNC stock, equity mutual funds and fixed income funds, and are valued based on the underlying investments. These assets are valued either by reference to the market price of PNC's stock or by using the quoted market prices for investments other than PNC's stock and are primarily classified in Levels 1 and 2.

We have elected to account for the shares of BlackRock Series C Preferred Stock received in a stock exchange with BlackRock at fair value as these shares economically hedge the BlackRock LTIP liability that is accounted for and reported as a derivative. The fair value of the Series C Preferred Stock is determined using a third-party modeling approach, which includes both observable and unobservable inputs. Due to the significance of unobservable inputs, this security is classified as Level 3. Significant increases (decreases) in the liquidity discount would result in a lower (higher) asset value for the BlackRock Series C Preferred Stock.

All Level 3 other assets and liabilities are included in the Insignificant Level 3 assets, net of liabilities line item in Table 54 in this Note 6.

Other Borrowed Funds

Other borrowed funds primarily consist of U.S. Treasury securities sold short classified as Level 1. Other borrowed funds also includes the related liability for certain repurchased loans for which we have elected the fair value option and are classified as either Level 2 or Level 3, consistent with the level classification of the corresponding loans. All Level 3 amounts are included in the Insignificant Level 3 assets, net of liabilities line item in Table 54 in this Note 6.

The following table summarizes our assets and liabilities measured at fair value on a recurring basis, including instruments for which we have elected the fair value option.

Table 52: Fair Value Measurements – Recurring Basis Summary

	December 31, 2017				December 31, 2016			
In millions	Level 1	Level 2	Level 3	Total Fair Value	Level 1	Level 2	Level 3	Total Fair Value
Assets								
Residential mortgage loans held for sale		$ 829	$ 3	$ 832		$ 1,008	$ 2	$ 1,010
Commercial mortgage loans held for sale		723	107	830			1,400	1,400
Securities available for sale								
U.S. Treasury and government agencies	$ 14,088	433		14,521	$ 12,572	602		13,174
Residential mortgage-backed								
Agency		25,406		25,406		26,128		26,128
Non-agency		97	2,661	2,758		112	3,254	3,366
Commercial mortgage-backed								
Agency		1,904		1,904		2,119		2,119
Non-agency		2,613		2,613		4,025		4,025
Asset-backed		5,065	332	5,397		5,565	403	5,968
Other debt		4,347	87	4,434		4,657	66	4,723
Total debt securities	14,088	39,865	3,080	57,033	12,572	43,208	3,723	59,503
Other	524	61		585	541	60		601
Total securities available for sale	14,612	39,926	3,080	57,618	13,113	43,268	3,723	60,104
Loans		571	298	869		558	335	893
Equity investments (a)			1,036	1,265			1,331	1,381
Residential mortgage servicing rights			1,164	1,164			1,182	1,182
Commercial mortgage servicing rights			668	668			576	576
Trading securities (b)	1,243	1,670	2	2,915	1,458	1,169	2	2,629
Financial derivatives (b) (c)		2,864	10	2,874	10	4,566	40	4,616
Other assets	278	253	107	638	266	312	239	817
Total assets	$ 16,133	$ 46,836	$ 6,475	$ 69,673	$ 14,847	$ 50,881	$ 8,830	$ 74,608
Liabilities								
Other borrowed funds	$ 1,079	$ 254	$ 11	$ 1,344	$ 799	$ 161	$ 10	$ 970
Financial derivatives (c) (d)		2,369	487	2,856	1	3,424	414	3,839
Other liabilities			33	33			9	9
Total liabilities	$ 1,079	$ 2,623	$ 531	$ 4,233	$ 800	$ 3,585	$ 433	$ 4,818

(a) Certain investments that are measured at fair value using the NAV 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 on the Consolidated Balance Sheet.

(b) Included in Other assets on the Consolidated Balance Sheet.

(c) Amounts at December 31, 2017 and December 31, 2016, are presented gross and are not reduced by the impact of legally enforceable master netting agreements that allow us to net positive and negative positions and cash collateral held or placed with the same counterparty. See Note 13 Financial Derivatives for additional information related to derivative offsetting.

(d) Included in Other liabilities on the Consolidated Balance Sheet.

Reconciliations of assets and liabilities measured at fair value on a recurring basis using Level 3 inputs for 2017 and 2016 follow.

Table 53: Reconciliation of Level 3 Assets and Liabilities

Year Ended December 31, 2017

Level 3 Instruments Only In millions	Fair Value Dec. 31, 2016	Total realized / unrealized gains or losses for the period (a): Included in Earnings	Total realized / unrealized gains or losses for the period (a): Included in Other comprehensive income	Purchases	Sales	Issuances	Settlements	Transfers into Level 3	Transfers out of Level 3	Fair Value Dec. 31, 2017	Unrealized gains / losses on assets and liabilities held on Consolidated Balance Sheet at Dec. 31, 2017 (a) (b)
Assets											
Residential mortgage loans held for sale	$ 2			$ 8	$ (1)			$ 10	$ (16) (c)	$ 3	
Commercial mortgage loans held for sale	1,400	$ 81			(5,278)	$ 4,885	$ (258)		(723) (d)	107	$ 4
Securities available for sale											
Residential mortgage-backed non-agency	3,254	77	$ 137		(33)		(774)			2,661	(1)
Commercial mortgage-backed non-agency		12			(12)						
Asset-backed	403	12	22		(25)		(80)			332	
Other debt	66		19	13	(1)		(10)			87	
Total securities available for sale	3,723	101	178	13	(71)		(864)			3,080	(1)
Loans	335			97	(28)		(68)	13	(51) (c)	298	(7)
Equity investments	1,331	239		214	(565)				(183) (e)	1,036	145
Residential mortgage servicing rights	1,182	(83)		185		55	(175)			1,164	(79)
Commercial mortgage servicing rights	576	46		69		88	(111)			668	45
Trading securities	2									2	
Financial derivatives	40	39		3			(67)		(5)	10	67
Other assets	239	23					(155)			107	24
Total assets	$ 8,830	$ 446	$ 178	$ 589	$ (5,943)	$ 5,028	$ (1,698)	$ 23	$ (978)	$ 6,475	$ 198
Liabilities											
Other borrowed funds	$ 10					$ 72	$ (71)			$ 11	
Financial derivatives	414	$ 293			$ 3		(221)		$ (2)	487	$ 297
Other liabilities	9	25				173	(174)			33	26
Total liabilities	$ 433	$ 318			$ 3	$ 245	$ (466)		$ (2)	$ 531	$ 323
Net gains (losses)		$ 128 (f)									$ (125) (g)

Year Ended December 31, 2016

Level 3 Instruments Only In millions	Fair Value Dec. 31, 2015	Total realized / unrealized gains or losses for the period (a) Included in Earnings	 Included in Other comprehensive income	Purchases	Sales	Issuances	Settlements	Transfers into Level 3	Transfers out of Level 3 (c)	Fair Value Dec. 31, 2016	Unrealized gains / losses on assets and liabilities held on Consolidated Balance Sheet at Dec. 31, 2016 (a) (b)
Assets											
Residential mortgage loans held for sale	$ 5			$ 10	$ (3)			$ 10	$ (20)	$ 2	
Commercial mortgage loans held for sale	641	$ 79			(3,810)	$ 4,515	$ (25)			1,400	$ (3)
Securities available for sale											
Residential mortgage-backed non-agency	4,008	75	$ 16		(60)		(785)			3,254	(2)
Asset-backed	482	13	(3)				(89)			403	
Other debt	45	1	28	12	(17)		(3)	2	(2)	66	
Total securities available for sale	4,535	89	41	12	(77)		(877)	2	(2)	3,723	(2)
Loans	340	8		126	(22)		(78)	15	(54)	335	2
Equity investments	1,098	148		269	(418)			235 (e)	(1)	1,331	127
Residential mortgage servicing rights	1,063	37		188		62	(168)			1,182	39
Commercial mortgage servicing rights	526	45		36		61	(92)			576	45
Trading securities	3						(1)			2	
Financial derivatives	31	115		2			(108)			40	102
Other assets	364	15	(2)				(138)			239	13
Total assets	$ 8,606	$ 536	$ 39	$ 643	$ (4,330)	$ 4,638	$ (1,487)	$ 262	$ (77)	$ 8,830	$ 323
Liabilities											
Other borrowed funds	$ 12					$ 87	$ (89)			$ 10	
Financial derivatives	473	$ 127			$ 4		(190)			414	$ 129
Other liabilities	10	(9)				132	(124)			9	
Total liabilities	$ 495	$ 118			$ 4	$ 219	$ (403)			$ 433	$ 129
Net gains (losses)		$ 418 (f)									$ 194 (g)

(a) Losses for assets are bracketed while losses for liabilities are not.
(b) The amount of the total gains or losses for the period included in earnings that is attributable to the change in unrealized gains or losses related to those assets and liabilities held at the end of the reporting period.
(c) Transfers out of Level 3 primarily reflect the reclassification of residential mortgage loans held for sale to held for investment and the transfer of residential mortgage loans to OREO.
(d) Reflects a transfer from Level 3 to Level 2 due to an unobservable valuation input that was deemed to be not significant.
(e) Reflects transfers into and out of Level 3 associated with changes in valuation methodology for certain equity investments subject to the Volcker Rule provisions of the Dodd-Frank Act.
(f) Net gains (losses) realized and unrealized included in earnings related to Level 3 assets and liabilities included amortization and accretion. The amortization and accretion amounts were included in Interest income on the Consolidated Income Statement and the remaining net gains (losses) realized and unrealized were included in Noninterest income on the Consolidated Income Statement.
(g) Net unrealized gains (losses) related to assets and liabilities held at the end of the reporting period were included in Noninterest income on the Consolidated Income Statement.

An instrument's categorization within the hierarchy is based on the lowest level of input that is significant to the fair value measurement. Changes from one quarter to the next related to the observability of inputs to a fair value measurement may result in a reclassification (transfer) of assets or liabilities between hierarchy levels. Our policy is to recognize transfers in and transfers out as of the end of the reporting period.

Quantitative information about the significant unobservable inputs within Level 3 recurring assets and liabilities follows.

Table 54: Fair Value Measurements – Recurring Quantitative Information

December 31, 2017

Level 3 Instruments Only Dollars in millions	Fair Value	Valuation Techniques	Unobservable Inputs	Range (Weighted Average)
Commercial mortgage loans held for sale	$ 107	Discounted cash flow	Spread over the benchmark curve (a)	525bps - 1,470bps (1,020bps)
Residential mortgage-backed non-agency securities	2,661	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR)	1.0% - 31.6% (10.8%)
			Constant default rate (CDR)	0.1% - 18.8% (5.4%)
			Loss severity	15.0% - 100.0% (51.5%)
			Spread over the benchmark curve (a)	190bps weighted average
Asset-backed securities	332	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR)	1.0% - 19.0% (7.9%)
			Constant default rate (CDR)	2.0% - 11.8% (5.4%)
			Loss severity	15.0% - 100.0% (68.5%)
			Spread over the benchmark curve (a)	179bps weighted average
Loans	133	Consensus pricing (b)	Cumulative default rate	11.0% - 100.0% (85.7%)
			Loss severity	0.0% - 100.0% (20.6%)
			Discount rate	5.5% - 8.0% (5.7%)
	104	Discounted cash flow	Loss severity	8.0% weighted average
			Discount rate	4.9% weighted average
	61	Consensus pricing (b)	Credit and Liquidity discount	0.0% - 99.0% (61.1%)
Equity investments	1,036	Multiple of adjusted earnings	Multiple of earnings	4.5x - 29.7x (8.3x)
Residential mortgage servicing rights	1,164	Discounted cash flow	Constant prepayment rate (CPR)	0.0% - 36.7% (10.0%)
			Spread over the benchmark curve (a)	390bps - 1,839bps (830bps)
Commercial mortgage servicing rights	668	Discounted cash flow	Constant prepayment rate (CPR)	7.7% - 14.2% (8.5%)
			Discount rate	6.4% - 7.9% (7.8%)
Financial derivatives - Swaps related to sales of certain Visa Class B common shares	(380)	Discounted cash flow	Estimated conversion factor of Visa Class B shares into Class A shares	163.8% weighted average
			Estimated growth rate of Visa Class A share price	16.0%
			Estimated length of litigation resolution date	Q2 2021
Insignificant Level 3 assets, net of liabilities (c)	58			
Total Level 3 assets, net of liabilities (d)	$ 5,944			

December 31, 2016

Level 3 Instruments Only Dollars in millions	Fair Value	Valuation Techniques	Unobservable Inputs	Range (Weighted Average)
Commercial mortgage loans held for sale	$ 1,400	Discounted cash flow	Spread over the benchmark curve (a)	42bps - 1,725bps (362bps)
			Estimated servicing cash flows	0.0% - 7.3% (1.5%)
Residential mortgage-backed non-agency securities	3,254	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR)	1.0% - 24.2% (7.2%)
			Constant default rate (CDR)	0.0% - 16.7% (5.3%)
			Loss severity	10.0% - 98.5% (53.5%)
			Spread over the benchmark curve (a)	236bps weighted average
Asset-backed securities	403	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR)	1.0% - 16.0% (6.4%)
			Constant default rate (CDR)	2.0% - 13.9% (6.6%)
			Loss severity	24.2% - 100.0% (77.3%)
			Spread over the benchmark curve (a)	278bps weighted average
Loans	141	Consensus pricing (b)	Cumulative default rate	11.0% - 100.0% (86.9%)
			Loss severity	0.0% - 100.0% (22.9%)
			Discount rate	4.7% - 6.7% (5.1%)
	116	Discounted cash flow	Loss severity	8.0% weighted average
			Discount rate	4.2% weighted average
	78	Consensus pricing (b)	Credit and Liquidity discount	0.0% - 99.0% (57.9%)
Equity investments	1,331	Multiple of adjusted earnings	Multiple of earnings	4.5x - 12.0x (7.8x)
		Consensus pricing (b)	Liquidity discount	0.0% - 40.0%
Residential mortgage servicing rights	1,182	Discounted cash flow	Constant prepayment rate (CPR)	0.0% - 36.0% (9.4%)
			Spread over the benchmark curve (a)	341bps - 1,913bps (850bps)
Commercial mortgage servicing rights	576	Discounted cash flow	Constant prepayment rate (CPR)	7.5% - 43.4% (8.6%)
			Discount rate	3.5% - 7.6% (7.5%)
Other assets – BlackRock Series C Preferred Stock	232	Consensus pricing (b)	Liquidity discount	15.0% - 25.0% (20.0%)
Financial derivatives - BlackRock LTIP	(232)	Consensus pricing (b)	Liquidity discount	15.0% - 25.0% (20.0%)
Financial derivatives - Swaps related to sales of certain Visa Class B common shares	(164)	Discounted cash flow	Estimated conversion factor of Class B shares into Class A shares	164.4% weighted average
			Estimated growth rate of Visa Class A share price	14.0%
			Estimated length of litigation resolution date	Q2 2019
Insignificant Level 3 assets, net of liabilities (c)	80			
Total Level 3 assets, net of liabilities (d)	$ 8,397			

(a) The assumed yield spread over the benchmark curve for each instrument is generally intended to incorporate non-interest-rate risks, such as credit and liquidity risks.
(b) Consensus pricing refers to fair value estimates that are generally internally developed using information such as dealer quotes or other third-party provided valuations or comparable asset prices.
(c) Represents the aggregate amount of Level 3 assets and liabilities measured at fair value on a recurring basis that are individually and in the aggregate insignificant. The amount includes certain financial derivative assets and liabilities, trading securities, state and municipal and other debt securities, residential mortgage loans held for sale, other assets, other borrowed funds and other liabilities.
(d) Consisted of total Level 3 assets of $6.4 billion and total Level 3 liabilities of $.5 billion as of December 31, 2017 and $8.8 billion and $.4 billion as of December 31, 2016, respectively.

Financial Assets Accounted for at Fair Value on a Nonrecurring Basis

We may be required to measure certain financial assets at fair value on a nonrecurring basis. These adjustments to fair value usually result from the application of lower of amortized cost or fair value accounting or write-downs of individual assets due to impairment and are included in Table 55 and Table 56.

Nonaccrual Loans
Nonaccrual loans represent the fair value of those loans which have been adjusted due to impairment. The impairment is primarily based on the appraised value of the collateral.

Appraisals are obtained by licensed or certified appraisers at least annually and more recently in certain instances. All third-party appraisals are reviewed and any adjustments to the initial appraisal are incorporated into the final issued appraisal report. In instances where an appraisal is not obtained, collateral value is determined consistent with external third-party appraisal standards by an internal person independent of the asset manager.

OREO, Foreclosed and Other Assets
The carrying value of OREO and foreclosed assets includes valuation adjustments recorded subsequent to the transfer to OREO and foreclosed assets. These valuation adjustments are based on the fair value less cost to sell of the property. Fair value is based on appraised value or sales price and the appraisal process for OREO and foreclosed properties is the same as described above for nonaccrual loans. The carrying value of other assets includes valuation adjustments that are generally based on the appraised value of the underlying assets.

Long-Lived Assets
Long-lived assets consists of buildings for which valuation adjustments were recorded during the period. A facility classified as held and used is impaired to the extent its carrying value is not recoverable and exceeds fair value. Valuation adjustments on buildings held for sale are based on the fair value of the property less an estimated cost to sell and are recorded subsequent to the transfer of the asset to held for sale status. Fair value is determined either by a third-party appraisal, recent sales offer, changes in market or property conditions, or where we have agreed to sell the building to a third party, the contractual sales price. Impairment on these long-lived assets is recorded in Other noninterest expense on our Consolidated Income Statement.

Table 55: Fair Value Measurements – Nonrecurring

In millions	Fair Value December 31 2017	Fair Value December 31 2016
Assets (a)		
Nonaccrual loans	$ 100	$ 187
OREO, foreclosed and other assets	70	107
Long-lived assets	80	18
Total assets	$ 250	$ 312

Year ended December 31 In millions	Gains (Losses) 2017	2016	2015
Assets (a)			
Nonaccrual loans	$ (8)	$ (106)	$ (44)
OREO, foreclosed and other assets	(10)	(16)	(18)
Long-lived assets	(168)	(15)	(20)
Total assets	$ (186)	$ (137)	$ (82)

(a) All Level 3 for the periods presented.

Quantitative information about the significant unobservable inputs within Level 3 nonrecurring assets follows.

Table 56: Fair Value Measurements – Nonrecurring Quantitative Information

Level 3 Instruments Only Dollars in millions	Fair Value	Valuation Techniques	Unobservable Inputs (a)
December 31, 2017			
Assets			
Nonaccrual loans	$ 100	Fair value of property or collateral	Appraised value/sales price
OREO, foreclosed and other assets	70	Fair value of property or collateral	Appraised value/sales price
Long-lived assets	47	Fair value of property or collateral	Appraised value/sales price
	20	Fair value of property or collateral	Broker opinion
	13	Fair value of property or collateral	Projected income/required improvement costs
Total assets	$ 250		
December 31, 2016			
Assets			
Nonaccrual loans	$ 187	Fair value of property or collateral	Appraised value/sales price
OREO, foreclosed and other assets	107	Fair value of property or collateral	Appraised value/sales price
Long-lived assets	18	Fair value of property or collateral	Appraised value/sales price
Total assets	$ 312		

(a) Additional quantitative information for the unobservable inputs was not meaningful for the periods presented.

Financial Instruments Accounted for under Fair Value Option

We elect the fair value option to account for certain financial instruments. For more information on these financial instruments for which the fair value option election has been made, please refer to the Fair Value Measurement section of this Note 6. These financial instruments are initially measured at fair value. Gains and losses from initial measurement and any changes in fair value are subsequently recognized in earnings.

Interest income related to changes in the fair values of these financial instruments is recorded on the Consolidated Income Statement in Other interest income, except for certain Residential mortgage loans, for which income is also recorded in Loan interest income. Changes in value on the prepaid forward contract included in Other Assets is reported in Noninterest expense and interest expense on the Other borrowed funds is reported in Borrowed funds interest expense.

Fair values and aggregate unpaid principal balances of items for which we elected the fair value option follow.

Table 57: Fair Value Option – Fair Value and Principal Balances

In millions	Fair Value	Aggregate Unpaid Principal Balance	Difference
December 31, 2017			
Assets			
Residential mortgage loans held for sale			
Performing loans	$ 822	$ 796	$ 26
Accruing loans 90 days or more past due	3	3	
Nonaccrual loans	7	8	(1)
Total	$ 832	$ 807	$ 25
Commercial mortgage loans held for sale (a)			
Performing loans	$ 828	$ 842	$ (14)
Nonaccrual loans	2	3	(1)
Total	$ 830	$ 845	$ (15)
Residential mortgage loans			
Performing loans	$ 251	$ 280	$ (29)
Accruing loans 90 days or more past due	421	431	(10)
Nonaccrual loans	197	317	(120)
Total	$ 869	$ 1,028	$ (159)
Other assets	$ 216	$ 212	$ 4
Liabilities			
Other borrowed funds	$ 84	$ 85	$ (1)
December 31, 2016			
Assets			
Residential mortgage loans held for sale			
Performing loans	$ 1,000	$ 988	$ 12
Accruing loans 90 days or more past due	4	4	
Nonaccrual loans	6	6	
Total	$ 1,010	$ 998	$ 12
Commercial mortgage loans held for sale (a)			
Performing loans	$ 1,395	$ 1,412	$ (17)
Nonaccrual loans	5	9	(4)
Total	$ 1,400	$ 1,421	$ (21)
Residential mortgage loans			
Performing loans	$ 247	$ 289	$ (42)
Accruing loans 90 days or more past due	427	428	(1)
Nonaccrual loans	219	346	(127)
Total	$ 893	$ 1,063	$ (170)
Other assets	$ 293	$ 288	$ 5
Liabilities			
Other borrowed funds	$ 81	$ 82	$ (1)

(a) There were no accruing loans 90 days or more past due within this category at December 31, 2017 or December 31, 2016.

The changes in fair value for items for which we elected the fair value option are as follows.

Table 58: Fair Value Option – Changes in Fair Value (a)

Year ended December 31 In millions	Gains (Losses) 2017	2016	2015
Assets			
Residential mortgage loans held for sale	$ 121	$ 152	$ 152
Commercial mortgage loans held for sale	$ 87	$ 76	$ 96
Residential mortgage loans	$ 27	$ 30	$ 43
Other assets	$ 60	$ 50	$ (8)
Liabilities			
Other liabilities	$ (26)		$ 4

(a) The impact on earnings of offsetting hedged items or hedging instruments is not reflected in these amounts.

<u>Additional Fair Value Information Related to Financial Instruments Not Recorded at Fair Value</u>

This section presents fair value information for all other financial instruments that are not recorded on the consolidated balance sheet at fair value. We used the following methods and assumptions to estimate the fair value amounts for these financial instruments.

Cash and Due from Banks and Interest-earning Deposits with Banks
Due to their short-term nature, the carrying amounts for Cash and Due from Banks and Interest-earning Deposits with Banks reported on our Consolidated Balance Sheet approximate fair value.

Securities Held to Maturity
We primarily use prices obtained from pricing services, dealer quotes or recent trades to determine the fair value of securities. Refer to the Fair Value Measurement section of this Note 6 for additional information relating to our pricing processes and procedures.

Net Loans
Fair values are estimated based on the discounted value of expected net cash flows incorporating assumptions about prepayment rates, net credit losses and servicing fees. Nonaccrual loans are valued at their estimated recovery value. Loans are presented net of the ALLL.

Other Assets
Other assets includes accrued interest receivable, cash collateral, federal funds sold and resale agreements, equity investments carried at cost, certain loans held for sale, and FHLB and FRB stock. The aggregate carrying value of our FHLB and FRB stock was $1.8 billion at December 31, 2017 and $1.7 billion at December 31, 2016, which approximated fair value at each date.

Deposits
For deposits with no defined maturity, such as noninterest-bearing and interest-bearing demand and interest-bearing money market and savings deposits, carrying values approximate fair values. For time deposits, fair values are estimated by discounting contractual cash flows using current market rates for instruments with similar maturities.

Borrowed Funds
For short-term borrowings, including Federal funds purchased, commercial paper, repurchase agreements, and certain other short-term borrowings and payables, carrying values approximated fair values. For long-term borrowed funds, quoted market prices are used, when available, to estimate fair value. When quoted market prices are not available, fair value is estimated based on current market interest rates and credit spreads for debt with similar terms and maturities.

Unfunded Loan Commitments and Letters of Credit
The fair value of unfunded loan commitments and letters of credit is determined from a market participant's view including the impact of changes in interest rates and credit. We establish a liability on these facilities related to the creditworthiness of our counterparty.

Other Liabilities
Other liabilities includes interest-bearing cash collateral held related to derivatives and other accrued liabilities. Due to its short term nature, the carrying value of Other liabilities reported on our Consolidated Balance Sheet approximates fair value.

The carrying amounts and estimated fair values, as well as the level within the fair value hierarchy, of these financial instruments as of December 31, 2017 and December 31, 2016 are as follows.

Table 59: Additional Fair Value Information Related to Other Financial Instruments

In millions	Carrying Amount	Fair Value Total	Level 1	Level 2	Level 3
December 31, 2017					
Assets					
Cash and due from banks	$ 5,249	$ 5,249	$ 5,249		
Interest-earning deposits with banks	28,595	28,595		$ 28,595	
Securities held to maturity	18,513	18,565	765	17,658	$ 142
Net loans (excludes leases)	209,044	211,175			211,175
Other assets	6,078	6,736		5,949	787
Total assets	$ 267,479	$ 270,320	$ 6,014	$ 52,202	$ 212,104
Liabilities					
Deposits	$ 265,053	$ 264,854		$ 264,854	
Borrowed funds	57,744	58,503		56,853	$ 1,650
Unfunded loan commitments and letters of credit	297	297			297
Other liabilities	399	399		399	
Total liabilities	$ 323,493	$ 324,053		$ 322,106	$ 1,947
December 31, 2016					
Assets					
Cash and due from banks	$ 4,879	$ 4,879	$ 4,879		
Interest-earning deposits with banks	25,711	25,711		$ 25,711	
Securities held to maturity	15,843	15,866	540	15,208	$ 118
Net loans (excludes leases)	199,766	201,863			201,863
Other assets	4,793	5,243		4,666	577
Total assets	$ 250,992	$ 253,562	$ 5,419	$ 45,585	$ 202,558
Liabilities					
Deposits	$ 257,164	$ 257,038		$ 257,038	
Borrowed funds	51,736	52,322		50,941	$ 1,381
Unfunded loan commitments and letters of credit	301	301			301
Other liabilities	417	417		417	
Total liabilities	$ 309,618	$ 310,078		$ 308,396	$ 1,682

The aggregate fair value in Table 59 represents only a portion of the total market value of our total assets and liabilities as, in accordance with the guidance related to fair values about financial instruments, we exclude the following:

- financial instruments recorded at fair value on a recurring basis (as they are disclosed in Table 52),
- investments accounted for under the equity method,
- real and personal property,
- lease financing,
- loan customer relationships,
- deposit customer intangibles,
- mortgage servicing rights,
- retail branch networks,
- fee-based businesses, such as asset management and brokerage, and
- trademarks and brand names.

NOTE 7 GOODWILL AND MORTGAGE SERVICING RIGHTS

Assets and liabilities of acquired entities are recorded at estimated fair value as of the acquisition date.

Goodwill

Allocations of Goodwill by business segment during 2017, 2016 and 2015 follow:

Table 60: Goodwill by Business Segment (a)

In millions	Retail Banking	Corporate & Institutional Banking	Asset Management Group	Total
December 31, 2015	$ 5,795	$ 3,244	$ 64	$ 9,103
December 31, 2016	$ 5,795	$ 3,244	$ 64	$ 9,103
December 31, 2017 (b)	$ 5,795	$ 3,314	$ 64	$ 9,173

(a) The BlackRock business segment did not have any allocated goodwill during 2017, 2016 and 2015.
(b) Corporate & Institutional Banking's goodwill balance as of December 31, 2017 includes the impact of $70 million from business acquisitions in 2017.

We conduct a goodwill impairment test on our reporting units at least annually, in the fourth quarter, or more frequently if events occur or circumstances have changed significantly from the annual test date. The fair value of our reporting units with goodwill is determined by using discounted cash flow and market comparability methodologies. Based on the results of our analysis, there were no impairment charges related to goodwill in 2017, 2016 or 2015.

Mortgage Servicing Rights

We recognize the right to service mortgage loans for others when we recognize it as an intangible asset and the servicing income we receive is more than adequate compensation. MSRs are purchased or originated when loans are sold with servicing retained. MSRs totaled $1.8 billion at both December 31, 2017 and December 31, 2016, respectively, and consisted of loan servicing contracts for commercial and residential mortgages measured at fair value.

Commercial Mortgage Servicing Rights

We recognize gains/(losses) on changes in the fair value of commercial MSRs. Commercial MSRs are subject to changes in value from actual or expected prepayment of the underlying loans and defaults as well as market driven changes in interest rates. We manage this risk by economically hedging the fair value of commercial MSRs with securities and derivative instruments which are expected to increase (or decrease) in value when the value of commercial MSRs declines (or increases).

The fair value of commercial MSRs is estimated by using a discounted cash flow model incorporating inputs for assumptions as to constant prepayment rates, discount rates and other factors determined based on current market conditions and expectations.

Changes in the commercial MSRs follow:

Table 61: Commercial Mortgage Servicing Rights

In millions	2017	2016	2015
January 1	$ 576	$ 526	$ 506
Additions:			
From loans sold with servicing retained	88	61	63
Purchases	69	36	55
Changes in fair value due to:			
Time and payoffs (a)	(111)	(92)	(89)
Other (b)	46	45	(9)
December 31	$ 668	$ 576	$ 526
Related unpaid principal balance at December 31	$ 162,182	$ 143,139	$ 145,823
Servicing advances at December 31	$ 217	$ 265	$ 251

(a) Represents decrease in MSR value due to passage of time, including the impact from both regularly scheduled loan principal payments and loans that were paid down or paid off during the period.
(b) Represents MSR value changes resulting primarily from market-driven changes in interest rates.

Residential Mortgage Servicing Rights

Residential MSRs are subject to changes in value from actual or expected prepayment of the underlying loans and defaults as well as market driven changes in interest rates. We manage this risk by economically hedging the fair value of residential MSRs with securities and derivative instruments which are expected to increase (or decrease) in value when the value of residential MSRs declines (or increases).

The fair value of residential MSRs is estimated by using a discounted cash flow valuation model which calculates the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs, and other factors which are determined based on current market conditions.

Changes in the residential MSRs follow:

Table 62: Residential Mortgage Servicing Rights

In millions	2017	2016	2015
January 1	$ 1,182	$ 1,063	$ 845
Additions:			
From loans sold with servicing retained	55	62	78
Purchases	185	188	316
Changes in fair value due to:			
Time and payoffs (a)	(175)	(168)	(178)
Other (b)	(83)	37	2
December 31	$ 1,164	$ 1,182	$ 1,063
Unpaid principal balance of loans serviced for others at December 31	$ 126,769	$ 125,381	$ 123,466
Servicing advances at December 31	$ 201	$ 302	$ 411

(a) Represents decrease in MSR value due to passage of time, including the impact from both regularly scheduled loan principal payments and loans that were paid down or paid off during the period.

(b) Represents MSR value changes resulting from market-driven changes in interest rates and changes in model assumptions.

Sensitivity Analysis

The fair value of commercial and residential MSRs and significant inputs to the valuation models as of December 31, 2017 are shown in Tables 63 and 64. The expected and actual rates of mortgage loan prepayments are significant factors driving the fair value. Management uses both internal proprietary models and a third-party model to estimate future commercial mortgage loan prepayments and a third-party model to estimate future residential mortgage loan prepayments. These models have been refined based on current market conditions and management judgment. Future interest rates are another important factor in the valuation of MSRs. Management utilizes market implied forward interest rates to estimate the future direction of mortgage and discount rates. The forward rates utilized are derived from the current yield curve for U.S. dollar interest rate swaps and are consistent with pricing of capital markets instruments. Changes in the shape and slope of the forward curve in future periods may result in volatility in the fair value estimate.

A sensitivity analysis of the hypothetical effect on the fair value of MSRs to adverse changes in key assumptions is presented in Tables 63 and 64. These sensitivities do not include the impact of the related hedging activities. Changes in fair value generally cannot be extrapolated because the relationship of the change in the assumption to the change in fair value may not be linear. Also, the effect of a variation in a particular assumption on the fair value of the MSRs is calculated independently without changing any other assumption. In reality, changes in one factor may result in changes in another (for example, changes in mortgage interest rates, which drive changes in prepayment rate estimates, could result in changes in the interest rate spread), which could either magnify or counteract the sensitivities.

The following tables set forth the fair value of commercial and residential MSRs and the sensitivity analysis of the hypothetical effect on the fair value of MSRs to immediate adverse changes of 10% and 20% in those assumptions:

Table 63: Commercial Mortgage Loan Servicing Rights –Key Valuation Assumptions

Dollars in millions	December 31 2017	December 31 2016
Fair value	$ 668	$ 576
Weighted-average life (years)	4.4	4.6
Weighted-average constant prepayment rate	8.51%	8.61%
Decline in fair value from 10% adverse change	$ 12	$ 11
Decline in fair value from 20% adverse change	$ 23	$ 21
Effective discount rate	7.81%	7.52%
Decline in fair value from 10% adverse change	$ 18	$ 16
Decline in fair value from 20% adverse change	$ 36	$ 31

Table 64: Residential Mortgage Loan Servicing Rights – Key Valuation Assumptions

Dollars in millions	December 31 2017	December 31 2016
Fair value	$ 1,164	$ 1,182
Weighted-average life (years)	6.4	6.8
Weighted-average constant prepayment rate	10.04 %	9.41 %
Decline in fair value from 10% adverse change	$ 44	$ 45
Decline in fair value from 20% adverse change	$ 85	$ 86
Weighted-average option adjusted spread	830 bps	850 bps
Decline in fair value from 10% adverse change	$ 35	$ 37
Decline in fair value from 20% adverse change	$ 67	$ 72

Fees from mortgage loan servicing, which includes contractually specified servicing fees, late fees and ancillary fees were $.5 billion for each of 2017, 2016 and 2015. We also generate servicing fees from fee-based activities provided to others for which we do not have an associated servicing asset. Fees from commercial and residential MSRs are reported on our Consolidated Income Statement in the line items Corporate services and Residential mortgage, respectively.

NOTE 8 PREMISES, EQUIPMENT AND LEASEHOLD IMPROVEMENTS

Premises, equipment and leasehold improvements, stated at cost less accumulated depreciation and amortization, were as follows:

Table 65: Premises, Equipment and Leasehold Improvements

In millions	December 31 2017	December 31 2016
Premises, equipment and leasehold improvements	$ 10,939	$ 10,410
Accumulated depreciation and amortization	(5,503)	(4,888)
Net book value	$ 5,436	$ 5,522

The following table includes depreciation expense on premises, equipment and leasehold improvements, as well as amortization expense, excluding intangible assets, primarily for capitalized internally developed software.

Table 66: Depreciation and Amortization Expense

Year ended December 31 In millions	2017	2016	2015
Depreciation	$ 743	$ 683	$ 643
Amortization	56	46	40
Total depreciation and amortization	$ 799	$ 729	$ 683

We lease certain facilities and equipment under agreements expiring at various dates through the year 2081. We account for these as operating leases. Rental expense on such leases was as follows:

Table 67: Lease Rental Expense

Year ended December 31 In millions	2017	2016	2015
Lease rental expense	$ 431	$ 442	$ 460

Required minimum annual rentals that we owe on noncancelable leases having initial or remaining terms in excess of one year totaled $2.6 billion at December 31, 2017.

Future minimum annual rentals are as follows:

Table 68: Minimum Annual Lease Rentals

In millions	
2018	$ 382
2019	$ 343
2020	$ 302
2021	$ 260
2022	$ 217
2023 and thereafter	$ 1,051

NOTE 9 TIME DEPOSITS

Total time deposits of $17.3 billion at December 31, 2017 have future contractual maturities, including related purchase accounting adjustments, as follows:

Table 69: Time Deposits

In billions	
2018	$ 12.1
2019	$ 1.1
2020	$ .9
2021	$ 1.0
2022	$ .9
2023 and thereafter	$ 1.3

NOTE 10 BORROWED FUNDS

The following shows the carrying value of total borrowed funds of $59.1 billion at December 31, 2017 (including adjustments related to purchase accounting, accounting hedges and unamortized original issuance discounts) by remaining contractual maturity:

Table 70: Borrowed Funds

In billions	
2018	$ 16.0
2019	$ 12.3
2020	$ 13.8
2021	$ 3.7
2022	$ 4.9
2023 and thereafter	$ 8.4

The following table presents the contractual rates and maturity dates of our FHLB borrowings, senior debt and subordinated debt as of December 31, 2017 and the carrying values as of December 31, 2017 and 2016.

Table 71: FHLB Borrowings, Senior Debt and Subordinated Debt

	Stated Rate	Maturity	Carrying Value	
Dollars in millions	2017	2017	2017	2016
Parent Company				
Senior debt	1.64%-6.70%	2018-2027	$ 5,203	$ 3,960
Subordinated debt	3.90%-6.88%	2019-2024	1,440	2,038
Junior subordinated debt	2.05%	2028	205	205
Subtotal			6,848	6,203
Bank				
FHLB (a)	zero-6.35%	2018-2030	21,037	17,549
Senior debt	1.05%-3.30%	2018-2043	22,859	19,012
Subordinated debt	2.70%-6.88%	2018-2025	3,555	5,766
Subtotal			47,451	42,327
Total			$ 54,299	$ 48,530

(a) FHLB borrowings are generally collateralized by residential mortgage loans, other mortgage-related loans and commercial mortgage-backed securities.

In Table 71, the carrying values for Parent Company senior and subordinated debt include basis adjustments of $38 million and $23 million, respectively, whereas Bank senior and subordinated debt include basis adjustments of $(187) million and $2 million, respectively, related to fair value accounting hedges as of December 31, 2017.

Also included in borrowed funds are repurchase agreements. Additionally, certain borrowings are reported at fair value. Refer to Note 6 Fair Value for more information on those borrowings.

Junior Subordinated Debentures

PNC Capital Trust C, a wholly-owned finance subsidiary of The PNC Financial Services Group, Inc., owns junior subordinated debentures issued by PNC with a carrying value of $205 million. In June 1998, PNC Capital Trust C issued $200 million of trust preferred securities which bear interest at an annual rate of 3 month LIBOR plus 57 basis points. The trust preferred securities are currently redeemable by PNC Capital Trust C at par. In accordance with GAAP, the financial statements of the Trust are not included in our consolidated financial statements.

The obligations of The PNC Financial Services Group, Inc., as the parent of the Trust, when taken collectively, are the equivalent of a full and unconditional guarantee of the obligations of the Trust under the terms of the trust preferred securities. Such guarantee is subordinate in right of payment in the same manner as other junior subordinated debt. There are certain restrictions on our overall ability to obtain funds from our subsidiaries. For additional disclosure on these funding restrictions, see Note 18 Regulatory Matters.

We are subject to certain restrictions, including restrictions on dividend payments, in connection with the outstanding junior subordinated debentures. Generally, if there is (i) an event of default under the debenture, (ii) we elect to defer interest on the debenture, (iii) we exercise our right to defer payments on the related trust preferred securities, or (iv) there is a default under our guarantee of such payment obligations, subject to certain limited exceptions, we would be unable during the period of such default or deferral to make payments on our debt securities that rank equal or junior to the debentures as well as to make payments on our equity securities, including dividend payments.

NOTE 11 EMPLOYEE BENEFIT PLANS

Pension and Postretirement Plans

We have a noncontributory, qualified defined benefit pension plan covering eligible employees. Benefits are determined using a cash balance formula where earnings credits are a percentage of eligible compensation. Earnings credit percentages for those employees who were plan participants on December 31, 2009 are frozen at the level earned to that point. Earnings credits for all employees who became participants on or after January 1, 2010 are a flat 3% of eligible compensation. All plan participants earn interest on their cash balances based on 30-year Treasury securities rates with those who were participants at December 31, 2009 earning a minimum rate. New participants on or after January 1, 2010 are not subject to the minimum rate. Any pension contributions to the plan are based on an actuarially determined amount necessary to fund total benefits payable to plan participants. We made a voluntary contribution of $200 million in September 2017 to the qualified pension plan. Assets of the qualified pension plan are held in a separate Trust (Trust).

We also maintain nonqualified supplemental retirement plans for certain employees and provide certain health care and life insurance benefits for qualifying retired employees (postretirement benefits) through various plans. PNC reserves the right to terminate or make changes to these plans at any time. The nonqualified pension plan is unfunded. Contributions from PNC and, in the case of the postretirement benefit plans, participant contributions cover all benefits paid under the nonqualified pension plan and postretirement benefit plans. The postretirement plan provides benefits to certain retirees that are at least actuarially equivalent to those provided by Medicare Part D and accordingly, we receive a federal subsidy as shown in Table 72. In November of 2015, we established a voluntary employee beneficiary association (VEBA) to partially fund postretirement medical and life insurance benefit obligations.

We use a measurement date of December 31 for plan assets and benefit obligations. A reconciliation of the changes in the projected benefit obligation for qualified pension, nonqualified pension and postretirement benefit plans as well as the change in plan assets for the qualified pension plan follows.

Table 72: Reconciliation of Changes in Projected Benefit Obligation and Change in Plan Assets

	Qualified Pension		Nonqualified Pension		Postretirement Benefits	
December 31 (Measurement Date) – in millions	2017	2016	2017	2016	2017	2016
Accumulated benefit obligation at end of year	$ 4,726	$ 4,495	$ 280	$ 282		
Projected benefit obligation at beginning of year	$ 4,547	$ 4,397	$ 289	$ 298	$ 373	$ 368
Service cost	160	102	3	3	5	6
Interest cost	179	186	10	12	14	15
Amendments	17				2	
Actuarial (gains)/losses and changes in assumptions	172	131	8	7	(18)	6
Participant contributions					3	4
Federal Medicare subsidy on benefits paid					1	1
Benefits paid	(286)	(269)	(24)	(31)	(25)	(27)
Projected benefit obligation at end of year	$ 4,789	$ 4,547	$ 286	$ 289	$ 355	$ 373
Fair value of plan assets at beginning of year	$ 4,617	$ 4,316			$ 208	$ 200
Actual return on plan assets	722	320			9	(7)
Employer contribution	200	250	$ 24	$ 31	34	$ 37
Participant contributions					3	4
Federal Medicare subsidy on benefits paid					1	1
Benefits paid	(286)	(269)	(24)	(31)	(25)	(27)
Fair value of plan assets at end of year	$ 5,253	$ 4,617			$ 230	$ 208
Funded status	$ 464	$ 70	$ (286)	$ (289)	$ (125)	$ (165)
Amounts recognized on the consolidated balance sheet						
Noncurrent asset	$ 464	$ 70				
Current liability			$ (28)	$ (27)	$ (2)	$ (2)
Noncurrent liability			(258)	(262)	(123)	(163)
Net amount recognized on the consolidated balance sheet	$ 464	$ 70	$ (286)	$ (289)	$ (125)	$ (165)
Amounts recognized in Accumulated other comprehensive income (AOCI) consist of:						
Prior service cost (credit)	$ 13	$ (7)			$ 1	$ (3)
Net actuarial loss	534	841	$ 77	$ 74	18	40
Amount recognized in AOCI	$ 547	$ 834	$ 77	$ 74	$ 19	$ 37

At December 31, 2017, the fair value of the qualified pension plan assets was more than both the accumulated benefit obligation and the projected benefit obligation.

PNC Pension Plan Assets

The long-term investment strategy for pension plan assets in our qualified pension plan (the Plan) is to:

- Meet present and future benefit obligations to all participants and beneficiaries,
- Cover reasonable expenses incurred to provide such benefits, including expenses incurred in the administration of the Trust and the Plan,
- Provide sufficient liquidity to meet benefit and expense payment requirements on a timely basis, and
- Provide a total return that, over the long term, maximizes the ratio of trust assets to liabilities by maximizing investment return, at an appropriate level of risk.

The Plan's named investment fiduciary has the ability to make short to intermediate term asset allocation shifts under the dynamic asset allocation strategy based on factors such as the Plan's funded status, the named investment fiduciary's view of return on equities relative to long term expectations, the named investment fiduciary's view on the direction of interest rates and credit spreads, and other relevant financial or economic factors which would be expected to impact the ability of the Trust to meet its obligation to participants and beneficiaries. Accordingly, the allowable asset allocation ranges have been updated to incorporate the flexibility required by the dynamic allocation policy.

The asset strategy allocations for the Trust at the end of 2017 and 2016, and the target allocation range at the end of 2017, by asset category, are as follows.

Table 73: Asset Strategy Allocations

	Target Allocation Range	Percentage of Plan Assets by Strategy at December 31	
PNC Pension Plan		2017	2016
Asset Category			
Domestic Equity	20 – 40%	30%	28%
International Equity	10 – 25%	24%	21%
Private Equity	0 – 15%	9%	8%
Total Equity	40 – 70%	63%	57%
Domestic Fixed Income	10 – 40%	16%	16%
High Yield Fixed Income	0 – 25%	10%	12%
Total Fixed Income	10 – 65%	26%	28%
Real estate	0 – 15%	5%	5%
Other	0 – 10%	6%	10%
Total	100%	100%	100%

The asset category represents the allocation of Plan assets in accordance with the investment objective of each of the Plan's investment managers. Certain domestic equity investment managers utilize derivatives and fixed income securities as described in their Investment Management Agreements to achieve their investment objective under the Investment Policy Statement. Other investment managers may invest in eligible securities outside of their assigned asset category to meet their investment objectives. The actual percentage of the fair value of total Plan assets held as of December 31, 2017 for equity securities, fixed income securities, real estate and all other assets are 70%, 17%, 5% and 8%, respectively.

We believe that, over the long term, asset allocation is the single greatest determinant of risk. Asset allocation will deviate from the target percentages due to market movement, cash flows, investment manager performance and implementation of shifts under the dynamic asset allocation policy. Material deviations from the asset allocation targets can alter the expected return and risk of the Trust. On the other hand, frequent rebalancing of the asset allocation targets may result in significant transaction costs, which can impair the Trust's ability to meet its investment objective. Accordingly, the Trust portfolio is periodically rebalanced to maintain asset allocation within the target ranges described above.

In addition to being diversified across asset classes, the Trust is diversified within each asset class. Secondary diversification provides a reasonable basis for the expectation that no single security or class of securities will have a disproportionate impact on the total risk and return of the Trust.

Where investment strategies permit the use of derivatives and/or currency management, language is incorporated in the managers' guidelines to define allowable and prohibited transactions and/or strategies. Derivatives are typically employed by investment managers to modify risk/return characteristics of their portfolio(s), implement asset allocation changes in a cost effective manner, or reduce transaction costs. Under the managers' investment guidelines, derivatives may not be used solely for speculation or leverage. Derivatives are to be used only in circumstances where they offer the most efficient economic means of improving the risk/reward profile of the portfolio.

Fair Value Measurements

As further described in Note 6 Fair Value, GAAP establishes the framework for measuring fair value, including a hierarchy used to classify the inputs used in measuring fair value.

A description of the valuation methodologies used for assets measured at fair value at both December 31, 2017 and December 31, 2016 follows:

- Money market funds are valued at the net asset value of the shares held by the pension plan at year end.
- U.S. government and agency securities, corporate debt and common stock are valued at the closing price reported on the active market on which the individual securities are traded. If quoted market prices are not available for the specific security, then fair values are estimated by using pricing models or quoted prices of securities with similar characteristics. Such securities are generally classified within Level 2 of the valuation hierarchy but may be a Level 3 depending

on the level of liquidity and activity in the market for the security.

- Other investments held by the pension plan include derivative financial instruments, which are recorded at estimated fair value as determined by third-party appraisals and pricing models, and group annuity contracts, which are measured at fair value by discounting the related cash flows based on current yields of similar instruments with comparable durations considering the credit-worthiness of the issuer. Also included in other investments is preferred stock valued at the closing price reported on an active market on which the securities are traded.
- Investments measured at net asset value include collective trust fund investments and limited partnerships. Collective trust fund investments are valued based upon the units of such collective trust fund held by the Plan at year end multiplied by the respective unit value. The unit value of the collective trust fund is based upon significant observable inputs, although it is not based upon quoted marked prices in an active market. The underlying investments of the collective trust funds consist primarily of equity securities, debt obligations, short-term investments, and other marketable securities. Due to the nature of these securities, there are no unfunded commitments or redemption restrictions. Limited partnerships are valued by investment managers based on recent financial information used to estimate fair value. The unit value of limited partnerships is based upon significant observable inputs, although it is not based upon quoted marked prices in an active market. In accordance with ASC 820-10, collective trust fund investments and limited partnerships are not classified in the fair value hierarchy.

These methods may result in fair value calculations that may not be indicative of net realizable values or future fair values. Furthermore, while the pension plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2017 and 2016.

Table 74: Pension Plan Assets - Fair Value Hierarchy

		Fair Value Measurements Using:		
December 31, 2017 - in millions	Fair Value	Quoted Prices in Active Markets For Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Interest bearing cash	$ 11	$ 10	$ 1	
Money market funds	339	339		
U.S. government and agency securities	338	233	105	
Corporate debt	583		578	$ 5
Common stock	804	791	13	
Mutual Funds	271		271	
Other	77	1	69	7
Investments measured at net asset value (a)	2,830			
Total	$ 5,253	$ 1,374	$ 1,037	$ 12
December 31, 2016 - in millions				
Interest bearing cash	$ 45	$ 35	$ 10	
Money market funds	404	404		
U.S. government and agency securities	285	158	127	
Corporate debt	580		572	$ 8
Common stock	652	645	7	
Other	60		60	
Investments measured at net asset value (a)	2,591			
Total	$ 4,617	$ 1,242	$ 776	$ 8

(a) In accordance with ASC 820-10, collective trust fund investments and limited partnerships are measured at fair value using the NAV per share (or its equivalent) practical expedient and 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 on the Consolidated Balance Sheet.

The following table provides information regarding our estimated future cash flows related to our various plans.

Table 75: Estimated Cash Flows

	Pension Plans		Postretirement Benefits	
In millions	Qualified Pension	Nonqualified Pension	Gross PNC Benefit Payments	Reduction in PNC Benefit Payments Due to Medicare Part D Subsidy
Estimated 2018 employer contributions		$ 28	$ 26	
Estimated future benefit payments				
2018	$ 295	$ 28	$ 26	
2019	$ 303	$ 25	$ 27	
2020	$ 315	$ 24	$ 27	
2021	$ 318	$ 23	$ 26	
2022	$ 318	$ 22	$ 26	
2023-2027	$ 1,573	$ 100	$ 123	$ 2

The qualified pension plan contributions are deposited into the Trust, and the qualified pension plan benefit payments are paid from the Trust. We do not expect to be required to make a contribution to the qualified plan for 2018 based on the funding calculations under the Pension Protection Act of 2006. For the other plans, total contributions and the benefit payments are the same and represent expected benefit amounts, which are paid from general assets. Postretirement benefits are net of participant contributions. Estimated cash flows reflect the partial funding of postretirement medical and life insurance obligations in the VEBA.

The components of net periodic benefit cost/(income) and other amounts recognized in Other comprehensive income (OCI) were as follows.

Table 76: Components of Net Periodic Benefit Cost

	Qualified Pension Plan			Nonqualified Pension Plan			Postretirement Benefits		
Year ended December 31 – in millions	2017	2016	2015	2017	2016	2015	2017	2016	2015
Net periodic cost consists of:									
Service cost (a)	$ 160	$ 102	$ 107	$ 3	$ 3	$ 3	$ 5	6	$ 5
Interest cost	179	186	177	10	12	11	14	15	15
Expected return on plan assets	(285)	(281)	(297)				(5)	(6)	
Amortization of prior service cost/(credit)	(3)	(7)	(9)				(1)	(1)	(1)
Amortization of actuarial (gain)/loss	43	45	31	4	5	7			
Net periodic cost (benefit)	94	45	9	17	20	21	13	14	19
Other changes in plan assets and benefit obligations recognized in Other comprehensive income:									
Current year prior service cost/(credit)	17						2		
Amortization of prior service (cost)/credit	3	7	9				1	1	1
Current year actuarial loss/(gain)	(264)	91	152	7	7	(10)	(22)	17	(9)
Amortization of actuarial gain/(loss)	(43)	(45)	(31)	(4)	(5)	(7)			
Total recognized in OCI	(287)	53	130	3	2	(17)	(19)	18	(8)
Total amounts recognized in net periodic cost and OCI	$ (193)	$ 98	$ 139	$ 20	$ 22	$ 4	$ (6)	$ 32	$ 11

(a) 2017 Qualified Pension service cost includes $57 million of additional service cost due to the special, one-time cash balance credit announced at the end of 2017.

The weighted-average assumptions used (as of the beginning of each year) to determine the net periodic costs shown in Table 76 were as follows.

Table 77: Net Period Costs - Assumptions

	Net Periodic Cost Determination		
Year ended December 31	2017	2016	2015
Discount rate			
Qualified pension	4.00%	4.25%	3.95%
Nonqualified pension	3.80%	3.95%	3.65%
Postretirement benefits	3.90%	4.15%	3.80%
Rate of compensation increase (average)	3.50%	3.50%	4.00%
Assumed health care cost trend rate			
Initial trend	7.00%	7.25%	7.50%
Ultimate trend	5.00%	5.00%	5.00%
Year ultimate trend reached	2025	2025	2025
Expected long-term return on plan assets	6.38%	6.75%	6.75%

The weighted-average assumptions used (as of the end of each year) to determine year end obligations for pension and postretirement benefits were as follows.

Table 78: Other Pension Assumptions

Year ended December 31	2017	2016
Discount rate		
Qualified pension	3.60%	4.00%
Nonqualified pension	3.45%	3.80%
Postretirement benefits	3.55%	3.90%
Rate of compensation increase (average)	3.50%	3.50%
Assumed health care cost trend rate		
Initial trend	6.75%	7.00%
Ultimate trend	5.00%	5.00%
Year ultimate trend reached	2025	2025

The discount rates are determined independently for each plan by comparing the expected future benefits that will be paid under each plan with yields available on high quality corporate bonds of similar duration. For this analysis, 10% of bonds with the highest yields and 40% with the lowest yields were removed from the bond universe.

The expected return on plan assets is a long-term assumption established by considering historical and anticipated returns of the asset classes invested in by the pension plan and the allocation strategy currently in place among those classes. For purposes of setting and reviewing this assumption, "long- term" refers to the period over which the plan's projected benefit obligations will be disbursed. We review this assumption at each measurement date and adjust it if warranted. Our selection process references certain historical data and the current environment, but primarily utilizes qualitative judgment regarding future return expectations. We also examine the assumption used by other companies with similar pension investment strategies. Taking into account all of these factors, the expected long-term return on plan assets for determining net periodic pension cost for 2017 was 6.375%. We are reducing our expected long-term return on assets to 6.000% for determining pension cost for 2018. This decision was made after considering the views of both internal and external capital market advisors, particularly with regard to the effects of the recent economic environment on long-term prospective equity and fixed income returns.

PNC's net periodic benefit cost recognized for the plans is sensitive to the discount rate and expected long-term return on plan assets. With all other assumptions held constant, a .5% decline in the discount rate would have resulted in an immaterial increase in net periodic benefit cost for the qualified pension plan in 2017, and to be recognized in 2018. For the nonqualified pension plan and postretirement benefits, a .5% decline in the discount rate would also have resulted in an immaterial increase in net periodic benefit cost.

The health care cost trend rate assumptions shown in Tables 77 and 78 relate only to the postretirement benefit plans. The effect of a one-percentage-point increase or decrease in assumed health care cost trend rates would be insignificant.

Defined Contribution Plans

The PNC Incentive Savings Plan (ISP) is a qualified defined contribution plan that covers all of our eligible employees. Effective January 1, 2015, newly-hired full time employees and part-time employees who became eligible to participate in the ISP after that date are automatically enrolled in the ISP with a deferral rate equal to 4% of eligible compensation in the absence of an affirmative election otherwise. Employee benefits expense related to the ISP was $125 million in 2017, $122 million in 2016 and $126 million in 2015, representing cash contributed to the ISP by PNC.

The ISP is a 401(k) Plan and includes an employee stock ownership (ESOP) feature. Employee contributions are invested in a number of investment options, including pre mixed portfolios and individual core funds, available under the ISP at the direction of the employee.

NOTE 12 STOCK BASED COMPENSATION PLANS

We have long-term incentive award plans (Incentive Plans) that provide for the granting of incentive stock options, nonqualified stock options, stock appreciation rights, incentive shares/performance units, restricted shares, restricted share units, other share-based awards and dollar-denominated awards to executives and, other than incentive stock options, to non-employee directors. Certain Incentive Plan awards may be paid in stock, cash or a combination of stock and cash. We typically grant a substantial portion of our stock-based compensation awards during the first quarter of each year.

Total compensation expense recognized related to all share-based payment arrangements was approximately $.2 billion during each of 2017, 2016 and 2015. The total tax benefit recognized related to compensation expense on all share-based payment arrangements was approximately $.1 billion during each of 2017, 2016 and 2015. At December 31, 2017, there was $.2 billion of unamortized share-based compensation expense related to nonvested equity compensation arrangements granted under the Incentive Plans. This unamortized cost is expected to be recognized as expense over a period of no longer than 5 years.

Nonqualified Stock Options

We did not grant any stock options in 2017, 2016 or 2015. Generally, options become exercisable in installments after the grant date. No option can be exercised after 10 years from its grant date. Payment of the option exercise price may be in cash or by surrendering shares of common stock at market value on the exercise date. The exercise price may also be paid by using previously owned shares.

The following table represents the stock option activity for 2017.

Table 79: Stock Options - Rollforward (a)

Year ended December 31, 2017 In millions except weighted-average data	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding, January 1	3	$ 55.16		
Exercised	(2)	$ 53.22		
Outstanding, December 31	1	$ 58.02	2.6 years	$ 112
Vested and exercisable, December 31	1	$ 58.02	2.6 years	$ 112

(a) Cancelled stock options during 2017 were insignificant.

To determine stock-based compensation expense, the grant date fair value is applied to the options granted with a reduction for estimated forfeitures. We recognize compensation expense for stock options on a straight-line basis over the specified vesting period.

At December 31, 2016 and 2015, options for 3 million and 5 million shares of common stock were exercisable at a weighted-average price of $55.16 and $55.42, respectively. The total intrinsic value of options exercised was approximately $.1 billion during 2017, 2016 and 2015.

Cash received from option exercises under all Incentive Plans was approximately $.1 billion for 2017, 2016 and 2015. The tax benefit realized from option exercises under all Incentive Plans was insignificant for 2017, 2016 and 2015.

Shares of common stock available during the next year for the granting of options and other awards under the Incentive Plans were approximately 36 million shares at December 31, 2017. Total shares of PNC common stock authorized for future issuance under all equity compensation plans totaled approximately 37 million shares at December 31, 2017.

During 2017, we issued approximately 2 million common shares from treasury stock in connection with stock option exercise activity. As with past exercise activity, we currently intend to utilize primarily treasury stock for any future stock option exercises.

Incentive/Performance Unit Awards and Restricted Share/Restricted Share Unit Awards

The fair value of nonvested incentive/performance unit awards and restricted share/restricted share unit awards is initially determined based on prices not less than the market value of our common stock on the date of grant with a reduction for estimated forfeitures. The value of certain incentive/performance unit awards is subsequently remeasured based on the achievement of one or more financial and other performance goals. Additionally, certain incentive/performance unit awards require subsequent adjustment to their current market value due to certain discretionary risk review triggers.

The weighted-average grant date fair value of incentive/performance unit awards and restricted share/restricted share unit awards granted in 2017, 2016 and 2015 was $122.10, $78.37 and $91.57 per share, respectively. The total intrinsic value of incentive/performance unit and restricted share/restricted share unit awards vested during 2017, 2016 and 2015 was approximately $.2 billion, $.1 billion and $.2 billion, respectively. We recognize compensation expense for such awards ratably over the corresponding vesting and/or performance periods for each type of program.

Table 80: Nonvested Incentive/Performance Unit Awards and Restricted Share/Restricted Share Unit Awards Rollforward (a)

Shares in millions	Nonvested Incentive/ Performance Units Shares	Weighted-Average Grant Date Fair Value	Nonvested Restricted Share/ Restricted Share Units	Weighted-Average Grant Date Fair Value
December 31, 2016	2	$ 81.42	3	$ 83.27
Granted (b)	1	$ 122.13	1	$ 122.09
Vested/Released (b)	(1)	$ 78.69	(1)	$ 80.69
December 31, 2017	2	$ 94.29	3	$ 95.64

(a) Forfeited awards during 2017 were insignificant.
(b) Includes adjustments for achieving specific performance goals for Incentive/ Performance Unit Share Awards granted in prior periods.

In Table 80, the units and related weighted-average grant date fair value of the incentive/performance unit share awards exclude the effect of dividends on the underlying shares, as those dividends will be paid in cash if and when the underlying shares are issued to the participants.

BlackRock Long-term Incentive Plans (LTIP)

BlackRock adopted the 2002 LTIP program to help attract and retain qualified professionals. At that time, we agreed to transfer up to four million shares of BlackRock common stock to fund a portion of the 2002 LTIP program and future LTIP programs approved by BlackRock's Board of Directors.

In 2009, our obligation to deliver any remaining BlackRock common shares was replaced with an obligation to deliver shares of BlackRock's Series C Preferred Stock held by us.

In 2017, we transferred .52 million shares of BlackRock Series C Preferred Stock to BlackRock in connection with our obligation. At December 31, 2017, we held approximately .25 million shares of BlackRock Series C Preferred Stock which were available to fund our obligations. See Note 23 Subsequent Events for information on our January 31, 2018 transfer of 0.1 million shares of the Series C Preferred Stock to BlackRock to satisfy a portion of our LTIP obligation.

NOTE 13 FINANCIAL DERIVATIVES

We use derivative financial instruments primarily to help manage exposure to interest rate, market and credit risk and reduce the effects that changes in interest rates may have on net income, the fair value of assets and liabilities, and cash flows. We also enter into derivatives with customers to facilitate their risk management activities. Derivatives represent contracts between parties that usually require little or no initial net investment and result in one party delivering cash or another type of asset to the other party based on a notional amount and an underlying as specified in the contract.

Derivative transactions are often measured in terms of notional amount, but this amount is generally not exchanged and it is not recorded on the balance sheet. The notional amount is the basis to which the underlying is applied to determine required payments under the derivative contract. The underlying is a referenced interest rate (commonly LIBOR), security price, credit spread or other index. Residential and commercial real estate loan commitments associated with loans to be sold also qualify as derivative instruments.

The following table presents the notional amounts and gross fair values of all derivative assets and liabilities held by us.

Table 81: Total Gross Derivatives

	December 31, 2017			December 31, 2016		
In millions	Notional / Contract Amount	Asset Fair Value (a)	Liability Fair Value (b)	Notional / Contract Amount	Asset Fair Value (a)	Liability Fair Value (b)
Derivatives used for hedging under GAAP						
Interest rate contracts (c):						
Fair value hedges (d)	$ 34,059	$ 114	$ 94	$ 34,010	$ 551	$ 214
Cash flow hedges (d)	23,875	60	6	20,831	313	71
Foreign exchange contracts:						
Net investment hedges	1,060		11	945	25	
Total derivatives designated for hedging	$ 58,994	$ 174	$ 111	$ 55,786	$ 889	$ 285
Derivatives not used for hedging under GAAP						
Derivatives used for mortgage banking activities (e):						
Interest rate contracts:						
Swaps (d)	$ 48,335	$ 162	$ 42	$ 49,071	$ 783	$ 505
Futures (f)	47,494			36,264		
Mortgage-backed commitments	8,999	19	9	13,317	96	56
Other	2,530	11	2	31,907	28	4
Subtotal	107,358	192	53	130,559	907	565
Derivatives used for customer-related activities:						
Interest rate contracts:						
Swaps (d)	194,042	2,079	1,772	173,777	2,373	2,214
Futures (f)	3,453			4,053		
Mortgage-backed commitments	2,228	2	2	2,955	10	8
Other	17,775	75	36	16,203	55	53
Subtotal	217,498	2,156	1,810	196,988	2,438	2,275
Foreign exchange contracts and other	27,330	349	332	21,889	342	309
Subtotal	244,828	2,505	2,142	218,877	2,780	2,584
Derivatives used for other risk management activities:						
Foreign exchange contracts and other (g)	7,445	3	550	5,581	40	405
Total derivatives not designated for hedging	$ 359,631	$ 2,700	$ 2,745	$ 355,017	$ 3,727	$ 3,554
Total gross derivatives	$ 418,625	$ 2,874	$ 2,856	$ 410,803	$ 4,616	$ 3,839
Less: Impact of legally enforceable master netting agreements (d)		(1,054)	(1,054)		(2,460)	(2,460)
Less: Cash collateral received/paid (d)		(636)	(763)		(657)	(484)
Total derivatives		$ 1,184	$ 1,039		$ 1,499	$ 895

(a) Included in Other assets on our Consolidated Balance Sheet.
(b) Included in Other liabilities on our Consolidated Balance Sheet.
(c) Represents primarily swaps.
(d) In the first quarter of 2017, PNC changed its accounting treatment for variation margin related to certain derivative instruments cleared through a central clearing house. Previously, variation margin was treated as collateral subject to offsetting. As a result of changes made by the clearing house to its rules governing such instruments with its counterparties, effective for the first quarter of 2017, variation margin is treated as a settlement payment on the derivative instrument. The impact at December 31, 2017 was a reduction of gross derivative assets and gross derivative liabilities by $.8 billion and $.7 billion, respectively. The accounting change had no impact on the net fair value of the derivative assets and liabilities that otherwise would have been reported on our Consolidated Balance Sheet. See Table 85 for more information.
(e) Includes both residential and commercial mortgage banking activities.
(f) Futures contracts settle in cash daily and, therefore, no derivative asset or derivative liability is recognized on our Consolidated Balance Sheet.
(g) Includes our obligation to fund a portion of certain BlackRock LTIP programs and the swaps entered into in connection with sales of a portion of Visa Class B common shares.

All derivatives are carried on our Consolidated Balance Sheet at fair value. Derivative balances are presented on the Consolidated Balance Sheet on a net basis taking into consideration the effects of legally enforceable master netting agreements and, when appropriate, any related cash collateral exchanged with counterparties. Further discussion regarding the offsetting rights associated with these legally enforceable master netting agreements is included in the Offsetting, Counterparty Credit Risk, and Contingent Features section below. Any nonperformance risk, including credit risk, is included in the determination of the estimated net fair value of the derivatives.

Further discussion on how derivatives are accounted for is included in Note 1 Accounting Policies.

Derivatives Designated As Hedging Instruments under GAAP

Certain derivatives used to manage interest rate and foreign exchange risk as part of our asset and liability risk management activities are designated as accounting hedges under GAAP. Derivatives hedging the risks associated with changes in the fair value of assets or liabilities are considered fair value hedges, derivatives hedging the variability of expected future cash flows are considered cash flow hedges, and derivatives hedging a net investment in a foreign subsidiary are considered net investment hedges. Designating derivatives as accounting hedges allows for gains and losses on those derivatives, to the extent effective, to be recognized in the income statement in the same period the hedged items affect earnings.

Fair Value Hedges
We enter into receive-fixed, pay-variable interest rate swaps to hedge changes in the fair value of outstanding fixed-rate debt caused by fluctuations in market interest rates. We also enter into pay-fixed, receive-variable interest rate swaps and zero-coupon swaps to hedge changes in the fair value of fixed rate and zero-coupon investment securities caused by fluctuations in market interest rates. For these hedge relationships, we use statistical regression analysis to assess hedge effectiveness at both the inception of the hedge relationship and on an ongoing basis. There were no components of derivative gains or losses excluded from the assessment of hedge effectiveness for all periods presented.

Further detail regarding gains (losses) on fair value hedge derivatives and related hedged items is presented in the following table:

Table 82: Gains (Losses) on Derivatives and Related Hedged Items – Fair Value Hedges (a)

			Year ended					
			December 31, 2017		December 31, 2016		December 31, 2015	
In millions	Hedged Items	Location	Gain (Loss) on Derivatives Recognized in Income	Gain (Loss) on Related Hedged Items Recognized in Income	Gain (Loss) on Derivatives Recognized in Income	Gain (Loss) on Related Hedged Items Recognized in Income	Gain (Loss) on Derivatives Recognized in Income	Gain (Loss) on Related Hedged Items Recognized in Income
Interest rate contracts	U.S. Treasury and Government Agencies and Other Debt Securities	Investment securities (interest income)	$ 48	$ (50)	$ 142	$ (141)		
Interest rate contracts	Subordinated Debt and Bank Notes and Senior Debt	Borrowed funds (interest expense)	(284)	268	(332)	299	$ (108)	$ 67
Total (a)			$ (236)	$ 218	$ (190)	$ 158	$ (108)	$ 67

(a) The difference between the gains (losses) recognized in income on derivatives and their related hedged items represents the ineffective portion of the change in value of our fair value hedge derivatives.

Cash Flow Hedges
We enter into receive-fixed, pay-variable interest rate swaps to modify the interest rate characteristics of designated commercial loans from variable to fixed in order to reduce the impact of changes in future cash flows due to market interest rate changes. For these cash flow hedges, any changes in the fair value of the derivatives that are effective in offsetting changes in the forecasted interest cash flows are recorded in Accumulated other comprehensive income and are reclassified to interest income in conjunction with the recognition of interest received on the loans. We use statistical regression analysis to assess the effectiveness of these hedge relationships at both the inception of the hedge relationship and on an ongoing basis.

We also periodically enter into forward purchase and sale contracts to hedge the variability of the consideration that will be paid or received related to the purchase or sale of investment securities. The forecasted purchase or sale is consummated upon gross settlement of the forward contract itself. As a result, hedge ineffectiveness, if any, is typically minimal. Gains and losses on these forward contracts are recorded in Accumulated other comprehensive income and are recognized in earnings when the hedged cash flows affect earnings.

In the 12 months that follow December 31, 2017, we expect to reclassify net derivative gains of $102 million pretax, or $81 million after-tax, from Accumulated other comprehensive income to interest income for both cash flow hedge strategies. This reclassified amount could differ from amounts actually recognized due to changes in interest rates, hedge de-designations, and the addition of other hedges subsequent to December 31, 2017. As of December 31, 2017, the maximum length of time over which forecasted transactions are hedged is seven years. During 2017, 2016 and 2015, there were no gains or losses from cash flow hedge derivatives reclassified to earnings because it became probable that the original forecasted transaction would not occur.

There were no components of derivative gains or losses excluded from the assessment of hedge effectiveness related to either cash flow hedge strategy for all periods presented.

Further detail regarding gains (losses) on derivatives and related cash flows is presented in the following table:

Table 83: Gains (Losses) on Derivatives and Related Cash Flows – Cash Flow Hedges (a) (b)

	Year ended December 31		
In millions	2017	2016	2015
Gains (losses) on derivatives recognized in OCI – (effective portion)	$ (90)	$ 100	$ 415
Less: Gains (losses) reclassified from accumulated OCI into income – (effective portion)			
Interest income	$ 180	$ 253	$ 293
Noninterest income	17		(5)
Total gains (losses) reclassified from accumulated OCI into income – (effective portion)	$ 197	$ 253	$ 288
Net unrealized gains (losses) on cash flow hedge derivatives	$ (287)	$ (153)	$ 127

(a) All cash flow hedge derivatives are interest rate contracts as of December 31, 2017, December 31, 2016 and December 31, 2015.

(b) The amount of cash flow hedge ineffectiveness recognized in income was not significant for the periods presented.

Net Investment Hedges

We enter into foreign currency forward contracts to hedge non-U.S. Dollar net investments in foreign subsidiaries against adverse changes in foreign exchange rates. We assess whether the hedging relationship is highly effective in achieving offsetting changes in the value of the hedge and hedged item by qualitatively verifying that the critical terms of the hedge and hedged item match at the inception of the hedging relationship and on an ongoing basis. Net investment hedge derivatives are classified as foreign exchange contracts. There were no components of derivative gains or losses excluded from the assessment of the hedge effectiveness for all periods presented. For 2017, 2016 and 2015, there was no net investment hedge ineffectiveness. Net gains (losses) on net investment hedge derivatives recognized in OCI were $(81) million in 2017, $186 million in 2016 and $60 million in 2015.

<u>Derivatives Not Designated As Hedging Instruments under GAAP</u>

Residential mortgage loans that will be sold in the secondary market, and the related loan commitments, which are considered derivatives, are accounted for at fair value. Changes in the fair value of the loans and commitments due to interest rate risk are hedged with forward contracts to sell mortgage-backed securities, as well as U.S. Treasury and Eurodollar futures and options. Gains and losses on the loans and commitments held for sale and the derivatives used to economically hedge them are included in Residential mortgage noninterest income on the Consolidated Income Statement.

Residential mortgage servicing rights are accounted for at fair value with changes in fair value influenced primarily by changes in interest rates. Derivatives used to hedge the fair value of residential mortgage servicing rights include interest rate futures, swaps, options, and forward contracts to purchase mortgage-backed securities. Gains and losses on residential mortgage servicing rights and the related derivatives used for hedging are included in Residential mortgage noninterest income.

Commercial mortgage loans held for sale and the related loan commitments, which are considered derivatives, are accounted for at fair value. Derivatives used to economically hedge these loans and commitments from changes in fair value due to interest rate risk and credit risk include forward loan sale contracts, interest rate swaps, and credit default swaps. Gains and losses on the commitments, loans and derivatives are included in Other noninterest income. Derivatives used to economically hedge the change in value of commercial mortgage servicing rights include interest rate futures, swaps and options. Gains or losses on these derivatives are included in Corporate services noninterest income.

The residential and commercial mortgage loan commitments associated with loans to be sold which are accounted for as derivatives are valued based on the estimated fair value of the underlying loan and the probability that the loan will fund within the terms of the commitment. The fair value also takes into account the fair value of the embedded servicing right.

We offer derivatives to our customers in connection with their risk management needs. These derivatives primarily consist of interest rate swaps, interest rate caps and floors, swaptions and foreign exchange contracts. We primarily manage our market risk exposure from customer transactions by entering into a variety of hedging transactions with third-party dealers. Gains and losses on customer-related derivatives are included in Other noninterest income.

Included in the customer, mortgage banking risk management, and other risk management portfolios are written interest-rate caps and floors entered into with customers and for risk management purposes. We receive an upfront premium from the counterparty and are obligated to make payments to the counterparty if the underlying market interest rate rises above or falls below a certain level designated in the contract. Our ultimate obligation under written options is based on future market conditions.

We have entered into risk participation agreements to share some of the credit exposure with other counterparties related to interest rate derivative contracts or to take on credit exposure to generate revenue. The notional amount of risk participation agreements sold was $3.6 billion at December 31, 2017 and $4.3 billion at December 31, 2016. Assuming all underlying third party customers referenced in the swap contracts defaulted, the exposure from these agreements would be $.1 billion at both December 31, 2017 and December 31, 2016 based on the fair value of the underlying swaps.

Further detail regarding the gains (losses) on derivatives not designated in hedging relationships is presented in the following table:

Table 84: Gains (Losses) on Derivatives Not Designated for Hedging under GAAP

	Year ended December 31		
In millions	2017	2016	2015
Derivatives used for mortgage banking activities:			
Interest rate contracts (a)	$ 75	$ 152	$ 220
Derivatives used for customer-related activities:			
Interest rate contracts	95	78	71
Foreign exchange contracts and other	146	84	78
Gains (losses) from customer-related activities (b)	241	162	149
Derivatives used for other risk management activities:			
Foreign exchange contracts and other (c)	(525)	(7)	282
Gains (losses) from other risk management activities (b)	(525)	(7)	282
Total gains (losses) from derivatives not designated as hedging instruments	$ (209)	$ 307	$ 651

(a) Included in Residential mortgage, Corporate services and Other noninterest income.
(b) Included in Other noninterest income.
(c) Includes BlackRock LTIP funding obligation and the swaps entered into in connection with sales of a portion of Visa Class B common shares.

Offsetting, Counterparty Credit Risk, and Contingent Features

We generally utilize a net presentation on the Consolidated Balance Sheet for those derivative financial instruments entered into with counterparties under legally enforceable master netting agreements. The master netting agreements reduce credit risk by permitting the closeout netting of all outstanding derivative instruments under the master netting agreement with the same counterparty upon the occurrence of an event of default. The master netting agreement also may require the exchange of cash or marketable securities to collateralize either party's net position. In certain cases, minimum thresholds must be exceeded before any collateral is exchanged. Collateral is typically exchanged daily on unsettled positions based on the net fair value of the positions with the counterparty as of the preceding day. Collateral representing initial margin, which is based on potential future exposure, is also required to be pledged by us in relation to derivative instruments with central clearing house counterparties. Any cash collateral exchanged with counterparties under these master netting agreements is also netted, when appropriate, against the applicable derivative fair values on the Consolidated Balance Sheet. However, the fair value of any securities held or pledged is not included in the net presentation on the balance sheet. In order for derivative instruments under a master netting agreement to be eligible for closeout netting under GAAP, we must conduct sufficient legal review to conclude with a well-founded basis that the offsetting rights included in the master netting agreement would be legally enforceable upon an event of default, including upon an event of bankruptcy, insolvency, or a similar proceeding of the counterparty. Enforceability is evidenced by a legal opinion that supports, with sufficient confidence, the enforceability of the master netting agreement in such circumstances.

Table 85 shows the impact legally enforceable master netting agreements had on our derivative assets and derivative liabilities as of December 31, 2017 and December 31, 2016. The table includes cash collateral held or pledged under legally enforceable master netting agreements. The table also includes the fair value of any securities collateral held or pledged under legally enforceable master netting agreements. Cash and securities collateral amounts are included in the table only to the extent of the related net derivative fair values.

Table 85: Derivative Assets and Liabilities Offsetting

		Amounts Offset on the Consolidated Balance Sheet				
December 31, 2017 In millions	Gross Fair Value	Fair Value Offset Amount	Cash Collateral	Net Fair Value	Securities Collateral Held / (Pledged) Under Master Netting Agreements	Net Amounts
Derivative assets						
Interest rate contracts:						
Over-the-counter cleared (a)	$ 827	$ 251	$ 567	$ 9		$ 9
Over-the-counter	1,695	668	67	960	$ 32	928
Foreign exchange and other contracts	352	135	2	215		215
Total derivative assets	$ 2,874	$ 1,054	$ 636	$ 1,184 (b)	$ 32	$ 1,152
Derivative liabilities						
Interest rate contracts:						
Over-the-counter cleared (a)	$ 260	$ 251		$ 9		$ 9
Over-the-counter	1,703	662	$ 669	372		372
Foreign exchange and other contracts	893	141	94	658		658
Total derivative liabilities	$ 2,856	$ 1,054	$ 763	$ 1,039 (c)		$ 1,039
December 31, 2016 In millions						
Derivative assets						
Interest rate contracts:						
Over-the-counter cleared (a)	$ 1,498	$ 940	$ 480	$ 78		$ 78
Exchange-traded	9			9		9
Over-the-counter	2,702	1,358	164	1,180	$ 62	1,118
Foreign exchange and other contracts	407	162	13	232		232
Total derivative assets	$ 4,616	$ 2,460	$ 657	$ 1,499 (b)	$ 62	$ 1,437
Derivative liabilities						
Interest rate contracts:						
Over-the-counter cleared (a)	$ 1,060	$ 940	$ 25	$ 95		$ 95
Exchange-traded	1			1		1
Over-the-counter	2,064	1,395	431	238		238
Foreign exchange and other contracts	714	125	28	561		561
Total derivative liabilities	$ 3,839	$ 2,460	$ 484	$ 895 (c)		$ 895

(a) Reflects our first quarter 2017 change in accounting treatment for variation margin for certain derivative instruments cleared through a central clearing house. The accounting change reduced the asset and liability gross fair values with corresponding reductions to the fair value and cash collateral offsets, resulting in no changes to the net fair value amounts.
(b) Represents the net amount of derivative assets included in Other assets on our Consolidated Balance Sheet.
(c) Represents the net amount of derivative liabilities included in Other liabilities on our Consolidated Balance Sheet.

Table 85 includes over-the-counter (OTC) derivatives, OTC cleared derivatives, and exchange-traded derivatives. OTC derivatives represent contracts executed bilaterally with counterparties that are not settled through an organized exchange or cleared through a central clearing house. The majority of OTC derivatives are governed by the International Swaps and Derivatives Association (ISDA) documentation or other legally enforceable industry standard master netting agreements. OTC cleared derivatives represent contracts executed bilaterally with counterparties in the OTC market that are novated to a central clearing house who then becomes our counterparty. Exchange-traded derivatives represent standardized futures and options contracts executed directly on an organized exchange.

In addition to using master netting agreements and other collateral agreements to reduce credit risk associated with derivative instruments, we also seek to manage credit risk by evaluating credit ratings of counterparties and by using internal credit analysis, limits, and monitoring procedures.

At December 31, 2017, we held cash, U.S. government securities and mortgage-backed securities totaling $.9 billion under master netting agreements and other collateral agreements to collateralize net derivative assets due from counterparties, and we pledged cash totaling $1.5 billion under these agreements to collateralize net derivative liabilities owed to counterparties and to meet initial margin requirements. These totals may differ from the amounts presented in the preceding offsetting table because these totals may include collateral exchanged under an agreement that does not qualify as a master netting agreement or because the total amount of collateral held or pledged exceeds the net derivative fair values with the counterparty as of the balance sheet date due to timing or other factors, such as initial margin. To the extent not netted against the derivative fair values under a master netting agreement, the receivable for cash pledged is included in Other assets and the obligation for cash held is included in Other liabilities on our Consolidated Balance Sheet. Securities held from counterparties are not recognized on our balance sheet. Likewise securities we have pledged to counterparties remain on our balance sheet.

Certain derivative agreements contain various credit-risk related contingent provisions, such as those that require our debt to maintain a specified credit rating from one or more of the major credit rating agencies. If our debt ratings were to fall below such specified ratings, the counterparties to the derivative instruments could request immediate payment or demand immediate and ongoing full collateralization on derivative instruments in net liability positions. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a net liability position on December 31, 2017 was $1.6 billion for which we had posted collateral of $.8 billion in the normal course of business. The maximum additional amount of collateral we would have been required to post if the credit-risk-related contingent features underlying these agreements had been triggered on December 31, 2017 would be $.8 billion.

NOTE 14 EARNINGS PER SHARE

Table 86: Basic and Diluted Earnings Per Common Share

In millions, except per share data	2017	2016	2015
Basic			
Net income	$ 5,388	$ 3,985	$ 4,143
Less:			
Net income attributable to noncontrolling interests	50	82	37
Preferred stock dividends	236	209	220
Preferred discount accretion and redemptions	26	6	5
Net income attributable to common shares	5,076	3,688	3,881
Less: Dividends and undistributed earnings allocated to participating securities	23	26	17
Net income attributable to basic common shares	$ 5,053	$ 3,662	$ 3,864
Basic weighted-average common shares outstanding	481	494	514
Basic earnings per common share (a)	$ 10.49	$ 7.42	$ 7.52
Diluted			
Net income attributable to basic common shares	$ 5,053	$ 3,662	$ 3,864
Less: Impact of BlackRock earnings per share dilution	16	12	18
Net income attributable to diluted common shares	$ 5,037	$ 3,650	$ 3,846
Basic weighted-average common shares outstanding	481	494	514
Dilutive potential common shares	5	6	7
Diluted weighted-average common shares outstanding	486	500	521
Diluted earnings per common share (a)	$ 10.36	$ 7.30	$ 7.39

(a) Basic and diluted earnings per share under the two-class method are determined on net income reported on the income statement less earnings allocated to nonvested restricted shares and restricted share units with nonforfeitable dividends and dividend rights (participating securities).

NOTE 15 EQUITY

Preferred Stock

The following table provides the number of preferred shares issued and outstanding, the liquidation value per share and the number of authorized preferred shares that are available for future use.

Table 87: Preferred Stock – Authorized, Issued and Outstanding

December 31 Shares in thousands	Liquidation value per share	Preferred Shares 2017	Preferred Shares 2016
Authorized			
$1 par value		20,000	20,000
Issued and outstanding			
Series B	$ 40	1	1
Series O	$ 100,000	10	10
Series P	$ 100,000	15	15
Series Q	$ 100,000	5	5
Series R	$ 100,000	5	5
Series S	$ 100,000	5	5
Total issued and outstanding		41	41

The following table discloses information related to the preferred stock outstanding as of December 31, 2017.

Table 88: Terms of Outstanding Preferred Stock

Preferred Stock	Issue Date	Number of Depositary Shares Issued	Fractional Interest in a share of preferred stock represented by each Depositary Share	Dividend Dates (a)	Annual Per Share Dividend Rate	Optional Redemption Date (b)
Series B (c)	(c)	N/A	N/A	Quarterly from March 10th	$ 1.80	None
Series O (d)	July 27, 2011	1 million	1/100th	Semi-annually beginning on February 1, 2012 until August 1, 2021 Quarterly beginning on November 1, 2021	6.75% until August 1, 2021 3 Mo. LIBOR plus 3.678% per annum beginning on August 1, 2021	August 1, 2021
Series P (d)	April 24, 2012	60 million	1/4,000th	Quarterly beginning on August 1, 2012	6.125% until May 1, 2022 3 Mo. LIBOR plus 4.0675% per annum beginning on May 1, 2022	May 1, 2022
Series Q (d)	September 21, 2012 October 9, 2012	18 million 1.2 million	1/4,000th	Quarterly beginning on December 1, 2012	5.375%	December 1, 2017
Series R (d)	May 7, 2013	500,000	1/100th	Semi-annually beginning on December 1, 2013 until June 1, 2023 Quarterly beginning on September 1, 2023	4.85% until June 1, 2023 3 Mo. LIBOR plus 3.04% per annum beginning June 1, 2023	June 1, 2023
Series S (d)	November 1, 2016	525,000	1/100th	Semi-annually beginning on May 1, 2017 until November 1, 2026 Quarterly beginning on February 1, 2027	5.00% until November 1, 2026 3 Mo. LIBOR plus 3.30% per annum beginning November 1, 2026	November 1, 2026

(a) Dividends are payable when, as, and if declared by our Board of Directors or an authorized committee of our Board of Directors.
(b) Redeemable at our option on or after the date stated. With the exception of the Series B preferred stock, redeemable at our option within 90 days of a regulatory capital treatment event as defined in the designations.
(c) Cumulative preferred stock. Holders of Series B preferred stock are entitled to 8 votes per share, which is equal to the number of full shares of common stock into which the Series B preferred stock is convertible. The Series B preferred stock was issued in connection with the consolidation of Pittsburgh National Corporation and Provident National Corporation in 1983.

(d) Non-Cumulative preferred stock.

Each outstanding series of preferred stock other than the Series B contains restrictions on our ability to pay dividends and make other shareholder payments. Subject to limited exceptions, if dividends are not paid on any such series of preferred stock, we cannot declare dividends on or repurchase shares of our common stock. In addition, if we would like to repurchase shares of preferred stock, such repurchases must be on a pro rata basis with respect to all such series of preferred stock.

Our Series K preferred stock was issued on May 21, 2008. On May 4, 2015, we redeemed all 500,000 depositary shares representing interests in our Series K preferred stock and all 50,000 shares of Series K preferred stock underlying such depositary shares, resulting in a net outflow of $500 million.

In February 2018, we redeemed the Series A preferred stock of PNC REIT Corp. which had been exchangeable into shares of PNC Series H preferred stock under certain conditions relating to the capitalization or the financial condition of PNC Bank. As described below in the Perpetual Trust Securities portion of the Noncontrolling Interests section of this Note, we redeemed all $500 million of the PNC Preferred Funding Trust II securities that had been exchangeable under certain conditions into PNC Series I preferred stock.

Warrants

We had 3.5 million and 11.3 million warrants outstanding as of December 31, 2017 and 2016, respectively. The reduction was due to 7.8 million warrants that were exercised during 2017. At December 31, 2017, each warrant entitles the holder to purchase one share of PNC common stock at an exercise price of $67.24 per share. In accordance with the terms of the warrants, the warrants are exercised on a non-cash net basis with the warrant holder receiving PNC common shares determined based on the excess of the market price of PNC common stock on the exercise date over the exercise price of the warrant. In 2017, we issued 3.5 million common shares resulting from the exercise of the warrants. The issuance of these shares resulted in a reclassification within Capital surplus with no impact on our Shareholders' equity. These warrants were sold by the U.S. Treasury in a secondary public offering that closed on May 5, 2010 after the U.S. Treasury exchanged its TARP Warrant (issued on December 31, 2008 under the TARP Capital Purchase Program) for 16.9 million warrants. These warrants expire December 31, 2018.

On January 4, 2018, PNC declared a quarterly common stock dividend on $.75 per share to shareholders of record as of January 17, 2018. In accordance with the terms of the warrants, the declaration of a dividend in excess of $.66 per share may result in an adjustment to the warrant exercise price and to the warrant share number. As a result of this dividend, the warrant exercise price was reduced from $67.24 to $67.20 per share on January 17, 2018 and the warrant share number remained 1.00.

Other Shareholders' Equity Matters

We have a dividend reinvestment and stock purchase plan. Holders of PNC common stock may participate in the plan, which provides that additional shares of common stock may be purchased at market value with reinvested dividends and voluntary cash payments. Common shares issued pursuant to this plan were .2 million shares for 2017, .3 million for 2016 and .3 million for 2015.

At December 31, 2017, we had reserved approximately 92 million common shares to be issued in connection with certain stock plans.

We repurchased 4.4 million shares in 2015 under the stock repurchase program that the Board of Directors approved effective October 4, 2007. Effective March 31, 2015, the Board of Directors terminated this share repurchase program and effective April 1, 2015 the Board of Directors replaced it with a new stock repurchase program authorization in the amount of up to 100 million shares of PNC common stock which may be purchased on the open market or in privately negotiated transactions. Under this program authorization, we repurchased 18.6 million shares in 2017 and 22.8 million shares in 2016. A maximum amount of 40.7 million shares remained available for repurchase under this program authorization at December 31, 2017. This program authorization will remain in effect until fully utilized or until modified, superseded or terminated.

Noncontrolling Interests

Perpetual Trust Securities

Our noncontrolling interests balance at December 31, 2017 reflected our March 15, 2017 redemption of $1.0 billion Fixed-to-Floating Rate Non-Cumulative Exchangeable Perpetual Trust Securities issued by PNC Preferred Funding Trusts I and II with current distribution rates of 2.61% and 2.19%, respectively. The Perpetual Trust Securities were subject to replacement capital covenants dated December 6, 2006 and March 29, 2007 benefiting PNC Capital Trust C as the sole holder of $200 million of junior subordinated debentures issued by PNC in June 1998. Upon redemption of the Perpetual Trust Securities, the replacement capital covenants terminated and such debentures ceased being covered debt with respect to the replacement capital covenants.

NOTE 16 OTHER COMPREHENSIVE INCOME

Details of other comprehensive income (loss) are as follows:

Table 89: Other Comprehensive Income

In millions	2017	2016	2015
Net unrealized gains (losses) on non-OTTI securities			
Increase in net unrealized gains (losses) on non-OTTI securities	$ 29	$ (329)	$ (494)
Less: Net gains (losses) realized as a yield adjustment reclassified to investment securities interest income	25	24	27
Less: Net gains (losses) realized on sales of securities reclassified to noninterest income	(12)	16	48
Net increase (decrease), pre-tax	16	(369)	(569)
Effect of income taxes	(6)	135	208
Net increase (decrease), after-tax	10	(234)	(361)
Net unrealized gains (losses) on OTTI securities			
Increase in net unrealized gains (losses) on OTTI securities	173	61	(17)
Less: Net gains (losses) realized on sales of securities reclassified to noninterest income	2		
Less: OTTI losses realized on securities reclassified to noninterest income	(1)	(2)	(4)
Net increase (decrease), pre-tax	172	63	(13)
Effect of income taxes	(63)	(23)	5
Net increase (decrease), after-tax	109	40	(8)
Net unrealized gains (losses) on cash flow hedge derivatives			
Increase in net unrealized gains (losses) on cash flow hedge derivatives	(90)	100	415
Less: Net gains (losses) realized as a yield adjustment reclassified to loan interest income	159	219	270
Less: Net gains (losses) realized as a yield adjustment reclassified to investment securities interest income	21	34	23
Less: Net gains (losses) realized on sales of securities reclassified to noninterest income	17		(5)
Net increase (decrease), pre-tax	(287)	(153)	127
Effect of income taxes	105	56	(47)
Net increase (decrease), after-tax	(182)	(97)	80
Pension and other postretirement benefit plan adjustments			
Net pension and other postretirement benefit activity	126	(41)	(82)
Amortization of actuarial loss (gain) reclassified to other noninterest expense	47	50	38
Amortization of prior service cost (credit) reclassified to other noninterest expense	(4)	(8)	(10)
Net increase (decrease), pre-tax	169	1	(54)
Effect of income taxes	(62)		20
Net increase (decrease), after-tax	107	1	(34)
Other			
PNC's portion of BlackRock's OCI	52	(63)	(39)
Net investment hedge derivatives	(81)	186	60
Foreign currency translation adjustments	90	(182)	(63)
Net increase (decrease), pre-tax	61	(59)	(42)
Effect of income taxes	12	(46)	(8)
Net increase (decrease), after-tax	73	(105)	(50)
Total other comprehensive income, pre-tax	131	(517)	(551)
Total other comprehensive income, tax effect	(14)	122	178
Total other comprehensive income, after-tax	$ 117	$ (395)	$ (373)

Table 90: Accumulated Other Comprehensive Income (Loss) Components

In millions, after-tax	Net unrealized gains (losses) on non-OTTI securities	Net unrealized gains (losses) on OTTI securities	Net unrealized gains (losses) on cash flow hedge derivatives	Pension and other postretirement benefit plan adjustments	Other	Total
Balance at December 31, 2014	$ 647	$ 74	$ 350	$ (520)	$ (48)	$ 503
Net activity	(361)	(8)	80	(34)	(50)	(373)
Balance at December 31, 2015	$ 286	$ 66	$ 430	$ (554)	$ (98)	$ 130
Net activity	(234)	40	(97)	1	(105)	(395)
Balance at December 31, 2016	$ 52	$ 106	$ 333	$ (553)	$ (203)	$ (265)
Net Activity	10	109	(182)	107	73	117
Balance at December 31, 2017	$ 62	$ 215	$ 151	$ (446)	$ (130)	$ (148)

NOTE 17 INCOME TAXES

The components of income tax expense are as follows:

Table 91: Components of Income Tax Expense

Year ended December 31 In millions	2017	2016	2015
Current			
Federal	$ 454	$ 871	$ 927
State	51	71	33
Total current	505	942	960
Deferred			
Federal	(474)	301	320
State	71	25	84
Total deferred	(403)	326	404
Total (a)	$ 102	$ 1,268	$ 1,364

(a) The 2017 results benefited from the new federal tax legislation that was enacted on December 22, 2017.

Significant components of deferred tax assets and liabilities are as follows:

Table 92: Deferred Tax Assets and Liabilities

December 31 – in millions	2017 (a)	2016
Deferred tax assets		
Allowance for loan and lease losses	$ 631	$ 976
Compensation and benefits	223	548
Partnership investments	173	307
Loss and credit carryforward	301	460
Accrued expenses	284	505
Other	131	252
Total gross deferred tax assets	1,743	3,048
Valuation allowance	(40)	(75)
Total deferred tax assets	1,703	2,973
Deferred tax liabilities		
Leasing	1,034	1,374
Goodwill and intangibles	197	312
Fixed assets	206	391
Mortgage servicing rights	146	246
Net unrealized gains on securities and financial instruments	155	284
BlackRock basis difference	1,594	2,361
Other	345	371
Total deferred tax liabilities	3,677	5,339
Net deferred tax liability	$ 1,974	$ 2,366

(a) Reflected the impact of new federal tax legislation that was enacted on December 22, 2017. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017.

As the result of the Tax Cuts and Jobs Act signed into law on December 22, 2017, PNC recognized a benefit of $1.2 billion primarily attributable to the revaluation of net deferred tax liabilities. To the extent our accounting of certain income tax effects is complete, these tax effects have been included in the financial statements. However, to the extent our accounting for certain income tax effects is incomplete, but can be reasonably estimated, the estimated effects are included as provisional amounts in the financial statements.

Based on current estimates, any adjustments to provisional amounts are not expected to be material during the measurement period. However, additional data and analysis is being collected in the preparation of our 2017 income tax returns which upon completion will validate or cause provisional amounts to be adjusted. Furthermore the newly enacted law is unclear in certain aspects, and may require additional clarification through legislative amendments or governmental agency regulations or interpretations.

During the one year measurement period, which will end in December 2018, the provisional amounts may be adjusted upon obtaining, preparing and analyzing additional information about facts and circumstances that existed at the enactment date.

A reconciliation between the statutory and effective tax rates follows:

Table 93: Reconciliation of Statutory and Effective Tax Rates

Year ended December 31	2017	2016	2015	
Statutory tax rate	35.0 %	35.0 %	35.0 %	
Increases (decreases) resulting from:				
State taxes net of federal benefit	1.5	1.2	1.4	
Tax-exempt interest	(2.5)	(2.4)	(2.3)	
Life insurance	(1.8)	(1.9)	(1.7)	
Dividend received deduction	(1.8)	(1.8)	(1.7)	
Tax credits	(4.2)	(4.4)	(3.9)	
Federal deferred tax revaluation	(21.7)			
Other	(2.6)	(1.6)	(2.0)	(a)
Effective tax rate (b)	1.9 %	24.1 %	24.8 %	

(a) Includes tax benefits associated with settlement of acquired entity tax contingencies.
(b) The effective tax rates are generally lower than the statutory rate due to the relationship of pretax income to tax credits and earnings that are not subject to tax. The 2017 results benefited from the new federal tax legislation. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017.

The net operating loss carryforwards at December 31, 2017 and 2016 follow:

Table 94: Net Operating Loss Carryforwards

Dollars in millions	December 31, 2017	December 31, 2016	Expiration
Net Operating Loss Carryforwards:			
Federal	$ 640	$ 759	2032
State	$ 1,776	$ 2,345	2018 – 2036

The majority of the tax credit carryforwards expire in 2032 and were insignificant at December 31, 2017 and December 31, 2016. All federal and most state net operating loss and credit carryforwards are from acquired entities and utilization is subject to various statutory limitations. We anticipate that we will be able to fully utilize our carryforwards for federal tax purposes, but we have recorded an insignificant valuation allowance against certain state tax carryforwards as of December 31, 2017. If select uncertain tax positions were successfully challenged by a state, the state net operating losses listed in Table 94 could be reduced by an insignificant amount.

As a result of the Tax Cuts and Jobs Act, an insignificant amount of taxes have been accrued on unremitted foreign earnings. There are no remaining foreign earnings for which U.S. deferred taxes have not been provided.

Retained earnings included $.1 billion at both December 31, 2017 and December 31, 2016 in allocations for bad debt deductions of former thrift subsidiaries for which no income tax has been provided. Under current law, if certain subsidiaries use these bad debt reserves for purposes other than to absorb bad debt losses, they will be subject to Federal income tax at the current corporate tax rate.

A reconciliation of the beginning and ending balance of unrecognized tax benefits is as follows:

Table 95: Change in Unrecognized Tax Benefits

In millions	2017	2016	2015
Balance of gross unrecognized tax benefits at January 1	$ 22	$ 26	$ 77
Increases:			
Positions taken during a prior period	4	14	17
Decreases:			
Positions taken during a prior period	(3)	(14)	(9)
Settlements with taxing authorities	(4)		(52)
Reductions resulting from lapse of statute of limitations	(1)	(4)	(7)
Balance of gross unrecognized tax benefits at December 31	$ 18	$ 22	$ 26
Favorable (unfavorable) impact if recognized	$ 17	$ 18	$ 20

It is reasonably possible that the balance of unrecognized tax benefits could increase or decrease in the next twelve months due to completion of tax authorities' exams or the expiration of statutes of limitations; however, the estimated amount is insignificant.

We are subject to U.S. federal income tax as well as income tax in most states and some foreign jurisdictions. Table 96 summarizes the status of significant IRS examinations of us.

Table 96: IRS Tax Examination Status

	Years under examination	Status at December 31
Federal	2014 – 2015	Completed
	2016	Under Exam

In addition, we are under continuous examinations by various state taxing authorities. With few exceptions, we are no longer subject to state and local and foreign income tax examinations by taxing authorities for periods before 2012. For all open audits, any potential adjustments have been considered in establishing our unrecognized tax benefits as of December 31, 2017.

Our policy is to classify interest and penalties associated with income taxes as income tax expense. For 2017 and 2016, the amount of gross interest and penalties was insignificant. At December 31, 2017 and December 31, 2016, the related amounts of accrued interest and penalties was also insignificant.

NOTE 18 REGULATORY MATTERS

We are subject to the regulations of certain federal, state, and foreign agencies and undergo periodic examinations by such regulatory authorities.

The ability to undertake new business initiatives (including acquisitions), the access to and cost of funding for new business initiatives, the ability to pay dividends, the ability to repurchase shares or other capital instruments, the level of deposit insurance costs, and the level and nature of regulatory oversight depend, in large part, on a financial institution's capital strength.

At December 31, 2017 and December 31, 2016, PNC and PNC Bank, our domestic banking subsidiary, were both considered "well capitalized," based on applicable U.S. regulatory capital ratio requirements.

The following table sets forth the Transitional Basel III regulatory capital ratios at December 31, 2017 and December 31, 2016 for PNC and PNC Bank.

Table 97: Basel Regulatory Capital (a)

	Amount		Ratios		
December 31 Dollars in millions	2017	2016	2017	2016	"Well Capitalized" Requirements
Risk-based capital					
Common equity Tier 1					
PNC	$ 32,146	$ 31,799	10.4%	10.6%	N/A
PNC Bank	$ 28,771	$ 27,896	9.7%	9.7%	6.5%
Tier 1					
PNC	$ 36,007	$ 36,101	11.6%	12.0%	6.0%
PNC Bank	$ 28,942	$ 29,495	9.7%	10.2%	8.0%
Total					
PNC	$ 42,496	$ 43,016	13.7%	14.3%	10.0%
PNC Bank	$ 34,756	$ 35,842	11.7%	12.4%	10.0%
Leverage					
PNC	$ 36,007	$ 36,101	9.9%	10.1%	N/A
PNC Bank	$ 28,942	$ 29,495	8.2%	8.6%	5.0%

(a) Calculated using the Transitional Basel III regulatory capital methodology applicable to us during both 2017 and 2016.

The principal source of parent company cash flow is the dividends it receives from PNC Bank, which may be impacted by the following:

- Capital needs,
- Laws and regulations,
- Corporate policies,
- Contractual restrictions, and
- Other factors.

Also, there are statutory and regulatory limitations on the ability of national banks to pay dividends or make other capital distributions. The amount available for dividend payments to the parent company by PNC Bank without prior regulatory approval was approximately $1.6 billion at December 31, 2017.

Under federal law, a bank subsidiary generally may not extend credit to, or engage in other types of covered transactions (including the purchase of assets) with, the parent company or its non-bank subsidiaries on terms and under circumstances that are not substantially the same as comparable transactions with nonaffiliates. A bank subsidiary may not extend credit to, or engage in a covered transaction with, the parent company or a non-bank subsidiary if the aggregate amount of the bank's extensions of credit and other covered transactions with the parent company or non-bank subsidiary exceeds 10% of the capital stock and surplus of such bank subsidiary or the aggregate amount of the bank's extensions of credit and other covered transactions with the parent company and all non-bank subsidiaries exceeds 20% of the capital stock and surplus of such bank subsidiary. Such extensions of credit, with limited exceptions, must be at least fully collateralized in accordance with specified collateralization thresholds, with the thresholds varying based on the type of assets serving as collateral. In certain circumstances, federal regulatory authorities may impose more restrictive limitations.

Federal Reserve Board regulations require depository institutions to maintain cash reserves with a Federal Reserve Bank (FRB). At December 31, 2017, the balance outstanding at the FRB was $28.3 billion.

NOTE 19 LEGAL PROCEEDINGS

We establish accruals for legal proceedings, including litigation and regulatory and governmental investigations and inquiries, when information related to the loss contingencies represented by those matters indicates both that a loss is probable and that the amount of loss can be reasonably estimated. Any such accruals are adjusted thereafter as appropriate to reflect changed circumstances. When we are able to do so, we also determine estimates of possible losses or ranges of possible losses, whether in excess of any related accrued liability or where there is no accrued liability, for disclosed legal proceedings ("Disclosed Matters," which are those matters disclosed in this Note 19). For Disclosed Matters where we are able to estimate such possible losses or ranges of possible losses, as of December 31, 2017, we estimate that it is reasonably possible that we could incur losses in excess of related accrued liabilities, if any, in an aggregate amount of up to approximately $100 million. The estimates included in this amount are based on our analysis of currently available information and are subject to significant judgment and a variety of assumptions and uncertainties. As new information is obtained we may change our estimates. Due to the inherent subjectivity of the assessments and unpredictability of outcomes of legal proceedings, any amounts accrued or included in this aggregate amount may not represent the ultimate loss to us from the legal proceedings in question. Thus, our exposure and ultimate losses may be higher, and possibly significantly so, than the amounts accrued or this aggregate amount.

In our experience, legal proceedings are inherently unpredictable. One or more of the following factors frequently contribute to this inherent unpredictability: the proceeding is in its early stages; the damages sought are unspecified, unsupported or uncertain; it is unclear whether a case brought as a class action will be allowed to proceed on that basis or, if permitted to proceed as a class action, how the class will be defined; the other party is seeking relief other than or in addition to compensatory damages (including, in the case of regulatory and governmental investigations and inquiries, the possibility of fines and penalties); the matter presents meaningful legal uncertainties, including novel issues of law; we have not engaged in meaningful settlement discussions; discovery has not started or is not complete; there are significant facts in dispute; the possible outcomes may not be amenable to the use of statistical or quantitative analytical tools; predicting possible outcomes depends on making assumptions about future decisions of courts or regulatory bodies or the behavior of other parties; and there are a large number of parties named as defendants (including where it is uncertain how damages or liability, if any, will be shared among multiple defendants). Generally, the less progress that has been made in the proceedings or the broader the range of potential results, the harder it is for us to estimate losses or ranges of losses that it is reasonably possible we could incur.

As a result of these types of factors, we are unable, at this time, to estimate the losses that are reasonably possible to be incurred or ranges of such losses with respect to some of the matters disclosed, and the aggregate estimated amount provided above does not include an estimate for every Disclosed Matter. Therefore, as the estimated aggregate amount disclosed above does not include all of the Disclosed Matters, the amount disclosed above does not represent our maximum reasonably possible loss exposure for all of the Disclosed Matters. The estimated aggregate amount also does not reflect any of our exposure to matters not so disclosed, as discussed below under "Other."

We include in some of the descriptions of individual Disclosed Matters certain quantitative information related to the plaintiff's claim against us as alleged in the plaintiff's pleadings or other public filings or otherwise publicly available information. While information of this type may provide insight into the potential magnitude of a matter, it does not necessarily represent our estimate of reasonably possible loss or our judgment as to any currently appropriate accrual.

Some of our exposure in Disclosed Matters may be offset by applicable insurance coverage. We do not consider the possible availability of insurance coverage in determining the amounts of any accruals (although we record the amount of related insurance recoveries that are deemed probable up to the amount of the accrual) or in determining any estimates of possible losses or ranges of possible losses.

Interchange Litigation

Beginning in June 2005, a series of antitrust lawsuits were filed against Visa®, MasterCard®, and several major financial institutions, including cases naming National City (since merged into The PNC Financial Services Group, Inc.) and its subsidiary, National City Bank of Kentucky (since merged into National City Bank which in turn was merged into PNC Bank). The plaintiffs in these cases are merchants operating commercial businesses throughout the U.S., as well as trade associations. Some of these cases (including those naming National City entities) were brought as class actions on behalf of all persons or business entities that have accepted Visa® or MasterCard®. The cases have been consolidated for pre-trial proceedings in the U.S. District Court for the Eastern District of New York under the caption *In re Payment Card Interchange Fee and Merchant-Discount Antitrust Litigation* (Master File No. 1:05-md-1720-MKB-JO).

In July 2012, the parties entered into a memorandum of understanding with the class plaintiffs and an agreement in principle with certain individual plaintiffs with respect to a settlement of these cases, under which the defendants agreed to pay approximately $6.6 billion collectively to the class and individual settling plaintiffs and agreed to changes in the terms applicable to their respective card networks (including an eight-month reduction in default credit interchange rates). The parties entered into a definitive agreement with respect to this settlement in October 2012. The court granted final approval of the settlement in December 2013. Several objectors appealed the order of approval to the U.S. Court of Appeals for the Second Circuit, which issued an order in June 2016, reversing approval of the settlement and remanding for further proceedings. In November 2016, the plaintiffs filed a petition for a writ of certiorari with the U.S. Supreme Court to challenge the court of appeal's decision. The Supreme Court denied the petition in March 2017.

As a result of the reversal of the approval of the settlement, the class actions have resumed in the district court. In November 2016, the district court appointed separate interim class counsel for a proposed class seeking damages and a proposed class seeking equitable (injunctive) relief. In February 2017, each of these counsel filed a proposed amended and supplemental complaint on behalf of its respective proposed class. These complaints make similar allegations, including that the defendants conspired to monopolize and to fix the prices for general purpose card network services, that the restructuring of Visa and MasterCard, each of which included an initial public offering, violated the antitrust laws, and that the defendants otherwise imposed unreasonable restraints on trade, resulting in the payment of inflated interchange fees and other fees, which also violated the antitrust laws. In their complaints, collectively the plaintiffs seek, among other things, injunctive relief, unspecified damages (trebled under the antitrust laws) and attorneys' fees. PNC is named as a defendant in the complaint seeking damages but is not named as a defendant in the complaint that seeks equitable relief.

In September 2017, the magistrate judge at the district court granted in part and denied in part the plaintiffs' motions to file their proposed amended complaints. The dispute over amendment arose in part from the decision in *United States v. American Express, Co.,* 838 F.3d 179 (2d Cir. 2016), in which the court held that the relevant market in a similar complaint against American Express is "two-sided," *i.e*., requires consideration of effects on consumers as well as merchants. In October 2017, the U.S. Supreme Court granted a writ of certiorari (under the caption *Ohio v. American Express Co.*) to review the court's decision in *American Express.* Oral argument took place in February 2018. Previously, the plaintiffs in this litigation had alleged a one-sided market, and, as a result of the court's decision in *American Express*, they sought leave to add claims based on a two-sided market. The order allowed the complaint to be amended to include allegations pertaining to a two-sided market only to the extent those claims are not time-barred, but held that the two-sided market allegations do not relate back to the time of the original complaint and are not subject to tolling. In October 2017, the plaintiffs appealed this order to the presiding district judge.

National City and National City Bank entered into judgment and loss sharing agreements with Visa and certain other banks with respect to all of the above referenced litigation. We were not originally named as defendants in any of the Visa or MasterCard related antitrust litigation nor were we initially parties to the judgment or loss sharing agreements. However, we became responsible for National City's and National City Bank's position in the litigation and responsibilities under the agreements through our acquisition of National City. In addition, following Visa's reorganization in 2007 in contemplation of its initial public offering, U.S. Visa members received shares of Class B Visa common stock, convertible upon resolution of specified litigation, including the remaining litigation described above, into shares of Class A Visa common stock, with the conversion rate adjusted to reflect amounts paid or escrowed to resolve the specified litigation, and also remained responsible for indemnifying Visa against the specified litigation. Our Class B Visa common stock is all subject to this conversion adjustment provision, and we are now responsible for the indemnification obligations of our predecessors as well as ourselves. We have also entered into a MasterCard Settlement and Judgment Sharing Agreement with MasterCard and other financial institution defendants and an Omnibus Agreement Regarding Interchange Litigation Sharing and Settlement Sharing with Visa, MasterCard and other financial institution defendants. The Omnibus Agreement, in substance, apportions resolution of the claims in this litigation into a Visa portion and a MasterCard portion, with the Visa portion being two-thirds and the MasterCard portion being one-third. This apportionment only applies in the case of either a global settlement involving all defendants or an adverse judgment against the defendants, to the extent that damages either are related to the merchants' inter-network conspiracy claims or are otherwise not attributed to specific MasterCard or Visa conduct or damages. The MasterCard portion (or any MasterCard-related liability not subject to the Omnibus Agreement) will then be apportioned under the MasterCard Settlement and Judgment Sharing Agreement among MasterCard and PNC and the other financial institution defendants that are parties to this agreement. The responsibility for the Visa portion (or any Visa-related liability not subject to the Omnibus Agreement) will be apportioned under the pre-existing indemnification responsibilities and judgment and loss sharing agreements.

Fulton Financial

In 2009, Fulton Financial Advisors, N.A. filed lawsuits against PNC Capital Markets, LLC and NatCity Investments, Inc. in the Court of Common Pleas of Lancaster County, Pennsylvania arising out of Fulton's purchase of auction rate certificates (ARCs) through PNC and NatCity. In each original complaint, Fulton alleged violations of the Pennsylvania Securities Act, negligent misrepresentation, negligence, breach of fiduciary duty, common law fraud, and aiding and abetting common law fraud in connection with the purchase of the ARCs by Fulton. Specifically, Fulton alleged that, as a result of the decline of financial markets in 2007 and 2008, the market for ARCs became illiquid; that PNC and NatCity knew or should have known of the increasing threat of the ARC market becoming illiquid; and that PNC and NatCity did not inform Fulton of this increasing threat, but allowed Fulton to continue to purchase ARCs, to Fulton's detriment. In its complaints, Fulton alleged that it then held ARCs purchased through PNC for a price of more than $123 million and purchased through NatCity for a price of more than $175 million. In each complaint, Fulton seeks, among other things, unspecified actual and punitive damages, rescission, attorneys' fees and interest.

NatCity removed the case against it to the U.S. District Court for the Eastern District of Pennsylvania (*Fulton Financial Advisors, N.A. v. NatCity Investments, Inc*. (No. 5:09-

cv-04855)), and in November 2009 filed a motion to dismiss the complaint. In October 2013, the court granted the motion to dismiss with respect to claims under the Pennsylvania Securities Act and for negligent misrepresentation, common law fraud, and aiding and abetting common law fraud and denied the motion with respect to claims for negligence and breach of fiduciary duty. Fulton filed an amended complaint in December 2013, reasserting its negligence and breach of fiduciary duty claims and adding a new claim under the Pennsylvania Securities Act. Fulton and NatCity filed motions for summary judgment in February 2015. In January 2017, the court granted NatCity's motion for summary judgment with respect to the claim under the Pennsylvania Securities Act and otherwise denied both Fulton's and NatCity's motions.

In November 2017, PNC and Fulton entered into a final agreement to settle both of these cases, as a result of which these cases are fully resolved. The terms of the settlement were not announced. The financial impact of the settlement was not material to PNC.

Captive Mortgage Reinsurance Litigation

In December 2011, a lawsuit (*White, et al. v. The PNC Financial Services Group, Inc., et al.* (Civil Action No. 11-7928)) was filed against PNC (as successor in interest to National City Corporation and several of its subsidiaries) and several mortgage insurance companies in the U.S. District Court for the Eastern District of Pennsylvania. This lawsuit, which was brought as a class action, alleges that National City structured its program of reinsurance of private mortgage insurance in such a way as to avoid a true transfer of risk from the mortgage insurers to National City's captive reinsurer. The plaintiffs allege that the payments from the mortgage insurers to the captive reinsurer constitute kickbacks, referral payments, or unearned fee splits prohibited under the Real Estate Settlement Procedures Act (RESPA), as well as common law unjust enrichment. The plaintiffs claim, among other things, that from the beginning of 2004 until the end of 2010 National City's captive reinsurer collected from the mortgage insurance company defendants at least $219 million as its share of borrowers' private mortgage insurance premiums and that its share of paid claims during this period was approximately $12 million. The plaintiffs seek to certify a nationwide class of all persons who obtained residential mortgage loans originated, funded or originated through correspondent lending by National City or any of its subsidiaries or affiliates between January 1, 2004 and the present and, in connection with these mortgage loans, purchased private mortgage insurance and whose residential mortgage loans were included within National City's captive mortgage reinsurance arrangements. Plaintiffs seek, among other things, statutory damages under RESPA (which include treble damages), restitution of reinsurance premiums collected, disgorgement of profits, and attorneys' fees. In August 2012, the district court directed the plaintiffs to file an amended complaint, which the plaintiffs filed in September 2012. In November 2012, we filed a motion to dismiss the amended complaint. The court dismissed, without prejudice, the amended complaint in June 2013 on statute of limitations grounds. A second amended complaint, in response to the court's dismissal order, was filed in July 2013. We filed a motion to dismiss the second amended complaint, also in July 2013. In August 2014, the court denied the motion to dismiss. We then filed an uncontested motion to stay all proceedings pending the outcome of another matter then on appeal before the U.S. Court of Appeals for the Third Circuit that involves overlapping issues. In September 2014, the district court granted the stay. In October 2014, the court of appeals decided that other matter, holding that the RESPA claims in that case were barred by the statute of limitations. We then filed a motion for reconsideration of the denial of our motion to dismiss in light of the court of appeals' decision. In January 2015, the district court denied our motion. In March 2015, the parties stipulated to, and the court ordered, a stay of all proceedings pending the outcome of a new other matter currently on appeal before the U.S. Court of Appeals for the Third Circuit that also involves overlapping issues. In February 2016, the court of appeals in the other matter issued a decision favorable to our position.

In September 2016, the plaintiffs moved to lift the stay and for permission to file a Third Amended Class Action Complaint to add claims under the Racketeer Influenced and Corrupt Organizations Act (RICO) and to assert that the RESPA claim is not barred by the statute of limitations under the "continuing violations doctrine" because every acceptance of a reinsurance premium is a new occurrence for these purposes. In January 2017, the court denied the plaintiffs' motion to amend to add a RICO claim, but granted their motion permitting them to rely on the continuing violations doctrine to assert claims under RESPA. We moved to certify this issue for interlocutory appeal to U.S. Court of Appeals for the Third Circuit and sought a stay in the district court pending an appeal. Although the district court certified the issue for immediate interlocutory appeal in March 2017 and stayed the action, the court of appeals shortly thereafter declined to accept the appeal. As a result proceedings have resumed in the district court.

Residential Mortgage-Backed Securities Indemnification Demands

We have received indemnification demands from several entities sponsoring residential mortgage-backed securities and their affiliates where purchasers of the securities have brought litigation against the sponsors and other parties involved in the securitization transactions. National City Mortgage had sold whole loans to the sponsors or their affiliates that were allegedly included in certain of these securitization transactions. According to the indemnification demands, the plaintiffs' claims in these lawsuits are based on alleged misstatements and omissions in the offering documents for these transactions. The indemnification demands assert that agreements governing the sale of these loans or the securitization transactions to which National City Mortgage was a party require us to indemnify the sponsors and their affiliates for losses suffered in connection with these lawsuits. The parties have settled several of these cases. There has not been any determination that the parties seeking indemnification have any liability to the plaintiffs in the other lawsuits and the amount, if any, for which we are responsible in the settled cases has not been determined.

Patent Infringement Litigation

In June 2013, a lawsuit (*Intellectual Ventures I LLC and Intellectual Ventures II LLC vs. PNC Financial Services Group, Inc., and PNC Bank, NA*, (Case No. 2:13-cv-00740-AJS)(*IV 1*)) was filed in the U.S. District Court for the Western District of Pennsylvania against PNC and PNC Bank for patent infringement. The plaintiffs allege that multiple systems by which PNC and PNC Bank provide online banking services and other services via electronic means infringe five patents owned by the plaintiffs. The plaintiffs seek, among other things, a declaration that PNC and PNC Bank are infringing each of the patents, damages for past and future infringement, and attorneys' fees. In July 2013, we filed an answer with counterclaims, denying liability and seeking declarations that the asserted patents are invalid and that PNC has not infringed them. In November 2013, PNC filed Covered Business Method/Post Grant Review petitions in the U.S. Patent & Trademark Office (PTO) seeking to invalidate all five of the patents. In December 2013, the court dismissed the plaintiffs' claims as to two of the patents and entered a stay of the lawsuit pending the PTO's consideration of PNC's review petitions, including any appeals from decisions of the PTO. The PTO instituted review proceedings in May 2014 on four of the five patents at issue, finding that the subject matter of those patents was "more likely than not" unpatentable. The court had previously dismissed the plaintiffs' claims with respect to the one patent not selected for review by the PTO. In separate decisions issued in April and May 2015, the PTO invalidated all claims with respect to the patents that were still at issue in *IV 1*. In July 2015, in an appeal arising out of proceedings against a different defendant relating to some of the same patents, the U.S. Court of Appeals for the Federal Circuit affirmed the invalidity of the two patents at issue in both *IV 1* and the Federal Circuit appeal. As a result, all of the patents at issue in *IV 1* not subject to the prior dismissal have been invalidated. In October 2015, the plaintiffs moved to dismiss with prejudice their claims arising from the patents that had not been subject to prior dismissal in *IV 1*, which the court granted.

In June 2014, Intellectual Ventures filed a second lawsuit (*Intellectual Ventures I LLC and Intellectual Ventures II LLC v. PNC Bank Financial Services Group, Inc., PNC Bank NA, and PNC Merchant Services Company, LP* (Case No. 2:14-cv-00832-AKS)(*IV 2*)) in the same court as *IV 1*. This lawsuit alleges that PNC defendants infringed five patents, including the patent dismissed in *IV 1* that is not subject to PTO review, and relates generally to the same technology and subject matter as the first lawsuit. The court has stayed this case, which was consolidated with *IV 1* in August 2014, pending the PTO's consideration of various review petitions of the patents at issue in this case, as well as the review of the patents at issue in *IV 1* and the appeals from any PTO decisions. In April 2015, the PTO, in a proceeding brought by another defendant, upheld the patentability of one of the patents at issue in *IV 2*. That decision was appealed to the Federal Circuit, which affirmed it in February 2016. After decisions adverse to the patent holder in the PTO and several U.S. District Courts on three of the remaining patents, in October 2015, the plaintiffs voluntarily dismissed without prejudice their claims with respect to those three patents, leaving two patents at issue in this lawsuit. The plaintiffs moved to deconsolidate *IV 1* and *IV 2* and to lift the stay. The court denied this motion in October 2015, continuing the stay until certain court proceedings against other defendants related to the same patents are resolved.

Mortgage Repurchase Litigation

In December 2013, Residential Funding Company, LLC (RFC) filed a lawsuit in the U.S. District Court for the District of Minnesota against PNC Bank, as alleged successor in interest to National City Mortgage Co., NCMC Newco, Inc., and North Central Financial Corporation (*Residential Funding Company, LLC v. PNC Bank, N.A., et al.* (Civil No. 13-3498- JRT-JSM)). In its complaint, RFC alleged that PNC Bank (through predecessors) sold $6.5 billion worth of residential mortgage loans to RFC during the timeframe at issue (approximately May 2006 through September 2008), a portion of which were allegedly materially defective, resulting in damages and losses to RFC. RFC alleged that PNC Bank breached representations and warranties made under seller contracts in connection with these sales. The complaint asserted claims for breach of contract and indemnification. RFC sought, among other things, monetary damages, costs, and attorney's fees. In March 2014, we filed a motion to dismiss the complaint. RFC then filed an amended complaint. In April 2014, we moved to dismiss the amended complaint. In October 2014, the court granted our motion to dismiss with prejudice the breach of contract claims in the complaint with respect to loans sold before May 14, 2006 and otherwise denied our motion to dismiss. In January 2015, the lawsuit was consolidated for pre-trial purposes with other lawsuits pending in the District of Minnesota filed by RFC against other originators of mortgage loans that it had purchased. The consolidated action is captioned *In Re: RFC and RESCAP Liquidating Trust Litigation* (Civil File No. 13-cv-3451 (SRN/JJK/HB)). In September 2015, RFC filed a motion for leave to file a second amended complaint to add claims based on an asserted principle that loan sellers had a continuing contractual obligation to provide notice of loan defects, which RFC claims should allow it to assert contract claims as to pre-May 14, 2006 loans notwithstanding the prior dismissal of those claims with prejudice. In November 2015, the court granted RFC's motion, and RFC filed its second amended complaint thereafter.

In January 2017, the ResCap Liquidating Trust (RLT) filed a lawsuit in the U.S. District Court for the District of Minnesota against PNC Bank, as successor in interest to Community Bank of Northern Virginia (CBNV) (*ResCap Liquidating Trust v. PNC Bank, N.A.* (No. 17-cv-196-JRT-FLN)). In its complaint, the RLT alleged that PNC Bank (as successor to CBNV) sold over 21,300 mortgage loans to RFC, with an original principal balance in excess of $789 million, which were included in RFC-sponsored RMBS trusts for which liabilities were settled in RFC's bankruptcy. The RLT alleged that PNC Bank (as successor to CBNV) materially breached its representation and warranties made to RFC in connection with the sale of the loans, resulting in damages and losses to RFC. The complaint asserted claims for breach of contract and indemnification and seeks, among other things, monetary damages, costs, and attorney's fees. The action was consolidated for pre-trial purposes into *In Re: RFC and RESCAP Liquidating Trust Litigation*.

In March 2017, we filed a motion to dismiss the complaint. In July 2017, the court denied our motion to dismiss.

In November 2017, we entered into a final agreement with RFC and the RLT to settle both of these cases, as a result of which the cases are fully resolved. The terms of the settlement were not announced. The financial impact of the settlement was not material to PNC.

Pre-need Funeral Arrangements

National City Bank and PNC Bank are defendants in a lawsuit filed in the U.S. District Court for the Eastern District of Missouri under the caption *Jo Ann Howard and Associates, P.C., et al. v. Cassity, et al.* (No. 4:09-CV-1252-ERW) arising out of trustee services provided by Allegiant Bank, a National City Bank and PNC Bank predecessor, with respect to Missouri trusts that held pre-need funeral contract assets. Under a pre-need funeral contract, a customer pays an amount up front in exchange for payment of funeral expenses following the customer's death. In a number of states, including Missouri, pre-need funeral contract sellers are required to deposit a portion of the proceeds of the sale of pre-need funeral contracts in a trust account.

The lawsuit was filed in August 2009 by the Special Deputy Receiver for three insolvent affiliated companies, National Prearranged Services, Inc. a seller of pre-need funeral contracts (NPS), Lincoln Memorial Life Insurance Company (Lincoln), and Memorial Service Life Insurance Company (Memorial). Seven individual state life and health insurance guaranty associations, who claim they are liable under state law for payment of certain benefits under life insurance policies sold by Lincoln and Memorial, and the National Organization of Life & Health Guaranty Associations have also joined the action as plaintiffs. In addition to National City Bank and PNC Bank (added following filing of the lawsuit as successor-in-interest to National City Bank) (the PNC defendants), other defendants included members of the Cassity family, who controlled NPS, Lincoln, and Memorial; officers and directors of NPS, Lincoln, and Memorial; auditors and attorneys for NPS, Lincoln, and Memorial; the trustees of each of the trusts that held pre-need funeral contract assets; and the investment advisor to the Pre-need Trusts. NPS retained several banks to act as trustees for the trusts holding NPS pre-need funeral contract assets (the NPS Trusts), with Allegiant Bank acting as one of these trustees with respect to seven Missouri NPS Trusts. All of the other defendants have settled with the plaintiffs, are otherwise no longer a party to the lawsuit, or are insolvent.

In their Third Amended Complaint, filed in 2012 following the granting by the court in part of motions to dismiss made by the PNC defendants and the other NPS Trust trustees, the plaintiffs allege that Allegiant Bank breached its fiduciary duties and acted negligently as the trustee for the Missouri NPS Trusts. In part as a result of these breaches, the plaintiffs allege, members of the Cassity family, acting in concert with other defendants, were able to improperly remove millions of dollars from the NPS Trusts, which in turn caused NPS, Lincoln, and Memorial to become insolvent. The complaint alleges $600 million in present and future losses to the plaintiffs due to the insolvency of NPS, Lincoln, and Memorial. The lawsuit seeks, among other things, unspecified actual and punitive damages, various equitable remedies including restitution, attorneys' fees, costs of suit and interest.

In July 2013, five of the six defendants in a parallel federal criminal action, including two members of the Cassity family, entered into plea agreements with the U.S. to resolve criminal charges arising out of their conduct at NPS, Lincoln and Memorial. In August 2013, after a jury trial, the sixth defendant, the investment advisor to the NPS Trusts, was convicted on all criminal counts against him. The criminal charges against the defendants alleged, among other thing, a scheme to defraud Allegiant Bank and the other trustees of the NPS Trusts.

In May 2014, the court granted the plaintiffs' motion to disallow the PNC defendants' affirmative defense relating to the plaintiffs' alleged failure to mitigate damages. In July 2014, the PNC defendants' motion for reconsideration was denied. In September 2014, the plaintiffs filed a motion seeking leave to amend their complaint to reassert aiding and abetting claims, previously dismissed by the court in 2012. The court denied this motion in December 2014. Also in December 2014, the court granted in part and denied in part the PNC defendants' motion for summary judgment.

In March 2015, following a jury trial, the court entered a judgment against the PNC defendants in the amount of $356 million in compensatory damages and $36 million in punitive damages. In April 2015, the plaintiffs filed motions with the court seeking $179 million in pre-judgment interest. Also, in April 2015, the PNC defendants filed motions with the court to reduce the compensatory damages by the amounts paid in settlement by other defendants, to strike the punitive damages award, for judgment as a matter of law, and for a new trial. In November 2015, the court granted the motion to reduce the compensatory damages by amounts paid in settlement by other defendants and denied the other motions by the PNC defendants, with the judgment being reduced as a result to a total of $289 million, and also denied the plaintiffs' motion for pre-judgment interest.

In December 2015, the PNC defendants appealed the judgment to the U.S. Court of Appeals for the Eighth Circuit. Also in December 2015, the plaintiffs cross-appealed from the court's orders reducing the judgment by amounts paid in settlement by other defendants, denying plaintiffs' motion for pre-judgment interest, and dismissing the plaintiffs' aiding and abetting claims. In August 2017, the court of appeals reversed the judgment to the extent that it was based on tort rather than trust law. The court accordingly held that any damages awarded to the plaintiff will be limited to losses to the trusts in Missouri caused by Allegiant's breaches during the time it acted as trustee; plaintiffs cannot recover for damages to the Missouri trusts after Allegiant’s trusteeship or outside of the Missouri trusts, which had been included in the judgment under appeal. The court of appeals otherwise affirmed the judgment, including the dismissal of the aiding and abetting claims, and remanded the case to the district court for further proceedings in light of its decision. In September 2017, plaintiffs filed a motion for rehearing by the panel solely seeking to remove the prohibition on damages being sought for the period following Allegiant’s trusteeship. In December 2017, the court denied the petition for rehearing. Proceedings have resumed in the district court.

DD Growth Premium Master Fund

In June 2014, the liquidators of the DD Growth Premium Master Fund (DD Growth) issued a Plenary Summons in the High Court, Dublin, Ireland, in connection with the provision of administration services to DD Growth by a European subsidiary (GIS Europe) of PNC Global Investment Servicing (PNC GIS), a former subsidiary of PNC. The Plenary Summons was served on GIS Europe in June 2015.

In July 2010, we completed the sale of PNC GIS to The Bank of New York Mellon Corporation (BNY Mellon). Beginning in February 2014, BNY Mellon has provided notice to us of three indemnification claims pursuant to the stock purchase agreement related to DD Growth. Our responsibility for this litigation is subject to the terms and limitations included in the indemnification provisions of the stock purchase agreement.

In its Statement of Claim, which the liquidator served in July 2015, the liquidator alleges, among other things, that GIS Europe breached its contractual duties to DD Growth as well as an alleged duty of care to DD Growth, and to investors in DD Growth, and makes claims of breach of the administration and accounting services agreement, breach of the middle office agreement, negligence, gross negligence, and breach of duty. The statement of claim further alleges claims for loss in the net asset value of the fund and loss of certain subscriptions paid into the fund in the amounts of $283 million and $134 million respectively. The statement of claim seeks, among other things, damages, costs, and interest.

Other Regulatory and Governmental Inquiries

We are the subject of investigations, audits, examinations and other forms of regulatory and governmental inquiry covering a broad range of issues in our consumer, mortgage, brokerage, securities and other financial services businesses, as well as other aspects of our operations. In some cases, these inquiries are part of reviews of specified activities at multiple industry participants; in others, they are directed at PNC individually. From time to time, these inquiries involve or lead to regulatory enforcement actions and other administrative proceedings, and may lead to civil or criminal judicial proceedings. Some of these inquiries result in remedies including fines, penalties, restitution, or alterations in our business practices, and in additional expenses and collateral costs and other consequences. Such remedies and other consequences are not typically material to us from a financial standpoint, but may be and, even if not, may result in significant reputational harm or other adverse collateral consequences.

- In April 2011, as a result of a publicly-disclosed interagency horizontal review of residential mortgage servicing operations at fourteen federally regulated mortgage servicers, The PNC Financial Services Group, Inc. entered into a consent order with the Board of Governors of the Federal Reserve System and PNC Bank entered into a consent order with the Office of the Comptroller of the Currency. Collectively, these consent orders describe certain foreclosure-related practices and controls that the regulators found to be deficient and require The PNC Financial Services Group, Inc. and PNC Bank to, among other things, develop and implement plans and programs to enhance our residential mortgage servicing and foreclosure processes, retain an independent consultant to review certain residential mortgage foreclosure actions, take certain remedial actions, and oversee compliance with the orders and the new plans and programs. In early 2013, The PNC Financial Services Group, Inc. and PNC Bank, along with twelve other residential mortgage servicers, reached agreements with the OCC and the Federal Reserve to amend these consent orders.

  In June 2015, the OCC issued an order finding that PNC Bank had satisfied all of its obligations under the OCC’s 2013 amended consent order and terminating PNC Bank’s 2011 consent order and 2013 amended consent order.

  In January 2018, the Federal Reserve issued an order terminating The PNC Financial Services Group, Inc.'s 2011 consent order and 2013 amended consent order. In connection with this termination, the Federal Reserve assessed a $3.5 million civil money penalty against The PNC Financial Services Group, Inc.

- We received subpoenas from the U.S. Attorney’s Office for the Southern District of New York. The first two subpoenas, served in 2011, concern National City Bank’s lending practices in connection with loans insured by the Federal Housing Administration (FHA) as well as certain non-FHA-insured loan origination, sale and securitization practices. A third, served in 2013, seeks information regarding claims for costs that are incurred by foreclosure counsel in connection with the foreclosure of loans insured or guaranteed by FHA, FNMA or FHLMC. We are cooperating with the investigations.

Our practice is to cooperate fully with regulatory and governmental investigations, audits and other inquiries, including those described in this Note 19.

Other

In addition to the proceedings or other matters described above, PNC and persons to whom we may have indemnification obligations, in the normal course of business, are subject to various other pending and threatened legal proceedings in which claims for monetary damages and other relief are asserted. We do not anticipate, at the present time, that the ultimate aggregate liability, if any, arising out of such other legal proceedings will have a material adverse effect on our financial position. However, we cannot now determine whether or not any claims asserted against us or others to whom we may have indemnification obligations, whether in the proceedings or other matters described above or otherwise, will have a material adverse effect on our results of operations in any future reporting period, which will depend on, among other things, the amount of the loss resulting from the claim and the amount of income otherwise reported for the reporting period.

NOTE 20 COMMITMENTS

In the normal course of business, we have various commitments outstanding, certain of which are not included on our Consolidated Balance Sheet. The following table presents our outstanding commitments to extend credit along with significant other commitments as of December 31, 2017 and December 31, 2016, respectively.

Table 98: Commitments to Extend Credit and Other Commitments

In millions	December 31 2017	December 31 2016
Commitments to extend credit		
Total commercial lending	$ 112,125	$ 108,256
Home equity lines of credit	17,852	17,438
Credit card	24,911	22,095
Other	4,753	4,192
Total commitments to extend credit	159,641	151,981
Net outstanding standby letters of credit (a)	8,651	8,324
Reinsurance agreements (b)	1,654	1,835
Standby bond purchase agreements (c)	843	790
Other commitments (d)	1,732	967
Total commitments to extend credit and other commitments	$ 172,521	$ 163,897

(a) Net outstanding standby letters of credit include $3.5 billion and $3.9 billion at December 31, 2017 and December 31, 2016, respectively, which support remarketing programs.

(b) Represents aggregate maximum exposure up to the specified limits of the reinsurance contracts provided by our wholly-owned captive insurance subsidiary. These amounts reflect estimates based on availability of financial information from insurance carriers. As of December 31, 2017, the aggregate maximum exposure amount comprised $1.5 billion for accidental death & dismemberment contracts and $.2 billion for credit life, accident & health contracts. Comparable amounts at December 31, 2016 were $1.5 billion and $.3 billion, respectively.

(c) We enter into standby bond purchase agreements to support municipal bond obligations.

(d) Includes $.5 billion related to investments in qualified affordable housing projects at both December 31, 2017 and December 31, 2016.

Commitments to Extend Credit

Commitments to extend credit, or net unfunded loan commitments, represent arrangements to lend funds or provide liquidity subject to specified contractual conditions. These commitments generally have fixed expiration dates, may require payment of a fee, and contain termination clauses in the event the customer's credit quality deteriorates.

Net Outstanding Standby Letters of Credit

We issue standby letters of credit and share in the risk of standby letters of credit issued by other financial institutions, in each case to support obligations of our customers to third parties, such as insurance requirements and the facilitation of transactions involving capital markets product execution. Approximately 91% and 94% of our net outstanding standby letters of credit were rated as Pass as of December 31, 2017 and December 31, 2016, respectively, with the remainder rated as Below Pass. An internal credit rating of Pass indicates the expected risk of loss is currently low, while a rating of Below Pass indicates a higher degree of risk.

If the customer fails to meet its financial or performance obligation to the third party under the terms of the contract or there is a need to support a remarketing program, then upon a draw by a beneficiary, subject to the terms of the letter of credit, we would be obligated to make payment to them. The standby letters of credit outstanding on December 31, 2017 had terms ranging from less than one year to seven years.

As of December 31, 2017, assets of $1.3 billion secured certain specifically identified standby letters of credit. In addition, a portion of the remaining standby letters of credit issued on behalf of specific customers is also secured by collateral or guarantees that secure the customers' other obligations to us. The carrying amount of the liability for our obligations related to standby letters of credit and participations in standby letters of credit was $.2 billion at December 31, 2017 and is included in Other liabilities on our Consolidated Balance Sheet.

NOTE 21 PARENT COMPANY

On August 23, 2016, PNC Funding Corp, a wholly-owned indirect non-bank subsidiary of the parent company, was merged into the parent company with all assets and liabilities transferred to the parent company at historical cost. As a result, the summarized financial information for all periods is presented in the following tables on a combined basis.

Summarized financial information of the parent company is as follows:

Table 99: Parent Company – Income Statement

Year ended December 31 – in millions	2017	2016	2015
Operating Revenue			
Dividends from:			
Bank subsidiaries and bank holding company	$ 3,278	$ 2,906	$ 3,110
Non-bank subsidiaries	376	130	49
Interest income	109	93	82
Noninterest income	37	13	56
Total operating revenue	3,800	3,142	3,297
Operating Expense			
Interest expense	215	197	193
Other expense	175	109	89
Total operating expense	390	306	282
Income before income taxes and equity in undistributed net income of subsidiaries	3,410	2,836	3,015
Income tax benefits	(52)	(96)	(98)
Income before equity in undistributed net income of subsidiaries	3,462	2,932	3,113
Equity in undistributed net income of subsidiaries:			
Bank subsidiaries and bank holding company	1,974	818	736
Non-bank subsidiaries	(98)	153	257
Net income	$ 5,338	$ 3,903	$ 4,106
Other comprehensive income, net of tax:			
Net pension and other postretirement benefit plan activity arising during the period	1	13	(3)
Other comprehensive income (loss)	1	13	(3)
Comprehensive income	$ 5,339	$ 3,916	$ 4,103

Table 100: Parent Company – Balance Sheet

December 31 – in millions	2017	2016
Assets		
Cash held at banking subsidiary	$ 1	$ 1
Restricted deposits with banking subsidiary	175	175
Nonrestricted interest-earning deposits	5,800	4,684
Investments in:		
Bank subsidiaries and bank holding company	44,360	42,361
Non-bank subsidiaries	2,398	2,859
Loans with affiliates	1,244	1,358
Other assets	1,243	1,322
Total assets	$ 55,221	$ 52,760
Liabilities		
Subordinated debt (a)	$ 1,645	$ 2,242
Senior debt (a)	5,203	3,959
Commercial paper	100	
Other borrowed funds from affiliates	108	223
Accrued expenses and other liabilities	652	637
Total liabilities	7,708	7,061
Equity		
Shareholders' equity	47,513	45,699
Total liabilities and equity	$ 55,221	$ 52,760

(a) See Note 10 Borrowed Funds for additional information on contractual rates and maturity dates of senior debt and subordinated debt for parent company.

In connection with certain affiliates' commercial and residential mortgage servicing operations, the parent company has committed to maintain such affiliates' net worth above minimum requirements.

Table 101: Parent Company – Interest Paid and Income Tax Refunds (Payments)

Year ended December 31 – in millions	Interest Paid	Income Tax Refunds / (Payments)
2017	$ 287	$ 40
2016	$ 317	$ 183
2015	$ 404	$ 64

Table 102: Parent Company – Statement of Cash Flows

Year ended December 31 – in millions	2017	2016	2015
Operating Activities			
Net income	$ 5,338	$ 3,903	$ 4,106
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed net earnings of subsidiaries	(1,974)	(971)	(993)
Return on investment in subsidiary	98		
Other	194	143	149
Net cash provided (used) by operating activities	3,656	3,075	3,262
Investing Activities			
Net change in loans and securities from affiliates	114	2,161	(185)
Net change in restricted deposits with banking subsidiary		(175)	400
Net change in nonrestricted interest-earning deposits	(1,116)	(1,607)	3,244
Net change in restricted interest-earning deposits		300	(300)
Other		266	(82)
Net cash provided (used) by investing activities	(1,002)	945	3,077
Financing Activities			
Net change in other borrowed funds from affiliates	316	(124)	(100)
Net change in senior debt	1,325	(1,252)	(1,888)
Net change in subordinated debt	(580)	17	(580)
Net change in commercial paper	100		
Preferred stock issuances		519	
Preferred stock redemptions			(500)
Common and treasury stock issuances	132	151	139
Acquisition of treasury stock	(2,447)	(2,062)	(2,152)
Preferred stock cash dividends paid	(236)	(209)	(219)
Common stock cash dividends paid	(1,264)	(1,060)	(1,039)
Net cash provided (used) by financing activities	(2,654)	(4,020)	(6,339)
Cash held at banking subsidiary at beginning of year	1	1	1
Cash held at banking subsidiary at end of year	$ 1	$ 1	$ 1

NOTE 22 SEGMENT REPORTING

Effective for the first quarter of 2017, as a result of changes to how we manage our businesses, we realigned our segments and, accordingly, have changed the basis of presentation of our segments, resulting in four reportable business segments:

- Retail Banking
- Corporate & Institutional Banking
- Asset Management Group
- BlackRock

Results of individual businesses are presented based on our internal management reporting practices. There is no comprehensive, authoritative body of guidance for management accounting equivalent to GAAP; therefore, the financial results of our individual businesses are not necessarily comparable with similar information for any other company. We periodically refine our internal methodologies as management reporting practices are enhanced. To the extent significant and practicable, retrospective application of new methodologies is made to prior period reportable business segment results and disclosures to create comparability with the current period.

Net interest income in business segment results reflects our internal funds transfer pricing methodology. Assets receive a funding charge and liabilities and capital receive a funding credit based on a transfer pricing methodology that incorporates product repricing characteristics, tenor and other factors. Effective for the first quarter of 2017, we made certain adjustments to our internal funds transfer pricing methodology primarily relating to weighted average lives of certain non-maturity deposits based on our recent historical experience. These changes in methodology affected business segment results, primarily adversely impacting net interest income for Corporate & Institutional Banking and Retail Banking, offset by increased net interest income in the “Other” category.

All prior periods presented were revised to conform to the new segment alignment and to our change in internal funds transfer pricing methodology.

Our business segment results reflect the allocation of the impact of the new tax legislation to our business segments, primarily the revaluation of the net deferred tax positions allocated to the segments. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017. See Note 17 Income Taxes for additional details.

Total business segment financial results differ from total consolidated net income. The impact of these differences is reflected in the “Other” category in the business segment tables. “Other” includes residual activities that do not meet the criteria for disclosure as a separate reportable business, such as asset and liability management activities including net securities gains or losses, other-than-temporary impairment of investment securities, certain trading activities, certain non-strategic runoff consumer loan portfolios, private equity investments, intercompany eliminations, most corporate overhead, tax adjustments that are not allocated to business segments, gains or losses related to BlackRock transactions, integration costs, exited businesses, and differences between business segment performance reporting and financial statement reporting (GAAP), including the presentation of net income attributable to noncontrolling interests as the segments' results exclude their portion of net income attributable to noncontrolling interests. Assets, revenue and earnings attributable to foreign activities were not material in the periods presented for comparative purposes.

Financial results are presented, to the extent practicable, as if each business operated on a stand-alone basis. Additionally, we have aggregated the results for corporate support functions within "Other" for financial reporting purposes.

Our allocation of the costs incurred by shared support areas not directly aligned with the businesses is primarily based on the use of services.

A portion of capital is intended to cover unexpected losses and is assigned to our business segments using our risk-based economic capital model, including consideration of the goodwill at those business segments as well as the diversification of risk among the business segments, ultimately reflecting our portfolio risk adjusted capital allocation.

We have allocated the allowances for loan and lease losses and for unfunded loan commitments and letters of credit based on the loan exposures within each business segment's portfolio. Key reserve assumptions and estimation processes react to and are influenced by observed changes in loan portfolio performance experience, the financial strength of the borrower and economic conditions. Key reserve assumptions are periodically updated.

Business Segment Products and Services

Retail Banking provides deposit, lending, brokerage, insurance services, investment management and cash management services to consumer and small business customers within our primary geographic markets. Our customers are serviced through our branch network, ATMs, call centers, online banking and mobile channels. The branch network is located primarily in Pennsylvania, Ohio, New Jersey, Michigan, Illinois, Maryland, Indiana, Florida, North Carolina, Kentucky, Washington, D.C., Delaware, Virginia, Georgia, Alabama, Missouri, Wisconsin and South Carolina. Deposit products include checking, savings and money market accounts and certificates of deposit. Lending products include residential mortgages, home equity loans and lines of credit, auto loans, credit cards, education loans and personal and small business loans and lines of credit. The residential mortgage loans are directly originated within our branch network and nationwide, and are typically underwritten to government agency and/or third-party standards, and either sold, servicing retained, or held on our balance sheet. Brokerage, investment management and cash management products and services include managed, education, retirement and trust accounts.

Corporate & Institutional Banking provides lending, treasury management, and capital markets-related products and services to mid-sized and large corporations, and government and not-for-profit entities. Lending products include secured and unsecured loans, letters of credit and equipment leases. Treasury management services include cash and investment management, receivables management, disbursement services, funds transfer services, information reporting and global trade services. Capital markets-related products and services include foreign exchange, derivatives, securities underwriting, loan syndications, mergers and acquisitions advisory and equity capital markets advisory related services. We also provide commercial loan servicing and technology solutions for the commercial real estate finance industry. Products and services are provided nationally. We offer certain products and services internationally.

Asset Management Group provides personal wealth management for high net worth and ultra high net worth clients and institutional asset management. Wealth management products and services include investment and retirement planning, customized investment management, private banking, tailored credit solutions, and trust management and administration for individuals and their families. Our Hawthorn unit provides multi-generational family planning including estate, financial, tax planning, fiduciary, investment management and consulting, private banking, personal administrative services, asset custody and customized performance reporting to ultra high net worth families. Institutional asset management provides advisory, custody and retirement administration services. The business also offers PNC proprietary mutual funds. Institutional clients include corporations, unions, municipalities, non-profits, foundations and endowments, primarily located in our geographic footprint.

BlackRock, in which we hold an equity investment, is a leading publicly-traded investment management firm providing a broad range of investment, risk management and technology services to institutional and retail clients worldwide. Using a diverse platform of active and index investment strategies across asset classes, BlackRock develops investment outcomes and asset allocation solutions for clients. Product offerings include single- and multi-asset class portfolios investing in equities, fixed income, alternatives and money market instruments. BlackRock also offers an investment and risk management technology platform, risk analytics, advisory and technology services and solutions to a broad base of institutional and wealth management investors.

Our equity investment in BlackRock provides us with an additional source of noninterest income and increases our overall revenue diversification. BlackRock is a publicly-traded company, and additional information regarding its business is available in its filings with the Securities and Exchange Commission (SEC). At December 31, 2017, our economic interest in BlackRock was 22%. We received cash dividends from BlackRock of $354 million, $331 million, and $320 million during 2017, 2016, and 2015, respectively.

Table 103: Results of Businesses

Year ended December 31 In millions	Retail Banking	Corporate & Institutional Banking	Asset Management Group	BlackRock	Other	Consolidated (a)
2017						
INCOME STATEMENT						
Net interest income	$ 4,625	$ 3,396	$ 287		$ 800	$ 9,108
Noninterest income	2,236	2,271	881	$ 1,078	755	7,221
Total revenue	6,861	5,667	1,168	1,078	1,555	16,329
Provision for credit losses (benefit)	347	160	1		(67)	441
Depreciation and amortization	177	184	50		510	921
Other noninterest expense	5,274	2,244	813		1,146	9,477
Income (loss) before income taxes (benefit) and noncontrolling interests	1,063	3,079	304	1,078	(34)	5,490
Income taxes (benefit)	533	615	102	(686)	(462)	102
Net income	$ 530	$ 2,464	$ 202	$ 1,764	$ 428	$ 5,388
Average Assets (b)	$ 88,663	$ 148,414	$ 7,511	$ 7,677	$ 119,504	$ 371,769
2016						
INCOME STATEMENT						
Net interest income	$ 4,509	$ 3,181	$ 300		$ 401	$ 8,391
Noninterest income	2,693	2,035	851	$ 685	507	6,771
Total revenue	7,202	5,216	1,151	685	908	15,162
Provision for credit losses (benefit)	297	177	(6)		(35)	433
Depreciation and amortization	175	153	45		470	843
Other noninterest expense	5,116	2,069	780		668	8,633
Income (loss) before income taxes (benefit) and noncontrolling interests	1,614	2,817	332	685	(195)	5,253
Income taxes (benefit)	591	908	122	153	(506)	1,268
Net income	$ 1,023	$ 1,909	$ 210	$ 532	$ 311	$ 3,985
Average Assets (b)	$ 85,871	$ 140,309	$ 7,707	$ 7,118	$ 120,255	$ 361,260
2015						
INCOME STATEMENT						
Net interest income	$ 4,306	$ 3,144	$ 292		$ 536	$ 8,278
Noninterest income	2,781	1,947	869	$ 717	633	6,947
Total revenue	7,087	5,091	1,161	717	1,169	15,225
Provision for credit losses (benefit)	253	78	9		(85)	255
Depreciation and amortization	187	149	44		429	809
Other noninterest expense	5,257	2,038	802		557	8,654
Income before income taxes (benefit) and noncontrolling interests	1,390	2,826	306	717	268	5,507
Income taxes (benefit)	506	934	112	169	(357)	1,364
Net income	$ 884	$ 1,892	$ 194	$ 548	$ 625	$ 4,143
Average Assets (b)	$ 86,977	$ 133,754	$ 7,920	$ 6,983	$ 119,330	$ 354,964

(a) There were no material intersegment revenues for the years ended 2017, 2016 and 2015.
(b) Period-end balances for BlackRock.

NOTE 23 SUBSEQUENT EVENTS

On January 22, 2018, PNC Bank issued the following:

- $900 million of senior notes with a maturity date of January 22, 2021. Interest is payable semi-annually at a fixed rate of 2.50% per annum on January 22 and July 22 of each year, beginning on July 22, 2018.
- $700 million of senior notes with a maturity date of January 22, 2028. Interest is payable semi-annually at a fixed rate of 3.25% per annum on January 22 and July 22 of each year, beginning on July 22, 2018.
- $400 million of senior floating rate notes with a maturity date of January 22, 2021. Interest is payable at the 3-month LIBOR rate reset quarterly, plus a spread of .25%, on January 22, April 22, July 22, and October 22 of each year, beginning on April 22, 2018.

On January 31, 2018, we transferred 103,064 shares of BlackRock Series C Preferred Stock to BlackRock to satisfy a portion of our LTIP obligation. Upon transfer, Other assets and Other liabilities on our Consolidated Balance Sheet were each reduced by $42 million, representing the fair value of the shares transferred. After this transfer, we hold 143,458 shares of BlackRock Series C Preferred Stock which are available to fund our remaining obligation in connection with the BlackRock LTIP programs.

STATISTICAL INFORMATION (UNAUDITED)

THE PNC FINANCIAL SERVICES GROUP, INC.

SELECTED QUARTERLY FINANCIAL DATA

	2017				2016			
Dollars in millions, except per share data	Fourth	Third	Second	First	Fourth	Third	Second	First
Summary of Operations								
Interest income	$ 2,825	$ 2,795	$ 2,674	$ 2,520	$ 2,453	$ 2,408	$ 2,384	$ 2,407
Interest expense	480	450	416	360	323	313	316	309
Net interest income	2,345	2,345	2,258	2,160	2,130	2,095	2,068	2,098
Noninterest income	1,915	1,780	1,802	1,724	1,744	1,734	1,726	1,567
Total revenue	4,260	4,125	4,060	3,884	3,874	3,829	3,794	3,665
Provision for credit losses	125	130	98	88	67	87	127	152
Noninterest expense	3,061	2,456	2,479	2,402	2,441	2,394	2,360	2,281
Income before income taxes (benefit) and noncontrolling interests	1,074	1,539	1,483	1,394	1,366	1,348	1,307	1,232
Income taxes (benefit) (a)	(1,017)	413	386	320	319	342	318	289
Net income	2,091	1,126	1,097	1,074	1,047	1,006	989	943
Less: Net income attributable to noncontrolling interests	11	12	10	17	22	18	23	19
Preferred stock dividends and discount accretion and redemptions	57	64	57	84	43	64	43	65
Net income attributable to common shareholders	$ 2,023	$ 1,050	$ 1,030	$ 973	$ 982	$ 924	$ 923	$ 859
Per Common Share Data								
Book value	$ 91.94	$ 89.05	$ 87.78	$ 86.14	$ 85.94	$ 86.57	$ 85.33	$ 83.47
Basic earnings from net income	$ 4.23	$ 2.18	$ 2.12	$ 1.99	$ 2.01	$ 1.87	$ 1.84	$ 1.70
Diluted earnings from net income	$ 4.18	$ 2.16	$ 2.10	$ 1.96	$ 1.97	$ 1.84	$ 1.82	$ 1.68

(a) The fourth quarter 2017 results benefited from the new federal tax legislation. Certain tax legislation amounts are considered reasonable estimates as of December 31, 2017. See the Critical Accounting Estimates and Judgments section in Item 7 of this Report for additional details.

AVERAGE CONSOLIDATED BALANCE SHEET AND NET INTEREST ANALYSIS (a) (b) (c)

Taxable-equivalent basis Dollars in millions	2017 Average Balances	2017 Interest Income/ Expense	2017 Average Yields/ Rates	2016 Average Balances	2016 Interest Income/ Expense	2016 Average Yields/ Rates	2015 Average Balances	2015 Interest Income/ Expense	2015 Average Yields/ Rates
Assets									
Interest-earning assets:									
Investment securities									
Securities available for sale									
Residential mortgage-backed									
Agency	$ 25,766	$ 662	2.57%	$ 25,442	$ 617	2.43%	$ 21,371	$ 540	2.53%
Non-agency	2,851	153	5.37%	3,613	175	4.84%	4,374	207	4.73%
Commercial mortgage-backed	5,193	156	3.00%	6,369	167	2.62%	6,372	195	3.06%
Asset-backed	5,681	147	2.59%	5,741	132	2.30%	5,234	111	2.12%
U.S. Treasury and government agencies	13,178	235	1.78%	10,590	155	1.46%	6,486	79	1.22%
Other	5,083	158	3.11%	5,064	152	3.00%	4,344	146	3.36%
Total securities available for sale	57,752	1,511	2.62%	56,819	1,398	2.46%	48,181	1,278	2.65%
Securities held to maturity									
Residential mortgage-backed	13,049	364	2.79%	10,529	290	2.75%	8,238	251	3.05%
Commercial mortgage-backed	1,255	51	4.06%	1,693	62	3.66%	1,976	75	3.80%
Asset-backed	405	10	2.47%	677	14	2.07%	738	11	1.49%
U.S. Treasury and government agencies	591	18	3.05%	308	11	3.57%	253	10	3.95%
Other	2,005	105	5.24%	2,020	114	5.64%	2,279	119	5.22%
Total securities held to maturity	17,305	548	3.17%	15,227	491	3.22%	13,484	466	3.46%
Total investment securities	75,057	2,059	2.74%	72,046	1,889	2.62%	61,665	1,744	2.83%
Loans									
Commercial	107,752	3,778	3.51%	100,319	3,141	3.13%	98,093	2,975	3.03%
Commercial real estate	29,487	1,054	3.57%	28,729	964	3.36%	25,177	896	3.56%
Equipment lease financing	7,618	248	3.26%	7,463	266	3.56%	7,570	260	3.43%
Consumer	56,262	2,585	4.59%	57,499	2,476	4.31%	60,094	2,505	4.17%
Residential real estate	16,152	725	4.49%	14,807	696	4.70%	14,415	697	4.84%
Total loans	217,271	8,390	3.86%	208,817	7,543	3.61%	205,349	7,333	3.57%
Interest-earning deposits with banks	24,043	267	1.11%	26,328	136	.52%	32,908	86	.26%
Other interest-earning assets	8,983	313	3.48%	7,843	279	3.56%	8,903	356	4.00%
Total interest-earning assets/interest income	325,354	11,029	3.39%	315,034	9,847	3.13%	308,825	9,519	3.08%
Noninterest-earning assets	46,415			46,226			46,139		
Total assets	$ 371,769			$ 361,260			$ 354,964		
Liabilities and Equity									
Interest-bearing liabilities:									
Interest-bearing deposits									
Money market	$ 62,331	217	.35%	$ 71,530	146	.20%	$ 81,911	214	.26%
Demand	57,045	76	.13%	52,701	40	.08%	46,649	26	.06%
Savings	42,749	197	.46%	29,643	119	.40%	14,719	32	.22%
Time deposits	17,322	133	.77%	18,890	125	.66%	20,686	131	.63%
Total interest-bearing deposits	179,447	623	.35%	172,764	430	.25%	163,965	403	.25%
Borrowed funds									
Federal Home Loan Bank borrowings	19,890	261	1.31%	18,385	155	.84%	21,365	104	.49%
Bank notes and senior debt	25,564	517	2.02%	21,906	352	1.61%	17,937	223	1.24%
Subordinated debt	6,273	222	3.54%	8,324	264	3.17%	8,796	236	2.68%
Other	5,162	83	1.61%	4,324	60	1.39%	8,415	79	.94%
Total borrowed funds	56,889	1,083	1.90%	52,939	831	1.57%	56,513	642	1.14%
Total interest-bearing liabilities/interest expense	236,336	1,706	.72%	225,703	1,261	.56%	220,478	1,045	.47%
Noninterest-bearing liabilities and equity:									
Noninterest-bearing deposits	78,634			78,085			76,398		
Accrued expenses and other liabilities	10,518			11,083			12,210		
Equity	46,281			46,389			45,878		
Total liabilities and equity	$ 371,769			$ 361,260			$ 354,964		

Interest rate spread			2.67%			2.57%		2.61%
Impact of noninterest-bearing sources			.20			.16		.13
Net interest income/margin	$	9,323	2.87%	$	8,586	2.73%	$ 8,474	2.74%

(a) Nonaccrual loans are included in loans, net of unearned income. The impact of financial derivatives used in interest rate risk management is included in the interest income/expense and average yields/rates of the related assets and liabilities. Basis adjustments related to hedged items are included in noninterest-earning assets and noninterest-bearing liabilities. Average balances of securities are based on amortized historical cost (excluding adjustments to fair value, which are included in other assets). Average balances for certain loans and borrowed funds accounted for at fair value, with changes in fair value recorded in Noninterest income, are included in noninterest-earning assets and noninterest-bearing liabilities.

(b) Loan fees for the years ended December 31, 2017, 2016 and 2015 were $126 million, $137 million and $106 million, respectively.

(c) Interest income calculated as taxable-equivalent interest income. To provide more meaningful comparisons of interest income and yields for all interest-earning assets, as well as net interest margins, we use interest income on a taxable-equivalent basis in calculating average yields and net interest margin by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on taxable investments. This adjustment is not permitted under GAAP. See Reconciliation of Taxable-Equivalent Net Interest Income in this Statistical Information section for more information.

ANALYSIS OF YEAR-TO-YEAR CHANGES IN NET INTEREST INCOME (a) (b)

Taxable-equivalent basis	2017/2016 Increase/(Decrease) in Income/Expense Due to Changes in:			2016/2015 Increase/(Decrease) in Income/Expense Due to Changes in:		
In millions	Volume	Rate	Total	Volume	Rate	Total
Interest-Earning Assets						
Investment securities						
Securities available for sale						
Residential mortgage-backed						
Agency	$ 8	$ 37	$ 45	$ 99	$ (22)	$ 77
Non-agency	$ (40)	$ 18	(22)	$ (37)	$ 5	(32)
Commercial mortgage-backed	$ (33)	$ 22	(11)		$ (28)	(28)
Asset-backed	$ (1)	$ 16	15	$ 12	$ 9	21
U.S. Treasury and government agencies	$ 42	$ 38	80	$ 58	$ 18	76
Other	$ 1	$ 5	6	$ 23	$ (17)	6
Total securities available for sale	$ 23	$ 90	113	$ 217	$ (97)	120
Securities held to maturity						
Residential mortgage-backed	$ 70	$ 4	74	$ 66	$ (27)	39
Commercial mortgage-backed	$ (17)	$ 6	(11)	$ (10)	$ (3)	(13)
Asset-backed	$ (7)	$ 3	(4)	$ (1)	$ 4	3
U.S. Treasury and government agencies	$ 9	$ (2)	7	$ 2	$ (1)	1
Other	$ (1)	$ (8)	(9)	$ (15)	$ 10	(5)
Total securities held to maturity	$ 65	$ (8)	57	$ 58	$ (33)	25
Total investment securities	$ 81	$ 89	170	$ 280	$ (135)	145
Loans						
Commercial	$ 242	$ 395	637	$ 67	$ 99	166
Commercial real estate	$ 26	$ 64	90	$ 120	$ (52)	68
Equipment lease financing	$ 6	$ (24)	(18)	$ (4)	$ 10	6
Consumer	$ (53)	$ 162	109	$ (111)	$ 82	(29)
Residential real estate	$ 61	$ (32)	29	$ 19	$ (20)	(1)
Total loans	$ 312	$ 535	847	$ 126	$ 84	210
Interest-earning deposits with banks	$ (13)	$ 144	131	$ (20)	$ 70	50
Other interest-earning assets	$ 40	$ (6)	34	$ (40)	$ (37)	(77)
Total interest-earning assets	$ 334	$ 848	$ 1,182	$ 182	$ 146	$ 328
Interest-Bearing Liabilities						
Interest-bearing deposits						
Money market	$ (21)	$ 92	$ 71	$ (24)	$ (44)	$ (68)
Demand	$ 4	$ 32	36	$ 4	$ 10	14
Savings	$ 58	$ 20	78	$ 49	$ 38	87
Time deposits	$ (11)	$ 19	8	$ (12)	$ 6	(6)
Total interest-bearing deposits	$ 17	$ 176	193	$ 27		27
Borrowed funds						
Federal Home Loan Bank borrowings	$ 14	$ 92	106	$ (17)	$ 68	51
Bank notes and senior debt	$ 65	$ 100	165	$ 55	$ 74	129
Subordinated debt	$ (70)	$ 28	(42)	$ (13)	$ 41	28
Other	$ 13	$ 10	23	$ (48)	$ 29	(19)
Total borrowed funds	$ 66	$ 186	252	$ (43)	$ 232	189
Total interest-bearing liabilities	$ 63	$ 382	445	$ 24	$ 192	216
Change in net interest income	$ 287	$ 450	$ 737	$ 160	$ (48)	$ 112

(a) Changes attributable to rate/volume are prorated into rate and volume components.

(b) Interest income calculated as taxable-equivalent interest income. To provide more meaningful comparisons of interest income, we use interest income on a taxable-equivalent basis by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on taxable investments. This adjustment is not permitted under GAAP. See Reconciliation of Taxable-Equivalent Net Interest Income in this Statistical Information section for more information.

Reconciliation Of Taxable-Equivalent Net Interest Income (Non-GAAP) (a)

	Year ended December 31				
In millions	2017	2016	2015	2014	2013
Net interest income (GAAP)	$ 9,108	$ 8,391	$ 8,278	$ 8,525	$ 9,147
Taxable-equivalent adjustments	215	195	196	189	168
Net interest income (Non-GAAP)	$ 9,323	$ 8,586	$ 8,474	$ 8,714	$ 9,315

(a) The interest income earned on certain earning assets is completely or partially exempt from federal income tax. As such, these tax-exempt instruments typically yield lower returns than taxable investments. To provide more meaningful comparisons of net interest income, we use interest income on a taxable-equivalent basis by increasing the interest income earned on tax-exempt assets to make it fully equivalent to interest income earned on taxable investments. This adjustment is not permitted under GAAP. As a result of the Tax Cuts and Jobs Act, which was enacted into law during the fourth quarter of 2017, the statutory tax rate for corporations was lowered to 21% from 35%, effective January 1, 2018. As such, beginning in 2018, our taxable-equivalent adjustments will be calculated using this lower statutory tax rate.

Loans Summary

December 31 – in millions	2017	2016	2015	2014	2013
Commercial lending					
Commercial	$ 110,527	$ 101,364	$ 98,608	$ 97,420	$ 88,378
Commercial real estate	28,978	29,010	27,468	23,262	21,191
Equipment lease financing	7,934	7,581	7,468	7,686	7,576
Total commercial lending	147,439	137,955	133,544	128,368	117,145
Consumer lending					
Home equity	28,364	29,949	32,133	34,677	36,447
Residential real estate	17,212	15,598	14,411	14,407	15,065
Credit card	5,699	5,282	4,862	4,612	4,425
Other consumer	21,744	22,049	21,746	22,753	22,531
Total consumer lending	73,019	72,878	73,152	76,449	78,468
Total loans	$ 220,458	$ 210,833	$ 206,696	$ 204,817	$ 195,613

Reconciliation of Tangible Book Value Per Common Share (Non-GAAP)

December 31 Dollars in millions, except per share data	2017	2016	2015	2014	2013
Book value per common share	$ 91.94	$ 85.94	$ 81.84	$ 77.61	$ 72.07
Tangible book value per common share					
Common shareholders' equity	$ 43,530	$ 41,723	$ 41,258	$ 40,605	$ 38,392
Goodwill and Other Intangible Assets	(9,498)	(9,376)	(9,482)	(9,595)	(9,654)
Deferred tax liabilities on Goodwill and Other Intangible Assets	191	304	310	320	333
Tangible common shareholders' equity	$ 34,223	$ 32,651	$ 32,086	$ 31,330	$ 29,071
Period-end common shares outstanding (in millions)	473	485	504	523	533
Tangible book value per common share (Non-GAAP) (a)	$ 72.28	$ 67.26	$ 63.65	$ 59.88	$ 54.57

(a) We believe this non-GAAP financial measure serves as a useful tool to help evaluate the strength and discipline of a company's capital management strategies and as an additional conservative measure of total company value.

Reconciliation of Fee Income (Non-GAAP)

Year ended December 31 Dollars in millions	2017	2016	2015
Noninterest income			
Asset management	$ 1,942	$ 1,521	$ 1,567
Consumer services	1,415	1,388	1,335
Corporate services	1,621	1,504	1,491
Residential mortgage	350	567	566
Service charges on deposits	695	667	651
Total fee income	6,023	5,647	5,610
Other	1,198	1,124	1,337
Total noninterest income	$ 7,221	$ 6,771	$ 6,947

NONPERFORMING ASSETS AND RELATED INFORMATION

December 31 – dollars in millions	2017	2016	2015	2014	2013
Nonperforming loans					
Commercial	$ 429	$ 496	$ 351	$ 290	$ 457
Commercial real estate	123	143	187	334	518
Equipment lease financing	2	16	7	2	5
Total commercial lending	554	655	545	626	980
Consumer lending (a)					
Home equity (b)	818	914	977	1,112	1,139
Residential real estate (b)	400	501	549	706	904
Credit card	6	4	3	3	4
Other consumer (b)	87	70	52	63	61
Total consumer lending	1,311	1,489	1,581	1,884	2,108
Total nonperforming loans (c)	1,865	2,144	2,126	2,510	3,088
OREO, foreclosed and other assets	170	230	299	370	369
Total nonperforming assets	$ 2,035	$ 2,374	$ 2,425	$ 2,880	$ 3,457
Nonperforming loans to total loans	.85%	1.02%	1.03%	1.23%	1.58%
Nonperforming assets to total loans, OREO, foreclosed and other assets	.92%	1.12%	1.17%	1.40%	1.76%
Nonperforming assets to total assets	.53%	.65%	.68%	.83%	1.08%
Interest on nonperforming loans (d)					
Computed on original terms	$ 114	$ 111	$ 115	$ 125	$ 163
Recognized prior to nonperforming status	$ 19	$ 21	$ 22	$ 25	$ 30
Troubled Debt Restructurings					
Nonperforming	$ 964	$ 1,112	$ 1,119	$ 1,370	$ 1,511
Performing	$ 1,097	$ 1,109	$ 1,232	$ 1,213	$ 1,228
Past due loans					
Accruing loans past due 90 days or more (e)	$ 737	$ 782	$ 881	$ 1,105	$ 1,491
As a percentage of total loans	.33%	.37%	.43%	.54%	.76%
Past due loans held for sale					
Accruing loans held for sale past due 90 days or more	$ 3	$ 4	$ 4	$ 9	$ 4
As a percentage of total loans held for sale	.11%	.16%	.29%	.40%	.18%

(a) Excludes most consumer loans and lines of credit, not secured by residential real estate, which are charged off after 120 to 180 days past due and are not placed on nonperforming status.
(b) Pursuant to alignment with interagency supervisory guidance on practices for loans and lines of credit related to consumer lending in the first quarter of 2013, nonperforming home equity loans increased $214 million, nonperforming residential mortgage loans increased $187 million and nonperforming other consumer loans increased $25 million. Charge-offs were taken on these loans where the fair value less costs to sell the collateral was less than the recorded investment of the loan and were $134 million.
(c) Nonperforming loans exclude certain government insured or guaranteed loans, loans held for sale, loans accounted for under the fair value option and purchased impaired loans.
(d) Amounts are for the year ended.
(e) Past due loan amounts include government insured or guaranteed consumer loans of $.6 billion, $.7 billion, $.8 billion, $1.0 billion and $1.0 billion at December 31, 2017, 2016, 2015, 2014 and 2013, respectively.

Summary Of Loan Loss Experience

Year ended December 31 – dollars in millions	2017	2016	2015	2014	2013
Allowance for loan and lease losses – January 1	$ 2,589	$ 2,727	3,331	$ 3,609	$ 4,036
Gross charge-offs					
Commercial	(186)	(332)	(206)	(276)	(395)
Commercial real estate	(24)	(26)	(44)	(70)	(203)
Equipment lease financing	(11)	(5)	(5)	(14)	(8)
Home equity	(123)	(143)	(181)	(275)	(486)
Residential real estate	(9)	(14)	(24)	(40)	(133)
Credit card	(182)	(161)	(160)	(163)	(178)
Other consumer	(251)	(205)	(185)	(183)	(185)
Total charge-offs	(786)	(886)	(805)	(1,021)	(1,588)
Recoveries					
Commercial	81	117	170	207	248
Commercial real estate	28	51	66	84	93
Equipment lease financing	7	10	4	14	16
Home equity	91	84	93	78	73
Residential real estate	18	9	13	26	4
Credit card	21	19	21	21	22
Other consumer	83	53	52	60	55
Total recoveries	329	343	419	490	511
Net charge-offs	(457)	(543)	(386)	(531)	(1,077)
Provision for credit losses	441	433	255	273	643
Net decrease / (increase) in allowance for unfunded loan commitments and letters of credit	4	(40)	(2)	(17)	8
Other (a)	34	12	(471)	(3)	(1)
Allowance for loan and lease losses – December 31	$ 2,611	$ 2,589	$ 2,727	$ 3,331	$ 3,609
Allowance as a percentage of December 31:					
Loans (a)	1.18%	1.23%	1.32%	1.63%	1.84%
Nonperforming loans	140%	121%	128%	133%	117%
As a percentage of average loans:					
Net charge-offs	.21%	.26%	.19%	.27%	.57%
Provision for credit losses	.20%	.21%	.12%	.14%	.34%
Allowance for loan and lease losses (a)	1.20%	1.24%	1.33%	1.67%	1.90%
Allowance as a multiple of net charge-offs	5.71x	4.77x	7.06x	6.27x	3.35x

(a) Includes $468 million in write-offs of purchased impaired loans in 2015 due to the change in derecognition policy effective December 31, 2015 for certain consumer purchased impaired loans. See Note 1 Accounting Policies in our 2015 Form 10-K for additional information.

The following table presents the assignment of the allowance for loan and lease losses and the categories of loans as a percentage of total loans. Changes in the allocation over time reflect the changes in loan portfolio composition, risk profile and refinements to reserve methodologies.

Allocation Of Allowance For Loan And Lease Losses

	2017		2016		2015		2014		2013	
December 31 Dollars in millions	Allowance	Loans to Total Loans	Allowance	Loans to Total Loans	Allowance	Loans to Total Loans	Allowance	Loans to Total Loans	Allowance	Loans to Total Loans
Commercial	$ 1,302	50.1%	$ 1,179	48.1%	$ 1,286	47.7%	$ 1,209	47.6%	$ 1,100	45.2%
Commercial real estate	244	13.1	320	13.8	281	13.3	318	11.4	400	10.8
Equipment lease financing	36	3.6	35	3.6	38	3.6	44	3.7	47	3.9
Home equity	284	12.9	357	14.2	484	15.5	872	16.9	1,051	18.6
Residential real estate	300	7.8	332	7.4	307	7.0	561	7.0	642	7.7
Credit card	220	2.6	181	2.5	167	2.4	173	2.3	169	2.3
Other consumer	225	9.9	185	10.4	164	10.5	154	11.1	200	11.5
Total	$ 2,611	100.0%	$ 2,589	100.0%	$ 2,727	100.0%	$ 3,331	100.0%	$ 3,609	100.0%

Time Deposits

The aggregate amount of time deposits with a denomination of $100,000 or more was $8.5 billion at December 31, 2017 and $7.7 billion at December 31, 2016. Time deposits of $100,000 or more included time deposits in foreign offices of $2.4 billion at December 31, 2017. Domestic time deposits of $100,000 or more were $6.1 billion at December 31, 2017 with the following maturities:

December 31, 2017 - in billions	Domestic Certificates of Deposit
Three months or less	$ 1.1
Over three through six months	1.4
Over six through twelve months	1.8
Over twelve months	1.8
Total	$ 6.1

Selected Loan Maturities And Interest Sensitivity

December 31, 2017 In millions	1 Year or Less	1 Through 5 Years	After 5 Years	Gross Loans
Commercial	$ 27,922	$ 73,299	$ 9,306	$ 110,527
Commercial real estate	8,418	14,741	5,819	28,978
Total	$ 36,340	$ 88,040	$ 15,125	$ 139,505
Loans with:				
Predetermined rate	$ 5,531	$ 13,064	$ 6,850	$ 25,445
Floating or adjustable rate	30,809	74,976	8,275	114,060
Total	$ 36,340	$ 88,040	$ 15,125	$ 139,505

At December 31, 2017, we had no pay-fixed interest rate swaps designated to commercial loans as part of fair value hedge strategies. At December 31, 2017, $22.8 billion notional amount of receive-fixed interest rate swaps were designated as part of cash flow hedging strategies that converted the floating rate (1 month LIBOR) on the underlying commercial loans to a fixed rate as part of risk management strategies.

Common Stock Prices/Dividends Declared

The table below sets forth by quarter the range of high and low sale and quarter-end closing prices for The PNC Financial Services Group, Inc. common stock and the cash dividends declared per common share.

	High	Low	Close	Cash Dividends Declared (a)
2017 Quarter				
First	$ 131.83	$ 113.66	$ 120.24	$ .55
Second	$ 128.25	$ 115.45	$ 124.87	.55
Third	$ 135.73	$ 119.77	$ 134.77	.75
Fourth	$ 147.28	$ 130.46	$ 144.29	.75
Total				$ 2.60
2016 Quarter				
First	$ 94.26	$ 77.67	$ 84.57	$ .51
Second	$ 90.85	$ 77.40	$ 81.39	.51
Third	$ 91.39	$ 77.86	$ 90.09	.55
Fourth	$ 118.57	$ 87.34	$ 116.96	.55
Total				$ 2.12

(a) Our Board of Directors approved a first quarter 2018 cash dividend of $.75 per common share, which was payable on February 5, 2018.

TRANSITIONAL BASEL III AND PRO FORMA FULLY PHASED-IN BASEL III COMMON EQUITY TIER 1 CAPITAL RATIOS (NON-GAAP) – 2013-2016 PERIODS

Our regulatory risk-based ratios for 2014 through 2016 were calculated using the standardized approach for determining risk-weighted assets, and the definitions of, and deductions from, regulatory capital under the Basel III rules (as such definitions and deductions were phased-in for 2014 through 2016). We refer to the capital ratios calculated using the phased-in Basel III provisions in effect for those periods and, for the risk-based ratios, standardized approach risk-weighted assets as the Transitional Basel III ratios.

	Transitional Basel III			Pro forma Fully Phased-In Basel III (Non-GAAP) (estimated) (a) (b)			
Dollars in millions	December 31 2016	December 31 2015	December 31, 2014	December 31 2016	December 31 2015	December 31 2014	December 31 2013
Common stock, related surplus and retained earnings, net of treasury stock	$ 41,987	$ 41,128	$ 40,103	$ 41,987	$ 41,128	$ 40,103	$ 38,031
Less regulatory capital adjustments:							
Goodwill and disallowed intangibles, net of deferred tax liabilities	(8,974)	(8,972)	(8,939)	(9,073)	(9,172)	(9,276)	(9,321)
Basel III total threshold deductions	(762)	(470)	(212)	(1,469)	(1,294)	(1,081)	(1,386)
Accumulated other comprehensive income (c)	(238)	(81)	40	(396)	(201)	201	196
All other adjustments	(214)	(112)	(63)	(221)	(182)	(121)	(64)
Basel III Common equity Tier 1 capital	$ 31,799	$ 31,493	$ 30,929	$ 30,828	$ 30,279	$ 29,826	$ 27,456
Basel III standardized approach risk-weighted assets (d)	$ 300,533	$ 295,905	$ 284,018	$ 308,517	$ 303,707	$ 298,786	$ 291,977
Basel III advanced approaches risk-weighted assets (e)	N/A	N/A	N/A	$ 277,896	$ 264,931	$ 285,870	$ 290,080
Basel III Common equity Tier 1 capital ratio	10.6%	10.6%	10.9%	10.0%	10.0%	10.0%	9.4%
Risk weight and associated rules utilized	Standardized (with 2016 transition adjustments)	Standardized (with 2015 transition adjustments)	Standardized (with 2014 transition adjustments)	Standardized			

(a) We utilize the pro forma fully phased-in Basel III capital ratios, to assess our capital position (without the benefit of phase-ins), as these ratios represent the regulatory capital standards that may ultimately be applicable to us under the final Basel III rules.
(b) Basel III capital ratios and estimates may be impacted by additional regulatory guidance or analysis, and, in the case of those ratios calculated using the advanced approaches, may be subject to variability based on the ongoing evolution, validation and regulatory approval of our models that are integral to the calculation of advanced approaches risk-weighted assets.
(c) Represents net adjustments related to accumulated other comprehensive income for securities currently and those transferred from available for sale, as well as pension and other postretirement plans.
(d) Basel III standardized approach risk-weighted assets are based on the Basel III standardized approach rules and include credit and market risk-weighted assets.
(e) Basel III advanced approaches risk-weighted assets are based on the Basel III advanced approaches rules, and include credit, market and operational risk-weighted assets. During the parallel run qualification phase we have refined the data, models and internal processes used as part of the advanced approaches for determining risk-weighted assets. Refinements implemented in the fourth quarter of 2015 reduced estimated Basel III advanced approaches risk-weighted assets. We anticipate additional refinements to this estimate through the parallel run qualification phase.

BASEL I TIER 1 COMMON CAPITAL RATIO (a) (b)

Dollars in millions	December 31 2013
Basel I Tier 1 common capital	$ 28,484
Basel I risk-weighted assets	$ 272,169
Basel I Tier 1 common capital ratio	10.5%

(a) Effective January 1, 2014, the Basel I Tier 1 common capital ratio no longer applies to us (except for stress testing purposes). Our 2013 Form 10-K included additional information regarding our Basel I capital ratios.
(b) Amounts have not been updated to reflect the first quarter 2014 adoption of ASU 2014-01 related to investments in low income housing tax credits.

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

None.

ITEM 9A – CONTROLS AND PROCEDURES

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of The PNC Financial Services Group, Inc. and subsidiaries (PNC) is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in the Exchange Act Rule 13a-15(f).

Because of 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.

We performed an evaluation under the supervision and with the participation of our management, including the Chairman, President and Chief Executive Officer and the Executive Vice President and Chief Financial Officer, of the effectiveness of PNC's internal control over financial reporting as of December 31, 2017. This assessment was based on criteria for effective internal control over financial reporting described in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management concluded that PNC maintained effective internal control over financial reporting as of December 31, 2017.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited our consolidated financial statements as of and for the year ended December 31, 2017 included in this Report, has also audited the effectiveness of PNC's internal control over financial reporting as of December 31, 2017. The report of PricewaterhouseCoopers LLP is included under Item 8 of this Report.

DISCLOSURE CONTROLS AND PROCEDURES AND CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

As of December 31, 2017, we performed an evaluation under the supervision and with the participation of our management, including the Chairman, President and Chief Executive Officer and the Executive Vice President and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures and of changes in our internal control over financial reporting.

Based on that evaluation, our Chairman, President and Chief Executive Officer and our Executive Vice President and Chief Financial Officer concluded that our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities and Exchange Act of 1934, as amended) were effective as of December 31, 2017, and that there has been no change in PNC's internal control over financial reporting that occurred during the fourth quarter of 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B – OTHER INFORMATION

None.

PART III

ITEM 10 – DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Certain of the information regarding our directors (or nominees for director), executive officers and Audit Committee (and Audit Committee financial experts), required by this item is included under the captions "Election of Directors (Item 1)," and "Corporate Governance – Board committees – Audit Committee," in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference.

Additional information regarding our executive officers and our directors is included in Part I of this Report under the captions "Executive Officers of the Registrant" and "Directors of the Registrant."

Information regarding our compliance with Section 16(a) of the Securities Exchange Act of 1934 is included under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference.

Certain information regarding our PNC Code of Business Conduct and Ethics required by this item is included under the caption "Corporate Governance – Our Code of Business Conduct and Ethics" and "Director and Executive Officer Relationships - Code of Business Conduct and Ethics" in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference. Our PNC Code of Business Conduct and Ethics is available on our corporate website at www.pnc.com/corporategovernance. In addition, any future amendments to, or waivers from, a provision of the PNC Code of Business Conduct and Ethics that applies to our directors or executive officers (including our principal executive officer, principal financial officer, and principal accounting officer or controller) will be posted at this internet address.

ITEM 11 – EXECUTIVE COMPENSATION

The information required by this item is included under the captions "Corporate Governance – Board committees –Personnel and Compensation Committee – Compensation committee interlocks and insider participation," "Director Compensation," "Compensation Discussion and Analysis," "Compensation Committee Report," "Compensation and Risk," "Compensation Tables," "Change in Control and Termination of Employment" and "CEO Pay Ratio" in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference. In accordance with Item 407(e)(5) of Regulation S-K, the information set forth under the caption "Compensation Committee Report" in such Proxy Statement will be deemed to be furnished in this Report and will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act as a result of furnishing the disclosure in this manner.

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

The information required by this item regarding security ownership of certain beneficial owners and management is included under the caption "Security Ownership of Management and Certain Beneficial Owners" in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference.

Information regarding our compensation plans under which PNC equity securities are authorized for issuance as of December 31, 2017 is included in the table which follows. Additional information regarding these plans is included in Note 12 Stock Based Compensation Plans in the Notes To Consolidated Financial Statements in Item 8 of this Report.

Equity Compensation Plan Information
At December 31, 2017

	(a)		(b)	(c)	
	Number of securities to be issued upon exercise of outstanding options, warrants and rights		Weighted-average exercise price of outstanding options, warrants and rights (1)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))	
Plan Category					
Equity compensation plans approved by security holders	6,185,160	(2)	$ 58.02	36,547,360	(3)
Equity compensation plans not approved by security holders	24,706	(4)	$ 136.23		
Total	**6,209,866**		**$ 59.48**	**36,547,360**	

(1) – The weighted-average exercise price does not take into account restricted stock units or incentive performance units because they have no exercise price.

(2) – Of this total, the following amounts relate to the 2016 Incentive Award Plan (2016 Incentive Plan), approved by shareholders on April 26, 2016: 1,326,972 are stock-payable restricted stock units (at a maximum share award level), and 108,176 are incentive performance unit awards (at a maximum share award level). Also included in this total are the following amounts that relate to the 2006 Incentive Award Plan, as amended and restated (2006 Incentive Plan): 1,294,716 are stock options, 3,119,882 are stock-payable restricted stock units (at a maximum award level), and 335,414 are incentive performance unit awards (at a maximum share award level).

Under both the 2016 Incentive Plan and the 2006 Incentive Plan (for incentive performance unit awards under each) upon achievement of performance goals and other conditions above target level, payment is made in cash share equivalents, up to a maximum of 25% of the target number of share units.

Following shareholder approval of the 2016 Incentive Plan, no further grants were permitted under the 2006 Incentive Plan.

(3) – Includes 534,068 shares available for issuance under the Employee Stock Purchase Plan, of which 63,429 shares are subject to purchase during the purchase period ending December 31, 2017. The amount available for awards under the 2016 Incentive Plan is 36,013,292.

(4) – Represents 24,706 shares subject to options outstanding under pre-acquisition plans of National City Corporation, which was merged into The PNC Financial Services Group, Inc. on December 31, 2008. Pursuant to the merger agreement, awards granted under the National City plans were converted into awards of PNC common stock. No further awards may be made under these plans.

ITEM 13 – CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is included under the captions "Director and Executive Officer Relationships –Director independence, – Transactions with directors, – Family relationships, and – Indemnification and advancement of costs" and "Related Person Transactions" in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference.

ITEM 14 – PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is included under the caption "Ratification of Independent Registered Public Accounting Firm (Item 2) – Audit, audit-related and permitted non-audit fees and – Procedures for pre-approving audit services, audit-related services and permitted non-audit services" in our Proxy Statement to be filed for the 2018 annual meeting of shareholders and is incorporated herein by reference.

PART IV
ITEM 15 – EXHIBITS, FINANCIAL STATEMENT SCHEDULES

Financial Statements, Financial Statement Schedules

Our consolidated financial statements required in response to this Item are incorporated by reference from Item 8 of this Report.
Audited consolidated financial statements of BlackRock, Inc. as of December 31, 2017 and 2016 and for each of the three years in the period ended December 31, 2017 are filed with this Report as Exhibit 99.1 and incorporated herein by reference.

Exhibit Index

Exhibit No.	Description	Method of Filing +
3.1.1	Amended and Restated Articles of Incorporation of the Corporation, effective January 2, 2009	Incorporated herein by reference to Exhibit 3.1 of the Corporation's Annual Report on Form 10-K for the year ended December 31, 2008 (2008 Form 10-K)
3.1.2	Statement with Respect to Shares of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series O dated July 21, 2011	Incorporated herein by reference to Exhibit 3.1 of the Corporation's Current Report on Form 8-K filed July 27, 2011
3.1.3	Statement with Respect to Shares of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series P dated April 19, 2012	Incorporated herein by reference to Exhibit 3.1 of the Corporation's Current Report on Form 8-K filed April 24, 2012
3.1.4	Statement with Respect to Shares of 5.375% Non-Cumulative Perpetual Preferred Stock, Series Q dated September 14, 2012	Incorporated herein by reference to Exhibit 3.1 of the Corporation's Current Report on Form 8-K filed September 21, 2012
3.1.5	Statement with Respect to Shares of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series R dated May 2, 2013	Incorporated herein by reference to Exhibit 3.1 of the Corporation's Current Report on Form 8-K filed May 7, 2013
3.1.6	Amendment to Amended and Restated Articles of Incorporation of the Corporation, effective November 19, 2015	Incorporated herein by reference to Exhibit 3.1.6 of the Corporation's Current Report on Form 8-K filed November 20, 2015
3.1.7	Statement with Respect to Shares of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series S dated October 27, 2016	Incorporated herein by reference to Exhibit 3.1 of the Corporation's Current Report on Form 8-K filed November 1, 2016
3.2	By-Laws of the Corporation, as amended and restated, effective August 11, 2016	Incorporated herein by reference to Exhibit 3.2 of the Corporation's Current Report on Form 8-K filed August 11, 2016
4.1	There are no instruments with respect to long-term debt of the Corporation and its subsidiaries that involve a total amount of securities authorized thereunder that exceed 10 percent of the total assets of the Corporation and its subsidiaries on a consolidated basis. The Corporation agrees to provide the SEC with a copy of instruments defining the rights of holders of long-term debt of the Corporation and its subsidiaries on request.	
4.2	Warrants for Purchase of Shares of PNC Common Stock	Incorporated herein by reference to Exhibit 4.2 (included as part of Exhibit 4.1) of the Corporation's Form 8-A filed April 30, 2010
4.3	Deposit Agreement dated July 27, 2011, between the Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time of the Depositary Receipts representing interests in the Series O preferred stock	Incorporated herein by reference to Exhibit 4.2 of the Corporation's Current Report on Form 8-K filed July 27, 2011

4.4	Deposit Agreement, dated April 24, 2012, between the Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time of the Depositary Receipts representing interests in the Series P preferred stock	Incorporated herein by reference to Exhibit 4.2 of the Corporation's Current Report on Form 8-K filed April 24, 2012
4.5	Deposit Agreement, dated September 21, 2012, between the Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time of the Depositary Receipts representing interests in the Series Q preferred stock	Incorporated herein by reference to Exhibit 4.2 of the Corporation's Current Report on Form 8-K filed September 21, 2012
4.6	Deposit Agreement, dated May 7, 2013, between the Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time of the Depositary Receipts representing interests in the Series R preferred stock	Incorporated herein by reference to Exhibit 4.2 of the Corporation's Current Report on Form 8-K filed May 7, 2013
4.7	Deposit Agreement, dated November 1, 2016, between the Corporation, Computershare Trust Company, N.A., Computershare Inc. and the holders from time to time of the Depositary Receipts representing interests in the Series S preferred stock	Incorporated herein by reference to Exhibit 4.2 of the Corporation's Current Report on Form 8-K filed November 1, 2016
4.8	Form of PNC Bank, National Association Subordinated Fixed Rate Global Bank Note issued prior to January 16, 2014	Incorporated herein by reference to Exhibit 4.11 of the Corporation's 3rd Quarter 2004 Form 10-Q
4.9.1	Issuing and Paying Agency Agreement, dated January 16, 2014, between PNC Bank, National Association and PNC Bank, National Association, relating to the $25 billion Global Bank Note Program for the Issue of Senior and Subordinated Bank Notes	Incorporated herein by reference to Exhibit 4.25 of the Corporation's Annual Report on Form 10-K for the year ended December 31, 2013 (2013 Form 10-K)
4.9.2	Amendment No. 1 to Issuing and Paying Agency Agreement, dated May 22, 2015, between PNC Bank, National Association and PNC Bank, National Association, relating to the $30 billion Global Bank Note Program for the Issue of Senior and Subordinated Bank Notes	Incorporated herein by reference to Exhibit 4.21.2 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (2nd Quarter 2015 Form 10-Q)
4.9.3	Amendment No. 2 to Issuing and Paying Agency Agreement, dated May 27, 2016, between PNC Bank, National Association and PNC Bank, National Association, relating to the $40 billion Global Bank Note Program for the Issue of Senior and Subordinated Bank Notes	Incorporated herein by reference to Exhibit 4.20.3 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 (2nd Quarter 2016 Form 10-Q)
4.10	Forms of PNC Bank, National Association Senior Global Bank Notes issued after January 16, 2014 (included in Exhibit 4.9.1)	Incorporated herein by reference to Exhibit 4.25 of the Corporation's 2013 Form 10-K
4.11	Forms of PNC Bank, National Association Subordinated Global Bank Notes issued on or after May 22, 2015 (included in Exhibit 4.9.2)	Incorporated herein by reference to Exhibit 4.21.2 of the Corporation's 2nd Quarter 2015 Form 10-Q
10.1.1	The Corporation's Supplemental Executive Retirement Plan, as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.2 of the Corporation's 2008 Form 10-K*
10.1.2	Amendment 2009-1 to the Corporation's Supplemental Executive Retirement Plan as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.3 of the Corporation's Annual Report on Form 10-K for the year ended December 31, 2009 (2009 Form 10-K)*
10.1.3	Amendment 2013-1 to the Corporation's Supplemental Executive Retirement Plan as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.1.3 of the Corporation's 2013 Form 10-K*
10.2.1	The Corporation's ERISA Excess Pension Plan, as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.4 of the Corporation's 2008 Form 10-K*
10.2.2	Amendment 2009-1 to the Corporation's ERISA Excess Plan as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.6 of the Corporation's 2009 Form 10-K*

10.2.3	Amendment 2011-1 to the Corporation's ERISA Excess Pension Plan, as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.8 of the Corporation's Annual Report on Form 10-K for the year ended December 31, 2011 (2011 Form 10-K)*
10.2.4	Amendment 2013-1 to the Corporation's ERISA Excess Pension Plan, as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.2.4 of the Corporation's 2013 Form 10-K*
10.3.1	The Corporation's Key Executive Equity Program, as amended and restated effective January 1, 2009	Incorporated herein by reference to Exhibit 10.6 of the Corporation's 2008 Form 10-K*
10.3.2	Amendment 2009-1 to the Corporation's Key Executive Equity Program as amended and restated as of January 1, 2009	Incorporated herein by reference to Exhibit 10.9 of the Corporation's 2009 Form 10-K*
10.4.1	The Corporation's Supplemental Incentive Savings Plan, as amended and restated effective January 1, 2010	Incorporated herein by reference to Exhibit 10.17 of the Corporation's 2011 Form 10-K*
10.4.2	Amendment 2013-1 to the Corporation's Supplemental Incentive Savings Plan, as amended and restated effective January 1, 2010	Incorporated herein by reference to Exhibit 10.4.2 of the Corporation's 2013 Form 10-K*
10.5.1	The Corporation and Affiliates Deferred Compensation Plan, as amended and restated May 5, 2009	Incorporated herein by reference to Exhibit 10.62 of the Corporation's 2nd Quarter 2009 Form 10-Q*
10.5.2	Amendment 2009-1 to the Corporation and Affiliates Deferred Compensation Plan, as amended and restated May 5, 2009	Incorporated herein by reference to Exhibit 10.17 of the Corporation's 2009 Form 10-K*
10.5.3	Amendment 2010-1 to the Corporation and Affiliates Deferred Compensation Plan, as amended and restated May 5, 2009	Incorporated herein by reference to Exhibit 10.20 of the Corporation's 2010 Form 10-K*
10.5.4	Amendment 2011-1 to the Corporation and Affiliates Deferred Compensation Plan, as amended and restated May 5, 2009	Incorporated herein by reference to Exhibit 10.23 of the Corporation's 2011 Form 10-K*
10.5.5	Amendment 2012-1 to the Corporation and Affiliates Deferred Compensation Plan, as amended and restated May 5, 2009	Incorporated herein by reference to Exhibit 10.24 of the Corporation's Annual Report on Form 10-K for the year ended December 31, 2012 (2012 Form 10-K)*
10.5.6	Amendment 2013-1 to the Corporation and Affiliates Deferred Compensation Plan, as amended and restated May 5, 2009	Incorporated herein by reference to Exhibit 10.5.6 of the Corporation's 2013 Form 10-K*
10.6	The Corporation and Affiliates Deferred Compensation and Incentive Plan, as amended and restated effective January 1, 2017	Incorporated herein by reference to Exhibit 10.7 of the Corporation's Form 10-K for the year ended December 31, 2016 (2016 Form 10-K)*
10.7	The PNC Financial Services Group, Inc. 2016 Incentive Award Plan	Incorporated herein by reference to Exhibit 99.1 of the Corporation's Form S-8 (File No. 333-210995) filed April 29, 2016*
10.8.1	The Corporation's 2006 Incentive Award Plan, as amended and restated effective as of March 11, 2011	Incorporated herein by reference to Exhibit 10.70 of the Corporation's Quarterly Report on Form 1O-Q for the quarter ended March 31, 2011 (1st Quarter 2011 Form 10-Q)*
10.8.2	Addendum to the Corporation's 2006 Incentive Award Plan, effective as of January 26, 2012	Incorporated herein by reference to Exhibit 10.28 of the Corporation's 2011 Form 10-K*
10.9	The Corporation's Executive Incentive Award Plan (formerly the 1996 Executive Incentive Aware Plan), as amended and restated effective as of January 1, 2017	Incorporated herein by reference to Exhibit 10.55 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017*
10.10	The Corporation's Directors Deferred Compensation Plan, as amended and restated effective January 1, 2012	Incorporated herein by reference to Exhibit 10.32 of the Corporation's 2011 Form 10-K*
10.11	The Corporation's Directors Deferred Compensation Plan, as amended and restated effective January 1, 2015	Incorporated herein by reference to Exhibit 10.52 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 (3rd Quarter 2014 10-Q)*

10.12	The Corporation's Outside Directors Deferred Stock Unit Plan, as amended and restated effective January 1, 2012	Incorporated herein by reference to Exhibit 10.34 of the Corporation's 2011 Form 10-K*
10.13	The Corporation's Outside Directors Deferred Stock Unit Plan, as amended and restated effective January 1, 2015	Incorporated herein by reference to Exhibit 10.53 of the Corporation's 3rd Quarter 2014 10-Q*
10.14	The Corporation's 2016 Incentive Award Plan Directors Deferred Stock Unit Program effective January 1, 2017	Incorporated herein by reference to Exhibit 10.16 of the Corporation's 2016 Form 10-K*
10.15	Trust Agreement between the Corporation, as settlor, and Matrix Trust Company, as trustee	Filed herewith*
10.16	Trust Agreement between PNC Investment Corp., as settlor, and PNC Bank, National Association, as trustee	Incorporated herein by reference to Exhibit 10.34 of the Corporation's 3rd Quarter 2005 Form 10-Q*
10.17	Certificate of Corporate Action for Grantor Trusts effective January 1, 2012	Incorporated herein by reference to Exhibit 10.37 of the Corporation's 2011 Form 10-K*
10.18	The Corporation's Employee Stock Purchase Plan, as amended and restated as of January 1, 2014	Incorporated herein by reference to Exhibit 10.16 of the Corporation's 2013 Form 10-K
10.19	2008 forms of employee stock option and restricted share unit agreements	Incorporated herein by reference to the employee stock option and restricted share units agreements portions of Exhibit 10.26 of the Corporation's 2007 Form 10-K*
10.20	Form of employee stock option agreement with varied vesting schedule or circumstances	Incorporated herein by reference to Exhibit 10.50 of the Corporation's Current Report on Form 8-K filed April 18, 2008*
10.21	Form of employee restricted stock agreement with varied vesting schedule or circumstances	Incorporated herein by reference to Exhibit 10.51 of the Corporation's Current Report on Form 8-K filed April 18, 2008*
10.22	Form of employee stock option agreement with performance vesting schedule	Incorporated herein by reference to Exhibit 10.54 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008*
10.23	2009 forms of employee stock option, restricted stock and restricted share unit agreements	Incorporated by reference to the employee stock option, restricted stock and restricted share unit agreements portions of Exhibit 10.61 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009*
10.24	2010 forms of employee stock option, restricted stock, and restricted share unit agreements	Incorporated herein by reference to Exhibit 10.48 of the Corporation's 2009 Form 10-K*
10.25	2011 forms of employee stock option, restricted stock, restricted share unit and performance unit agreements	Incorporated herein by reference to Exhibit 10.71 of the Corporation's 1st Quarter 2011 Form 10-Q*
10.26	2012 forms of employee stock option, restricted stock and restricted share unit agreements	Incorporated herein by reference to Exhibit 10.77 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012 (1st Quarter 2012 Form 10-Q)*
10.27	Forms of employee stock option, restricted stock and restricted share unit agreements with varied vesting, payment and other circumstances	Incorporated herein by reference to Exhibit 10.78 of the Corporation's 1st Quarter 2012 Form 10-Q*
10.28	Additional 2012 forms of employee performance unit, restricted stock and restricted share unit agreements	Incorporated herein by reference to Exhibit 10.79 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (2nd Quarter 2012 Form 10-Q)*
10.29	2013 forms of employee stock option and restricted share unit agreements	Incorporated herein by reference to Exhibit 10.64 of the Corporation's 2012 Form 10-K*
10.30	Additional 2013 forms of employee stock option, performance unit, restricted stock and restricted share unit agreements	Incorporated herein by reference to Exhibit 10.82 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013*

10.31	Additional 2013 forms of employee restricted share unit agreements	Incorporated by reference to Exhibit 10.83 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013*
10.32	Additional 2013 and 2014 forms of employee restricted share unit and performance unit agreements	Incorporated by reference to Exhibit 10.36 of the Corporation's 2013 Form 10-K*
10.33	Additional 2014 Forms of Employee Performance Unit and Restricted Share Unit Agreements	Incorporated herein by reference to Exhibit 10.50 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014*
10.34	Additional 2014 Forms of Employee Restricted Share Unit Agreements	Incorporated herein by reference to Exhibit 10.51 of the Corporation's 3rd Quarter 2014 10-Q*
10.35	2015 Forms of Performance Restricted Share Unit Award Agreements	Incorporated herein by reference to Exhibit 10.50 of the Corporation's 2nd Quarter 2015 Form 10-Q*
10.36	2015 Forms of Incentive Performance Unit Award Agreements	Incorporated herein by reference to Exhibit 10.51 of the Corporation's 2nd Quarter 2015 Form 10-Q*
10.37	2015 Forms of Restricted Share Unit Award Agreements	Incorporated herein by reference to Exhibit 10.52 of the Corporation's 2nd Quarter 2015 Form 10-Q*
10.38	2016 Form of Performance Restricted Share Units Award Agreement	Incorporated herein by reference to Exhibit 10.52 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 (3rd Quarter 2016 Form 10-Q)*
10.39	2016 Form of Incentive Performance Units Award Agreement	Incorporated herein by reference to Exhibit 10.53 of the Corporation's 3rd Quarter 2016 Form 10-Q*
10.40	2016 Form of Senior Leader Performance Restricted Share Units Award Agreement	Incorporated herein by reference to Exhibit 10.54 of the Corporation's 3rd Quarter 2016 Form 10-Q*
10.41	2016 Form of ALM Incentive Performance Units Award Agreement	Incorporated herein by reference to Exhibit 10.55 of the Corporation's 3rd Quarter 2016 Form 10-Q*
10.42	Form of Time-Sharing Agreement between the Corporation and certain executives	Incorporated by reference to Exhibit 10.49 of the Corporation's Current Report on Form 8-K filed April 4, 2014*
10.43	Form of change of control employment agreements	Incorporated herein by reference to Exhibit 10.51 of the Corporation's Current Report on Form 8-K filed August 16, 2016*
10.44.1	The National City Corporation 2004 Deferred Compensation Plan, as amended and restated effective January 1, 2005	Incorporated herein by reference to Exhibit 10.35 of National City Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006*
10.44.2	Amendment to The National City Corporation 2004 Deferred Compensation Plan, as amended and restated effective January 1, 2005	Incorporated herein by reference to Exhibit 10.56 of the Corporation's 2010 Form 10-K*
10.45.1	Share Surrender Agreement, dated October 10, 2002, among Old BlackRock, PNC Asset Management, Inc., and the Corporation	Incorporated herein by reference to Exhibit 10.22 of the Quarterly Report on Form 10-Q of BlackRock Holdco 2, Inc. (Commission File No. 001-15305) (referred to herein as Old BlackRock) for the quarter ended September 30, 2002 (Old BlackRock 3rd Quarter 2002 Form 10-Q)
10.45.2	First Amendment, dated as of February 15, 2006, to the Share Surrender Agreement among Old BlackRock, PNC Bancorp, Inc. and the Corporation	Incorporated herein by reference to Exhibit 10.3 of the Current Report on Form 8-K of Old BlackRock (Commission File No. 001-15305) filed February 22, 2006 (Old BlackRock February 22, 2006 Form 8-K)
10.45.3	Second Amendment to Share Surrender Agreement made and entered into as of June 11, 2007 by and between the Corporation, BlackRock, Inc., and PNC Bancorp, Inc.	Incorporated herein by reference to Exhibit 10.50 of the Corporation's Current Report on Form 8-K filed June 14, 2007
10.45.4	Third Amendment to Share Surrender Agreement, dated as of February 27, 2009, between the Corporation and BlackRock, Inc.	Incorporated herein by reference to Exhibit 10.3 of BlackRock, Inc.'s Current Report on Form 8-K filed February 27, 2009

10.45.5	Fourth Amendment to Share Surrender Agreement, dated as of August 7, 2012, among BlackRock, Inc., the Corporation and PNC Bancorp, Inc.	Incorporated herein by reference to Exhibit 10.1 of BlackRock, Inc.'s Form 10-Q for the quarter ended June 30, 2012
10.46.1	Amended and Restated Implementation and Stockholder Agreement, dated as of February 27, 2009, between the Corporation and BlackRock, Inc.	Incorporated herein by reference to Exhibit 10.2 of BlackRock, Inc.'s Current Report on Form 8-K filed February 27, 2009
10.46.2	Amendment No. 1, dated as of June 11, 2009, to the Amended and Restated Implementation and Stockholder Agreement between the Corporation and BlackRock, Inc.	Incorporated herein by reference to Exhibit 10.2 of BlackRock, Inc.'s Current Report on Form 8-K filed June 17, 2009
10.47	Exchange Agreement dated as of May 21, 2012 by and among PNC Bancorp, Inc., the Corporation and BlackRock, Inc.	Incorporated herein by reference to Exhibit 10.3 of BlackRock, Inc.'s Current Report on Form 8-K filed May 23, 2012
10.48.1	Distribution Agreement, dated January 16, 2014, between PNC Bank, National Association and the Dealers named therein, relating to the $25 billion Global Bank Note Program for the Issue of Senior and Subordinated Bank Notes	Incorporated by reference to Exhibit 10.47 of the Corporation's Annual Report on Form 10-K for the year ended December 31, 2014
10.48.2	Amendment No. 1 to Distribution Agreement, dated May 22, 2015, between PNC Bank, National Association and the Dealers named therein, relating to the $30 billion Global Bank Note Program for the Issue of Senior and Subordinated Bank Notes	Incorporated herein by reference to Exhibit 10.47.2 of the Corporation's 2nd Quarter 2015 Form 10-Q
10.48.3	Amendment No. 2 to Distribution Agreement, dated May 27, 2016, between PNC Bank, National Association and the Dealers named therein, relating to the $40 billion Global Bank Note Program for the Issue of Senior and Subordinated Bank Notes	Incorporated herein by reference to Exhibit 10.48.3 of the Corporation's 2nd Quarter 2016 Form 10-Q
10.49	Stock Purchase Agreement, dated as of February 1, 2010, by and between the Corporation and The Bank of New York Mellon Corporation	Incorporated herein by reference to Exhibit 2.1 of the Corporation's Current Report on Form 8-K filed February 3, 2010
12.1	Computation of Ratio of Earnings to Fixed Charges	Filed herewith
12.2	Computation of Ratio of Earnings to Fixed Charges and Preferred Dividends	Filed herewith
21	Schedule of Certain Subsidiaries of the Corporation	Filed herewith
23.1	Consent of PricewaterhouseCoopers LLP, the Corporation's Independent Registered Public Accounting Firm	Filed herewith
23.2	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm of BlackRock, Inc.	Filed herewith
24	Powers of Attorney	Filed herewith
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350	Filed herewith
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350	Filed herewith
99.1	Audited consolidated financial statements of BlackRock, Inc. as of December 31, 2017 and 2016 and for each of the three years ended December 31, 2017	Filed herewith

99.2	Consent order between The PNC Financial Services Group, Inc. and the Board of Governors of the Federal Reserve System	Incorporated herein by reference to Exhibit 99.1 of the Corporation's Current Report on Form 8-K filed April 14, 2011
101	Interactive Data File (XBRL)	Filed herewith

\+ Incorporated document references to filings by the Corporation are to SEC File No. 001-09718, to filings by National City Corporation are to SEC File No. 001-10074, to filings by BlackRock through its second quarter 2006 Form 10-Q (referred to herein as Old BlackRock) are to BlackRock Holdco 2, Inc. SEC File No. 001-15305, and to filings by BlackRock, Inc. are to SEC File No. 001-33099.

* Denotes management contract or compensatory plan.

You can obtain copies of these Exhibits electronically at the SEC's website at www.sec.gov or by mail from the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549 at prescribed rates. The Exhibits are also available as part of this Form 10-K on PNC's corporate website at www.pnc.com/secfilings. Shareholders and bondholders may also obtain copies of Exhibits without charge by contacting Shareholder Relations at (800) 843-2206 or via e-mail at investor.relations@pnc.com. The Interactive Data File (XBRL) exhibit is only available electronically.

ITEM 16 – FORM 10-K SUMMARY

None.

SIGNATURES

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

The PNC Financial Services Group, Inc.
(Registrant)

By: /s/ Robert Q. Reilly
Robert Q. Reilly
Executive Vice President and Chief Financial Officer
February 28, 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 PNC Financial Services Group, Inc. and in the capacities indicated on February 28, 2018.

Signature	Capacities
/s/ William S. Demchak William S. Demchak	Chairman, President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ Robert Q. Reilly Robert Q. Reilly	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Gregory H. Kozich Gregory H. Kozich	Senior Vice President and Controller (Principal Accounting Officer)
* Charles E. Bunch; Debra A. Cafaro; Marjorie Rodgers Cheshire; Andrew T. Feldstein; Daniel R. Hesse; Richard B. Kelson; Linda R. Medler, Jane G. Pepper; Martin Pfinsgraff; Donald J. Shepard; Lorene K. Steffes; Dennis F. Strigl; Michael J. Ward; Gregory D. Wasson	Directors

*By: /s/ Christi Davis
Christi Davis, Attorney-in-Fact,
pursuant to Powers of Attorney filed herewith

EXHIBIT 10.15

PNC Investment Corp. Benefit Funding Trust I AMENDED AND RESTATED RABBI TRUST AGREEMENT

This Amended and Restated Trust Agreement (the "**Trust Agreement**" or "**Agreement**") made this **15th** day of **August, 2017**(the "**Effective Date**"), by and between **The PNC Financial Services Group, Inc.** (hereinafter referred to as the "**Company**"), a Pennsylvania corporation, and **Matrix Trust Company** ("**Matrix Trust**"), as trustee (hereinafter referred to as the "**Trustee**");

WHEREAS, Company has adopted and maintains the nonqualified deferred compensation plan(s) (hereinafter referred to as the "**Plan**") as listed in Appendix A;

WHEREAS, Company has incurred or expects to incur liability under the terms of such Plan with respect to the individuals participating in such Plan;

WHEREAS, the Company's wholly-owned subsidiary, PNC Investment Company, LLC (formerly known as PNC Investment Corp.), has previously established and maintained a trust (hereinafter call the "**Trust**") and together with the Company has contributed to the Trust assets that are held in accordance with a trust agreement between The Bryan Mawr Trust Company (formerly known as Hershey Trust Company) (the "**Former Trustee**") and PNC Investment Corp., as amended and restated effective November 3, 2005 (the "**Former Trustee Agreement**"), to provide a source of funds to assist in the meeting of liabilities under the Plan;

WHEREAS, by resolution dated June 29, 2017, PNC Investment Company, LLC has transferred all of its rights, interests, liabilities, obligations and duties under the Trust to the Company;

WHEREAS, the Former Trustee Agreement does not prohibit the removal of the Former Trustee and the appointment of a successor trustee;

WHEREAS, the Former Trustee Agreement permits the amendment of the Trust in accordance with the terms thereof;

WHEREAS, the Company has removed the Former Trustee as the trustee of the Trust and appointed Matrix Trust Company as the successor trustee and Matrix Trust Company accepts such appointment, all as of the Effective Date;

WHEREAS, the Company desires to continue the Trust, as amended and restated herein, under the terms of which assets transferred from the Former Trustee and new contributions shall be held therein, subject to the claims of Company's creditors in the event of Company's Insolvency, as herein defined, until paid to Plan participants and their beneficiaries in such manner and at such times as specified in the Plan;

WHEREAS, it is the intention of the parties that this Trust shall continue to constitute an unfunded arrangement and shall not affect the status of the Plan as an unfunded plan maintained for the purpose of providing deferred compensation for a select group of management or highly compensated employees for purposes of Title I of the Employee Retirement Income Security Act of 1974, as amended;

WHEREAS, it is the intention of the Company to make further contributions to the Trust, as required, to provide itself with a source of funds to assist it in the meeting of its liabilities under the Plan; and

WHEREAS, the Company hereby represents and warrants that (i) the amendment and restatement reflected herein does not conflict with the terms of the Plan, (ii) no Change in Control, as defined in the Former Trustee Agreement, has occurred since the effective date of the Former Trustee Agreement, and (iii) no Change in Control Period, as defined in the Former Trustee Agreement, exists as of the Effective Date;

NOW, THEREFORE, the parties do hereby amend and restate the Former Trustee Agreement and agree that the Trust shall be comprised, held and disposed of as follows:

Section 1. Establishment of Trust.

(a) The Company has caused the Former Trustee to transfer all assets held in the Trust to the Trustee, which shall become the principal of the Trust to be held, administered and disposed of by Trustee as provided in this Trust Agreement.

(b) The Trust hereby established shall be revocable by Company; it shall become irrevocable upon a Change in Control, as defined herein.

(c) The Trust is intended to continue to be a grantor trust, of which Company is the grantor, within the meaning of subpart E, part I subchapter J, chapter 1, subtitle A of the Internal Revenue Code of 1986, as amended, and shall be construed accordingly.

(d) The principal of the Trust, and any earnings thereon, shall be held separate and apart from other funds of Company and shall be used exclusively for the uses and purposes of Plan participants and general creditors as herein set forth. Plan participants and their beneficiaries shall have no preferred claim on, or any beneficial ownership interest in, any assets of the Trust. Any rights created under the Plan and this Trust Agreement shall be mere unsecured contractual rights of Plan participants and their beneficiaries against Company. Any assets held by the Trust will be subject to the claims of Company's general creditors under federal and state law in the event of Insolvency, as defined in Section 3(a) herein.

(e) Upon a Change in Control, Company shall make an irrevocable contribution to the Trust in an amount that is sufficient to pay each Plan participant or beneficiary the benefits to which Plan participants or their beneficiaries would be entitled pursuant to the terms of the Plan as of the date on which the Change in Control occurred.

(f) The administration of the Trust shall be subject to all of the terms and conditions of the Operational Guidelines attached hereto as Appendix B, which are hereby incorporated by reference. Notwithstanding anything to the contrary set forth in this Agreement, the Trustee may amend the Operational Guidelines at any time upon written notice to the Company.

Section 2.
Payments to Plan Participants and Their Beneficiaries.

(a) Company may (i) make all payments directly to the Plan participants and their beneficiaries in accordance with the terms of the Plan and (ii) make provisions for the reporting and withholding of any federal, state or local taxes that may be required to be withheld with respect to the payment of benefits pursuant to the terms of the Plan and shall pay amounts withheld to the appropriate taxing authorities. For the avoidance of doubt, the Trustee shall have no duties with respect to the provisions of this Section 2, subsection (a) to the extent Company performs such duties. The Company may request reimbursement for payments made pursuant to this Section 2, subsection (a) as set forth in Section 4 below.

(b) The Company shall deliver to the Trustee a schedule (the "**Payment Schedule**") that indicates the amounts payable with respect to each Plan participant (and his or her beneficiaries), that provides a formula or other instructions acceptable to the Trustee for determining the amounts so payable, the form in which such amount is to be paid (as provided for or available under the Plan), and the time of commencement for payment of such amounts. Should the Company elect not to proceed as set forth in Section 2, subsection (a), and except as otherwise provided herein, the Trustee shall make payments to the Plan participants and their beneficiaries in accordance with such Payment Schedule. With respect to payments made directly by the Trustee, the Trustee shall make provisions for the reporting and withholding of any federal or state taxes that may be required to be withheld with respect to the payment of benefits pursuant to the terms of the Plan and shall pay amounts withheld to the appropriate taxing authorities or determine that such amounts have been reported, withheld and paid by the Company. In order to facilitate payment of taxes with respect to Plan payments made directly by the Trustee, the Trustee may transfer cash to any service provider, including a payroll agent, retained and designated by the Company to remit and report required taxes thereon (including federal, state and local taxes). Such paying agent services may be provided by Company at no cost to the Trust, and in the event the Company provides such services, the Trustee shall transfer cash to the Company not as a reversion of Trust assets to the

Company but solely for the Company to remit and report taxes withheld. Upon transferring such amounts to such paying agent (including the Company), the Trustee shall have no further responsibility with respect to remitting or reporting such tax payments. The Company shall, or shall cause any paying agent, to timely remit and report such withholding taxes and to provide the Trustee with such evidence of the remittance and reporting of taxes as the Trustee shall require. Until the Company notifies the Trustee otherwise in writing, it is hereby acknowledged that the Company will be the paying agent for the remitting and reporting of tax payments with respect to Plan payments made directly by the Trustee.

(c) The entitlement of a Plan participant or his or her beneficiaries to benefits under the Plan shall be determined by Company or such party as it shall designate under the Plan, and any claim for such benefits shall be considered and reviewed under the procedures set out in the Plan.

(d) As set forth in Section 2, subsection (a) above, Company may make payment of benefits directly to Plan participants or their beneficiaries as they become due under the terms of the Plan. Company shall notify Trustee of its decision to make payment of benefits directly prior to the time amounts are payable to participants or their beneficiaries. In addition, if the principal of the Trust, and any earning thereon, are not sufficient to make payments of benefits in accordance with the terms of the Plan as indicated to the Trustee on the Payment Schedule, Company shall make the balance of each such payment as it falls due.

Section 3.
Trustee Responsibility Regarding Payments to Trust Beneficiary When Company is Insolvent.

(a) Trustee shall cease payment of benefits to Plan participants and their beneficiaries if the Company is Insolvent. Company shall be considered "**Insolvent**" for purposes of this Trust Agreement if (i) Company is unable to pay its debts as they become due, or (ii) Company is subject to a pending proceeding as a debtor under the United States Bankruptcy Code, or (iii) Company is determined to be insolvent by any federal and/or state regulatory agency.

(b) At all times during the continuance of this Trust, as provided in Section 1(d) hereof, the principal and income of the Trust shall be subject to claims of general creditors of Company under federal and state law as set forth below.

(1) The Board of Directors and the Chief Executive Officer (or, if there is no Chief Executive Officer, the highest ranking officer of the Company) shall have the duty to inform Trustee in writing of Company's Insolvency. If a person claiming to be a creditor of Company alleges in writing to Trustee that Company has become Insolvent, the Trustee shall request the Company to provide a certificate concerning the Company’s Insolvency from one of the parties identified in this subsection (b)(1), and pending receipt of such certificate, the Trustee shall discontinue payment of benefits to Plan participants or their beneficiaries.

(2) Unless Trustee has actual knowledge of Company's Insolvency, or has received notice from Company or a person claiming to be a creditor alleging that Company is Insolvent, Trustee shall have no duty to inquire whether Company is Insolvent. Trustee may in all events rely on a certificate concerning the Company’s solvency provided by one of the parties identified in subsection (b)(1) above.

(3) If at any time Trustee has received a certificate stating that that Company is Insolvent, Trustee shall discontinue payments to Plan participants or their beneficiaries and shall hold the assets of the Trust for the benefit of Company's general creditors. Nothing in this Trust Agreement shall in any way diminish any rights of Plan participants or their beneficiaries to pursue their rights as general creditors of Company with respect to benefits due under the Plan or otherwise.

(4) Trustee shall resume the payment of benefits to Plan participants or their beneficiaries in accordance with Section 2 of this Trust Agreement only after Trustee has received a certificate from one of the parties identified in subsection (b)(1) that Company is not Insolvent (or is no longer Insolvent).

(c) Provided that there are sufficient assets, if Trustee discontinues the payment of benefits from the Trust pursuant to Section 3(b) hereof and subsequently resumes such payments, the first payment following such discontinuance shall include the aggregate amount of all payments due to Plan participants or their beneficiaries under the terms of the Plan for the period of such discontinuance, less the aggregate amount of any payments made to Plan participants or their beneficiaries by Company in lieu of the payments provided for hereunder during any such period of discontinuance.

Section 4.
Payments to Company.

The Company shall periodically submit to the Trustee a written request for reimbursement of the payments made pursuant to Section 2, subsection (a), including a schedule that indicates the amounts paid with respect to each Plan participant (and his or her beneficiaries) and the date of payment. The Company agrees that it will submit all claims for reimbursement no later than the 30th day immediately following the calendar quarter during which it has advanced monies on behalf of the Trust as set forth in Section 2, subsection (a). The Trustee shall, as soon as reasonably possible after receipt of such reimbursement request, but in no event later than 30 calendar days following receipt, direct the requested payment to the Company, without interest. The amount of the reimbursement shall in all cases be limited to the assets of the Trust and shall not be secured by any assets of the Trust. In addition, Trustee shall also be authorized to transfer Trust assets to a paying agent or similar service provider (which may include the Company) to facilitate the payment and reporting of withholding taxes in accordance with the provisions set forth in Section 2, subsection (b). Except as provided in Section 3 or this Section 4 or otherwise explicitly provided by this Trust Agreement, after the Trust has become irrevocable, Company shall have no right or power to direct Trustee to return to Company or to divert to others any of the Trust assets before all payment(s) of benefits have been made to Plan participants and their beneficiaries pursuant to the terms of the Plan.

Section 5.
Investment Authority.

(a) The Trust may hold assets of any kind, including shares of any registered investment company, whether or not the Trustee or any of its affiliates is an advisor to, or other service provider to, such investment company and receives compensation from such investment company for the services provided (which compensation shall be in addition to the compensation of the Trustee under this Trust.) The Company acknowledges that shares in any such investment company are not obligations of the Trustee or any other bank, are not deposits and are not insured by the Federal Deposit Insurance Corporation (the "**FDIC**"), the Federal Reserve or any other governmental agency. Notwithstanding the foregoing, in no event may Trustee invest in securities (including stock or rights to acquire stock) or obligations issued by Company, other than a de minimis amount held in common investment vehicles in which Trustee invests. All rights associated with assets of the Trust shall be exercised by Trustee or the person designated by Trustee, and shall in no event be exercisable by or rest with Plan participants, except that voting and dividend rights with respect to Trust assets will be exercised by Company.

(b) Company shall have the right, at any time and from time to time, in its sole discretion, to direct Trustee as to the investment and reinvestment of all or specified portions of Trust assets and the income therefrom and to appoint an investment manager or investment managers to direct Trustee as to the investment and reinvestment of all or specified portions thereof. As of the execution of this Trust Agreement, and until Trustee is notified otherwise in writing, Company shall be solely responsible for directing the investment and reinvestment of all Trust assets.

(c) Trustee shall have no responsibility for the selection of investment options, if applicable, under the Trust and shall not render investment advice to any person in connection with the selection of such options. Company shall direct Trustee as to the investment options in which the Trust shall be invested during the term of the Trust.

(d) Trustee may hold that portion of the Trust Fund as is appropriate, for the ordinary administration and for the disbursement of funds in cash, without liability for interest notwithstanding Trustee's receipt of "float" from such uninvested cash, by depositing the same in any bank (including deposits which bear a reasonable rate of interest in a bank or similar financial institution supervised by the United States or a State, even where a bank or financial institution is the Trustee, or is otherwise a fiduciary of the Plan) subject to the rules and regulations governing such deposits, and without regard to the amount of such deposit.

(e) The parties hereto acknowledge that the Trust fund may be invested in, among other securities, shares of various mutual or other funds, some or all of which may from time to time enter into arrangements to pay fund, shareholder servicing, sub-transfer agent, 12b-1, finders fees, or similar fees to eligible recipients (all such fees referred to herein as "**Fund Service Fees**"). The Company hereby represents that it has reviewed with its legal counsel the collection of Fund Service Fees paid by the funds in which the Trust fund is invested, and has determined that it is permissible to collect the Fund Service Fees and apply them to reduce certain expenses of the Plan or Trust, such as recordkeeping expenses. The Company hereby directs the Trustee, and the Trustee hereby agrees, to provide services in connection with negotiating and/or collecting the Fund Service Fees payable by the funds in which the Trust fund is invested. It is further agreed that: (i) as compensation for its services, the Trustee shall be entitled to a fee as agreed upon between the parties; (ii) in no event shall the Trustee have any obligation to take any action to enforce collection in the event a fund fails to remit Fund Service Fees ; (iii) to the extent a registered broker-dealer is required by a mutual fund in order for Fund Service Fees to be paid, the Trustee may use its affiliated broker in the collection process and compensate such affiliated broker as the Trustee, in its sole discretion, deems appropriate; (iv) the Trustee (in its corporate capacity) shall proceed diligently to enter into necessary arrangements and agreements with the funds to collect the available Fund Service Fees, provided such arrangements and agreements are reasonably satisfactory to the Trustee, but the Trustee does not represent or guarantee that arrangements and agreements can or will be made with respect to all funds held in the Trust; (v) to the extent the arrangements and agreements with the funds require that the Trustee rely on information or services provided by the Company and/or the Plan recordkeeper, the Trustee shall be fully protected in relying on the accuracy and completeness of such information and the performance of such services in a manner entitling the Trustee to collect the available Fund Service Fees on behalf of the Trust; and (vi) the Company hereby confirms that the Trustee shall be indemnified by it as provided in this Agreement in connection with providing the services described in this Agreement. Until directed otherwise in writing by the Company, the Trustee is directed to hold the Fund Service Fees collected by the Trustee uninvested and remit them from time to time: (a) to the Plan recordkeeper to be applied against recordkeeping and other Plan expenses, provided that the Trustee shall not be responsible for the application of such funds by the recordkeeper; and/or (b) to the Trustee to be applied against fees and expenses due and payable under this Agreement. The Company agrees to notify the Trustee of any changes to the fund investment options for the Plan so that the Trustee may undertake to negotiate and/or collect the Fund Service Fees associated with the new fund investment options.

Section 6.
Disposition of Income.

During the term of this Trust, all income received by the Trust, net of expenses and taxes, shall be accumulated and reinvested.

Section 7.
Accounting by Trustee.

Trustee shall keep accurate and detailed records of all investments, receipts, disbursements, and all other transactions required to be made, including such specific records as shall be agreed upon in writing between Company and Trustee. Within 60 days following the close of each calendar year and within 60 days after the removal or resignation of Trustee, Trustee shall deliver to Company a written account of its administration of the Trust during such year or during the period from the close of the last preceding year to the date of such removal or resignation, setting forth all investments, receipts, disbursements and other transactions effected by it, including a description of all securities and investments purchased and sold with the cost or net proceeds of such purchases or sales (accrued interest paid or receivable being shown separately), and showing all cash, securities and other property held in the Trust at the end of such year or as of the date of such removal or resignation, as the case may be. Such account statements shall be mailed to Company or, if the Company agrees, delivered via e-mail or other electronic means.

Section 8.
Responsibility of Trustee.

(a) Trustee shall act with care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in like capacity and familiar with such matters would use in the conduct of any enterprise of a like character and with like aims, provided, however, that Trustee shall incur no liability to any person for any action taken pursuant to a direction, request or approval given by Company or an investment manager which is contemplated by, and in conformity with, the terms of the Plan or this Trust and is given in writing by Company or such investment manager. In the event of a dispute between Company and a party, Trustee may apply to a court of competent jurisdiction to resolve the dispute.

(b) If Trustee undertakes or defends any litigation arising in connection with this Trust on behalf of the Trust, Company agrees to indemnify Trustee against Trustee's costs, expenses and liabilities (including, without limitation, attorneys' fees and expenses) relating thereto and to be primarily liable for such payments. If Company does not pay such costs, expenses and liabilities in a reasonably timely manner, Trustee may obtain payment from the Trust. Notwithstanding the foregoing, the Company's obligation to provide indemnification under this subsection (b) shall be contingent upon the party seeking indemnification (i) providing the Company with prompt written notice of any claim for which indemnification is sought (provided that the failure to provide prompt notice shall not relieve the Company's obligation to provide indemnification to the extent that the failure does not prejudice the Company), (ii) allowing the Company to control the defense or settlement of such claim, provided that the Trustee may (but is not required to) participate in the assertion or defense of any action or claim which may be asserted against or on behalf of the Trust and for which it seeks indemnity pursuant to the provisions of this Section, or it may (but is not required to) assume the assertion or defense of such claim or action, including the right to settle or compromise any claim without the consent of the Company, provided that in assuming the assertion or defense it shall be deemed to have waived its right to indemnification except in cases where Company has declined to assert or defend the claim or in cases where a potential conflict of interest exists with respect to Company's and/or Company's appointed counsel asserting or defending the claim on behalf of Trust, and (iii) reasonably cooperating with the Company, at the Company's expense, in connection with such defense or settlement. The Company shall not have the right, without the Trustee's written consent, to settle any claim if such settlement (i) contains a stipulation to or admission or acknowledgement of, any liability or wrongdoing (whether in contract, tort or otherwise) or the incurrence of any costs or expenses, on the part of the Trustee, or (ii) imposes any obligation upon the Trustee. In no event shall Trustee have any liability or responsibility to undertake, defend or continue any litigation unless payment of related fees and expenses is ensured to the reasonable satisfaction of Trustee.

(c) Trustee, at the expense of the Trust or the Company, may consult with legal counsel (who may also be counsel for Company generally) with respect to any of its duties or obligations hereunder.

(d) Trustee, at the expense of the Trust or the Company, may hire agents, accountants, actuaries, investment advisors, financial consultants or other professionals to assist it in performing any of its duties or obligations hereunder.

(e) Trustee shall have, without exclusion, all powers conferred on trustees by applicable law, unless expressly provided otherwise herein, provided, however, that if an insurance policy is held as an asset of the Trust, Trustee shall have no power to name a beneficiary of the policy other than the Trust, to assign the policy (as distinct from conversion of the policy to a different form) other than to a successor Trustee, or to loan to any person the proceeds of any borrowing against such policy.

(f) However, notwithstanding the provisions of Section 8(e) above, Trustee may loan to Company the proceeds of any borrowing against an insurance policy held as an asset of the Trust.

(g) Notwithstanding any powers granted to Trustee pursuant to this Trust Agreement or to applicable law, Trustee shall not have any power that could give this Trust the objective of carrying on a business and dividing the gains therefrom, within the meaning of section 301.7701-2 of the Procedure and Administrative Regulations promulgated pursuant to the Internal Revenue Code.

(h) Trustee shall have no responsibility or liability with respect to: (i) the truth or accuracy of any representation or warranty made in any application or related document provided to the insurer in connection with the issuance or renewal of any insurance policies or insurance contracts, including any representation that the person on whose life an application is being made is eligible to have a contract issued on his or her life; (ii) the selection or monitoring (ongoing or periodic) of any insurance policies or insurance contracts held in the Trust or the insurers issuing such policies or contracts; (iii) the payment of premiums with respect to such policies or contracts; or (iv) the exercise of any rights relating to any such policies or contracts except as directed in writing by Company.

(i) Upon the expiration of ninety (90) days from the date of Trustee's annual, quarterly or any other account, the Trustee shall be forever released and discharged from all liability and further accountability to Company or any other person with respect to the accuracy of such accounting and all acts and failures to act of Trustee reflected in such account, except to the extent that Company shall, within such 90-day period, file with Trustee specific written objections to the account or except to the extent the Trustee's annual, quarterly, or any other account was based on fraud or misrepresentation by the Trustee. Neither Company, any participant nor any other person shall be entitled to any additional or different accounting by Trustee and Trustee shall not be compelled to file in any court any additional or different accounting unless the Trustee's annual, quarterly, or any other account was based on fraud or misrepresentation by the Trustee. For purposes of regulations promulgated by the FDIC, Trustee's account statements shall be sufficient information concerning securities transactions effected for the Trust, provided that Company, upon written request, shall have the right to receive at no additional cost written confirmations of such securities transactions, which shall be mailed or otherwise furnished by the Trustee within the timeframe required by applicable regulations.

(j) Trustee shall have no duty or responsibility not expressly set forth in this Trust Agreement. By way of example, but without limiting the matters subject to the foregoing sentence, Trustee shall have no responsibility with respect to the administration or interpretation of the Plan, payment of Plan benefits other than from the assets of the Trust, the calculation of tax to be withheld, reported and/or paid to taxing authorities and (if applicable pursuant to the fee schedule) withholding, remitting, or reporting to taxing authorities of taxes other than from payments made with Trust assets to Plan participants and other than as directed by Company, or maintaining participant records with respect to the Plan.

Section 9.
Compensation and Expenses of Trustee.

(a) Company shall pay all administrative and Trustee's fees and expenses on a monthly basis. If not so paid, the Trustee shall be entitled to deduct such fees and expenses from the Trust.

(b) Company shall indemnify and hold Trustee harmless from and against any and all losses, costs, damages and expenses (including attorney's fees and disbursements) of any kind or nature (collectively, "**Losses**") imposed on or incurred by Trustee by reason of its service pursuant to this Trust Agreement, including any Losses arising out of any threatened, pending or completed claim, action, suit or proceeding, except to the extent such Losses are caused by the gross negligence, willful misconduct or bad faith of Trustee. To the extent not paid by Company, Trustee shall be entitled to deduct such amounts from the Trust. Notwithstanding the foregoing, the Company's obligation to provide indemnification under this subsection (b) shall be contingent upon the party seeking indemnification
(i) providing the Company with prompt written notice of any claim for which indemnification is sought (provided that the failure to provide prompt notice shall not relieve the Company's obligation to provide indemnification to the extent that the failure does not prejudice the Company), (ii) allowing the Company to control the defense or settlement of such claim with counsel reasonably acceptable to Trustee, provided that the Trustee may (but is not required to) participate in the assertion or defense of any action or claim for which it seeks indemnity pursuant to the provisions of this Section, or it may (but is not required to) assume the assertion or defense of such claim or action, including the right to settle or compromise any claim without the consent of the Company, provided that in assuming the assertion or defense it shall be deemed to have waived its right to indemnification except in cases where Company has declined to assert or defend the claim, Company's appointed counsel is not reasonably acceptable to Trustee or in cases where a potential conflict of interest exists with respect to Company's and/or Company's appointed counsel asserting or defending the claim on behalf of Trustee, and (iii) reasonably cooperating with the Company, at the Company's expense, in connection with such defense or settlement. The Company shall not have the right, without the Trustee's written consent, to settle any claim if such settlement (i) contains a stipulation to or admission or acknowledgement of, any liability or wrongdoing (whether in contract, tort or otherwise) or the incurrence of any costs or expenses, on the part of the Trustee, or (ii) imposes any obligation upon the Trustee.

(c) The provisions of this Section 9 shall survive termination of this Trust Agreement.

Section 10.
Resignation and Removal of Trustee.

(a) Trustee may resign at any time by written notice to Company, which shall be effective sixty (60) days after receipt of such notice unless Company and Trustee agree otherwise.

(b) Trustee may be removed by Company on sixty (60) days' notice or upon shorter notice accepted by Trustee.

(c) Upon a Change in Control, as defined herein, Trustee may not be removed, and a successor Trustee may not be appointed by Company without the written consent of at least 75% of the participants as of the date of removal or appointment, as applicable, who were participants as of the day preceding the Change in Control.

(d) Upon resignation or removal of Trustee and appointment of a successor Trustee, all assets shall subsequently be transferred to the successor Trustee. To the extent possible, the transfer shall be completed within 60 days after receipt of notice of resignation, removal or transfer, unless Company extends the time limit.

(e) If Trustee resigns or is removed, a successor shall be appointed, in accordance with Section 11 hereof, by the effective date of resignation or removal under paragraph(s) (a) or (b) of this section. If no such appointment has been made, Trustee may apply to a court of competent jurisdiction for appointment of a successor or for instructions. All expenses of Trustee in connection with the proceeding shall be allowed as administrative expenses of the Trust.

Section 11.
Appointment of Successor.

(a) If Trustee resigns or is removed in accordance with Section 10(a) or (b) hereof, Company may appoint any third party, such as a bank trust department or other party that may be granted corporate trustee powers under state law, as a successor to replace Trustee upon resignation or removal. The appointment shall be effective when accepted in writing by the new Trustee, who shall have all of the rights and powers of the former Trustee, including ownership rights in the Trust assets. The former Trustee shall execute any instrument necessary or reasonably requested by Company or the successor Trustee to evidence the transfer.

(b) The successor Trustee need not examine the records and acts of any prior Trustee and may retain or dispose of existing Trust assets, subject to Sections 7 and 8 hereof. The successor Trustee shall not be responsible for and Company shall indemnify and defend the successor Trustee from any claim or liability resulting from any action or inaction of any prior Trustee or from any other past event, or any condition existing at the time it becomes successor Trustee.

Section 12.
Amendment or Termination.

(a) This Trust Agreement may be amended by a written instrument executed by Trustee and Company. Notwithstanding the foregoing, no such amendment shall conflict with the terms of the Plan or shall make the Trust revocable after it has become irrevocable in accordance with Section 1(b) hereof.

(b) The Trust shall not terminate until the date on which Plan participants and their beneficiaries are no longer entitled to benefits pursuant to the terms of the Plan, unless sooner revoked in accordance with Section 1(b) hereof. Upon termination of the Trust any assets remaining in the Trust shall be returned to Company.

(c) Notwithstanding the provisions of subsection (b) above, upon written approval of participants or beneficiaries entitled to payment of benefits pursuant to the terms of the Plan, Company may terminate this Trust prior to the time all benefit payments under the Plan have been made. All assets in the Trust at termination shall be returned to Company.

Section 13. Miscellaneous.

(a) The Trustee shall not be responsible for any lost profits or any special, indirect or consequential damages in respect of any breach or wrongful conduct in any way related to this Agreement. The Trustee shall have no liability for any matters beyond its control such as market loss or diminution, impact of government regulations, third-party bankruptcies or otherwise.

(b) Any provision of this Trust Agreement prohibited by law shall be ineffective to the extent of any such prohibition, without invalidating the remaining provisions hereof.

(c) Benefits payable to Plan participants and their beneficiaries under this Trust Agreement may not be anticipated, assigned (either at law or in equity), alienated, pledged, encumbered or subjected to attachment, garnishment, levy, execution or other legal or equitable process.

(d) This Trust Agreement shall be governed by and construed in accordance with the laws of the State of Delaware. The parties hereto irrevocably consent to the exclusive jurisdiction and venue in the applicable federal and/or New York State courts located in the Borough of Manhattan, New York County, State of New York.

(e) Trustee represents that it qualifies for FDIC prorata worth pass-through insurance coverage in accordance with the standards set forth in applicable federal law and FDIC insurance regulations. If Trustee fails at any time in the future to so qualify for prorata worth pass-through insurance coverage, it will promptly notify Company.

(f) In no event will Trustee have any obligation to provide, and in no event will Trustee provide, any legal, tax, accounting, audit or other advice to Company with respect to the Plan or this Trust. Company acknowledges that it will rely exclusively on the advice of its accountants and/or attorneys with respect to all legal, tax, accounting, audit and other advice required or desired by Company with respect to the Plan or this Trust. Company acknowledges that Trustee has not made any representations of any kind, and will not make any representations of any kind, concerning the legal, tax, accounting, audit or other treatment of the Plan or this Trust.

(g) Company acknowledges that Trustee is not an advisor concerning or a promoter with respect to the Plan or the Trust, but merely is a service provider offering the Trust services expressly set forth in this Agreement. In particular, Company acknowledges that Trustee is not a joint venture or partner with Company's accountants, auditors, consultants or with any other party, with respect to the Plan or this Trust, and that Trustee and Company's accountants, auditors and consultants at all times remain independent parties dealing at arm's length, and independently, with each other and with Company.

(h) Company represents and warrants that the Plan and the administration thereof and the establishment of this Trust comply with applicable law and shall continue to be in compliance therewith.

(i) Trustee shall have no liability for any losses arising out of delays in performing the services which it renders under this Trust Agreement which result from events beyond its control, including without limitation, interruption of the business of Trustee due to acts of God, acts of governmental authority, acts of war, riots, civil commotions, insurrections, labor difficulties (including, but not limited to, strikes and other work slippages due to slow-downs), or any action of any courier or utility, mechanical or other malfunction, or electronic interruption.

(j) Any notice, demand, consent, election, offer, approval, request or other communication (collectively, a "**Notice**") required or permitted under this Agreement must be in writing and either delivered personally, by a nationally recognized overnight courier, or sent by certified or registered mail, postage prepaid, return receipt requested. A Notice must be addressed to a Party as follows:

Matrix Trust Company 717 17th Street, Suite 1300
Denver, CO 80202
Attn: Senior Vice President

With a copy to:

Broadridge Financial Solutions, Inc
2 Journal Square Plaza
Jersey City, NJ 07306
Attn: General Counsel

Matrix Trust Company
P.O. Box 52129 Phoenix, AZ 85072-2129
Attn: Vice President

To Company:

The PNC Financial Services Group, Inc.
Attention: Executive Services Department
One PNC Plaza
249 Fifth Avenue, 21st Floor Mailstop: P1-POPP-21-B Pittsburgh, PA 15222
Fax: 412-762-9152

(k) For purposes of this Trust, Change in Control shall mean:

(1) Any Person becomes the beneficial owner (within the meaning of Rule 13d-3 promulgated under the Securities Exchange Act of 1934) of 20% or more of either (x) the then-outstanding shares of common stock (the "**Outstanding PNC Common Stock**") or (y) the combined voting power of the then- outstanding voting securities of PNC entitled to vote generally in the election of directors (the "**Outstanding PNC Voting Securities**"). The following acquisitions will not constitute a Change in Control for purposes of this definition: (1) any acquisition directly from PNC, (2) any acquisition by PNC, (3) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by PNC or any company controlled by, controlling or under common control with PNC (an "**Affiliated Company**"), (4) any acquisition pursuant to an Excluded Combination (as defined below) or (5) an acquisition of beneficial ownership representing between 20% and 40%, inclusive, of the Outstanding PNC Voting Securities or Outstanding PNC Common Stock if the Incumbent Board (as defined below) as of immediately prior to any such acquisition approves such acquisition either prior to or immediately after its occurrence;

(2) Individuals who, as of the date hereof, constitute the Board (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board (excluding any Board seat that is vacant or otherwise unoccupied). For purposes of this definition, any individual becoming a director subsequent to the date hereof whose election, or nomination for election by the shareholders of PNC, was approved by a vote of at least two-thirds of the directors then comprising the Incumbent Board will be considered as though such individual was a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board;

(3) Consummation of a reorganization, merger, statutory share exchange or consolidation or similar transaction involving PNC or any of its subsidiaries, a sale or other disposition of all or substantially all of the assets of PNC, or the acquisition of assets or stock of another entity by PNC or any of its subsidiaries (each, a "**Business Combination**"). A transaction otherwise meeting the definition of Business Combination will not be treated as a Change in Control if following completion of the transaction all or substantially all of the beneficial owners of the Outstanding PNC Common Stock and the Outstanding PNC Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 60% of the then-outstanding shares of common stock (or, for a non-corporate entity, equivalent securities) and the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of directors (or, for a non-corporate entity, equivalent governing body), as the case may be, of the entity resulting from such Business Combination (including, without limitation, an entity that, as a result of such transaction, owns PNC or all or substantially all of PNC's assets either directly or through one or more subsidiaries) in substantially the

same proportions as their ownership immediately prior to such Business Combination of the Outstanding PNC Common Stock and the Outstanding PNC Voting Securities, as the case may be (such a Business Combination, an "**Excluded Combination**"); or

(4) Approval by the shareholders of PNC of a complete liquidation or dissolution of PNC.

(5) For purposes of this subsection (k), the following definitions shall apply:

i. "**Person**" means any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934.

ii. "**PNC**" means The PNC Financial Services Group, Inc. and its Subsidiaries.

iii. "**Subsidiary**" means an entity which is a member of a "controlled group" or under "common control" with PNC as determined under Section 414(b) or (c) of the Internal Revenue Code except that an entity shall be deemed to be in a controlled group or under common control with PNC for this purpose if PNC either directly or indirectly owns at least 50% (or 20% with legitimate business criteria) of the total combined voting power of all classes of stock (or similar interests) of such entity or would otherwise satisfy the definition of service recipient under Section 409A of the Internal Revenue Code.

(l) The Board of Directors of Company as constituted immediately prior to the consummation of a Change in Control and the Chief Executive Officer of Company shall have the duty to inform Trustee in writing of the occurrence of a Change in Control. Trustee may rely exclusively on this writing and shall have no duty to inquire whether a Change in Control has taken place or to make any determination as to whether a Change in Control has occurred.

Section 14. Confidentiality.

(a) Definitions. In connection with this Agreement, including without limitation the evaluation of new services contemplated by the parties to be provided by Trustee under this Agreement, information will be exchanged between Trustee and Plan. Trustee shall provide information that may include, without limitation, confidential information relating to the Trustee's products, trade secrets, strategic information, information about systems and procedures, confidential reports, Plan information, vendor and other third party information, financial information including cost and pricing, sales strategies, computer software and tapes, programs, source and object codes, and other information that is provided under circumstances reasonably indicating it is confidential (collectively, the "**Trustee Information**"), and Plan shall provide information required for Plan to use the services received or to be received, including Plan information, which may include Personal Information (defined below), to be processed by the services, and other information that is provided under circumstances reasonably indicating it is confidential ("**Plan Information**") (the Trustee Information and the Plan Information collectively referred to herein as the "**Information**"). Personal Information that is exchanged shall also be deemed Information hereunder. "**Personal Information**" means personal information about an identifiable individual including, without limitation, name, address, contact information, age, gender, income, marital status, finances, health, employment, social security number and trading activity or history. Personal Information shall not include the name, title or business address or business telephone number of an employee of an organization in relation to such individual's capacity as an employee of an organization. The Information of each party shall remain the exclusive property of such party.

(b) Obligations. The receiver of Information (the "**Receiver**") shall keep any Information provided by the other party (the "**Provider**") strictly confidential and shall not, without the Provider's prior written consent, disclose such Information in any manner whatsoever, in whole or in part, and shall not duplicate, copy or reproduce such Information, including, without limitation, by means of photocopying or transcribing of voice recording, except in accordance with the terms of this Agreement. The Receiver shall only use the Information as reasonably required to carry out the purposes of this Agreement.

(c) Disclosure Generally. Trustee and Plan agree that the Information shall be disclosed by the Receiver only to:
(i) the employees, agents and consultants of the Plan and the Designated Representative in connection with

Receiver's performance or use of the services, as applicable, and (ii) auditors, counsel, and other representatives of the Plan and Designated Representative for the purpose of providing assistance to the Receiver in the ordinary course of Receiver's performance or use of the services, as applicable. Each party will take reasonable steps to prevent a breach of its obligations by any employee or third party.

(d) Compelled Disclosure. If the Receiver or anyone to whom the Receiver transmits the Information pursuant to this Agreement becomes legally compelled to disclose any of the Information, then the Receiver will provide the Provider with prompt notice before such Information is disclosed (or, in the case of a disclosure by someone to whom the Receiver transmitted the Information, as soon as the Receiver becomes aware of the compelled disclosure), if not legally prohibited from doing so, so that the Provider may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement. If such protective order or other remedy is not obtained, then the Receiver will furnish only that portion of the Information which the Receiver is advised by reasonable written opinion of counsel is legally required and will exercise its reasonable efforts to assist the Provider in obtaining a protective order or other reliable assurance that confidential treatment will be accorded to the Information that is disclosed.

(e) Exceptions. Except with respect to Personal Information, nothing contained herein shall in any way restrict or impair either party's right to use, disclose or otherwise deal with:

(1) Information which at the time of its disclosure is publicly available, by publication or otherwise, or which the Provider publicly discloses either prior to or subsequent to its disclosure to the Receiver;

(2) Information which the Receiver can show was in the possession of the Receiver, or its parent, subsidiary or affiliated company, at the time of disclosure and which was not acquired, directly or indirectly, under any obligation of confidentiality to the Provider; or

(3) Information which is independently acquired or developed by the Receiver without violation of its obligations hereunder.

In addition, each employee of the Receiver shall be free to use for any purpose, upon completion of the services rendered under this Agreement, any general knowledge, skill or expertise that (i) is acquired by such employee in performance of those services, (ii) remains part of the general knowledge of such employee after access to the tangible embodiment of the Provider's Information, (iii) does not contain or include any such Information, and (iv) is not otherwise specific to the Provider.

(f) Return or Destroy. Upon the termination of this Agreement for any reason, the parties shall return to each other, or destroy, any and all copies of Information of the other that are in their possession relating to the terminated Agreement, except for any copies reasonably required to maintain such party's customary archives or computer back-up procedures, and as otherwise required by applicable law, rule or regulation. Notwithstanding the foregoing, Trustee shall have the right to keep one copy of such Information as may be reasonably required to evidence the fact that it has provided the services to Plan. In the event that Plan requires Trustee to return any Plan Information, Plan shall pay Trustee (at the rates set forth in the applicable Schedule, or, if no such rates are set forth, at Trustee's then current charges) for Trustee's actual time spent and incidental expenses actually incurred in connection with such return.

Section 15. Effective Date.

The effective date of this Amended and Restated Trust Agreement shall be as set forth above.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Company and Trustee have executed this Agreement, as of the date first written above.

Agreed To By:

TRUSTEE:
MATRIX TRUST COMPANY

BY: /s/ Stefanie Armijo _

NAME: Stefanie Armijo _

TITLE: Vice President _

COMPANY:
The PNC Financial Services Group, Inc.

BY: /s/ Peggy Chevako

NAME: Peggy Chevako

TITLE: Senior Vice President, Director of Benefits Planning and Administration

APPENDIX A
List of Plan(s)

The PNC Financial Services Group, Inc. Supplemental Incentive Savings Plan The PNC Financial Services Group, Inc. Supplemental Executive Retirement Plan The PNC Financial Services Group, Inc. ERISA Excess Pension Plan
The PNC Financial Services Group, Inc. Key Executive Equity Plan
The PNC Financial Services Group, Inc. and Affiliates Deferred Compensation Plan The PNC Financial Services Group, Inc. Director's Deferred Compensation Plan
The PNC Financial Services Group, Inc. and Affiliates Deferred Compensation and Incentive Plan

All Change in Control Severance Agreements entered into between The PNC Financial Services Group, Inc. and individual executives of The PNC Financial Services Group, Inc.

This Appendix may be updated from time to time by written notice from the Company to the Trustee, other than after a Change in Control as defined in this Agreement.

APPENDIX B
Operational Guidelines

Capitalized terms used but not otherwise defined have the meanings given to such terms in the Agreement.

INSTRUCTIONS

The Trustee must receive instructions from an Instructing Party (as defined below under “Liquidity”) for each purchase, sale acquisition and disposition. The Trustee reserves the right not to effect any transaction unless given sufficient time and information to review and process the transaction. All purchases, sales, acquisitions and dispositions of assets must be made in accordance with terms of the Agreement, the Plan and Applicable Law.

LIQUIDITY

Sufficient liquidity must be maintained in accounts to meet foreseeable obligations of the Trust. The Trustee specifically reserves the right (a) not to follow any instruction that it reasonably believes would result in insufficient liquidity (b) not to make any disbursement unless the Investment Manager, Plan Administrator or other Authorized Person (the “**Instructing Party**”) has provided instruction as to the assets to be converted to cash for the purposes of making such payment, and (c) to sell securities from the Trust to recover any funds advanced for any trades not settled immediately upon placement.

TRUST ASSETS

Acceptable Assets

Assets are considered to be acceptable assets depending upon the Trustee's ability to support and administer the asset, the Trustee's proposed responsibilities with respect to such assets, the type of account, the availability of the asset to be acquired through the Trustee or an affiliate (approved for this purpose by the Trustee) and other factors. The Instructing Party should consult with the Trustee prior to the acquisition of any asset to determine acceptability of such asset. The following types of assets are generally acceptable:

(1) Cash.
(2) Publicly traded stock listed on a U.S. stock exchange or regularly quoted over-the-counter.
(3) Publicly traded bonds listed on a U.S. bond exchange or regularly quoted over-the-counter.
(4) Mutual funds that are NSCC and DCC&S eligible.
(5) Registered limited partnership interests, REITs and similar investments listed on a U.S. stock exchange or regularly quoted over-the-counter.
(6) Commercial paper, bankers’ acceptances eligible for rediscounting at the Federal Reserve, repurchase and reverse repurchase agreements and other “money market” instruments for which trading and custodial facilities are readily available.
(7) U.S. Government and U.S. Government Agency issues.
(8) Municipal securities whose bid and ask values are readily available.
(9) Federally insured savings accounts, certificates of deposit and bank investment contracts. The Instructing Party is responsible for determining federal insurance coverage and limits and for diversifying account assets in accordance with those limits.
(10) American Depository Receipts, Eurobonds, and similar instruments listed on a U.S. exchange or regularly quoted domestically over-the-counter for which trading and custodial facilities are readily available.
(11) Life insurance, annuities, and guaranteed investment contracts issued by insurance companies licensed to do business in one or more states in the U.S. The Instructing Party is responsible for determining the safety of such investments and the economic viability of the underwriter and for diversifying account assets accordingly.

In certain circumstances a particular asset which otherwise may be considered an acceptable asset may be determined by the Trustee to be unacceptable or conditionally acceptable.

Unacceptable Assets

Trustee generally cannot acquire or hold the following assets:

(1) Tangible personal property (e.g., precious metals, gems, works of art, coins, furniture and other household items, motor vehicles, etc.).
(2) Foreign currency and bank accounts.
(3) Short sales.
(4) Commodity futures and forward contracts.
(5) Oil, gas and mineral interests.
(6) Intangible personal property (e.g., patents and rights).
(7) Unsecured loans.
(8) Interests in real property.
(9) Loans secured by first deeds of trust.
(10) Other secured loans.

Conditionally Acceptable Assets

The Trustee may, but shall not be obligated, to acquire or continue to hold any of the assets listed below:

(1) General partnerships.
(2) Unregistered limited partnerships.
(3) Other unregistered securities, closely held stock and other securities for which there is no readily available market, except for qualifying Company securities.
(4) The securities of the broker/dealer's corporate entity or its affiliates and subsidiaries. These securities may be subject to legal and regulatory prohibitions or restrictions. In any event, no Trust may acquire and hold securities of the broker/dealer's corporate entity unless specifically authorized by the underlying Trust agreement.
(5) Foreign securities for which trading and custodial facilities are readily available.
(6) Options.
(7) Securities of the Company.
(8) Any other asset not listed under "Acceptable Assets" or "Unacceptable Assets" above.

The acquisition and continued retention of the foregoing assets is subject to providing the Trustee with the cost basis, if any, of any such assets and with a valuation of the assets on at least an annual basis. The Trustee, in its sole discretion, may impose other conditions to acquire or hold such assets, including imposing additional fees.

PROXIES AND OTHER SHAREHOLDER ACTION

Calls, Conversions, Expirations, Tenders, etc.

The Instructing Party must monitor and determine the existence of and initiate all actions necessary or appropriate in connection with calls, conversions, tenders, and similar events or transactions relating to Trust assets. The Trustee will pass on to the Instructing Party any information it receives regarding such actions.

Proxies

The Instructing Party is responsible for voting proxies and exercising other shareholder rights with respect to securities under the Instructing Party's investment authority, and the Trustee shall not vote proxies and exercise other shareholder rights with respect to any securities held by the Trust, including Company Securities, unless the Trustee agrees to undertake such responsibility under a separate written agreement or as otherwise explicitly provided for in the Trust Agreement. The Instructing Party shall provide the Trustee with instructions as to where to deliver any proxies it receives and the Trustee will use commercially reasonable efforts to deliver proxies in a timely manner to such party. The Trustee is not responsible for ascertaining whether, or how, the proxies were subsequently voted or disposed of and shall bear no liability for the actions or inactions relating to voting of proxies by the Plan Administrator, Company, "named fiduciary" of the Plan, or an Investment Manager. The Plan Administrator is exclusively responsible for reviewing whether the provisions of the Trust Agreement and these Operational Guidelines for the voting of securities and the exercise of other shareholder rights are consistent with the requirements of the Plan documents and Applicable Law.

Company Securities

If the Trust consists of Company Securities that are not traded on a recognizable market, or the information necessary to ascertain the fair market value is not readily available, the Plan Administrator shall provide to the Trustee the value of such securities for all purposes under the Plan and the Agreement, and the Trustee shall be entitled to rely upon the value of such Company Securities provided by the Plan Administrator. If the Plan Administrator fails or refuses to instruct the Trustee on the value of such Company Securities, the Trustee, in its sole discretion, may engage an independent appraiser to determine the fair market value of such Company Security and shall be entitled to rely upon the value placed upon such Company Security by the independent appraiser. Any expenses with respect to such appraisal shall be a charge against the Trust and may be paid from the Trust as provided in the Agreement.

The Plan Administrator is responsible for providing specific instructions to the Trustee regarding any acquisition limits applicable to Company Securities as required by the Plan or Applicable Law.

Company Securities may be accepted only if the Company and Plan Administrator provide the Trustee with all instructions, representations, and assurances and other information that the Trustee may in its sole discretion require from time to time for the proper administration of Company Securities in the Trust. The Plan Administrator is responsible for providing specific instructions to the Trustee regarding any acquisition limits applicable to Company Securities as required by the Plan or Applicable Law. The Company and Plan Administrator, and not the Trustee, shall be responsible to insure that the Company Securities are acquired and held under the Plan solely in accordance with all applicable federal and state securities laws and regulations thereunder and law and regulation governing the acquisition and holding of employer securities by plans under ERISA.

Charges

Certain securities may impose charges and penalties on the sale and/or redemption of such security, including, without limitation, sales load, redemption, exchange, account, distribution, administrative and other charges. The Trustee is not responsible for notifying the Company, any Instructing Party or any other party of the existence, potential or imposition of any such charges or penalties or to negotiate or attempt to negotiate the reduction, waiver, rebate or reimbursement of any such charges or penalties; nor shall the Trustee have any liability or responsibility for any such charges or penalties of any kind or nature, whether current, deferred or contingent, that are charged or imposed pursuant to the terms of any securities purchased, held, sold or redeemed in the Trust, and all such charges and penalties shall be borne by the Trust unless otherwise provided for.

UNITIZATIONS

In General

The Trustee may provide unitization services for Company Securities or for other assets, if agreed by the Trustee in a separate written agreement with the Plan Administrator. Unitization services are not an investment product, but rather an administrative recordkeeping service that the Trustee provides for the convenience of the Plan and participants on request, and no person (including the Company or Plan Administrator) may hold out, market or otherwise indicate that the unitization service is an investment product whose shares may be offered to retirement plans and their participants. The Plan Administrator shall provide the Trustee for approval a copy of any materials to be used by or on behalf of a Plan which refer to the unitization services before their distribution or use.

Unitization services are available only if the account to be unitized consists of assets eligible for daily valuation under the Trustee's procedures, as determined by the Trustee. In order for the Plan to receive unitization services, the Plan Administrator is required to provide the Trustee with all instructions, representations, and assurances and other information that the Trustee may in its sole discretion require from time to time for the proper administration of Company Securities in the Trustee. Such instructions shall include without limitation, instructions with respect to maintaining a cash component adequate to address anticipated distribution activity, the investment of the cash component, instructions for placing and settling transactions for the unitized account, valuation instructions, and accrual of fees and expenses.

Pricing

The Trustee will obtain pricing information from sources believed to be reliable, but the Trustee shall not be responsible or liable for the accuracy, completeness, timeliness or correct sequencing of any pricing information received or for any decision made or action taken in reliance upon such information. The Trustee makes no warranty of merchantability, warranty of fitness for a particular purpose, or other warranty of any kind, express or implied, regarding the pricing information received or transmitted by the Trustee. If the Plan Administrator does not, within ninety (90) days of receiving a unitization statement, notify the Trustee of any objection to the valuation, the unitization shall be deemed final and the Trustee will have no obligation to correct or reimburse the net asset value (NAV).

NAV Correction Procedures

The Trustee will apply its customary standards and procedures for NAV corrections, a copy of which may be provided upon request.

Expenses

Plan expenses can be charged directly to the unitized account. The Plan Administrator must instruct the Trustee as to any specific fees and expenses to be accrued in the unitized account and the rates at which such fees and expenses should be accrued. The Trustee requires five (5) business days advance notice of any adjustment or termination to fee accruals. The Plan Administrator is responsible for notifying the Trustee when money comes in or out of the unitized account and if, as a result of any such money movement, the fee accruals should be adjusted. From time to time, fee accruals may go negative. On a periodic basis, Trustee will provide to the Plan Administrator a written account of the fee accrual(s) for review. The Plan Administrator or Instructing Party is responsible for reviewing such account and for promptly advising Trustee of any necessary adjustments.

EXHIBIT 12.1

The PNC Financial Services Group, Inc. and Subsidiaries
Computation of Ratio of Earnings to Fixed Charges (1)

	Year Ended December 31				
Dollars in millions	2017	2016	2015	2014	2013
Earnings					
Pretax income from continuing operations before adjustment for noncontrolling interests in consolidated subsidiaries or income or loss from equity investees	$ 4,510	$ 4,642	$ 4,860	$ 4,993	$ 5,148
Add:					
Distributed income of equity investees	352	324	310	275	242
Fixed charges excluding interest on deposits	1,227	978	796	734	664
Less:					
Noncontrolling interests in pretax income of subsidiaries that have not incurred fixed charges	57	84	93	96	112
Interest capitalized			1	1	
Earnings excluding interest on deposits	6,032	5,860	5,872	5,905	5,942
Interest on deposits	623	430	403	325	344
Total earnings	$ 6,655	$ 6,290	$ 6,275	$ 6,230	$ 6,286
Fixed charges					
Interest on borrowed funds	$ 1,082	$ 830	$ 640	$ 581	$ 516
Interest component of rentals	144	147	153	152	148
Amortization of notes and debentures	1	1	2		
Interest capitalized			1	1	
Fixed charges excluding interest on deposits	1,227	978	796	734	664
Interest on deposits	623	430	403	325	344
Total fixed charges	$ 1,850	$ 1,408	$ 1,199	$ 1,059	$ 1,008
Ratio of earnings to fixed charges					
Excluding interest on deposits	4.92x	5.99x	7.38x	8.04x	8.95x
Including interest on deposits	3.60	4.47	5.23	5.88	6.24

(1) As defined in Item 503(d) of Regulation S-K

EXHIBIT 12.2

The PNC Financial Services Group, Inc. and Subsidiaries
Computation of Ratio of Earnings to Fixed Charges and Preferred Stock Dividends (1)

	Year Ended December 31				
Dollars in millions	2017	2016	2015	2014	2013
Earnings					
Pretax income from continuing operations before adjustment for noncontrolling interests in consolidated subsidiaries or income or loss from equity investees	$ 4,510	$ 4,642	$ 4,860	$ 4,993	$ 5,148
Add:					
Distributed income of equity investees	352	324	310	275	242
Fixed charges and preferred stock dividends excluding interest on deposits	1,590	1,300	1,134	1,091	1,028
Less:					
Noncontrolling interests in pretax income of subsidiaries that have not incurred fixed charges	57	84	93	96	112
Interest capitalized			1	1	
Preferred stock dividend requirements	363	322	338	357	364
Earnings excluding interest on deposits	6,032	5,860	5,872	5,905	5,942
Interest on deposits	623	430	403	325	344
Total earnings	$ 6,655	$ 6,290	$ 6,275	$ 6,230	$ 6,286
Fixed charges and preferred stock dividends					
Interest on borrowed funds	$ 1,082	$ 830	$ 640	$ 581	$ 516
Interest component of rentals	144	147	153	152	148
Amortization of notes and debentures	1	1	2		
Interest capitalized			1	1	
Preferred stock dividend requirements	363	322	338	357	364
Fixed charges and preferred stock dividends excluding interest on deposits	1,590	1,300	1,134	1,091	1,028
Interest on deposits	623	430	403	325	344
Total fixed charges and preferred stock dividends	$ 2,213	$ 1,730	$ 1,537	$ 1,416	$ 1,372
Ratio of earnings to fixed charges and preferred stock dividends					
Excluding interest on deposits	3.79x	4.51x	5.18x	5.41x	5.78x
Including interest on deposits	3.01	3.64	4.08	4.40	4.58

(1) As defined in Item 503(d) of Regulation S-K.

THE PNC FINANCIAL SERVICES GROUP, INC.
SCHEDULE OF CERTAIN SUBSIDIARIES
(As of December 31, 2017)

Name	State or Other Jurisdiction of Incorporation or Organization
PNC Bancorp, Inc. (1)	Delaware
PNC Bank, National Association (1)	United States
PNC REIT Corp.	Delaware
PNC Preferred Funding LLC	Delaware
PNC Equipment Finance, LLC	Delaware
PNC Merchant Services Company	Delaware
PNC NCNVINV, Inc.	Delaware
PNC Holding, LLC (1)	Delaware
PNC Investment Company LLC (1)	Delaware
PNC Capital Markets, LLC	Pennsylvania
PNC Capital Finance, LLC	Delaware

(1) The names of the subsidiaries of the indicated entities are omitted because such subsidiaries, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No. 333-210994 and No. 333-209782), Form S-4 (No. 333-155248) and Form S-8 (No. 333-156540, No. 333-18069, No. 333-65040, No. 333-136808, No. 333-172931, No. 333-156886, No. 333-177896, No. 333-134169, No. 333-139345, No. 333-143182, No. 333-177898, No. 333-156527, No. 333-198461, and No. 333-210995) of The PNC Financial Services Group, Inc. of our report dated February 28, 2018 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania

February 28, 2018

EXHIBIT 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference of our report dated February 28, 2018, relating to the consolidated financial statements of BlackRock, Inc. appearing in Exhibit 99.1 to this Annual Report on Form 10-K of The PNC Financial Services Group, Inc. (the "Corporation") for the year ended December 31, 2017, in the following Registration Statements of the Corporation:

- Forms S-3 relating to the Corporation's Dividend Reinvestment and Stock Purchase Plan (No. 333-210994)
- Forms S-8 relating to the Corporation's Employee Stock Purchase Plan (No 333-156540)
- Forms S-8 relating to the Corporation's Supplemental Incentive Savings Plan and the Corporation and Affiliates' Deferred Compensation Plan (Nos. 333-18069, 333-65040, 333-136808, and 333-172931)
- Form S-8 relating to the Corporation's Supplemental Incentive Savings Plan and the Corporation and Affiliates' Deferred Compensation Plan (No. 333-156886)
- Form S-8 relating to the Corporation's Deferred Compensation and Incentive Plan (Nos. 333-177896 and 333-198461)
- Forms S-8 relating to the Corporation's 2006 Incentive Award Plan (Nos. 333-134169, 333-139345, 333-143182 and 333-177898)
- Form S-4 relating to the Corporation's acquisition of National City Corporation (No. 333-155248)
- Form S-8 relating to various National City plans (No. 333-156527)
- Form S-8 relating to the Corporation's 2016 Incentive Award Plan (No. 333-210995)
- Form S-3 relating to the shelf registration statement of debt securities, common stock, preferred stock, purchase contracts, units, warrants and depositary shares to be issued by the Corporation (No. 333-209782)

/s/ Deloitte and Touche LLP

New York, New York

February 28, 2018

EXHIBIT 24

POWER OF ATTORNEY

The PNC Financial Services Group, Inc.

KNOW ALL PERSONS BY THESE PRESENTS, that each of the undersigned Directors and/or Officers of The PNC Financial Services Group, Inc. (the "Corporation"), a Pennsylvania corporation, hereby names, constitutes and appoints Robert Q. Reilly, Gregory H. Kozich, Edward S. Rosenthal and Christi Davis, and each of them, as such person's true and lawful attorney-in-fact with power of substitution and resubstitution to sign in his or her name, place and stead, in any and all capacities, and to do any and all things and execute any and all instruments that such attorney may deem necessary or advisable under the Securities Exchange Act of 1934, as amended, and any rules, regulations and requirements of the Securities and Exchange Commission (the "Commission"), in connection with the filing with the Commission of an Annual Report on Form 10-K of the Corporation for the fiscal year ended December 31, 2017 (the "2017 Form 10-K"); including specifically, but without limiting the generality of the foregoing, the power and authority to sign his or her name in his or her capacity as a member of the Board of Directors of the Corporation and/or as an Officer of the Corporation to the 2017 Form 10-K and such other form or forms as may be appropriate to be filed with the Commission as he or she may deem appropriate, together with all exhibits thereto, and to any and all amendments or supplements thereto and to any other documents filed with the Commission, as fully for all intents and purposes as he or she might or could do in person, and hereby ratifies and confirms all that said attorney-in-fact and agent, acting alone may lawfully do or cause to be done by virtue hereof.

This Power of Attorney will be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania. The execution of this Power of Attorney is not intended to, and does not, revoke any prior powers of attorney other than the revocation, in accordance with applicable laws, of any power of attorney previously granted specifically in connection with the filing of the 2017 Form 10-K (and any and all related documents, including any amendments or supplements to the 2017 Form 10-K).

IN WITNESS WHEREOF, the following persons have duly signed this Power of Attorney in the capacities indicated as of this 14th day of February, 2018.

Name/Signature	Capacity
/s/ William S. Demchak William S. Demchak	Chairman, Chief Executive Officer and President (Principal Executive Officer) and Director
/s/ Robert Q. Reilly Robert Q. Reilly	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Gregory H. Kozich Gregory H. Kozich	Senior Vice President and Controller (Principal Accounting Officer)

/s/ Charles E. Bunch Charles E. Bunch	Director
/s/ Debra A. Cafaro Debra A. Cafaro	Director
/s/ Marjorie Rodgers Cheshire Marjorie Rodgers Cheshire	Director
/s/ Andrew T. Feldstein Andrew T. Feldstein	Director
/s/ Daniel R. Hesse Daniel R. Hesse	Director
/s/ Richard B. Kelson Richard B. Kelson	Director
/s/ Linda R. Medler Linda R. Medler	Director
/s/ Jane G. Pepper Jane G. Pepper	Director
/s/ Martin Pfinsgraff Martin Pfinsgraff	Director
/s/ Donald J. Shepard Donald J. Shepard	Director
/s/ Lorene K. Steffes Lorene K. Steffes	Director
/s/ Dennis F. Strigl Dennis F. Strigl	Director
/s/ Michael J. Ward Michael J. Ward	Director
/s/ Gregory D. Wasson Gregory D. Wasson	Director

EXHIBIT 31.1

In accordance with Exchange Act Rules 13a-14(f) and 15d-14(f), this certification does not relate to Interactive Data Files as defined in Rule 11 of Regulation S-T.

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, William S. Demchak, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2017 of The PNC Financial Services Group, Inc.;
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 28, 2018

/s/ William S. Demchak

William S. Demchak

Chairman, President and Chief Executive Officer

EXHIBIT 31.2

In accordance with Exchange Act Rules 13a-14(f) and 15d-14(f), this certification does not relate to Interactive Data Files as defined in Rule 11 of Regulation S-T.

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Robert Q. Reilly, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2017 of The PNC Financial Services Group, Inc.;
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 28, 2018

/s/ Robert Q. Reilly

Robert Q. Reilly

Executive Vice President and Chief Financial Officer

EXHIBIT 32.1

In accordance with Exchange Act Rules 13a-14(f) and 15d-14(f), this certification does not relate to Interactive Data Files as defined in Rule 11 of Regulation S-T.

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

In connection with the Annual Report on Form 10-K for the year ended December 31, 2017 of The PNC Financial Services Group, Inc. (Corporation) as filed with the Securities and Exchange Commission on the date hereof (Report), I, William S. Demchak, Chairman, President and Chief Executive Officer of the Corporation, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation for the dates and periods covered by the Report.

This certificate is being made for the exclusive purpose of compliance by the Chief Executive Officer of the Corporation with the requirements of Section 906 of the Sarbanes-Oxley Act of 2002, and may not be used by any person or for any reason other than as specifically required by law.

/s/ William S. Demchak

William S. Demchak
Chairman, President and Chief Executive Officer

February 28, 2018

EXHIBIT 32.2

In accordance with Exchange Act Rules 13a-14(f) and 15d-14(f), this certification does not relate to Interactive Data Files as defined in Rule 11 of Regulation S-T.

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

In connection with the Annual Report on Form 10-K for the year ended December 31, 2017 of The PNC Financial Services Group, Inc. (Corporation) as filed with the Securities and Exchange Commission on the date hereof (Report), I, Robert Q. Reilly, Executive Vice President and Chief Financial Officer of the Corporation, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation for the dates and periods covered by the Report.

This certificate is being made for the exclusive purpose of compliance by the Chief Financial Officer of the Corporation with the requirements of Section 906 of the Sarbanes-Oxley Act of 2002, and may not be used by any person or for any reason other than as specifically required by law.

/s/ Robert Q. Reilly

Robert Q. Reilly
Executive Vice President and Chief Financial Officer

February 28, 2018

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of BlackRock, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial condition of BlackRock, Inc. and subsidiaries (the "Company") as of December 31, 2017 and 2016, 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 financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2018, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company'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 the Company 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.

/s/ Deloitte & Touche LLP

New York, New York
February 28, 2018

We have served as the Company's auditor since 2002.

BlackRock, Inc.
Consolidated Statements of Financial Condition

(in millions, except shares and per share data)	**December 31, 2017**	December 31, 2016
Assets		
Cash and cash equivalents	**$ 6,894**	$ 6,091
Accounts receivable	**2,699**	2,115
Investments	**1,981**	1,595
Assets of consolidated variable interest entities:		
Cash and cash equivalents	**144**	84
Investments	**1,493**	1,008
Other assets	**66**	63
Separate account assets	**149,937**	149,089
Separate account collateral held under securities lending agreements	**24,190**	27,792
Property and equipment (net of accumulated depreciation of $658 and $601 at December 31, 2017 and December 31, 2016, respectively)	**592**	559
Intangible assets (net of accumulated amortization of $219 and $832 at December 31, 2017 and December 31, 2016, respectively)	**17,389**	17,363
Goodwill	**13,220**	13,118
Other assets	**1,612**	1,300
Total assets	**$ 220,217**	$ 220,177
Liabilities		
Accrued compensation and benefits	**$ 2,153**	$ 1,880
Accounts payable and accrued liabilities	**1,161**	880
Liabilities of consolidated variable interest entities	**369**	216
Borrowings	**5,014**	4,915
Separate account liabilities	**149,937**	149,089
Separate account collateral liabilities under securities lending agreements	**24,190**	27,792
Deferred income tax liabilities	**3,538**	4,840
Other liabilities	**1,564**	1,221
Total liabilities	**187,926**	190,833
Commitments and contingencies (Note 13)		
Temporary equity		
Redeemable noncontrolling interests	**416**	194
Permanent Equity		
BlackRock, Inc. stockholders' equity		
Common stock, $ 0.01 par value;	**2**	2
Shares authorized: 500,000,000 at December 31, 2017 and December 31, 2016; Shares issued: 171,252,185 at December 31, 2017 and December 31, 2016; Shares outstanding: 159,977,115 and 161,534,443 at December 31, 2017 and December 31, 2016, respectively		
Series B nonvoting participating preferred stock, $0.01 par value;	**—**	—
Shares authorized: 150,000,000 at December 31, 2017 and 2016; Shares issued and outstanding: 823,188 at December 31, 2017 and 2016;		
Series C nonvoting participating preferred stock, $0.01 par value;	**—**	—
Shares authorized: 6,000,000 at December 31, 2017 and 2016; Shares issued and outstanding: 246,522 at December 31, 2017 and 763,660 at December 31, 2016		
Additional paid-in capital	**19,256**	19,337
Retained earnings	**16,966**	13,660
Accumulated other comprehensive loss	**(432)**	(716)
Treasury stock, common, at cost (11,275,070 and 9,717,742 shares held at December 31, 2017 and December 31, 2016, respectively)	**(3,967)**	(3,185)
Total BlackRock, Inc. stockholders' equity	**31,825**	29,098
Nonredeemable noncontrolling interests	**50**	52
Total permanent equity	**31,875**	29,150
Total liabilities, temporary equity and permanent equity	**$ 220,217**	$ 220,177

See accompanying notes to consolidated financial statements.

BlackRock, Inc.
Consolidated Statements of Income

(in millions, except shares and per share data)	2,017,000,000	2,016,000,000	2,015,000,000
Revenue			
Investment advisory, administration fees and securities lending revenue:			
Related parties	**$ 7,740**	$ 6,836	$ 6,875
Other third parties	**3,153**	3,044	2,965
Total investment advisory, administration fees and securities lending revenue	**10,893**	9,880	9,840
Investment advisory performance fees	**594**	295	621
Technology and risk management revenue	**677**	595	528
Distribution fees	**24**	41	55
Advisory and other revenue	**303**	344	357
Total revenue	**12,491**	11,155	11,401
Expense			
Employee compensation and benefits	**4,255**	3,880	4,005
Distribution and servicing costs	**492**	429	409
Amortization of deferred sales commissions	**17**	34	48
Direct fund expense	**904**	766	767
General and administration	**1,462**	1,301	1,380
Restructuring charge	—	76	—
Amortization of intangible assets	**89**	99	128
Total expense	**7,219**	6,585	6,737
Operating income	**5,272**	4,570	4,664
Nonoperating income (expense)			
Net gain (loss) on investments	**161**	55	116
Interest and dividend income	**49**	40	26
Interest expense	**(205)**	(205)	(204)
Total nonoperating income (expense)	**5**	(110)	(62)
Income before income taxes	**5,277**	4,460	4,602
Income tax expense	**270**	1,290	1,250
Net income	**5,007**	3,170	3,352
Less:			
Net income (loss) attributable to noncontrolling interests	**37**	(2)	7
Net income attributable to BlackRock, Inc.	**$ 4,970**	$ 3,172	$ 3,345
Earnings per share attributable to BlackRock, Inc. common stockholders:			
Basic	**$ 30.65**	$ 19.29	$ 20.10
Diluted	**$ 30.23**	$ 19.04	$ 19.79
Cash dividends declared and paid per share	**$ 10.00**	$ 9.16	$ 8.72
Weighted-average common shares outstanding:			
Basic	**162,160,601**	164,425,858	166,390,009
Diluted	**164,415,035**	166,579,752	169,038,571

See accompanying notes to consolidated financial statements.

BlackRock, Inc.
Consolidated Statements of Comprehensive Income

(in millions)	2,017,000,000	2,016,000,000	2,015,000,000
Net income	**$ 5,007**	**$ 3,170**	**$ 3,352**
Other comprehensive income:			
Foreign currency translation adjustments(1)	**285**	(269)	(173)
Other	**(1)**	1	(2)
Other comprehensive income (loss)	**284**	(268)	(175)
Comprehensive income	**5,291**	2,902	3,177
Less: Comprehensive income (loss) attributable to noncontrolling interests	**37**	(2)	7
Comprehensive income attributable to BlackRock, Inc.	**$ 5,254**	**$ 2,904**	**$ 3,170**

(1) Amount for 2017 includes a loss from a net investment hedge of $64 million (net of a tax benefit of $38 million). Amount for 2016 and 2015 include a gain from a net investment hedge of $14 million (net of tax of $8 million) and $19 million (net of tax of $11 million), respectively.

See accompanying notes to consolidated financial statements.

BlackRock, Inc.
Consolidated Statements of Changes in Equity

(in millions)	Additional Paid-in Capital(1)	Retained Earnings	Appropriated Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock Common	Total BlackRock Stockholders' Equity	Nonredeemable Noncontrolling Interests	Total Permanent Equity	Redeemable Noncontrolling Interests / Temporary Equity
December 31, 2014	$ 19,388	$ 10,164	$ (19)	$ (273)	$ (1,894)	$ 27,366	$ 119	$ 27,485	$ 35
Net income	—	3,345	—	—	—	3,345	6	3,351	1
Net consolidation (deconsolidation) of VIEs due to adoption of new accounting pronouncement	—	—	19	—	—	19	(8)	11	194
Dividends paid	—	(1,476)	—	—	—	(1,476)	—	(1,476)	—
Stock-based compensation	514	—	—	—	—	514	—	514	—
Issuance of common shares related to employee stock transactions	(600)	—	—	—	736	136	—	136	—
Employee tax withholdings related to employee stock transactions	—	—	—	—	(231)	(231)	—	(231)	—
Shares repurchased	—	—	—	—	(1,100)	(1,100)	—	(1,100)	—
Net tax benefit (shortfall) from stock-based compensation	105	—	—	—	—	105	—	105	—
Subscriptions (redemptions/distributions) — noncontrolling interest holders	—	—	—	—	—	—	(34)	(34)	518
Net consolidations (deconsolidations) of sponsored investment funds	—	—	—	—	—	—	(6)	(6)	(284)
Other comprehensive income (loss)	—	—	—	(175)	—	(175)	—	(175)	—
December 31, 2015	$ 19,407	$ 12,033	$ —	$ (448)	$ (2,489)	$ 28,503	$ 77	$ 28,580	$ 464
Net income	—	3,172	—	—	—	3,172	(2)	3,170	—
Dividends paid	—	(1,545)	—	—	—	(1,545)	—	(1,545)	—
Stock-based compensation	521	—	—	—	—	521	—	521	—
PNC preferred stock capital contribution	172	—	—	—	—	172	—	172	—
Retirement of preferred stock	(172)	—	—	—	—	(172)	—	(172)	—
Issuance of common shares related to employee stock transactions	(667)	—	—	—	703	36	—	36	—
Employee tax withholdings related to employee stock transactions	—	—	—	—	(274)	(274)	—	(274)	—
Shares repurchased	—	—	—	—	(1,125)	(1,125)	—	(1,125)	—
Net tax benefit (shortfall) from stock-based compensation	78	—	—	—	—	78	—	78	—
Subscriptions (redemptions/distributions) — noncontrolling interest holders	—	—	—	—	—	—	(23)	(23)	1,169
Net consolidations (deconsolidations) of sponsored investment funds	—	—	—	—	—	—	—	—	(1,439)
Other comprehensive income (loss)	—	—	—	(268)	—	(268)	—	(268)	—
December 31, 2016	$ 19,339	$ 13,660	$ —	$ (716)	$ (3,185)	$ 29,098	$ 52	$ 29,150	$ 194

(1) Amounts include $2 million of common stock at December 31, 2016, 2015 and 2014.

See accompanying notes to consolidated financial statements.

BlackRock, Inc.
Consolidated Statements of Changes in Equity

(in millions)	Additional Paid-in Capital(1)	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock Common	Total BlackRock Stockholders' Equity	Nonredeemable Noncontrolling Interests	Total Permanent Equity	Redeemable Noncontrolling Interests / Temporary Equity
December 31, 2016	$ 19,339	$ 13,660	$ (716)	$ (3,185)	$ 29,098	$ 52	$ 29,150	$ 194
Net income	—	4,970	—	—	4,970	2	4,972	35
Dividends paid	—	(1,662)	—	—	(1,662)	—	(1,662)	—
Stock-based compensation	542	—	—	—	542	—	542	—
PNC preferred stock capital contribution	193	—	—	—	193	—	193	—
Retirement of preferred stock	(193)	—	—	—	(193)	—	(193)	—
Issuance of common shares related to employee stock transactions	(626)	—	—	639	13	—	13	—
Employee tax withholdings related to employee stock transactions	—	—	—	(321)	(321)	—	(321)	—
Shares repurchased	—	—	—	(1,100)	(1,100)	—	(1,100)	—
Subscriptions (redemptions/distributions) — noncontrolling interest holders	—	—	—	—	—	(18)	(18)	482
Net consolidations (deconsolidations) of sponsored investment funds	—	—	—	—	—	14	14	(295)
Other comprehensive income (loss)	—	—	284	—	284	—	284	—
Adoption of new accounting pronouncement	3	(2)	—	—	1	—	1	—
December 31, 2017	**$ 19,258**	**$ 16,966**	**$ (432)**	**$ (3,967)**	**$ 31,825**	**$ 50**	**$ 31,875**	**$ 416**

(1) Amounts include $2 million of common stock at both December 31, 2017 and 2016.

See accompanying notes to consolidated financial statements.

BlackRock, Inc.
Consolidated Statements of Cash Flows

(in millions)	2,017,000,000	2,016,000,000	2,015,000,000
Cash flows from operating activities			
Net income	**$ 5,007**	$ 3,170	$ 3,352
Adjustments to reconcile net income to cash flows from operating activities:			
Depreciation and amortization	**240**	263	295
Stock-based compensation	**542**	521	514
Deferred income tax expense (benefit)	**(1,221)**	(14)	(156)
Other gains	**—**	—	(40)
Assets and liabilities of consolidated VIEs:			
Change in cash and cash equivalents	**(81)**	(119)	(98)
Net (gains) losses within consolidated VIEs	**(118)**	(16)	(58)
Net (purchases) proceeds within consolidated VIEs	**(302)**	(816)	(227)
(Earnings) losses from equity method investees	**(122)**	(113)	(91)
Distributions of earnings from equity method investees	**35**	31	41
Other adjustments	**—**	—	14
Changes in operating assets and liabilities:			
Accounts receivable	**(521)**	(65)	(82)
Investments, trading	**(222)**	(449)	(584)
Other assets	**(212)**	(151)	(195)
Accrued compensation and benefits	**276**	(86)	98
Accounts payable and accrued liabilities	**308**	26	(41)
Other liabilities	**219**	(28)	262
Cash flows from operating activities	**3,828**	2,154	3,004
Cash flows from investing activities			
Purchases of investments	**(489)**	(377)	(330)
Proceeds from sales and maturities of investments	**166**	378	456
Distributions of capital from equity method investees	**32**	34	66
Net consolidations (deconsolidations) of sponsored investment funds	**(39)**	(74)	(163)
Acquisitions, net of cash acquired	**(102)**	(30)	(273)
Purchases of property and equipment	**(155)**	(119)	(221)
Cash flows from investing activities	**(587)**	(188)	(465)
Cash flows from financing activities			
Proceeds from long-term borrowings	**697**	—	787
Repayments of long-term borrowings	**(700)**	—	(750)
Cash dividends paid	**(1,662)**	(1,545)	(1,476)
Proceeds from stock options exercised	**—**	26	126
Repurchases of common stock	**(1,421)**	(1,399)	(1,331)
Net (redemptions/distributions paid)/subscriptions received from noncontrolling interest holders	**464**	1,146	484
Excess tax benefit from stock-based compensation	**—**	82	105
Other financing activities	**(8)**	5	(9)
Cash flows from financing activities	**(2,630)**	(1,685)	(2,064)
Effect of exchange rate changes on cash and cash equivalents	**192**	(273)	(115)
Net increase (decrease) in cash and cash equivalents	**803**	8	360
Cash and cash equivalents, beginning of year	**6,091**	6,083	5,723
Cash and cash equivalents, end of year	**$ 6,894**	$ 6,091	$ 6,083
Supplemental disclosure of cash flow information:			
Cash paid for:			
Interest	**$ 205**	$ 198	$ 194
Income taxes (net of refunds)	**$ 1,124**	$ 1,365	$ 1,276
Supplemental schedule of noncash investing and financing transactions:			
Issuance of common stock	**$ 626**	$ 667	$ 600
PNC preferred stock capital contribution	**$ 193**	$ 172	$ —
Increase (decrease) in noncontrolling interests due to net consolidation (deconsolidation) of sponsored investment funds	**$ (281)**	$ (1,439)	$ (104)
Increase (decrease) in borrowings due to consolidation/deconsolidation of VIEs	**$ —**	$ —	$ (3,389)

See accompanying notes to consolidated financial statements.

1. Introduction and Basis of Presentation

Business. BlackRock, Inc. (together, with its subsidiaries, unless the context otherwise indicates, "BlackRock" or the "Company") is a leading publicly traded investment management firm providing a broad range of investment and risk management services to institutional and retail clients worldwide.

BlackRock's diverse platform of active (alpha) and index (beta) investment strategies across asset classes enables the Company to tailor investment outcomes and asset allocation solutions for clients. Product offerings include single- and multi-asset portfolios investing in equities, fixed income, alternatives and money market instruments. Products are offered directly and through intermediaries in a variety of vehicles, including open-end and closed-end mutual funds, *iShares*® exchange-traded funds ("ETFs"), separate accounts, collective investment trusts and other pooled investment vehicles. BlackRock also offers an investment and risk management platform, *Aladdin*®, risk analytics, advisory and technology services and solutions to a broad base of institutional and wealth management investors.

At December 31, 2017, The PNC Financial Services Group, Inc. ("PNC") held 21.2% of the Company's voting common stock and 21.7% of the Company's capital stock, which includes outstanding common and nonvoting preferred stock.

Basis of Presentation. These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") and include the accounts of the Company and its controlled subsidiaries. Noncontrolling interests on the consolidated statements of financial condition represents the portion of consolidated sponsored investment funds in which the Company does not have direct equity ownership. Accounts and transactions between consolidated entities have been eliminated.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reporting periods. Actual results could differ from those estimates.

Certain items previously reported have been reclassified to conform to the current year presentation. Beginning with the first quarter of 2017, *Aladdin* revenue previously reported within "*BlackRock Solutions*® and advisory" has been presented within "Technology and risk management revenue" on the consolidated statements of income. The remaining previously reported "*BlackRock Solutions* and advisory" revenue is currently reported as part of "Advisory and other revenue." The prior period amounts reported for *BlackRock Solutions* and advisory for the year ended December 31, 2016 and 2015 have been reclassified to conform to the current presentation.

2. Significant Accounting Policies

Cash and Cash Equivalents. Cash and cash equivalents primarily consists of cash, money market funds and short-term, highly liquid investments with original maturities of three months or less in which the Company is exposed to market and credit risk. Cash and cash equivalent balances that are legally restricted from use by the Company are recorded in other assets on the consolidated statements of financial condition. Cash balances maintained by consolidated voting rights entities ("VREs") are not considered legally restricted and are included in cash and cash equivalents on the consolidated statements of financial condition. Cash balances maintained by consolidated variable interest entities ("VIEs") are included in assets of consolidated variable interest entities on the consolidated statements of financial condition.

Investments. *Investments in Debt and Marketable Equity Securities.* BlackRock classifies debt and marketable equity investments as trading, available-for-sale, or held-to-maturity based on the Company's intent to sell the security or, for a debt security, the Company's intent and ability to hold the debt security to maturity.

Trading securities are those investments that are purchased principally for the purpose of selling them in the near term. Trading securities are carried at fair value on the consolidated statements of financial condition with changes in fair value recorded in nonoperating income (expense) on the consolidated statements of income in the period of the change.

Held-to-maturity debt securities are purchased with the positive intent and ability to be held to maturity and are recorded at amortized cost on the consolidated statements of financial condition.

Available-for-sale securities are those securities that are not classified as trading or held-to-maturity. Available-for-sale securities are carried at fair value on the consolidated statements of financial condition with changes in fair value recorded in the accumulated other comprehensive income (loss) component of stockholders' equity in the period of the change. Upon the disposition of an available-for-sale security, the Company reclassifies the gain or loss on the security from accumulated other comprehensive income (loss) to nonoperating income (expense) on the consolidated statements of income.

Equity Method. For equity investments where BlackRock does not control the investee, and where it is not the primary beneficiary ("PB") of a VIE, but can exert significant influence over the financial and operating policies of the investee, the Company follows the equity method of accounting. BlackRock's share of the investee's underlying net income or loss is recorded as net gain (loss) on investments within nonoperating income (expense) and as other revenue for certain strategic investments since such companies are considered to be an extension of BlackRock's core business. BlackRock's share of net income of the investee is recorded based upon the most current information available at the time, which may precede the date of the consolidated statement of financial condition. Distributions received from the investment reduce the Company's carrying value of the investee and the cost basis if deemed to be a return of capital.

Cost Method. For nonmarketable equity investments where BlackRock neither controls nor has significant influence over the investee, the investments are accounted for using the cost method of accounting. Dividends received from the investment are recorded as dividend income within nonoperating income (expense).

Impairments of Investments. Management periodically assesses equity method, available-for-sale, held-to-maturity and cost investments for other-than-temporary impairment ("OTTI"). If an OTTI exists, an impairment charge is recorded in nonoperating income (expense) on the consolidated statements of the income.

For equity method, held-to-maturity and cost method investments, if circumstances indicate that an OTTI may exist, the investments are evaluated using market values, where available, or the expected future cash flows of the investment. If the Company determines an OTTI exists, an impairment charge is recognized for the excess of the carrying amount of the investment over its estimated fair value.

For available-for-sale securities, when the fair value is lower than cost, the Company considers, among other factors, the length of time the security has been in a loss position, the extent to which the security's fair value is less than cost, the financial condition and near-term prospects of the security's issuer and the Company's ability and intent to hold the security for a length of time sufficient to allow for recovery of such unrealized losses. For equity securities, if the impairment is considered other-than-temporary, an impairment charge is recognized for the excess of the carrying amount of the investment over its fair value. For debt securities, the Company considers whether: (1) it has the intent to sell the security; (2) it is more likely than not that it will be required to sell the security before recovery; or (3) it expects to recover the entire amortized cost basis of the security. If the Company intends to sell the security or it is more likely than not that it will be required to sell the security, the entire difference between the amortized cost and fair value must be recognized in earnings. If the Company does not intend to sell a security and it is not more likely than not that it will be required to sell the security but the security has suffered an impairment related to credit, the credit loss will be bifurcated from the total decline in value and recorded in earnings with the remaining portion recorded in accumulated other comprehensive income.

For the Company's investments in collateralized loan obligations ("CLOs"), the Company reviews cash flow estimates over the life of each CLO investment. If the present value of the estimated future cash flows is lower than the carrying value of the investment and there is an adverse change in estimated cash flows, an impairment is considered to be other-than-temporary. An impairment charge is recognized for the excess of the carrying amount of the investment over its estimated fair value.

Consolidation. The Company performs an analysis for investment products to determine if the product is a VIE or a VRE. Assessing whether an entity is a VIE or a VRE involves judgment and analysis. Factors considered in this assessment include the entity's legal organization, the entity's capital structure and equity ownership, and any related party or de facto agent implications of the Company's involvement with the entity. Investments that are determined to be VIEs are consolidated if the Company is the PB of the entity. VREs are typically consolidated if the Company holds the majority voting interest. Upon the occurrence of certain events (such as contributions and redemptions, either by the Company, or third parties, or amendments to the governing documents of the Company's investment products), management reviews and reconsiders its previous conclusion regarding the status of an entity as a VIE or a VRE. Additionally, management continually reconsiders whether the Company is deemed to be a VIE's PB that consolidates such entity.

Consolidation of Variable Interest Entities. Certain investment products for which a controlling financial interest is achieved through arrangements that do not involve or are not directly linked to voting interests are deemed VIEs. BlackRock reviews factors, including whether or not i) the entity has equity that is sufficient to permit the entity to finance its activities without additional subordinated support from other parties and ii) the equity holders at risk have the obligation to absorb losses, the right to receive residual returns, and the right to direct the activities of the entity that most significantly impact the entity's economic performance, to determine if the investment product is a VIE. BlackRock re-evaluates such factors as facts and circumstances change.

The PB of a VIE is defined as the variable interest holder that has a controlling financial interest in the VIE. A controlling financial interest is defined as (i) the power to direct the activities of the VIE that most significantly impact its economic performance and (ii) the obligation to absorb losses of the entity or the right to receive benefits from the entity that potentially could be significant to the VIE. The Company generally consolidates VIEs in which it holds an equity ownership interest of 10% or greater and deconsolidates such VIEs once equity ownership falls below 10%.

Consolidation of Voting Rights Entities. BlackRock is required to consolidate an investee to the extent that BlackRock can exert control over the financial and operating policies of the investee, which generally exists if there is a greater than 50% voting equity interest.

Retention of Specialized Investment Company Accounting Principles. Upon consolidation of sponsored investment funds, the Company retains the specialized investment company accounting principles of the underlying funds. All of the underlying investments held by such consolidated sponsored investment funds are carried at fair value with corresponding changes in the investments' fair values reflected in nonoperating income (expense) on the consolidated statements of income. When the Company no longer controls these funds due to reduced ownership percentage or other reasons, the funds are deconsolidated and accounted for as an equity method investment, available-for-sale security or trading investment if the Company still maintains an investment.

Money Market Fee Waivers. The Company is currently voluntarily waiving a portion of its management fees on certain money market funds to ensure that they maintain a targeted level of daily net investment income (the "Yield Support waivers"). During 2017, 2016 and 2015, these waivers resulted in a reduction of management fees of approximately $6 million, $56 million and $137 million, respectively. Approximately 0%, 35% and 50% of Yield Support waivers for 2017, 2016 and 2015, respectively, were offset by a reduction of BlackRock's distribution and servicing costs paid to a financial intermediary. BlackRock may increase or decrease the level of fee waivers in future periods.

Separate Account Assets and Liabilities. Separate account assets are maintained by BlackRock Life Limited, a wholly owned subsidiary of the Company, which is a registered life insurance company in the United Kingdom, and represent segregated assets held for purposes of funding individual and group pension contracts. The life insurance company does not underwrite any insurance contracts that involve any insurance risk transfer from the insured to the life insurance company. The separate account assets primarily include equity securities, debt securities, money market funds and derivatives. The separate account assets are not subject to general claims of the creditors of BlackRock. These separate account assets and the related equal and offsetting liabilities are recorded as separate account assets and separate account liabilities on the consolidated statements of financial condition.

The net investment income attributable to separate account assets supporting individual and group pension contracts accrues directly to the contract owner and is not reported on the consolidated statements of income. While BlackRock has no economic interest in these separate account assets and liabilities, BlackRock earns policy administration and management fees associated with these products, which are included in investment advisory, administration fees and securities lending revenue on the consolidated statements of income.

Separate Account Collateral Assets Held and Liabilities Under Securities Lending Agreements. The Company facilitates securities lending arrangements whereby securities held by separate accounts maintained by BlackRock Life Limited are lent to third parties under global master securities lending agreements. In exchange, the Company receives legal title to the collateral with minimum values generally ranging from approximately 102% to 112% of the value of the securities lent in order to reduce counterparty risk. The required collateral value is calculated on a daily basis. The global master securities lending agreements provide the Company the right to request additional collateral or, in the event of borrower default, the right to liquidate collateral. The securities lending transactions entered into by the Company are accompanied by an agreement that entitles the Company to request the borrower to return the securities at any time; therefore, these transactions are not reported as sales.

The Company records on the consolidated statements of financial condition the cash and noncash collateral received under these BlackRock Life Limited securities lending arrangements as its own asset in addition to an equal and offsetting collateral liability for the obligation to return the collateral. The securities lending revenue earned from lending securities held by the separate accounts is included in investment advisory, administration fees and securities lending revenue on the consolidated statements of income. During 2017 and 2016, the Company had not resold or repledged any of the collateral received under these arrangements. At December 31, 2017 and 2016, the fair value of loaned securities held by separate accounts was approximately $22.3 billion and $25.7 billion, respectively, and the fair value of the collateral held under these securities lending agreements was approximately $24.2 billion and $27.8 billion, respectively.

Property and Equipment. Property and equipment are recorded at cost less accumulated depreciation. Depreciation is generally determined by cost less any estimated residual value using the straight-line method over the estimated useful lives of the various classes of property and equipment. Leasehold improvements are amortized using the straight-line method over the shorter of the estimated useful life or the remaining lease term.

BlackRock develops a variety of risk management, investment analytic and investment system services for internal use, utilizing proprietary software that is hosted and maintained by BlackRock. The Company capitalizes certain costs incurred in connection with developing or obtaining software for internal use. Capitalized software costs are included within property and equipment on the consolidated statements of financial condition and are amortized, beginning when the software project is ready for its intended use, over the estimated useful life of the software of approximately three years.

Goodwill and Intangible Assets. Goodwill represents the cost of a business acquisition in excess of the fair value of the net assets acquired. The Company has determined that it has one reporting unit for goodwill impairment testing purposes, the consolidated BlackRock single operating segment, which is consistent with internal management reporting and management's oversight of operations. In its assessment of goodwill for impairment, the Company considers such factors as the book value and market capitalization of the Company.

On a quarterly basis, the Company considers if triggering events have occurred that may indicate a potential goodwill impairment. If a triggering event has occurred, the Company performs assessments, which may include reviews of significant valuation assumptions, to determine if goodwill may be impaired. The Company performs an impairment assessment of its goodwill at least annually as of July 31st.

Intangible assets are comprised of indefinite-lived intangible assets and finite-lived intangible assets acquired in a business acquisition. The value of contracts to manage assets in proprietary open-end funds and collective trust funds and certain other commingled products without a specified termination date is generally classified as indefinite-lived intangible assets. The assignment of indefinite lives to such contracts primarily is based upon the following: (i) the assumption that there is no foreseeable limit on the contract period to manage these products; (ii) the Company expects to, and has the ability to, continue to operate these products indefinitely; (iii) the products have multiple investors and are not reliant on a single investor or small group of investors for their continued operation; (iv) current competitive factors and economic conditions do not indicate a finite life; and (v) there is a high likelihood of continued renewal based on historical experience. In addition, trade names/trademarks are considered indefinite-lived intangible assets when they are expected to generate cash flows indefinitely.

Indefinite-lived intangible assets and goodwill are not amortized. Finite-lived management contracts, which relate to acquired separate accounts and funds and investor/customer relationships with a specified termination date, are amortized over their remaining useful lives.

The Company performs assessments to determine if any intangible assets are potentially impaired and whether the indefinite-lived and finite-lived classifications are still appropriate. The carrying value of finite-lived assets and their remaining useful lives are reviewed at least annually to determine if circumstances exist which may indicate a potential impairment or revisions to the amortization period. The Company performs impairment assessments of all of its intangible assets at least annually, as of July 31st.

In evaluating whether it is more likely than not that the fair value of indefinite-lived intangibles is less than its carrying value, BlackRock assesses various significant qualitative factors, including assets under management (“AUM”), revenue basis points, projected AUM growth rates, operating margins, tax rates and discount rates. In addition, the Company considers other factors, including (i) macroeconomic conditions such as a deterioration in general economic conditions, limitations on accessing capital, fluctuations in foreign exchange rates, or other developments in equity and credit markets; (ii) industry and market considerations such as a deterioration in the environment in which the entity

operates, an increased competitive environment, a decline in market-dependent multiples or metrics, a change in the market for an entity’s services, or regulatory, legal or political developments; and (iii) entity-specific events, such as a change in management or key personnel, overall financial performance and litigation that could affect significant inputs used to determine the fair value of the indefinite-lived intangible asset. If an indefinite-lived intangible is determined to be more likely than not impaired, then the fair value of the asset is compared with its carrying value and any excess of the carrying value over the fair value would be recognized as an expense in the period in which the impairment occurs.

For finite-lived intangible assets, if potential impairment circumstances are considered to exist, the Company will perform a recoverability test using an undiscounted cash flow analysis. Actual results could differ from these cash flow estimates, which could materially impact the impairment conclusion. If the carrying value of the asset is determined not to be recoverable based on the undiscounted cash flow test, the difference between the carrying value of the asset and its current fair value would be recognized as an expense in the period in which the impairment occurs.

Noncontrolling Interests. The Company reports noncontrolling interests as equity, separate from the parent’s equity, on the consolidated statements of financial condition. In addition, the Company’s consolidated net income on the consolidated statements of income includes the income (loss) attributable to noncontrolling interest holders of the Company’s consolidated investment products. Income (loss) attributable to noncontrolling interests is not adjusted for income taxes for consolidated investment products that are treated as pass-through entities for tax purposes.

Classification and Measurement of Redeemable Securities. The Company includes redeemable noncontrolling interests related to certain consolidated investment products in temporary equity on the consolidated statements of financial condition.

Treasury Stock. The Company records common stock purchased for treasury at cost. At the date of subsequent reissuance, the treasury stock account is reduced by the cost of such stock using the average cost method.

Revenue Recognition

Investment Advisory, Administration Fees and Securities Lending Revenue. Investment advisory and administration fees are recognized as the services are performed. Such fees are primarily based on agreed-upon percentages of the net asset value of AUM or committed capital. Investment advisory and administration fees are affected by changes in AUM, including market appreciation or depreciation, foreign exchange translation and net inflows or outflows. Investment advisory and administration fees for investment funds are shown net of fees waived pursuant to contractual expense limitations of the funds or voluntary waivers.

The Company contracts with third parties and related parties for various mutual fund distribution and shareholder servicing to be performed on behalf of certain funds the Company manages. Such arrangements generally are priced as a portion of the fee paid by the fund. In certain cases, the fund (primarily international funds) takes on the primary responsibility for payment for services such that the Company bears no credit risk to the third-party. The Company currently records its management fees net of retrocessions.

The Company also earns revenue by lending securities as an agent on behalf of clients, primarily to brokerage institutions. Revenue is accounted for on an accrual basis. Generally, the fees generated from securities lending activities are shared between the Company and the funds or other third-party accounts managed by the Company from which the securities are borrowed.

Investment Advisory Performance Fees / Carried Interest. The Company receives investment advisory performance fees or incentive allocations from certain actively managed investment funds and certain separately managed accounts. These performance fees are dependent upon exceeding specified relative or absolute investment return thresholds. Such fees are recorded upon completion of the measurement period, which varies by product or account, and could be monthly, quarterly, annually or longer.

In addition, the Company is allocated carried interest from certain alternative investment products upon exceeding performance thresholds. BlackRock may be required to reverse/return all, or part, of such carried interest allocations depending upon future performance of these funds. Therefore, BlackRock records carried interest subject to such clawback provisions in investments/investments of consolidated VIEs or cash/cash of consolidated VIEs to the extent that it is distributed, on its consolidated statements of financial condition. Carried interest is recorded as performance fee revenue upon the earlier of the termination of the investment fund or when the likelihood of clawback is considered mathematically improbable.

The Company records a deferred carried interest liability to the extent it receives cash or capital allocations related to carried interest prior to meeting the revenue recognition criteria. At December 31, 2017 and 2016, the Company had $219 million and $152 million, respectively, of deferred carried interest recorded in other liabilities/other liabilities of consolidated VIEs on the consolidated statements of financial condition. A portion of the deferred carried interest liability will be paid to certain employees. The ultimate timing of the recognition of performance fee revenue, if any, for these products is unknown.

Technology and risk management revenue. BlackRock offers investment management technology systems, risk management services, wealth management and digital distribution tools on a fee basis. Clients include banks, insurance companies, official institutions, pension funds, asset managers, retail distributors and other investors. Fees earned for technology and risk management revenue are recorded as services are performed and are generally determined using the value of positions on the *Aladdin* platform or on a fixed-rate basis.

Advisory and other revenue. Advisory and other revenue primarily includes fees earned for advisory services, fees earned for transition management services primarily comprised of commissions recognized in connection with buying and selling securities on behalf of customers, and equity method investment earnings related to certain strategic investments.

Fees earned for advisory services are determined using fixed-rate fees, and recorded upon delivery.

Commissions related to transition management services are recorded on a trade-date basis as securities transactions occur.

Stock-based Compensation. In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09, *Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09"). ASU 2016-09 simplifies accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the consolidated statements of cash flows. The Company adopted ASU 2016-09 as of January 1, 2017. ASU 2016-09 requires all excess tax benefits and deficiencies to be recognized in income tax expense on the consolidated statements of income. Accordingly, the Company recorded a discrete income tax benefit of $151 million during 2017 for vested restricted stock units where the grant date stock price was lower than the vesting date stock price. The new guidance will increase the volatility of income tax expense as a result of fluctuations in the Company's stock price. Upon adoption, the Company elected to account for forfeitures as they occur, which did not have a material impact on the consolidated financial statements. In addition, the Company elected to present excess tax benefits and deficiencies prospectively in operating activities on the consolidated statements of cash flows.

Entities are required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. The compensation cost is recognized over the period during which an employee is required to provide service (usually the vesting period) in exchange for the stock-based award.

The Company measures the grant-date fair value of restricted stock units ("RSUs") using the Company's share price on the date of grant. For employee share options and instruments with market conditions, the Company uses pricing models. Stock option awards may have performance, market and/or service conditions. If an equity award is modified after the grant-date, incremental compensation cost is recognized for an amount equal to the excess of the fair value of the modified award over the fair value of the original award immediately before the modification. Awards under the Company's stock-based compensation plans vest over various periods. Compensation cost is recorded by the Company on a straight-line basis over the requisite service period for each separate vesting portion of the award as if the award is, in-substance, multiple awards. Compensation cost was reduced by the number of awards forfeited prior to vesting.

The Company amortizes the grant-date fair value of stock-based compensation awards made to retirement-eligible employees over the requisite service period. Upon notification of retirement, the Company accelerates the unamortized portion of the award over the contractually required retirement notification period.

Distribution and Servicing Costs. Distribution and servicing costs include payments to third parties, primarily associated with distribution and servicing of client investments in certain BlackRock products. Distribution and servicing costs are expensed when incurred.

Direct Fund Expense. Direct fund expense, which is expensed as incurred, primarily consists of third-party nonadvisory expense incurred by BlackRock related to certain funds for the use of certain index trademarks, reference data for certain indices, custodial services, fund administration, fund accounting, transfer agent services, shareholder reporting services, audit and tax services as well as other fund-related expense directly attributable to the nonadvisory operations of the fund.

Leases. The Company accounts for its office facilities leases as operating leases, which may include escalation clauses. The Company expenses the lease payments associated with operating leases evenly during the lease term (including rent-free periods) commencing when the Company obtains the right to control the use of the leased property.

Foreign Exchange. Foreign currency transactions are recorded at the exchange rates prevailing on the dates of the transactions. Monetary assets and liabilities that are denominated in foreign currencies are subsequently remeasured into the functional currencies of the Company's subsidiaries at the rates prevailing at each balance sheet date. Gains and losses arising on remeasurement are included in general and administration expense on the consolidated statements of income. Revenue and expenses are translated at average exchange rates during the period. Gains or losses resulting from translating foreign currency financial statements into U.S. dollars are included in accumulated other comprehensive income, a separate component of stockholders' equity, on the consolidated statements of financial condition.

Income Taxes. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases using currently enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred income tax assets and liabilities is recognized on the consolidated statements of income in the period that includes the enactment date.

Management periodically assesses the recoverability of its deferred income tax assets based upon expected future earnings, taxable income in prior carryback years, future deductibility of the asset, changes in applicable tax laws and other factors. If management determines that it is not more likely than not that the deferred tax asset will be fully recoverable in the future, a valuation allowance will be established for the difference between the asset balance and the amount expected to be recoverable in the future. This allowance will result in additional income tax expense. Further, the Company records its income taxes receivable and payable based upon its estimated income tax position.

In 2017, excess tax benefits related to stock-based compensation were recognized as an income tax benefit on the consolidated statements of income and are reflected as operating cash flows on the consolidated statements of cash flows. For prior year periods, excess tax benefits were recognized as additional paid-in capital and financing cash flows.

Earnings per Share ("EPS"). Basic EPS is calculated by dividing net income applicable to common shareholders by the weighted-average number of shares outstanding during the period. Diluted EPS includes the determinants of basic EPS and common stock equivalents outstanding during the period. Diluted EPS is computed using the treasury stock method.

Due to the similarities in terms between BlackRock's nonvoting participating preferred stock and the Company's common stock, the Company considers its nonvoting participating preferred stock to be a common stock equivalent for purposes of EPS calculations. As such, the Company has included the outstanding nonvoting participating preferred stock in the calculation of average basic and diluted shares outstanding.

Business Segments. The Company's management directs BlackRock's operations as one business, the asset management business. The Company utilizes a consolidated approach to assess performance and allocate resources. As such, the Company operates in one business segment as defined in ASC 280-10, *Segment Reporting* ("ASC 280-10").

Fair Value Measurements

Hierarchy of Fair Value Inputs. The Company uses a fair value hierarchy that prioritizes inputs to valuation approaches used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. Assets and liabilities measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 Inputs:

Quoted prices (unadjusted) in active markets for identical assets or liabilities at the reporting date.

- Level 1 assets may include listed mutual funds, ETFs, listed equities and certain exchange-traded derivatives.

Level 2 Inputs:

Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities that are not active; quotes from pricing services or brokers for which the Company can determine that orderly transactions took place at the quoted price or that the inputs used to arrive at the price are observable; and inputs other than quoted prices that are observable, such as models or other valuation methodologies.

- Level 2 assets may include debt securities, investments in CLOs, short-term floating-rate notes, asset-backed securities, securities held within consolidated hedge funds, restricted public securities valued at a discount, as well as over-the-counter derivatives, including interest and inflation rate swaps and foreign currency exchange contracts that have inputs to the valuations that generally can be corroborated by observable market data.

Level 3 Inputs:

Unobservable inputs for the valuation of the asset or liability, which may include nonbinding broker quotes. Level 3 assets include investments for which there is little, if any, market activity. These inputs require significant management judgment or estimation.

- Level 3 assets may include direct private equity investments held within consolidated funds and investments in CLOs.
- Level 3 liabilities include contingent liabilities related to acquisitions valued based upon discounted cash flow analyses using unobservable market data.

Significance of Inputs. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the financial instrument.

Valuation Approaches. The fair values of certain Level 3 assets and liabilities were determined using various valuation approaches as appropriate, including third-party pricing vendors, broker quotes and market and income approaches. Such quotes and modeled prices are evaluated for reasonableness through various procedures, including due diligence reviews of third-party pricing vendors, variance analyses, consideration of the current market environment and other analytical procedures.

A significant number of inputs used to value equity, debt securities and investments in CLOs is sourced from third-party pricing vendors. Generally, prices obtained from pricing vendors are categorized as Level 1 inputs for identical securities traded in active markets and as Level 2 for other similar securities if the vendor uses observable inputs in determining the price. Annually, BlackRock's internal valuation committee or other designated groups review both the valuation approaches, including the general assumptions and methods used to value various asset classes, and operational processes with these vendors. On a quarterly basis, meetings are held with key vendors to identify any significant changes to the vendors' processes.

In addition, quotes obtained from brokers generally are nonbinding and categorized as Level 3 inputs. However, if the Company is able to determine that market participants have transacted for the asset in an orderly manner near the quoted price or if the Company can determine that the inputs used by the broker are observable, the quote is classified as a Level 2 input.

Investments Measured at Net Asset Values. As a practical expedient, the Company uses net asset value ("NAV") as the fair value for certain investments. The inputs to value these investments may include BlackRock capital accounts for its partnership interests in various alternative investments, including hedge funds, real assets and private equity funds, which may be adjusted by using the returns of certain market indices. The various partnerships generally are investment companies, which record their underlying investments at fair value based on fair value policies established by management of the underlying fund. Fair value policies at the underlying fund generally require the fund to utilize pricing/valuation information from third-party sources, including independent appraisals. However, in some instances, current valuation information for illiquid securities or securities in markets that are not active may not be available from any third-party source or fund management may conclude that the valuations that are available from third-party sources are not reliable. In these instances, fund management may perform model-based analytical valuations that could be used as an input to value these investments.

Derivative Instruments and Hedging Activities. The Company does not use derivative financial instruments for trading or speculative purposes. The Company uses derivative financial instruments primarily for purposes of hedging exposures to fluctuations in foreign currency exchange rates of certain assets and liabilities, and market exposures for certain seed investments. However, certain consolidated sponsored investment funds may also utilize derivatives as a part of their investment strategy.

Changes in the fair value of the Company's derivative financial instruments are recognized in earnings and, where applicable, are offset by the corresponding gain or loss on the related foreign-denominated assets or liabilities or hedged investments, on the consolidated statements of income.

The Company may also use financial instruments designated as net investment hedges for accounting purposes to hedge net investments in international subsidiaries whose functional currency is not U.S. dollars. The gain or loss from revaluing accounting hedges of net investments in foreign operations at the spot rate is deferred and reported within accumulated other comprehensive income on the consolidated statements of financial condition. The Company reassesses the effectiveness of its net investment hedge on a quarterly basis.

Recent Accounting Pronouncements Not Yet Adopted in 2017

Revenue from Contracts with Customers. In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"). ASU 2014-09 outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The guidance also changes the accounting for certain contract costs and revises the criteria for determining if an entity is acting as a principal or agent in certain arrangements.

The key changes in the standard that impact the Company's revenue recognition relate to the presentation of certain revenue contracts and associated contract costs. The most significant of these changes relates to the presentation of certain distribution costs, which are currently presented net against revenues (contra-revenue) and will be presented as an expense on a gross basis. The Company adopted ASU 2014-09 effective January 1, 2018 on a full retrospective basis, which will require 2016 and 2017 to be restated in future filings. The cumulative effect adjustment to the 2016 opening retained earnings was not material. The Company currently expects the net gross up to revenue to be approximately $1 billion with a corresponding gross up to expense for both 2016 and 2017.

Recognition and Measurement of Financial Instruments. In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities* ("ASU 2016-01"). ASU 2016-01 amends guidance on the classification and measurement of financial instruments, including significant revisions in accounting related to the classification and measurement of investments in certain equity securities. ASU 2016-01 also amends certain disclosure requirements associated with the fair value of financial instruments. The reclassification of unrealized gains (losses) on equity securities within accumulated other comprehensive income to retained earnings was not material upon adoption effective January 1, 2018.

Leases. In February 2016, the FASB issued ASU 2016-02, *Leases* ("ASU 2016-02"), which requires lessees to recognize assets and liabilities arising from most operating leases on the consolidated statements of financial condition. The Company expects to record assets and liabilities for its current operating leases upon adoption of ASU 2016-02 and does not expect the adoption to have a material impact on its results of operations or cash flows. ASU 2016-02 is effective for the Company on January 1, 2019, and the Company intends to apply the practical expedients allowed by the standard upon transition.

Cash Flow Classification. In August 2016, the FASB issued ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"), which amends and clarifies the current guidance to reduce diversity in practice of the classification of certain cash receipts and payments in the consolidated statements of cash flows. The Company does not expect the adoption of ASU 2016-15 to have a material impact on its consolidated statement of cash flows. ASU 2016-15 is effective for the Company on January 1, 2018. The Company must apply the guidance retrospectively to all periods presented.

3. Investments

A summary of the carrying value of total investments is as follows:

(in millions)	**December 31, 2017**	December 31, 2016
Available-for-sale investments	**$ 103**	$ 80
Held-to-maturity investments	**102**	51
Trading investments:		
Consolidated sponsored investment funds:		
Debt securities	**267**	246
Equity securities	**245**	219
Other equity and debt securities	**267**	101
Deferred compensation plan mutual funds	**56**	59
Total trading investments	**835**	625
Other investments:		
Equity method investments(1)	**816**	730
Cost method investments(2)	**93**	91
Carried interest(3)	**32**	18
Total other investments	**941**	839
Total investments	**$ 1,981**	$ 1,595

(1) Equity method investments primarily include BlackRock's direct investments in certain BlackRock sponsored investment funds.

(2) Amounts include nonmarketable securities, primarily Federal Reserve Bank stock, which is held for regulatory purposes and is restricted from sale. At December 31, 2017 and 2016, there were no indicators of impairment on these investments.

(3) Carried interest of consolidated sponsor investment funds accounted for as voting rights entities ("VREs") represents allocations to BlackRock's general partner capital accounts from certain funds. These balances are subject to change upon cash distributions, additional allocations or reallocations back to limited partners within the respective funds.

Available-for-Sale Investments

At both December 31, 2017 and 2016, available-for-sale investments primarily included certain investments in BlackRock sponsored CLOs and seed investments in BlackRock sponsored mutual funds. The cost of these investments approximated carrying value.

A summary of sale activity of available-for-sale securities during 2017, 2016 and 2015 is shown below.

(in millions)	2,017,000,000	2,016,000,000	2,015,000,000
	Year ended December 31,		
Sales proceeds	$ —	$ 40	$ 36
Net realized gain (loss):			
Gross realized gains	$ —	$ 2	$ 3
Gross realized losses	—	(1)	(1)
Net realized gain (loss)	$ —	$ 1	$ 2

Held-to-Maturity Investments

The carrying value of held-to-maturity investments was $102 million and $51 million at December 31, 2017 and 2016, respectively. Held-to-maturity investments included foreign government debt held primarily for regulatory purposes and certain investments in BlackRock sponsored CLOs. The amortized cost (carrying value) of these investments approximated fair value. At December 31, 2017, $11 million of these investments mature between five years to ten years and $91 million mature after ten years.

Trading Investments

A summary of the cost and carrying value of trading investments is as follows:

	December 31, 2017		December 31, 2016	
(in millions)	Cost	Carrying Value	Cost	Carrying Value
Trading investments:				
Deferred compensation plan mutual funds	$ 34	$ 56	$ 41	$ 59
Equity securities/multi-asset mutual funds	446	493	290	308
Debt securities/fixed income mutual funds:				
Corporate debt	152	157	128	128
Government debt	72	73	60	60
Asset/mortgage backed debt	56	56	70	70
Total trading investments	$ 760	$ 835	$ 589	$ 625

4. Consolidated Voting Rights Entities

The Company consolidates certain sponsored investment funds accounted for as VREs because it is deemed to control such funds. The investments owned by these consolidated VREs are classified as trading investments. The following table presents the balances related to these consolidated VREs that were recorded on the consolidated statements of financial condition, including BlackRock's net interest in these funds:

(in millions)	December 31, 2017	December 31, 2016
Cash and cash equivalents	$ 63	$ 53
Investments	512	465
Other assets	13	15
Other liabilities	(37)	(50)
Noncontrolling interests	(91)	(39)
BlackRock's net interests in consolidated VREs	$ 460	$ 444

BlackRock's total exposure to consolidated VREs represents the value of its economic ownership interest in these sponsored investment funds. Valuation changes associated with investments held at fair value by these consolidated VREs are reflected in nonoperating income (expense) and partially offset in net income (loss) attributable to noncontrolling interests for the portion not attributable to BlackRock.

The Company cannot readily access cash and cash equivalents held by consolidated VREs to use in its operating activities.

5. Variable Interest Entities

In the normal course of business, the Company is the manager of various types of sponsored investment vehicles, which may be considered VIEs. The Company may from time to time own equity or debt securities or enter into derivatives with the vehicles, each of which are considered variable interests. The Company's involvement in financing the operations of the VIEs is generally limited to its investments in the entity. The Company consolidates entities when it is determined to be the PB. See Note 2, *Significant Accounting Policies*, for further information on the Company's accounting policy on consolidation.

Consolidated VIEs. The Company's consolidated VIEs include certain sponsored investment funds in which BlackRock has an investment and as the investment manager, is deemed to have both the power to direct the most significant activities of the funds and the right to receive benefits (or the obligation to absorb losses) that could potentially be significant to these sponsored investment funds. The assets of these VIEs are not available to creditors of the Company. In addition, the investors in these VIEs have no recourse to the credit of the Company.

Consolidated VIE assets and liabilities are presented after intercompany eliminations at December 31, 2017 and 2016 in the following table:

(in millions)	**December 31, 2017**	December 31, 2016
Assets of consolidated VIEs:		
Cash and cash equivalents	**$ 144**	$ 84
Investments:		
Trading investments	**915**	552
Other investments	**578**	456
Other assets	**66**	63
Total investments and other assets	**1,559**	1,071
Liabilities of consolidated VIEs	**(369)**	(216)
Noncontrolling interests	**(375)**	(207)
BlackRock's net interests in consolidated VIEs	**$ 959**	$ 732

Net gain (loss) related to consolidated VIEs is presented in the following table:

(in millions)	**2,017,000,000**	**2,016,000,000**	**2,015,000,000**
Nonoperating net gain (loss) on consolidated VIEs	$ 118	$ 16	$ 58
Net gain (loss) attributable to NCI on consolidated VIEs	$ 33	$ (2)	$ 6

Non-Consolidated VIEs. At December 31, 2017 and 2016, the Company's carrying value of assets and liabilities included on the consolidated statements of financial condition pertaining to nonconsolidated VIEs and its maximum risk of loss related to VIEs for which it held a variable interest, but for which it was not the PB, was as follows:

(in millions) **At December 31, 2017**	**Investments**	**Advisory Fee Receivables**	**Other Net Assets (Liabilities)**	**Maximum Risk of Loss(1)**
Sponsored investment products	**$ 263**	**$ 15**	**$ (7)**	**$ 295**
At December 31, 2016				
Sponsored investment products	$ 171	$ 9	$ (8)	$ 197

(1) At December 31, 2017 and 2016, BlackRock's maximum risk of loss associated with these VIEs primarily related to BlackRock's investments and collecting advisory fee receivables.

The net assets of sponsored investment products that are nonconsolidated VIEs approximated $5 billion and $4 billion at December 31, 2017 and 2016, respectively.

6. Fair Value Disclosures

Fair Value Hierarchy

Assets and liabilities measured at fair value on a recurring basis and other assets not held at fair value

December 31, 2017 (in millions)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Measured at NAV(1)	Other Assets Not Held at Fair Value(2)	December 31, 2017
Assets:						
Investments						
Available-for-sale	$ 7	$ 96	$ —	$ —	$ —	**$ 103**
Held-to-maturity debt securities	—	—	—	—	102	**102**
Trading:						
Deferred compensation plan mutual funds	56	—	—	—	—	**56**
Equity securities / Multi-asset mutual funds	493	—	—	—	—	**493**
Debt securities / fixed income mutual funds	2	284	—	—	—	**286**
Total trading	551	284	—	—	—	**835**
Other investments:						
Equity method:						
Equity and fixed income mutual funds	183	—	—	12	—	**195**
Other	—	—	—	609	12	**621**
Total equity method	183	—	—	621	12	**816**
Cost method investments	—	—	—	—	93	**93**
Carried interest	—	—	—	—	32	**32**
Total investments	741	380	—	621	239	**1,981**
Separate account assets	114,422	34,582	—	—	933	**149,937**
Separate account collateral held under securities lending agreements:						
Equity securities	18,778	—	—	—	—	**18,778**
Debt securities	—	5,412	—	—	—	**5,412**
Total separate account collateral held under securities lending agreements	18,778	5,412	—	—	—	**24,190**
Investments of consolidated VIEs:						
Trading:						
Equity securities	440	—	—	—	—	**440**
Debt securities	—	475	—	—	—	**475**
Other investments:						
Private / public equity(3)	6	2	116	59	76	**259**
Other	—	—	—	53	—	**53**
Carried interest	—	—	—	—	266	**266**
Total investments of consolidated VIEs	446	477	116	112	342	**1,493**
Total	$ 134,387	$ 40,851	$ 116	$ 733	$ 1,514	**$ 177,601**
Liabilities:						
Separate account collateral liabilities under securities lending agreements	$ 18,778	$ 5,412	$ —	$ —	$ —	**$ 24,190**
Other liabilities(4)	—	7	236	—	—	**243**
Total	$ 18,778	$ 5,419	$ 236	$ —	$ —	**$ 24,433**

(1) Amounts are comprised of certain investments measured at fair value using NAV (or its equivalent) as a practical expedient.
(2) Amounts are comprised of investments held at cost or amortized cost, carried interest and certain equity method investments, which include sponsored investment funds and other assets, which are not accounted for under a fair value measure. In accordance with GAAP, certain equity method investees do not account for both their financial assets and liabilities under fair value measures; therefore, the Company's investment in such equity method investees may not represent fair value.
(3) Level 3 amounts primarily include direct investments in private equity companies held by private equity funds.
(4) Amounts primarily include contingent liabilities related to certain acquisitions (see Note 13, *Commitments and Contingencies*, for more information).

Assets and liabilities measured at fair value on a recurring basis and other assets not held at fair value

December 31, 2016 *(in millions)*	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Measured at NAV(1)	Other Assets Not Held at Fair Value(2)	December 31, 2016
Assets:						
Investments						
Available-for-sale	$ 7	$ 49	$ 24	$ —	$ —	**$ 80**
Held-to-maturity debt securities	—	—	—	—	51	**51**
Trading:						
Deferred compensation plan mutual funds	59	—	—	—	—	**59**
Equity securities / Multi-asset mutual funds	308	—	—	—	—	**308**
Debt securities / fixed income mutual funds	1	250	7	—	—	**258**
Total trading	368	250	7	—	—	**625**
Other investments:						
Equity method:						
Equity and fixed income mutual funds	323	—	—	5	—	**328**
Other	—	—	—	394	8	**402**
Total equity method	323	—	—	399	8	**730**
Cost method investments	—	—	—	—	91	**91**
Carried interest	—	—	—	—	18	**18**
Total investments	698	299	31	399	168	**1,595**
Separate account assets	109,663	38,542	—	—	884	**149,089**
Separate account collateral held under securities lending agreements:						
Equity securities	22,173	—	—	—	—	**22,173**
Debt securities	—	5,619	—	—	—	**5,619**
Total separate account collateral held under securities lending agreements	22,173	5,619	—	—	—	**27,792**
Investments of consolidated VIEs:						
Trading:						
Equity securities	278	—	—	—	—	**278**
Debt securities	—	274	—	—	—	**274**
Other investments:						
Private / public equity(3)	3	2	112	89	79	**285**
Other	—	—	—	63	—	**63**
Carried interest	—	—	—	—	108	**108**
Total investments of consolidated VIEs	281	276	112	152	187	**1,008**
Total	$ 132,815	$ 44,736	$ 143	$ 551	$ 1,239	**$ 179,484**
Liabilities:						
Separate account collateral liabilities under securities lending agreements	$ 22,173	$ 5,619	$ —	$ —	$ —	**$ 27,792**
Other liabilities(4)	—	7	115	—	—	**122**
Total	$ 22,173	$ 5,626	$ 115	$ —	$ —	**$ 27,914**

(1) Amounts are comprised of certain investments measured at fair value using NAV (or its equivalent) as a practical expedient.
(2) Amounts are comprised of investments held at cost or amortized cost, carried interest and certain equity method investments, which include sponsored investment funds and other assets, which are not accounted for under a fair value measure. In accordance with GAAP, certain equity method investees do not account for both their financial assets and liabilities under fair value measures; therefore, the Company's investment in such equity method investees may not represent fair value.
(3) Level 3 amounts include direct investments in private equity companies held by private equity funds.
(4) Amounts primarily include contingent liabilities related to certain acquisitions (see Note 13, *Commitments and Contingencies*, for more information).

Level 3 Assets. Level 3 investments of consolidated VIEs of $116 million and $112 million at December 31, 2017 and 2016, respectively, related to direct investments in private equity companies held by consolidated private equity funds.

Direct investments in private equity companies may be valued using the market approach or the income approach, or a combination thereof, and were valued based on an assessment of each underlying investment, incorporating evaluation of additional significant third-party financing, changes in valuations of comparable peer companies, the business environment of the companies, market indices, assumptions relating to appropriate risk adjustments for nonperformance and legal restrictions on disposition, among other factors. The fair value derived from the methods used is evaluated and weighted, as appropriate, considering the reasonableness of the range of values indicated. Under the market approach, fair value may be determined by reference to multiples of market-comparable companies or transactions, including earnings before interest, taxes, depreciation and amortization ("EBITDA") multiples. Under the income approach, fair value may be determined by discounting the expected cash flows to a single present value amount using current expectations about those future amounts. Unobservable inputs used in a discounted cash flow model may include projections of operating performance generally covering a five-year period and a terminal value of the private equity direct investment. For investments utilizing the discounted cash flow valuation technique, a significant increase (decrease) in the discount rate, risk premium or discount for lack of marketability in isolation could result in a significantly lower (higher) fair value measurement. For investments utilizing the market comparable companies valuation technique, a significant increase (decrease) in the EBITDA multiple in isolation could result in a significantly higher (lower) fair value measurement.

Level 3 assets may include investments in CLOs valued based on single-broker nonbinding quotes, and direct private equity investments valued using the market approach or the income approach as described above.

Level 3 Liabilities. Level 3 other liabilities primarily include recorded contingent liabilities related to certain acquisitions, which were valued based upon discounted cash flow analyses using unobservable market data inputs.

Changes in Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis for 2017

(in millions)	**December 31, 2016**	**Realized and Unrealized Gains (Losses) in Earnings and OCI**	**Purchases**	**Sales and Maturities**	**Issuances and Other Settlements(1)**	**Transfers into Level 3**	**Transfers out of Level 3(2)**	**December 31, 2017**	**Total Net Unrealized Gains (Losses) Included in Earnings(3)**
Assets:									
Investments:									
Available-for-sale securities(4)	$ 24	$ —	$ 23	$ —	$ —	$ —	$ (47)	**$ —**	
Trading	7	—	7	—	—	—	(14)	**—**	
Total investments	31	—	30	—	—	—	(61)	**—**	
Assets of consolidated VIEs - Private equity	112	4	—	—	—	—	—	**116**	$ 4
Total Level 3 assets	$ 143	$ 4	$ 30	$ —	$ —	$ —	$ (61)	**$ 116**	
Liabilities:									
Other liabilities(5)	$ 115	$ (10)	$ —	$ —	$ 111	$ —	$ —	**236**	$ (10)

(1) Issuance and other settlements amount includes $120 million and $9 million of contingent liabilities in connection with the acquisition of the equity infrastructure franchise of First Reserve in June 2017 ("First Reserve Transaction") and the acquisition of Cachematrix in July 2017 ("Cachematrix Transaction"), respectively, offset by contingent liability payments in connection with certain prior acquisitions.
(2) Amounts include transfers out of Level 3 due to availability of observable market inputs from pricing vendors.
(3) Earnings attributable to the change in unrealized gains (losses) relating to assets and liabilities still held at the reporting date.
(4) Amounts include investments in CLOs.
(5) Other liabilities amount includes contingent liabilities in connection with certain acquisitions.

Changes in Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis for 2016

(in millions)	December 31, 2015	Realized and Unrealized Gains (Losses) in Earnings and OCI	Purchases	Sales and Maturities	Issuances and Other Settlements(1)	Transfers into Level 3	Transfers out of Level 3(2)	December 31, 2016	Total Net Unrealized Gains (Losses) Included in Earnings(3)
Assets:									
Investments:									
Available-for-sale securities(4)	$ 23	$ —	$ 47	$ —	$ —	$ —	$ (46)	**$ 24**	
Trading	2	—	8	—	—	—	(3)	**7**	
Total investments	25	—	55	—	—	—	(49)	**31**	
Assets of consolidated VIEs - Private equity	196	3	6	(15)	—	—	(78)	**112**	$ 3
Total Level 3 assets	$ 221	$ 3	$ 61	$ (15)	$ —	$ —	$ (127)	**$ 143**	
Liabilities:									
Other liabilities(5)	$ 48	$ 3	$ —	$ —	$ 70	$ —	$ —	**115**	$ 3

(1) Issuances and other settlements amount includes a contingent liability related to the BofA® Global Capital Management transaction in April 2016.
(2) Amounts include transfers out of Level 3 due to availability of observable market inputs from pricing vendors.
(3) Earnings attributable to the change in unrealized gains (losses) relating to assets and liabilities still held at the reporting date.
(4) Amounts include investments in CLOs.
(5) Other liabilities amount includes contingent liabilities and payments of contingent liabilities in connection with certain acquisitions.

Realized and Unrealized Gains (Losses) for Level 3 Assets and Liabilities. Realized and unrealized gains (losses) recorded for Level 3 assets and liabilities are reported in nonoperating income (expense) on the consolidated statements of income. A portion of net income (loss) for consolidated sponsored investment funds are allocated to noncontrolling interests to reflect net income (loss) not attributable to the Company.

Transfers in and/or out of Levels. Transfers in and/or out of levels are reflected when significant inputs, including market inputs or performance attributes, used for the fair value measurement become observable/unobservable, or when the carrying value of certain equity method investments no longer represents fair value as determined under valuation methodologies.

Disclosures of Fair Value for Financial Instruments Not Held at Fair Value. At December 31, 2017 and 2016, the fair value of the Company's financial instruments not held at fair value are categorized in the table below.

(in millions)	December 31, 2017 Carrying Amount	December 31, 2017 Estimated Fair Value	December 31, 2016 Carrying Amount	December 31, 2016 Estimated Fair Value	Fair Value Hierarchy	
Financial Assets:						
Cash and cash equivalents	**$ 6,894**	**$ 6,894**	$ 6,091	$ 6,091	Level 1	(1) (2)
Accounts receivable	**2,699**	**2,699**	2,115	2,115	Level 1	(3)
Cash and cash equivalents of consolidated VIEs	**144**	**144**	84	84	Level 1	(1) (2)
Other assets	**70**	**70**	25	25	Level 1	(1) (4)
Financial Liabilities:						
Accounts payable and accrued liabilities	**1,161**	**1,161**	880	880	Level 1	(3)
Long-term borrowings	**5,014**	**5,225**	4,915	5,165	Level 2	(5)

(1) Cash and cash equivalents are carried at either cost or amortized cost, which approximates fair value due to their short-term maturities.
(2) At December 31, 2017 and 2016, approximately $163 million and $132 million of money market funds were recorded within cash and cash equivalents on the consolidated statements of financial condition. In addition, at December 31, 2017 and 2016, approximately $14 million and $13 million, respectively, of money market funds were recorded within cash and cash equivalents of consolidated VIEs. Money market funds are valued based on quoted market prices, or $1.00 per share, which generally is the NAV of the fund.
(3) The carrying amounts of accounts receivable, accounts payable and accrued liabilities approximate fair value due to their short-term nature.
(4) Other assets primarily include restricted cash.
(5) Long-term borrowings are recorded at amortized cost, net of debt issuance costs. The fair value of the long-term borrowings, including the current portion of long-term borrowings, is estimated using market prices at the end of

December 2017 and 2016, respectively. See Note 12, *Borrowings*, for the fair value of each of the Company's long-term borrowings.

Investments in Certain Entities that Calculate Net Asset Value Per Share

As a practical expedient to value certain investments that do not have a readily determinable fair value and have attributes of an investment company, the Company uses NAV as the fair value. The following tables list information regarding all investments that use a fair value measurement to account for both their financial assets and financial liabilities in their calculation of a NAV per share (or equivalent).

December 31, 2017

(in millions)	Ref	Fair Value	Total Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity method:(1)					
Hedge funds/funds of hedge funds	**(a)**	**$ 230**	**$ 48**	**Daily/Monthly (21%) Quarterly (49%) N/R (30%)**	**1 – 90 days**
Private equity funds	**(b)**	**94**	**86**	**N/R**	**N/R**
Real assets funds	**(c)**	**282**	**69**	**Quarterly (83%) N/R (17%)**	**60 days**
Other		**15**	**14**	**Daily (80%) N/R (20%)**	**5 days**
Consolidated VIEs:					
Private equity funds of funds	**(d)**	**59**	**20**	**N/R**	**N/R**
Hedge fund	**(a)**	**19**	**—**	**Quarterly**	**90 days**
Real assets funds	**(c)**	**34**	**49**	**NR**	**NR**
Total		**$ 733**	**$ 286**		

December 31, 2016

(in millions)	Ref	Fair Value	Total Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity method:(1)					
Hedge funds/funds of hedge funds	(a)	$ 237	$ 14	Daily/Monthly (21%) Quarterly (51%) N/R (28%)	1 – 90 days
Private equity funds	(b)	90	62	N/R	N/R
Real assets funds	(c)	60	35	Quarterly (41%) N/R (59%)	60 days
Other		12	9	Daily/Monthly (42%) N/R (58%)	3-5 days
Consolidated VIEs:					
Private equity funds of funds	(d)	89	16	N/R	N/R
Hedge fund	(a)	36	—	Quarterly	90 days
Real assets funds	(c)	27	21	NR	NR
Total		$ 551	$ 157		

N/R – not redeemable

(1) Comprised of equity method investments, which include investment companies, which account for their financial assets and most financial liabilities under fair value measures; therefore, the Company's investment in such equity method investees approximates fair value.

(2) This category includes hedge funds and funds of hedge funds that invest primarily in equities, fixed income securities, distressed credit, opportunistic and mortgage instruments and other third-party hedge funds. The fair values of the investments have been estimated using the NAV of the Company's ownership interest in partners' capital. It was estimated that the investments in the funds that are not subject to redemption will be liquidated over a weighted-average period of seven years at December 31, 2017 and approximately one year at December 31, 2016.

(3) This category includes several private equity funds that initially invest in nonmarketable securities of private companies, which ultimately may become public in the future. The fair values of these investments have been estimated using capital accounts representing the Company's ownership interest in the funds as well as other performance inputs. The Company's investment in each fund is not subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying assets of the private equity funds. It was estimated that the investments in these funds will be liquidated over a weighted-average period of approximately six years and five years at December 31, 2017 and 2016, respectively.

(c) This category includes several real assets funds that invest directly in real estate, real estate related assets and infrastructure. The fair values of the investments have been estimated using capital accounts representing the Company's ownership interest in the funds. The Company's investments that are not subject to redemption or are not currently redeemable are normally returned through distributions as a result of the liquidation of the underlying assets of the funds. It is estimated that the investments in these funds not subject to redemptions will be liquidated over a weighted-average period of approximately eight years and six years at December 31, 2017 and 2016, respectively. The total remaining unfunded commitments to other third-party funds were $117 million and $56 million at December 31, 2017 and December 31, 2016, respectively. The Company had contractual obligations to the consolidated funds of $98 million at December 31, 2017 and $56 million at December 31, 2016.

(d) This category includes the underlying third-party private equity funds within consolidated BlackRock sponsored private equity funds of funds. The fair values of the investments in the third-party funds have been estimated using capital accounts representing the Company's ownership interest in each fund in the portfolio as well as other performance inputs. These investments are not subject to redemption; however, for certain funds, the Company may sell or transfer its interest, which may need approval by the general partner of the underlying funds. Due to the nature of the investments in this category, the Company reduces its investment by distributions that are received through the realization of the underlying assets of the funds. It is estimated that the underlying assets of these funds will be liquidated over a weighted-average period of approximately five years at both December 31, 2017 and 2016. The total remaining unfunded commitments to other third-party funds were $20 million and $16 million at December 31, 2017 and 2016, respectively. The Company had contractual obligations to the consolidated funds of $23 million and $24 million at December 31, 2017 and 2016, respectively.

7. Derivatives and Hedging

The Company maintains a program to enter into swaps to hedge against market price and interest rate exposures with respect to certain seed investments in sponsored investment products. At December 31, 2017, the Company had outstanding total return swaps with an aggregate notional value of approximately $587 million. At December 31, 2016, the Company had outstanding total return swaps and interest rate swaps with aggregate notional values of approximately $572 million and $42 million, respectively.

Gains (losses) on total return swaps are recorded in nonoperating income (expense) and were $(118) million, $(31) million and $11 million for 2017, 2016 and 2015, respectively.

Gains (losses) on the interest rate swaps are recorded in nonoperating income (expense) and were not material for 2017, 2016 and 2015.

The Company has entered into a derivative, providing credit protection to a counterparty of approximately $17 million, representing the Company's maximum risk of loss with respect to the provision of credit protection. The Company carries the derivative at fair value based on the expected discounted future cash outflows under the arrangement.

The Company executes forward foreign currency exchange contracts to mitigate the risk of certain foreign exchange movements. At December 31, 2017 and 2016, the Company had outstanding forward foreign currency exchange contracts with aggregate notional values of approximately $1.5 billion and $107 million, respectively. Gains (losses) on the forward foreign currency exchange contracts are recorded in other general and administration expense and were $63 million for 2017. Gains (losses) on the forward foreign currency exchange contracts were not material to the consolidated statements of income for 2016 and 2015.

The Company consolidates certain sponsored investment funds, which may utilize derivative instruments as a part of the funds' investment strategies. The change in fair value of such derivatives, which is recorded in nonoperating income (expense), was not material for 2017, 2016 and 2015.

The fair value of the outstanding derivatives mentioned above were not material to the consolidated statements of financial condition at December 31, 2017 and 2016.

See Note 12, *Borrowings*, for more information on the Company's net investment hedge.

8. Property and Equipment

Property and equipment consists of the following:

	Estimated useful	December 31,	
(in millions)	**life-in years**	**2,017,000,000**	**2,016,000,000**
Property and equipment:			
Land	N/A	**$ 6**	$ 6
Building	39	**33**	33
Building improvements	15	**29**	29
Leasehold improvements	1-15	**504**	476
Equipment and computer software	3	**444**	411
Other transportation equipment	10	**134**	135
Furniture and fixtures	7	**67**	65
Construction in progress	N/A	**33**	5
Total		**1,250**	1,160
Less: accumulated depreciation and amortization		**658**	601
Property and equipment, net		**$ 592**	$ 559

N/A – Not Applicable

Qualifying software costs of approximately $60 million, $50 million and $48 million have been capitalized within equipment and computer software during 2017, 2016 and 2015, respectively, and are being amortized over an estimated useful life of three years.

Depreciation and amortization expense was $132 million, $124 million and $115 million for 2017, 2016 and 2015, respectively.

9. Goodwill

Goodwill activity during 2017 and 2016 was as follows:

(in millions)		2,017,000,000		2,016,000,000
Beginning of year balance	**$**	**13,118**	$	13,123
Acquisitions(1)		**121**		14
Goodwill adjustments related to Quellos(2)		**(19)**		(19)
End of year balance	**$**	**13,220**	$	13,118

(1) In 2017, the $121 million increase includes $91 million of goodwill related to the First Reserve Transaction, which expanded the Company's energy and power infrastructure platform and $30 million of goodwill related to the Cachematrix Transaction, which enhanced the Company's technology and cash management capabilities. The total consideration paid for the First Reserve Transaction was approximately $193 million, including $120 million of contingent consideration at fair value at time of close. The total consideration paid for the Cachematrix Transaction was approximately $38 million, including $9 million of contingent consideration at fair value at time of close. In 2016, the $14 million increase represents goodwill from the BofA Global Capital Management transaction in April 2016 that transferred investment management responsibilities of approximately $80.6 billion of cash assets under management to the Company. Total consideration included $75 million of contingent consideration at fair value at time of close. BlackRock's platform provides clients with broad access to high quality, global liquidity investment solutions.

(1) The decrease in goodwill during both 2017 and 2016 resulted from a decline related to tax benefits realized from tax-deductible goodwill in excess of book goodwill from the acquisition of the fund-of-funds business of Quellos Group, LLC in October 2007 (the "Quellos Transaction"). Goodwill related to the Quellos Transaction will continue to be reduced in future periods by the amount of tax benefits realized from tax-deductible goodwill in excess of book goodwill from the Quellos Transaction. The balance of the Quellos tax-deductible goodwill in excess of book goodwill was approximately $168 million and $200 million at December 31, 2017 and 2016, respectively.

BlackRock assessed its goodwill for impairment as of July 31, 2017, 2016 and 2015 and considered such factors as the book value and the market capitalization of the Company. The impairment assessment indicated no impairment charges were required. The Company continues to monitor its book value per share compared with closing prices of its common stock for potential indicators of impairment. At December 31, 2017, the Company's common stock closed at a market price of $513.71, which exceeded its book value of approximately $197.61 per share.

10. Intangible Assets

Intangible assets at December 31, 2017 and 2016 consisted of the following:

(in millions)	Remaining Weighted-Average Estimated Useful Life		Gross Carrying Amount		Accumulated Amortization		Net Carrying Amount
At December 31, 2017							
Indefinite-lived intangible assets:							
Management contracts	**N/A**	**$**	**15,769**	**$**	**—**	**$**	**15,769**
Trade names / trademarks	**N/A**		**1,403**		**—**		**1,403**
License	**N/A**		**6**		**—**		**6**
Total indefinite-lived intangible assets			**17,178**		**—**		**17,178**
Finite-lived intangible assets:							
Management contracts	**5.3**		**379**		**212**		**167**
Investor/customer relationships	**11.2**		**45**		**2**		**43**
Intellectual property	**0.6**		**6**		**5**		**1**
Total finite-lived intangible assets	**6.5**		**430**		**219**		**211**
Total intangible assets		**$**	**17,608**	**$**	**219**	**$**	**17,389**
At December 31, 2016							
Indefinite-lived intangible assets:							
Management contracts	N/A	$	15,769	$	—	$	15,769
Trade names / trademarks	N/A		1,403		—		1,403
License	N/A		6		—		6
Total indefinite-lived intangible assets			17,178		—		17,178
Finite-lived intangible assets:							
Management contracts	3.9		1,011		827		184
Intellectual property	1.6		6		5		1
Total finite-lived intangible assets	3.8		1,017		832		185
Total intangible assets		$	18,195	$	832	$	17,363

N/A — Not Applicable

The impairment tests performed for intangible assets as of July 31, 2017, 2016 and 2015 indicated no impairment charges were required.

Estimated amortization expense for finite-lived intangible assets for each of the five succeeding years is as follows:

(in millions) **Year**		**Amount**
2,018,000,000	$	45
2,019,000,000		44
2,020,000,000		29
2,021,000,000		27
2,022,000,000		18

In 2017, in connection with the First Reserve Transaction, the Company acquired $70 million of finite-lived management contracts with a weighted-average estimated life of approximately 7.6 years. In addition, in 2017 in connection with the First Reserve and Cachematrix Transactions, the Company acquired $40 million and $5 million, respectively, of investor/customer relationships with a weighted-average estimated life of approximately 12 and 10 years, respectively.

In 2016, in connection with the BofA Global Capital Management transaction, the Company acquired $70 million of indefinite-lived management contracts and $20 million of finite-lived management contracts with a weighted-average estimated life of approximately 10 years.

11. Other Assets

The Company accounts for its interest in PennyMac as an equity method investment, which is included in other assets on the consolidated statements of financial condition. The carrying value and fair value of the Company's interest (approximately 20% or 16 million shares and non-public units) was approximately $342 million and $348 million, respectively, at December 31, 2017 and approximately $301 million and $259 million, respectively, at December 31, 2016. The fair value of the Company's interest reflected the PennyMac stock price at December 31, 2017 and 2016, respectively (a Level 1 input). The fair value of the

Company's interest in the non-public units held of PennyMac is based on the stock price of the PennyMac public securities at December 31, 2017 and 2016.

12. Borrowings

Short-Term Borrowings

2017 Revolving Credit Facility. The Company's credit facility has an aggregate commitment amount of $4.0 billion and was amended in April 2017 to extend the maturity date to April 2022 (the "2017 credit facility"). The 2017 credit facility permits the Company to request up to an additional $1.0 billion of borrowing capacity, subject to lender credit approval, increasing the overall size of the 2017 credit facility to an aggregate principal amount not to exceed $5.0 billion. Interest on borrowings outstanding accrues at a rate based on the applicable London Interbank Offered Rate plus a spread. The 2017 credit facility requires the Company not to exceed a maximum leverage ratio (ratio of net debt to earnings before interest, taxes, depreciation and amortization, where net debt equals total debt less unrestricted cash) of 3 to 1, which was

satisfied with a ratio of less than 1 to 1 at December 31, 2017. The 2017 credit facility provides back-up liquidity to fund ongoing working capital for general corporate purposes and various investment opportunities. At December 31, 2017, the Company had no amount outstanding under the 2017 credit facility.

Commercial Paper Program. The Company can issue unsecured commercial paper notes (the "CP Notes") on a private-placement basis up to a maximum aggregate amount outstanding at any time of $4.0 billion. The commercial paper program is currently supported by the 2017 credit facility. At December 31, 2017, BlackRock had no CP Notes outstanding.

Long-Term Borrowings

The carrying value and fair value of long-term borrowings estimated using market prices and foreign exchange rates at December 31, 2017 included the following:

(in millions)	Maturity Amount	Unamortized Discount and Debt Issuance Costs	Carrying Value	Fair Value
5.00% Notes due 2019	$ 1,000	$ (1)	$ 999	$ 1,051
4.25% Notes due 2021	750	(3)	747	792
3.375% Notes due 2022	750	(4)	746	774
3.50% Notes due 2024	1,000	(6)	994	1,038
1.25% Notes due 2025	841	(6)	835	864
3.20% Notes due 2027	700	(7)	693	706
Total Long-term Borrowings	$ 5,041	$ (27)	$ 5,014	$ 5,225

Long-term borrowings at December 31, 2016 had a carrying value of $4.9 billion and a fair value of $5.2 billion determined using market prices at the end of December 2016.

2027 Notes. In March 2017, the Company issued $700 million in aggregate principal amount of 3.20% senior unsecured and unsubordinated notes maturing on March 15, 2027 (the "2027 Notes"). Interest is payable semi-annually on March 15 and September 15 of each year, commencing September 15, 2017, and is approximately $22 million per year. The 2027 Notes may be redeemed prior to maturity at any time in whole or in part at the option of the Company at a "make-whole" redemption price. The unamortized discount and debt issuance costs are being amortized over the remaining term of the 2027 Notes.

In April 2017, the net proceeds of the 2027 Notes were used to fully repay $700 million in aggregate principal amount outstanding of 6.25% notes prior to their maturity in September 2017.

2025 Notes. In May 2015, the Company issued €700 million of 1.25% senior unsecured notes maturing on May 6, 2025 (the "2025 Notes"). The notes are listed on the New York Stock Exchange. The net proceeds of the 2025 Notes were used for general corporate purposes, including refinancing of outstanding indebtedness. Interest of approximately $9 million per year based on current exchange rates is payable annually on May 6 of each year. The 2025 Notes may be redeemed in whole or in part prior to maturity at any time at the option of the Company at a "make-whole" redemption price. The unamortized discount and debt issuance costs are being amortized over the remaining term of the 2025 Notes.

Upon conversion to U.S. dollars the Company designated the €700 million debt offering as a net investment hedge to offset its currency exposure relating to its net investment in certain euro functional currency operations. A loss of $64 million (net of a tax benefit of $38 million), a gain of $14 million (net of tax of $8 million), and a gain of $19 million (net of tax of $11 million) were recognized in other comprehensive income for 2017, 2016 and 2015, respectively. No hedge ineffectiveness was recognized during 2017, 2016, and 2015.

2024 Notes. In March 2014, the Company issued $1.0 billion in aggregate principal amount of 3.50% senior unsecured and unsubordinated notes maturing on March 18, 2024 (the "2024 Notes"). The net proceeds of the 2024 Notes were used to refinance certain indebtedness which matured in the fourth quarter of 2014. Interest is payable semi-annually in arrears on

March 18 and September 18 of each year, or approximately $35 million per year. The 2024 Notes may be redeemed prior to maturity at any time in whole or in part at the option of the Company at a "make-whole" redemption price. The unamortized discount and debt issuance costs are being amortized over the remaining term of the 2024 Notes.

2022 Notes. In May 2012, the Company issued $1.5 billion in aggregate principal amount of unsecured unsubordinated obligations. These notes were issued as two separate series of senior debt securities, including $750 million of 1.375% notes, which were repaid in June 2015 at maturity, and $750 million of 3.375% notes maturing in June 2022 (the "2022 Notes"). Net proceeds were used to fund the repurchase of BlackRock's common stock and Series B Preferred from Barclays and affiliates and for general corporate purposes. Interest on the 2022 Notes of approximately $25 million per year is payable semi-annually on June 1 and December 1 of each year. The 2022 Notes may be redeemed prior to maturity at any time in whole or in part at the option of the Company at a "make-whole" redemption price. The "make-whole" redemption price represents a price, subject to the specific terms of the 2022 Notes and related indenture, that is the greater of (a) par value and (b) the present value of future payments that will not be paid because of an early redemption, which is discounted at a fixed spread over a comparable Treasury security. The unamortized discount and debt issuance costs are being amortized over the remaining term of the 2022 Notes.

2021 Notes. In May 2011, the Company issued $1.5 billion in aggregate principal amount of unsecured unsubordinated obligations. These notes were issued as two separate series of senior debt securities, including $750 million of 4.25% notes maturing in May 2021 and $750 million of floating rate notes, which were repaid in May 2013 at maturity. Net proceeds of this offering were used to fund the repurchase of BlackRock's Series B Preferred from affiliates of Merrill Lynch & Co., Inc. Interest on the 4.25% notes due in 2021 ("2021 Notes") is payable semi-annually on May 24 and November 24 of each year, and is approximately $32 million per year. The 2021 Notes may be redeemed prior to maturity at any time in whole or in part at the option of the Company at a "make-whole" redemption price. The unamortized discount and debt issuance costs are being amortized over the remaining term of the 2021 Notes.

2019 Notes. In December 2009, the Company issued $2.5 billion in aggregate principal amount of unsecured and unsubordinated obligations. These notes were issued as three separate series of senior debt securities including $0.5 billion of 2.25% notes, which were repaid in December 2012, $1.0 billion of 3.50% notes, which were repaid in December 2014 at maturity, and $1.0 billion of 5.0% notes maturing in December 2019 (the "2019 Notes"). Net proceeds of this offering were used to repay borrowings under the CP Program, which was used to finance a portion of the acquisition of Barclays Global Investors from Barclays on December 1, 2009, and for general corporate purposes. Interest on the 2019 Notes of approximately $50 million per year is payable semi-annually in arrears on June 10 and December 10 of each year. These notes may be redeemed prior to maturity at any time in whole or in part at the option of the Company at a "make-whole" redemption price. The unamortized discount and debt issuance costs are being amortized over the remaining term of the 2019 Notes.

13. Commitments and Contingencies

Operating Lease Commitments

The Company leases its primary office spaces under agreements that expire through 2043. Future minimum commitments under these operating leases are as follows:

(in millions)

Year			Amount
	2,018,000,000		141
	2,019,000,000		132
	2,020,000,000		126
	2,021,000,000		118
	2,022,000,000		109
Thereafter			1,580
Total		$	2,206

In May 2017, the Company entered into an agreement with 50 HYMC Owner LLC, for the lease of approximately 847,000 square feet of office space located at 50 Hudson Yards, New York, New York. The term of the lease is twenty years from the date that rental payments begin, expected to occur in May 2023, with the option to renew for a specified term. The lease requires annual base rental payments of approximately $51 million per year during the first five years of the lease term, increasing every five years to $58 million, $66 million and $74 million per year (or approximately $1.2 billion in base rent over its twenty-year term). This lease is classified as an operating lease and, as such, is not recorded as a liability on the consolidated statements of financial condition.

Rent expense and certain office equipment expense under lease agreements amounted to $132 million, $134 million and $136 million in 2017, 2016 and 2015, respectively.

Investment Commitments. At December 31, 2017, the Company had $298 million of various capital commitments to fund sponsored investment funds, including consolidated VIEs. These funds include private equity funds, real assets funds, and opportunistic funds. This amount excludes additional commitments made by consolidated funds of funds to underlying third-party funds as third-party noncontrolling interest holders have the legal obligation to fund the respective commitments of such funds of funds. Generally, the timing of the funding of these commitments is unknown and the commitments are callable on demand at any time prior to the expiration of the commitment. These unfunded commitments are not recorded on the consolidated statements of financial condition. These commitments do not include potential future commitments approved by the Company that are not yet legally binding. The Company intends to make additional capital commitments from time to time to fund additional investment products for, and with, its clients.

Contingencies

Contingent Payments Related to Business Acquisitions. In connection with certain acquisitions, BlackRock is required to make contingent payments, subject to achieving specified performance targets, which may include revenue related to acquired contracts or new capital commitments for certain products. The fair value of the remaining aggregate contingent payments at December 31, 2017 totaled $236 million, including $128 million related to the First Reserve Transaction, and is included in other liabilities on the consolidated statements of financial condition.

Other Contingent Payments. The Company acts as the portfolio manager in a series of derivative transactions and has a maximum potential exposure of $17 million between the Company and counterparty. See Note 7, *Derivatives and Hedging*, for further discussion.

Legal Proceedings. From time to time, BlackRock receives subpoenas or other requests for information from various U.S. federal, state governmental and regulatory authorities and international regulatory authorities in connection with industry-wide or other investigations or proceedings. It is BlackRock's policy to cooperate fully with such inquiries. The Company and certain of its subsidiaries have been named as defendants in various legal actions, including arbitrations and other litigation arising in connection with BlackRock's activities. Additionally, BlackRock-advised investment portfolios may be subject to lawsuits, any of which potentially could harm the investment returns of the applicable portfolio or result in the Company being liable to the portfolios for any resulting damages.

On May 27, 2014, certain investors in the BlackRock Global Allocation Fund, Inc. and the BlackRock Equity Dividend Fund (collectively, the "Funds") filed a consolidated complaint (the "Consolidated Complaint") in the U.S. District Court for the District of New Jersey against BlackRock Advisors, LLC, BlackRock Investment Management, LLC and BlackRock International Limited under the caption *In re BlackRock Mutual Funds Advisory Fee Litigation*. The Consolidated Complaint, which purports to be brought derivatively on behalf of the Funds, alleges that the defendants violated Section 36(b) of the Investment Company Act by receiving allegedly excessive investment advisory fees from the Funds. On February 24, 2015, the same plaintiffs filed another complaint in the same court against BlackRock Investment Management, LLC and BlackRock Advisors, LLC. Both complaints seek, among other things, to recover on behalf of the Funds all allegedly excessive advisory fees received by defendants in the twelve month period preceding the start of each lawsuit, along with purported lost investment returns on
those amounts, plus interest. The defendants believe the claims in both lawsuits are without merit and are vigorously defending the actions. On September 25, 2017, the defendants filed a motion for summary judgment to dismiss the lawsuit, which is pending.

In November 2015, BlackRock, Inc., BlackRock Realty Advisors, Inc. ("BRA"), BlackRock US Core Property Fund, Inc. (formerly known as BlackRock Granite Property Fund, Inc.) ("Granite Fund"), and certain other Granite Fund related entities (collectively, the "BlackRock Parties") were named as defendants in thirteen lawsuits filed in the Superior Court of the State of California for the County of Alameda arising out of the June 16, 2015 collapse of a balcony at the Library Gardens apartment complex in Berkeley, California (the "Property"). The Property is indirectly owned by the Granite Fund, which is managed by BRA. The plaintiffs also named as defendants in the lawsuits Greystar, which manages the Property, and certain other non-BlackRock related entities, including the developer of the Property, building contractors and building materials suppliers. The plaintiffs alleged, among other things, that the BlackRock Parties were negligent in their ownership, control and maintenance of the Property's balcony, and sought monetary, including punitive, damages. Additionally, on March 16, 2016, three former tenants of the Library Gardens apartment unit who were not physically injured but experienced the balcony collapse sued the BlackRock Parties for emotional damages. In November 2017, the BlackRock Parties settled all of the lawsuits relating to Library Gardens.

On June 16, 2016, *iShares* Trust, BlackRock, Inc. and certain of its advisory affiliates, and the directors and certain officers of the *iShares* ETFs were named as defendants in a purported class action lawsuit filed in California state court. The lawsuit was filed by investors in certain *iShares* ETFs (the "ETFs"), and alleges the defendants violated the federal securities laws, purportedly by failing to adequately disclose in prospectuses issued by the ETFs the risks to the ETFs' shareholders in the event of a "flash crash." Plaintiffs seek unspecified monetary damages. The plaintiffs' complaint was dismissed in December 2016 and on January 6, 2017, plaintiffs filed an amended complaint. The defendants filed a motion for judgment on the pleadings dismissing that complaint. On September 18, 2017, the court dismissed the lawsuit. On December 1, 2017, the plaintiffs appealed the dismissal of their lawsuit.

On April 5, 2017, BlackRock, Inc., BlackRock Institutional Trust Company, N.A. ("BTC"), the BlackRock, Inc. Retirement Committee and various sub-committees, and a BlackRock employee were named as defendants in a purported class action lawsuit brought in the U.S. District Court for the Northern District of California by a former employee on behalf of all BlackRock employee 401(k) Plan (the "Plan") participants and beneficiaries in the Plan from April 5, 2011, to the present. The lawsuit generally alleges that the defendants breached their duties towards Plan participants in violation of the Employee Retirement Income Security Act of 1974 by, among other things, offering investment options that were overly expensive, underperformed peer funds, focused disproportionately on active versus passive strategies, and were unduly concentrated with investment options managed by

BlackRock. While the complaint does not contain any specific amount in alleged damages, it claims that the purported underperformance and hidden fees cost Plan participants more than $60 million. On October 10, 2017, the plaintiffs filed an Amended Complaint, which, among other things, adds as defendants certain current and former members of the BlackRock Retirement and Investment Committees. The Amended Complaint also includes a new purported class claim on behalf of investors in certain Collective Trust Funds ("CTFs") managed by BTC. Specifically, the plaintiffs allege that BTC, as fiduciary to the CTFs, engaged in self-dealing by, most significantly, selecting itself as the lending agent on terms that plaintiffs claim were excessive. The defendants believe the claims in this lawsuit are without merit and is vigorously defending the action. BlackRock moved to dismiss the Amended Complaint on November 8, 2017.

Management, after consultation with legal counsel, currently does not anticipate that the aggregate liability arising out of regulatory matters or lawsuits will have a material effect on BlackRock's results of operations, financial position, or cash flows. However, there is no assurance as to whether any such pending or threatened matters will have a material effect on BlackRock's results of operations, financial position or cash flows in any future reporting period. Due to uncertainties surrounding the outcome of these matters, management cannot reasonably estimate the possible loss or range of loss that may arise from these matters.

Indemnifications. In the ordinary course of business or in connection with certain acquisition agreements, BlackRock enters into contracts pursuant to which it may agree to indemnify third parties in certain circumstances. The terms of these indemnities vary from contract to contract and the amount of indemnification liability, if any, cannot be determined or the likelihood of any liability is considered remote. Consequently, no liability has been recorded on the consolidated statements of financial condition.

In connection with securities lending transactions, BlackRock has issued certain indemnifications to certain securities lending clients against potential loss resulting from a borrower's failure to fulfill its obligations under the securities lending agreement should the value of the collateral pledged by the borrower at the time of default be insufficient to cover the borrower's obligation under the securities lending agreement. At December 31, 2017, the Company indemnified certain clients for their securities lending loan balances of approximately $200 billion. The Company held as agent, cash and securities totaling $214 billion as collateral for indemnified securities on loan at December 31, 2017. The fair value of these indemnifications was not material at December 31, 2017.

14. Stock-Based Compensation

The components of stock-based compensation expense are as follows:

(in millions)	**2,017,000,000**	2,016,000,000	2,015,000,000
Stock-based compensation:			
Restricted stock and RSUs	**$ 524**	$ 493	$ 484
Long-term incentive plans to be funded by PNC	**15**	28	30
Stock options	**3**	—	—
Total stock-based compensation	**$ 542**	$ 521	$ 514

Stock Award and Incentive Plan. Pursuant to the BlackRock, Inc. Second Amended and Restated 1999 Stock Award and Incentive Plan (the "Award Plan"), options to purchase shares of the Company's common stock at an exercise price not less than the market value of BlackRock's common stock on the date of grant in the form of stock options, restricted stock or RSUs may be granted to employees and nonemployee directors. A maximum of 34,500,000 shares of common stock were authorized for issuance under the Award Plan. Of this amount, 2,438,646 shares remain available for future awards at December 31, 2017. Upon exercise of employee stock options, the issuance of restricted stock or the vesting of RSUs, the Company issues shares out of treasury to the extent available.

Restricted Stock and RSUs. Pursuant to the Award Plan, restricted stock grants and RSUs may be granted to certain employees. Substantially all restricted stock and RSUs vest over periods ranging from one to three years and are expensed using the straight-line method over the requisite service period for each separately vesting portion of the award as if the award was, in-substance, multiple awards. Restricted stock and RSUs are not considered participating securities for purposes of calculating EPS as the dividend equivalents are subject to forfeiture prior to vesting of the award.

Restricted stock and RSU activity for 2017 is summarized below.

Outstanding at	Restricted Stock and RSUs		Weighted-Average Grant Date Fair Value
December 31, 2016	2,987,588	$	318.04
Granted	1,104,210	$	381.62
Converted	(1,424,649)	$	321.12
Forfeited	(58,481)	$	339.17
December 31, 2017(1)	**2,608,668**	**$**	**342.79**

(1) At December 31, 2017, approximately 2.3 million awards are expected to vest and 0.3 million awards have vested but have not been converted.

The Company values restricted stock and RSUs at their grant-date fair value as measured by BlackRock's common stock price. The total grant-date fair market value of RSUs/restricted stock granted to employees during 2017, 2016 and 2015 was $421 million, $446 million and $473 million, respectively. The total grant-date fair market value of RSUs/restricted stock converted to common stock during 2017, 2016 and 2015 was $457 million, $413 million and $379 million, respectively.

RSUs/restricted stock granted in connection with annual incentive compensation under the Award Plan primarily related to the following:

	2,017,000,000	2,016,000,000	2,015,000,000
Awards granted that vest ratably over three years from the date of grant	**699,991**	1,030,964	952,329
Awards granted that cliff vest 100% on:			
January 31, 2018	**—**	—	303,999
January 31, 2019	**—**	303,587	—
January 31, 2020	**277,313**	—	—
	977,304	**1,334,551**	**1,256,328**

In addition the Company also granted RSUs of 126,906, 146,574 and 120,935 during 2017, 2016 and 2015, respectively, with varying vesting periods up to three years.

At December 31, 2017, the intrinsic value of outstanding RSUs was $1.3 billion, reflecting a closing stock price of $513.71 at December 31, 2017.

At December 31, 2017, there was $272 million in total unrecognized stock-based compensation expense related to unvested RSUs. The unrecognized compensation cost is expected to be recognized over the remaining weighted-average period of less than one year.

In January 2018, the Company granted under the Award Plan

- 527,337 RSUs or shares of restricted stock to employees as part of annual incentive compensation that vest ratably over three years from the date of grant; and
- 209,201 RSUs or shares of restricted stock to employees that cliff vest 100% on January 31, 2021.

Performance-Based RSUs. Pursuant to the Award Plan, performance-based RSUs may be granted to certain employees. Each performance-based award consists of a "base" number of RSUs granted to the employee. The number of shares that an employee ultimately receives at vesting will be equal to the base number of performance-based RSUs granted, multiplied by a predetermined percentage determined in accordance with the level of attainment of Company performance measures during the performance period and could be higher or lower than the original RSU grant. The awards are generally forfeited if the employee leaves the Company before the vesting date. Performance-based RSUs are not considered participating securities as the dividend equivalents are subject to forfeiture prior to vesting of the award.

In the first quarter of 2017, 2016 and 2015, the Company granted 294,584, 375,242, and 262,847, respectively, performance-based RSUs to certain employees that cliff vest 100% on January 31, 2020, 2019, and 2018 respectively. These awards are amortized over a service period of three years. The number of shares distributed at vesting could be higher or lower than the original grant based on the level of attainment of predetermined Company performance measures.

Performance-based RSU activity for 2017 is summarized below.

Outstanding at	Performance-Based RSUs		Weighted-Average Grant Date Fair Value
December 31, 2016	610,371	$	315.65
Granted	294,584	$	375.27
Forfeited	(1,430)	$	296.12
December 31, 2017	**903,525**	**$**	**335.12**

The Company initially values performance-based RSUs at their grant-date fair value as measured by BlackRock's common stock price. The total grant-date fair market value of performance-based RSUs granted to employees during 2017 was $111 million.

At December 31, 2017, the intrinsic value of outstanding performance-based RSUs was $464 million reflecting a closing stock price of $513.71.

At December 31, 2017, total unrecognized stock-based compensation expense related to unvested performance-based awards was $117 million. The unrecognized compensation cost is expected to be recognized over the remaining weighted-average period of 1.2 years.

In January 2018, the Company granted 199,068 performance-based RSUs to certain employees that cliff vest 100% on January 31, 2021. These awards are amortized over a service period of three years. The number of shares distributed at vesting could be higher or lower than the original grant based on the level of attainment of predetermined Company performance measures.

Market Performance-based RSUs. Pursuant to the Award Plan, market performance-based RSUs may be granted to certain employees. The market performance-based RSUs require that separate 15%, 25% and 35% share price appreciation targets be achieved during the six-year term of the awards. The awards are split into three tranches and each tranche may vest if the specified target increase in share price is met. Eligible vesting dates for each tranche are January 31 (or, if such date is not a business day, the next following business day) of the year in which the fourth, fifth or sixth anniversaries of the grant-date occurs. Certain awards are forfeited if the employee leaves BlackRock before the vesting date. These awards are amortized over a service period of four years, which is the longer of the explicit service period or the period in which the market target is expected to be met. Market performance-based RSUs are not considered participating securities as the dividend equivalents are subject to forfeiture prior to vesting of the award. During 2017 and 2016 there were no market performance-based awards granted.

Market performance-based RSU activity for 2017 is summarized below.

Outstanding at	Market Performance-Based RSUs		Weighted-Average Grant Date Fair Value
December 31, 2016	803,474	$	151.20
Converted	(517,138)	$	126.76
December 31, 2017(1)	**286,336**	**$**	**195.33**

(1) At December 31, 2017, approximately 0.3 million awards are expected to vest on January 31, 2018.

At December 31, 2017, the intrinsic value of outstanding market performance-based awards was $147 million reflecting a closing stock price of $513.71.

At December 31, 2017, total unrecognized stock-based compensation expense related to unvested market performance-based awards was $1 million. The unrecognized compensation cost will be recognized in 2018.

Long-Term Incentive Plans Funded by PNC. Under a share surrender agreement, PNC committed to provide up to 4 million shares of BlackRock stock, held by PNC, to fund certain BlackRock long-term incentive plans ("LTIP"), including performance-based and market performance-based RSUs. The current share surrender agreement commits PNC to provide BlackRock Series C nonvoting participating preferred stock to fund the remaining committed shares. As of December 31, 2017, 3.8 million shares had been surrendered by PNC, including 517,138 shares which were surrendered by PNC in the first quarter of 2017.

At December 31, 2017, the remaining shares committed by PNC of 0.2 million were available to fund certain future long-term incentive awards.

103,064 shares were surrendered by PNC in the first quarter of 2018.

Performance-based Stock Options. Pursuant to the Award Plan, performance-based stock options may be granted to certain employees. Vesting of the performance-based stock options is contingent upon the achievement of obtaining 125% of BlackRock's grant-date stock price within five years from the grant date and the attainment of Company performance measures during the four-year performance period. If both hurdles are achieved, the award will vest in three equal installments at the end of years five, six and seven. Vested options can then be exercised up to nine years following the grant date. The awards are generally forfeited if the employee leaves the Company before the respective vesting date. The expense for each tranche is amortized over the respective requisite service period. The Company assumes the performance condition will be achieved. If such condition is not met, no compensation cost is recognized and any recognized compensation cost is reversed. Stock option activity for 2017 is summarized below.

Outstanding at		Shares Under Option		Weighted Average Exercise Price
	December 31, 2016	—	$	—
Granted		2,147,562	$	513.50
	December 31, 2017	**2,147,562**	**$**	**513.50**

The options have a strike price of $513.50, which was the closing price of the shares on the grant date. The grant-date fair value of the awards issued in 2017 was $208 million and was estimated using a Monte Carlo simulation with an embedded lattice model using the assumptions included in the following table:

Grant Year	Expected Term (Years)	Expected Stock Volatility	Expected Dividend Yield	Risk-Free Interest Rate
2,017,000,000	6.56	22.23%	2.16%	2.33%

The expected term was derived using a Monte Carlo simulation with the embedded lattice model and represents the period of time that options granted are expected to be outstanding. The expected stock volatility was based upon an average of historical stock price fluctuations of BlackRock's common stock and an implied volatility at the grant date. The dividend yield was calculated as the most recent quarterly dividend divided by the average three-month stock price as of the grant date. The risk free interest rate is based on the U.S. Treasury Constant Maturities yield curve at date of grant.

At December 31, 2017, total unrecognized stock-based compensation expense related to unvested performance-based stock options was $205 million. The unrecognized compensation cost is expected to be recognized over the remaining weighted-average period of 5.9 years.

Employee Stock Purchase Plan ("ESPP"). The ESPP allows eligible employees to purchase the Company's common stock at 95% of the fair market value on the last day of each three-month offering period. The Company does not record compensation expense related to employees purchasing shares under the ESPP.

15. Employee Benefit Plans

Deferred Compensation Plans

Voluntary Deferred Compensation Plan. The Company adopted a Voluntary Deferred Compensation Plan ("VDCP") that allows eligible employees in the United States to elect to defer between 1% and 100% of their annual cash incentive compensation. The participants must specify a deferral period of up to 10 years from the year of deferral and additionally, elect to receive distributions in the form of a lump sum or in up to 10 annual installments. The Company may fund the obligation through the rabbi trust on behalf of the plan's participants.

The rabbi trust established for the VDCP, with assets totaling $56 million and $59 million at December 31, 2017 and 2016, respectively, is reflected in investments on the consolidated statements of financial condition. Such investments are classified as trading investments. The liability balance of $85 million and $83 million at December 31, 2017 and 2016, respectively, is reflected on the consolidated statements of financial condition as accrued compensation and benefits. Earnings in the rabbi trust, including unrealized appreciation or depreciation, are reflected as nonoperating income (expense) and changes in the liability are reflected as employee compensation and benefits expense on the consolidated statements of income.

Other Deferred Compensation Plans. The Company has additional compensation plans for the purpose of providing deferred compensation and retention incentives to certain employees. For these plans, the final value of the deferred amount to be distributed in cash upon vesting is associated with investment returns of certain investment funds. The liabilities for these plans were $262 million and $223 million at December 31, 2017 and 2016, respectively, and are reflected in the consolidated statements of financial condition as accrued compensation and benefits. In January 2018, the Company granted approximately $143 million of additional deferred compensation that will fluctuate with investment returns and will vest ratably over three years from the date of grant.

Defined Contribution Plans

The Company has several defined contribution plans primarily in the United States and United Kingdom.

Certain of the Company's U.S. employees participate in a defined contribution plan ("U.S. Plan"). Employee contributions of up to 8% of eligible compensation, as defined by the plan and subject to Internal Revenue Code limitations, are matched by the Company at 50% up to a maximum of $5,000 annually. In addition, the Company makes an annual retirement contribution to eligible participants equal to 3-5% of eligible compensation. In 2017, 2016 and 2015, the Company's contribution expense related to the U.S. Plan was $78 million, $75 million and $72 million, respectively.

Certain U.K. wholly owned subsidiaries of the Company contribute to a defined contribution plan for their employees. The contributions range between 6% and 15% of each employee's eligible compensation. The Company's contribution expense related to this plan was $29 million in 2017, $30 million in 2016, and $33 million in 2015.

In addition, the contribution expense related to defined contribution plans in other regions was $21 million in 2017, $20 million in 2016 and $18 million in 2015.

Defined Benefit Plans. The Company has several defined benefit pension plans primarily in Japan and Germany. All accrued benefits under the Germany defined benefit plan are currently frozen and the plan is closed to new participants. The participant benefits under the Germany plan will not change with salary increases or additional years of service. At December 31, 2017 and 2016, the plan assets for both these plans were approximately $26 million and $23 million, respectively. The underfunded obligations at December 31, 2017 and 2016 were not material. Benefit payments for the next five years and in aggregate for the five years thereafter are not expected to be material.

16. Related Party Transactions

Determination of Related Parties

PNC. The Company considers PNC, along with its affiliates, to be related parties based on the level of its ownership of BlackRock capital stock. At December 31, 2017, PNC owned approximately 21.2% of the Company's voting common stock and held approximately 21.7% of the total capital stock. Revenue for services provided by the Company to PNC was not material for 2017, 2016 and 2015.

Registered Investment Companies and Equity Method Investments. The Company considers the registered investment companies that it manages, which include mutual funds and exchange-traded funds, to be related parties as a result of the Company's advisory relationship. In addition, equity method investments are considered related parties, due to the Company's influence over the financial and operating policies of the investee.

Revenue from Related Parties

Revenue for services provided by the Company to these and other related parties are as follows:

(in millions)	**2,017,000,000**	2,016,000,000	2,015,000,000
Investment advisory, administration fees and securities lending revenue(1)	**$ 7,740**	$ 6,836	$ 6,875
Investment advisory performance fees	**143**	125	129
Technology and risk management revenue(2)	**7**	7	7
Advisory and other revenue(3)	**58**	90	73
Total revenue from related parties	**$ 7,948**	$ 7,058	$ 7,084

(1) Amount primarily includes revenue from registered investment companies/and equity method investees.
(2) Amount primarily includes revenue from PNC and affiliates.
(3) Amount primarily includes revenue from equity method investees.

The Company provides investment advisory and administration services to its open- and closed-end funds and other commingled or pooled funds and separate accounts in which related parties invest. In addition, the Company provides investment advisory and administration services to PNC and its affiliates for fees based on AUM. Further, the Company provides risk management services to PNC.

Expenses for Transactions with Related Parties

Expenses for transactions with related parties are as follows:

(in millions)	**2,017,000,000**	2,016,000,000	2,015,000,000
General and administration expense:			
Registered investment companies	**$ 60**	$ 61	$ 60
Other	**9**	4	18
Total general and administration expense	**$ 69**	$ 65	$ 78

Certain Agreements and Arrangements with PNC

PNC. On February 27, 2009, BlackRock entered into an amended and restated implementation and stockholder agreement with PNC, and a fourth amendment to the share surrender agreement with PNC.

Receivables and Payables with Related Parties. Due from related parties, which is included within other assets on the consolidated statements of financial condition was $91 million and $100 million at December 31, 2017 and 2016, respectively, and primarily represented receivables from certain investment products managed by BlackRock. Accounts receivable at December 31, 2017 and 2016 included $850 million and $688 million, respectively, related to receivables from BlackRock mutual funds, including *iShares* ETFs, for investment advisory and administration services.

Due to related parties, which is included within other liabilities on the consolidated statements of financial condition, was $28 million and $19 million at December 31, 2017 and 2016, respectively, and primarily represented payables to certain investment products managed by BlackRock.

17. Net Capital Requirements

The Company is required to maintain net capital in certain regulated subsidiaries within a number of jurisdictions, which is partially maintained by retaining cash and cash equivalent investments in those subsidiaries or jurisdictions. As a result, such subsidiaries of the Company may be restricted in their ability to transfer cash between different jurisdictions and to their parents. Additionally, transfers of cash between international jurisdictions may have adverse tax consequences that could discourage such transfers.

Banking Regulatory Requirements. BlackRock Institutional Trust Company, N.A. ("BTC"), a wholly owned subsidiary of the Company is chartered as a national bank whose powers are limited to trust and other fiduciary activities and which is subject to regulatory capital requirements administered by the Office of the Comptroller of the Currency. Failure to meet minimum capital requirements can initiate certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the consolidated financial statements. Under the capital adequacy guidelines and the regulatory framework for prompt corrective action, BTC must meet specific capital guidelines that invoke quantitative measures of BTC's assets, liabilities, and certain off-balance sheet items as calculated under the regulatory accounting practices. BTC's capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

Quantitative measures established by regulators to ensure capital adequacy require BTC to maintain a minimum Common Equity Tier 1 capital and Tier 1 leverage ratio, as well as Tier 1 and total risk-based capital ratios. Based on BTC's calculations as of December 31, 2017 and 2016, it exceeded the applicable capital adequacy requirements.

	Actual		**For Capital Adequacy Purposes**		**To Be Well Capitalized Under Prompt Corrective Action Provisions**	
(in millions)	**Amount**	**Ratio**	**Amount**	**Ratio**	**Amount**	**Ratio**
December 31, 2017						
Total capital (to risk weighted assets)	**$ 1,124**	**111.7%**	**$ 81**	**8.0%**	**$ 101**	**10.0%**
Common Equity Tier 1 capital (to risk weighted assets)	**$ 1,124**	**111.7%**	**$ 45**	**4.5%**	**$ 65**	**6.5%**
Tier 1 capital (to risk weighted assets)	**$ 1,124**	**111.7%**	**$ 60**	**6.0%**	**$ 81**	**8.0%**
Tier 1 capital (to average assets)	**$ 1,124**	**70.5%**	**$ 64**	**4.0%**	**$ 80**	**5.0%**
December 31, 2016						
Total capital (to risk weighted assets)	$ 1,211	92.5%	$ 105	8.0%	$ 131	10.0%
Common Equity Tier 1 capital (to risk weighted assets)	$ 1,211	92.5%	$ 59	4.5%	$ 85	6.5%
Tier 1 capital (to risk weighted assets)	$ 1,211	92.5%	$ 79	6.0%	$ 105	8.0%
Tier 1 capital (to average assets)	$ 1,211	65.3%	$ 74	4.0%	$ 93	5.0%

Broker-dealers. BlackRock Investments, LLC and BlackRock Execution Services are registered broker-dealers and wholly owned subsidiaries of BlackRock that are subject to the Uniform Net Capital requirements under the Securities Exchange Act of 1934, which requires maintenance of certain minimum net capital levels.

Capital Requirements. At December 31, 2017 and 2016, the Company was required to maintain approximately $1.8 billion and $1.4 billion, respectively, in net capital in certain regulated subsidiaries, including BTC, entities regulated by the Financial Conduct Authority and Prudential Regulation Authority in the United Kingdom, and the Company's broker-dealers. The Company was in compliance with all applicable regulatory net capital requirements.

18. Accumulated Other Comprehensive Income (Loss)

The following table presents changes in accumulated other comprehensive income (loss) ("AOCI") by component for 2017, 2016 and 2015:

(in millions)	Foreign currency translation adjustments(1)	Other(2)	Total
December 31, 2014	$ (279)	$ 6	$ (273)
Net other comprehensive income (loss) for 2015	(173)	(2)	(175)
December 31, 2015	$ (452)	$ 4	$ (448)
Net other comprehensive income (loss) for 2016	(269)	1	(268)
December 31, 2016	$ (721)	$ 5	$ (716)
Net other comprehensive income (loss) for 2017	285	(1)	284
December 31, 2017	**$ (436)**	**$ 4**	**$ (432)**

(1) Amount for 2017 includes a loss from a net investment hedge of $64 million (net of a tax benefit of $38 million). Amount for 2016 and 2015 include a gain from a net investment hedge of $14 million (net of tax of $8 million) and $19 million (net of tax of $11 million), respectively.

(2) Other includes amounts related to benefit plans and available-for-sale investments and are presented net of tax. Amounts reclassified to AOCI were not material for 2017, 2016, and 2015.

19. Capital Stock

The Company's authorized common stock and nonvoting participating preferred stock, $0.01 par value, ("Preferred") consisted of the following:

	December 31, 2017	December 31, 2016
Common Stock	500,000,000	500,000,000
Nonvoting Participating Preferred Stock		
Series A Preferred	20,000,000	20,000,000
Series B Preferred	150,000,000	150,000,000
Series C Preferred	6,000,000	6,000,000
Series D Preferred	20,000,000	20,000,000

PNC Capital Contribution. During 2017 and 2016, PNC surrendered to BlackRock 517,138 and 548,227 shares, respectively, of BlackRock Series C Preferred to fund certain LTIP awards.

Cash Dividends for Common and Preferred Shares / RSUs. During 2017, 2016 and 2015, the Company paid cash dividends of $10.00 per share (or $1,662 million), $9.16 per share (or $1,545 million) and $8.72 per share (or $1,476 million), respectively.

Share Repurchases. The Company repurchased 2.6 million common shares in open market-transactions under its share repurchase program for $1.1 billion during 2017. At December 31, 2017, there were 6.4 million shares still authorized to be repurchased.

The Company's common and preferred shares issued and outstanding and related activity consist of the following:

	Shares Issued				Shares Outstanding		
	Common Shares	Treasury Common Shares	Series B Preferred	Series C Preferred	Common Shares	Series B Preferred	Series C Preferred
December 31, 2014	171,252,185	(6,465,397)	823,188	1,311,887	164,786,788	823,188	1,311,887
Shares repurchased	—	(3,080,689)	—	—	(3,080,689)	—	—
Net issuance of common shares related to employee stock transactions	—	1,754,965	—	—	1,754,965	—	—
December 31, 2015	171,252,185	(7,791,121)	823,188	1,311,887	163,461,064	823,188	1,311,887
Shares repurchased	—	(3,264,935)	—	—	(3,264,935)	—	—
Net issuance of common shares related to employee stock transactions	—	1,338,314	—	—	1,338,314	—	—
PNC LTIP capital contribution	—	—	—	(548,227)	—	—	(548,227)
December 31, 2016	171,252,185	(9,717,742)	823,188	763,660	161,534,443	823,188	763,660
Shares repurchased	—	(2,647,670)	—	—	(2,647,670)	—	—
Net issuance of common shares related to employee stock transactions	—	1,090,342	—	—	1,090,342	—	—
PNC LTIP capital contribution	—	—	—	(517,138)	—	—	(517,138)
December 31, 2017	**171,252,185**	**(11,275,070)**	**823,188**	**246,522**	**159,977,115**	**823,188**	**246,522**

20. Restructuring Charge

A restructuring charge of $76 million ($53 million after-tax), comprised of $44 million of severance and $32 million of expense related to the accelerated amortization of previously granted deferred cash and equity compensation awards, was recorded in the first quarter of 2016 in connection with a project to streamline and simplify the organization.

The following table presents a rollforward of the Company’s restructuring liability for 2016 and 2017:

(in millions)		
Liability as of December 31, 2015	$	—
Additions		76
Cash payments		(44)
Accelerated amortization expense of equity-based awards		(28)
Liability as of December 31, 2016	**$**	**4**
Cash payments		(4)
Liability as of December 31, 2017	**$**	**—**

21. Income Taxes

U.S. Tax Reform

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “2017 Tax Act”). The 2017 Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent, (2) requiring companies to pay a one-time tax on certain unrepatriated earnings of foreign subsidiaries, (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries, (4) creating new taxes on certain earnings of controlled foreign corporations, and (5) creating a new limitation on deductible net interest expense.

For 2017, the Company recorded a net tax benefit of $1,175 million, based on a reasonable estimate, related to the impact of the 2017 Tax Act. The tax benefit primarily consists of a $1,652 million tax benefit related to the revaluation of deferred tax assets and liabilities and $477 million tax expense related to the mandatory deemed repatriation tax. As of December 31, 2017, the Company has not completed the accounting for the income tax effects of certain elements of the 2017 Tax Act; however, as described below, reasonable estimates of the effects were determined, and therefore, have been recorded as provisional adjustments as follows:

Reduction of U.S. federal corporate tax rate: The 2017 Tax Act reduces the U.S. corporate tax rate to 21 percent. As a result of revaluing deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, the Company recorded a $1,652 million tax benefit for the reduction in the net deferred tax liabilities for 2017.

Mandatory deemed repatriation tax: The mandatory deemed repatriation tax is a tax on previously untaxed accumulated and current earnings and profits of foreign subsidiaries. Based on a reasonable estimate, the Company recorded a tax expense of $477 million related to the mandatory deemed repatriation tax, which is payable over eight years.

Global intangible low taxed income ("GILTI"): The 2017 Tax Act creates a new requirement that the income (i.e., GILTI) earned by foreign subsidiaries must be included in the taxable income of the entity's U.S. shareholder. The Company has not yet adopted an accounting policy for GILTI, as it is still not clear whether to 1) treat the taxes (if any) resulting from the GILTI inclusion as a current-period expense when incurred or 2) factoring such amounts into the Company's measurement of its deferred taxes is the appropriate accounting.
While the Company was able to make a reasonable estimate of the impact related the 2017 Tax Act, the provisional amounts may require further adjustments as additional guidance from the U.S. Department of the Treasury is provided, as changes in the Company's assumptions occur, and as further information and interpretations become available.

The components of income tax expense for 2017, 2016 and 2015, are as follows:

(in millions)	**2,017,000,000**	2,016,000,000	2,015,000,000
Current income tax expense:			
Federal	**$ 1,166**	$ 858	$ 937
State and local	**36**	61	74
Foreign	**289**	385	395
Total net current income tax expense	**1,491**	1,304	1,406
Deferred income tax expense (benefit):			
Federal	**(1,382)**	31	(13)
State and local	**81**	14	(19)
Foreign	**80**	(59)	(124)
Total net deferred income tax expense (benefit)	**(1,221)**	(14)	(156)
Total income tax expense	**$ 270**	$ 1,290	$ 1,250

Income tax expense has been based on the following components of income before taxes, less net income (loss) attributable to noncontrolling interests:

(in millions)	**2,017,000,000**	2,016,000,000	2,015,000,000
Domestic	**$ 3,298**	$ 2,837	$ 2,840
Foreign	**1,942**	1,625	1,755
Total	**$ 5,240**	$ 4,462	$ 4,595

The foreign income before taxes includes countries that have statutory tax rates that are lower than the U.S. federal statutory tax rate of 35%, such as the United Kingdom, Channel Islands, Ireland and Netherlands.

A reconciliation of income tax expense with expected federal income tax expense computed at the applicable federal income tax rate of 35% is as follows:

(in millions)	**2,017,000,000**	%	2,016,000,000	%	2,015,000,000	%
Statutory income tax expense	**$ 1,834**	35%	$ 1,562	35%	$ 1,608	35%
Increase (decrease) in income taxes resulting from:						
State and local taxes (net of federal benefit)	**60**	1	69	2	42	1
Impact of federal, foreign, state, and local tax rate changes on deferred taxes	**(1,637)**	(31)	(33)	(1)	(45)	(1)
Mandatory deemed repatriation tax	**477**	9				
Stock-based compensation awards	**(159)**	(3)				
Effect of foreign tax rates	**(337)**	(6)	(329)	(7)	(385)	(8)
Other	**32**	—	21	—	30	—
Income tax expense	**$ 270**	5%	$ 1,290	29%	$ 1,250	27%

Deferred income taxes are provided for the effects of temporary differences between the tax basis of an asset or liability and its reported amount in the consolidated financial statements. These temporary differences result in taxable or deductible amounts in future years.

The components of deferred income tax assets and liabilities are shown below:

	December 31,	
(in millions)	**2,017,000,000**	**2,016,000,000**
Deferred income tax assets:		
Compensation and benefits	**$ 187**	**$ 399**
Unrealized investment losses	**28**	**42**
Loss carryforwards	**84**	**85**
Foreign tax credit carryforwards	**—**	**118**
Other	**116**	**216**
Gross deferred tax assets	**415**	**860**
Less: deferred tax valuation allowances	**(22)**	**(22)**
Deferred tax assets net of valuation allowances	**393**	**838**
Deferred income tax liabilities:		
Goodwill and acquired indefinite-lived intangibles	**3,810**	**5,568**
Acquired finite-lived intangibles	**40**	**36**
Other	**62**	**54**
Gross deferred tax liabilities	**3,912**	**5,658**
Net deferred tax (liabilities)	**$ (3,519)**	**$ (4,820)**

Deferred income tax assets and liabilities are recorded net when related to the same tax jurisdiction. At December 31, 2017, the Company recorded on the consolidated statement of financial condition deferred income tax assets, within other assets, and deferred income tax liabilities of $19 million and $3,538 million, respectively. At December 31, 2016, the Company recorded on the consolidated statement of financial condition deferred income tax assets, within other assets, and deferred income tax liabilities of $20 million and $4,840 million, respectively.

The 2017 Tax Act resulted in a $106 million tax expense related to the revaluation of certain deferred income tax assets and $1,758 million noncash tax benefit related to the revaluation of certain deferred income tax liabilities. In addition, mandatory deemed repatriation of undistributed foreign earnings and profits with respect to the 2017 Tax Act resulted in a $477 million tax expense.

Income tax expense for 2017 included a $16 million noncash tax expense related to the revaluation of certain deferred income tax liabilities as a result of domestic state and local tax changes and a $173 million discrete tax benefit, primarily related to stock-based compensation awards.

During 2016, tax legislation enacted in the United Kingdom and domestic state and local tax changes resulted in a $30 million net noncash benefit related to the revaluation of certain deferred income tax liabilities.

At December 31, 2017 and 2016, the Company had available state net operating loss carryforwards of $1.7 billion and $1.6 billion, respectively, which will begin to expire in 2019. At both December 31, 2017 and 2016, the Company had foreign net operating loss carryforwards of $90 million of which $3 million will begin to expire in 2021.

At both December 31, 2017 and 2016, the Company had $22 million of valuation allowances for deferred income tax assets, respectively, recorded on the consolidated statements of financial condition.

Goodwill recorded in connection with the Quellos Transaction has been reduced during the period by the amount of tax benefit realized from tax-deductible goodwill. See Note 9, *Goodwill*, for further discussion.

Current income taxes are recorded net on the consolidated statements of financial condition when related to the same tax jurisdiction. At December 31, 2017, the Company had current income taxes receivable and payable of $142 million and $256 million, respectively, recorded in other assets and accounts payable and accrued liabilities, respectively. At December 31, 2016, the Company had current income taxes receivable and payable of $247 million and $75 million, respectively, recorded in other assets and accounts payable and accrued liabilities, respectively.

As a result of the 2017 Tax Act and the one-time mandatory deemed repatriation tax, previously undistributed foreign earnings for which no U.S. deferred tax liability had been recognized have now been subject to U.S. income tax. No additional income or withholding taxes were provided for with respect to the financial statement basis in excess of tax basis of its foreign subsidiaries as these amounts remain indefinitely reinvested in foreign operations. The Company will continue to evaluate its indefinite reinvestment assertion based on additional guidance from the U.S. Department of the Treasury and as further information and interpretations become available.

The following tabular reconciliation presents the total amounts of gross unrecognized tax benefits:

(in millions)	2,017,000,000	2,016,000,000	2,015,000,000
Balance at January 1	**$ 410**	$ 466	$ 379
Additions for tax positions of prior years	**161**	3	39
Reductions for tax positions of prior years	**(3)**	(78)	(25)
Additions based on tax positions related to current year	**67**	37	75
Lapse of statute of limitations	**(6)**	—	(2)
Settlements	**—**	(18)	—
Balance at December 31	**$ 629**	$ 410	$ 466

Included in the balance of unrecognized tax benefits at December 31, 2017, 2016 and 2015, respectively, are $316 million, $284 million and $320 million of tax benefits that, if recognized, would affect the effective tax rate.

The Company recognizes interest and penalties related to income tax matters as a component of income tax expense. Related to the unrecognized tax benefits noted above, the Company accrued interest and penalties of $17 million during 2017 and in total, as of December 31, 2017, had recognized a liability for interest and penalties of $76 million. The Company accrued interest and penalties of $3 million during 2016 and in total, as of December 31, 2016, had recognized a liability for interest and penalties of $59 million. The Company accrued interest and penalties of $12 million during 2015 and in total, as of December 31, 2015, had recognized a liability for interest and penalties of $56 million.

BlackRock is subject to U.S. federal income tax, state and local income tax, and foreign income tax in multiple jurisdictions. Tax years after 2009 remain open to U.S. federal income tax examination.

In June 2014, the IRS commenced its examination of BlackRock's 2010 through 2012 tax years, and while the impact on the consolidated financial statements is undetermined, it is not expected to be material.

The Company is currently under audit in several state and local jurisdictions. The significant state and local income tax examinations are in New York State and New York City for tax years 2009 through 2011, and California for tax years 2013 through 2014. No state and local income tax audits cover years earlier than 2008. No state and local income tax audits are expected to result in an assessment material to BlackRock's consolidated financial statements.

Upon conclusion of its examination, Her Majesty's Revenue and Customs' ('HMRC') issued a closure notice during 2017 for various U.K. BlackRock subsidiaries for tax years 2009 and years after. The Company made a decision to pursue litigation for the tax matters included on such notice. BlackRock does not expect the ultimate resolution to result in a material impact to the consolidated financial statements.

From time to time, BlackRock may receive or be subject to tax authorities' assessments and challenges related to income taxes. BlackRock does not currently expect the ultimate resolution of any existing matters to be material to the consolidated financial statements.

At December 31, 2017, it is reasonably possible the total amounts of unrecognized tax benefits will change within the next twelve months due to completion of tax authorities' exams or the expiration of statues of limitations. Management estimates that the existing liability for uncertain tax positions could decrease by approximately $10 million to $40 million within the next twelve months.

22. Earnings Per Share

The following table sets forth the computation of basic and diluted EPS for 2017, 2016 and 2015 under the treasury stock method:

(in millions, except shares and per share data)	2,017,000,000	2,016,000,000	2,015,000,000
Net income attributable to BlackRock	**$ 4,970**	$ 3,172	$ 3,345
Basic weighted-average shares outstanding	**162,160,601**	164,425,858	166,390,009
Dilutive effect of nonparticipating RSUs and stock options	**2,254,434**	2,153,894	2,648,562
Total diluted weighted-average shares outstanding	**164,415,035**	166,579,752	169,038,571
Basic earnings per share	**$ 30.65**	$ 19.29	$ 20.10
Diluted earnings per share	**$ 30.23**	$ 19.04	$ 19.79

Anti-dilutive RSUs and stock options for 2017 and 2016 were immaterial. There were no anti-dilutive RSUs and stock options for 2015.

23. Segment Information

The Company's management directs BlackRock's operations as one business, the asset management business. The Company utilizes a consolidated approach to assess performance and allocate resources. As such, the Company operates in one business segment as defined in ASC 280-10.

The following table illustrates investment advisory, administration fees, securities lending revenue and performance fees by product type, technology and risk management revenue, distribution fees, and advisory and other revenue for 2017, 2016 and 2015.

(in millions)	2,017,000,000	2,016,000,000	2,015,000,000
Equity	**$ 5,722**	$ 5,018	$ 5,345
Fixed income	**2,921**	2,664	2,428
Multi-asset	**1,181**	1,157	1,287
Alternatives	**1,105**	878	1,082
Cash management	**558**	458	319
Total investment advisory, administration fees, securities lending revenue and performance fees	**11,487**	10,175	10,461
Technology and risk management revenue	**677**	595	528
Distribution fees	**24**	41	55
Advisory and other revenue	**303**	344	357
Total revenue	**$ 12,491**	$ 11,155	$ 11,401

The following table illustrates total revenue for 2017, 2016 and 2015 by geographic region. These amounts are aggregated on a legal entity basis and do not necessarily reflect where the customer resides or affiliated services are provided.

(in millions)

Revenue	2,017,000,000	2,016,000,000	2,015,000,000
Americas	**$ 8,406**	$ 7,530	$ 7,502
Europe	**3,432**	3,083	3,356
Asia-Pacific	**653**	542	543
Total revenue	**$ 12,491**	$ 11,155	$ 11,401

The following table illustrates long-lived assets that consist of goodwill and property and equipment at December 31, 2017 and 2016 by geographic region. These amounts are aggregated on a legal entity basis and do not necessarily reflect where the asset is physically located.

(in millions)

Long-lived Assets	2,017,000,000	2,016,000,000
Americas	**$ 13,560**	$ 13,424
Europe	**168**	163
Asia-Pacific	**84**	90
Total long-lived assets	**$ 13,812**	$ 13,677

Americas primarily is comprised of the United States and Canada, while Europe primarily is comprised of the United Kingdom and Luxembourg. Asia-Pacific primarily is comprised of Hong Kong, Australia, Japan and Singapore.

24. Selected Quarterly Financial Data (unaudited)

(in millions, except shares and per share data)

2,017,000,000	1st Quarter(1)(2)	2nd Quarter	3rd Quarter(3)	4th Quarter(4)
Revenue	**$ 2,824**	**$ 2,965**	**$ 3,233**	**$ 3,469**
Operating income	**$ 1,147**	**$ 1,242**	**$ 1,394**	**$ 1,489**
Net income	**$ 871**	**$ 867**	**$ 959**	**$ 2,310**
Net income attributable to BlackRock, Inc.	**$ 862**	**$ 857**	**$ 947**	**$ 2,304**
Earnings per share attributable to BlackRock, Inc. common stockholders:				
Basic	**$ 5.29**	**$ 5.27**	**$ 5.85**	**$ 14.29**
Diluted	**$ 5.23**	**$ 5.22**	**$ 5.78**	**$ 14.07**
Weighted-average common shares outstanding:				
Basic	**163,016,599**	**162,502,465**	**161,872,716**	**161,272,950**
Diluted	**164,856,183**	**164,149,861**	**163,773,546**	**163,777,534**
Dividend declared per share	**$ 2.50**	**$ 2.50**	**$ 2.50**	**$ 2.50**
Common stock price per share:				
High	**$ 397.81**	**$ 428.38**	**$ 447.09**	**$ 518.86**
Low	**$ 371.64**	**$ 377.10**	**$ 412.19**	**$ 449.95**
Close	**$ 383.51**	**$ 422.41**	**$ 447.09**	**$ 513.71**
2,016,000,000				
Revenue	$ 2,624	$ 2,804	$ 2,837	$ 2,890
Operating income	$ 963	$ 1,173	$ 1,209	$ 1,225
Net income	$ 647	$ 795	$ 877	$ 851
Net income attributable to BlackRock, Inc.	$ 657	$ 789	$ 875	$ 851
Earnings per share attributable to BlackRock, Inc. common stockholders:				
Basic	$ 3.97	$ 4.79	$ 5.33	$ 5.21
Diluted	$ 3.92	$ 4.73	$ 5.26	$ 5.13
Weighted-average common shares outstanding:				
Basic	165,388,130	164,758,612	164,129,214	163,441,552
Diluted	167,398,938	166,639,290	166,256,598	165,854,167
Dividend declared per share	$ 2.29	$ 2.29	$ 2.29	$ 2.29
Common stock price per share:				
High	$ 342.56	$ 367.47	$ 376.00	$ 398.45
Low	$ 289.72	$ 319.54	$ 335.11	$ 338.61
Close	$ 340.57	$ 342.53	$ 362.46	$ 380.54

(1) The first quarter of 2016 included a pre-tax restructuring charge of $76 million.
(2) The first quarter of 2017 included an $81 million discrete tax benefit reflecting the adoption of new accounting guidance related to stock-based compensation awards that vested in the first quarter of 2017.

(3) The third quarter of 2016 included a $26 million net noncash tax benefit, primarily related to the revaluation of certain deferred income tax liabilities as a result of legislation enacted in the United Kingdom, and domestic state and local changes.

(4) The fourth quarter of 2017 included a $1.2 billion net tax benefit related to the 2017 Tax Act.

25. Subsequent Events

In November 2017, the Company announced that it had entered an agreement to acquire the asset management business of Citibanamex, a subsidiary of Citigroup Inc. This transaction involves approximately $31 billion in assets under management across local fixed income, equity and multi-asset products. The transaction is expected to close in the second half of 2018, subject to customary regulatory approvals and closing conditions. Consideration for the transaction will include an upfront cash payment and contingent consideration.

On January 11, 2018, the Board of Directors approved BlackRock's quarterly dividend of $2.88 to be paid on March 22, 2018 to stockholders of record at the close of business on March 7, 2018.

The Company conducted a review for additional subsequent events and determined that no subsequent events had occurred that would require accrual or additional disclosures.