

---

---

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

---

**FORM 8-K**

---

**CURRENT REPORT**  
Pursuant to Section 13 OR 15(d)  
of The Securities Exchange Act of 1934

May 3, 2017  
Date of Report (Date of earliest event reported)

---

**THE PNC FINANCIAL SERVICES GROUP, INC.**  
(Exact name of registrant as specified in its charter)

---

Commission File Number 001-09718

Pennsylvania  
(State or other jurisdiction of  
incorporation)

25-1435979  
(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)

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

Not Applicable  
(Former name or former address, if changed since last report)

---

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
- 
-

---

**Item 8.01. Other Events.**

In its Annual Report on Form 10-K (2016 Form 10-K) for the year ended December 31, 2016, The PNC Financial Services Group, Inc. (the "Corporation") reported its financial results through six business segments: Retail Banking, Corporate & Institutional Banking, Asset Management Group, Residential Mortgage Banking, BlackRock and Non-Strategic Assets Portfolio.

Effective for the first quarter of 2017, as a result of changes to how the Corporation manages its businesses, it realigned its segments and, accordingly, has changed the basis of presentation of its segments, resulting in four reportable business segments: Retail Banking, Corporate & Institutional Banking, Asset Management Group and BlackRock.

The 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 the Corporation's 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 business banking clients.

In addition, the Corporation made certain adjustments to its 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.

This Current Report on Form 8-K and the exhibits hereto update the business segment information presented in the Corporation's 2016 Form 10-K only to the extent this information is impacted by the revised business segment reporting presentation and change in internal funds transfer pricing methodology. Portions of the following items from the 2016 Form 10-K have been updated:

- Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations (filed as Exhibit 99.1).
- Part II, Item 8. Financial Statements and Supplementary Data (filed as Exhibit 99.2).
- Part II, Item 9A. Controls and Procedures (filed as Exhibit 99.3).

All updates to the 2016 Form 10-K relate solely to the presentation of segment-specific disclosures on a basis consistent with how management currently evaluates the results of the segments. The revised reporting structure did not affect the consolidated balance sheet or the consolidated statements of income, changes in shareholders' equity and cash flows. The information in this Current Report on Form 8-K is presented as of December 31, 2016 and other than as indicated above, has not been updated to reflect financial results subsequent to that date or any other changes since the date of the 2016 Form 10-K.

**Item 9.01 Financial Statements and Exhibits.**

- (d) Exhibits. The exhibit listed on the Exhibit Index accompanying this Form 8-K is furnished herewith.

---

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**THE PNC FINANCIAL SERVICES GROUP, INC.**  
*(Registrant)*

Date: May 3, 2017

By: /s/ Gregory H. Kozich

Gregory H. Kozich

*Senior Vice President and Controller*

---

**EXHIBIT INDEX**

<u>Number</u>	<u>Description</u>	<u>Method of Filing</u>
23	Consent of PricewaterhouseCoopers LLP	Furnished herewith
99.1	Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	Furnished herewith
99.2	Part II, Item 8. Financial Statements and Supplementary Data	Furnished herewith
99.3	Part II, Item 9A. Controls and Procedures	Furnished herewith
101	Interactive Data File (XBRL)	Furnished herewith

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 No. 333-209782, and No. 333-130744)
- Form S-4 (No. 333-155248 and No. 333-149076)
- Form S-8 (No. 33-28828, No. 33-54960, No. 333-53806, No. 333-110758, No. 333-156540, No. 333-18069, No. 333-65040, No. 333-136808, No. 333-172931, No. 333-156886, No. 333-177896, No. 333-74666, No. 333-172930, No. 333-134169, No. 333-139345, No. 333-143182, No. 333-177898, No. 333-156527, No. 333-149076, No. 333-198461, and No. 333-210995)

of The PNC Financial Services Group, Inc. of our report dated February 28, 2017, except with respect to our opinion on the consolidated financial statements insofar as it relates to the change in composition of reportable segments discussed in Note 22, for which the date is May 3, 2017, relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Current Report on Form 8-K.

PricewaterhouseCoopers LLP  
Pittsburgh, Pennsylvania  
May 3, 2017

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

*Forward-Looking Statements: From time to time, The PNC Financial Services Group, Inc. (PNC or the Corporation) 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 Report and our 2016 Annual Report on Form 10-K (2016 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 of our 2016 Form 10-K, our Risk Management, Critical Accounting Estimates And Judgments, and Cautionary Statement Regarding Forward-Looking Information sections included in Item 7 of this Report, and Note 19 Legal Proceedings and Note 20 Commitments in the Notes To Consolidated Financial Statements included in Item 8 of this Report for factors that could cause actual results or future events to differ, perhaps materially, from historical performance and from those anticipated in the forward-looking statements included in this Report. See page 45 for a glossary of certain terms used in this Report. In this Report, “PNC”, “we” or “us” refers to The PNC Financial Services Group, Inc. and its subsidiaries on a consolidated basis. References to The PNC Financial Services Group, Inc. or to any of its subsidiaries are specifically made where applicable.*

**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, 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, fee-based and credit 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 wellbeing. Our approach is concentrated on organically growing and deepening client relationships across our lines of business that meet our risk/return measures.

Our strategic priorities are designed to enhance value over the long term. One of our priorities is to build a leading banking franchise in our underpenetrated geographic markets. We are focused on reinventing the retail banking experience by transforming the retail distribution network and the home lending process for a better customer experience and improved efficiency, and growing our consumer loan portfolio. In addition, we are seeking to attract more of the investable assets of new and existing clients and we continue to focus on expense management while investing in technology to bolster critical business infrastructure and streamline core 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 our 2016 Form 10-K.

**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:

- Domestic and global economic conditions, including the continuity, speed and stamina of the current U.S. economic expansion in general and its impact on our customers in particular;
- 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 and in counterparty creditworthiness and performance;
- The impact of legislative, regulatory and administrative initiatives and actions, including the form and timing of any further implementation, or changes to, certain reforms enacted by the Dodd-Frank legislation;
- The impact of market credit spreads on asset valuations;

- Asset quality and the ability of customers, counterparties and issuers to perform in accordance with contractual terms;
- Loan demand, utilization of credit commitments and standby letters of credit; and
- Customer demand for non-loan products and services.

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.
- Managing 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 our 2016 Form 10-K.

#### **Income Statement Highlights**

Net income for 2016 was \$4.0 billion, or \$7.30 per diluted common share, a decrease of 4% compared to \$4.1 billion, or \$7.39 per diluted common share, for 2015.

- Total revenue decreased \$63 million to \$15.2 billion.
- Net interest income increased \$113 million, or 1%, to \$8.4 billion.
- Net interest margin declined slightly to 2.73% for 2016 compared to 2.74% for 2015.
- Noninterest income decreased \$176 million, or 3%, to \$6.8 billion as growth in fee income was more than offset by a decline in other noninterest income. Noninterest income as a percentage of total revenue was 45% for 2016 and 46% for 2015.
- Provision for credit losses increased to \$433 million in 2016 compared to \$255 million for 2015.
- Noninterest expense of \$9.5 billion was essentially stable as we continued to focus on disciplined expense management.

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, 2016 and December 31, 2015.

- Total loans increased \$4.1 billion, or 2%, to \$210.8 billion.
  - Total commercial lending grew \$4.4 billion, or 3%.
  - Total consumer lending decreased \$.3 billion.
- Total deposits increased \$8.2 billion, or 3%, to \$257.2 billion.
- Investment securities increased \$5.4 billion, or 8%, to \$75.9 billion.

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

#### **Credit Quality Highlights**

Overall credit quality remained relatively stable in 2016 compared to 2015.

- Nonperforming assets decreased \$51 million, or 2%, to \$2.4 billion at December 31, 2016 compared to December 31, 2015.
- Overall loan delinquencies of \$1.6 billion at December 31, 2016 decreased \$64 million, or 4%, compared with December 31, 2015.
- Net charge-offs of \$543 million in 2016 increased compared to net charge-offs of \$386 million for 2015.

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 and continued to return capital to shareholders.

- The Transitional Basel III common equity Tier 1 capital ratio was 10.6% at both December 31, 2016 and December 31, 2015.
- Pro forma fully phased-in Basel III common equity Tier 1 capital ratio, a non-GAAP financial measure, remained stable at an estimated 10.0% at December 31, 2016 and December 31, 2015 based on the standardized approach rules.
- For the full year 2016, we returned \$3.1 billion of capital to shareholders through repurchases of 22.8 million common shares for \$2.0 billion and dividends on common shares of \$1.1 billion, which included an increase of 4 cents in our cash dividend on common stock to 55 cents per share in August 2016.

See the Liquidity and Capital Management portion of the Risk Management section of this Item 7 for more detail on our 2016 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 in our 2016 Form 10-K.

## **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 the U.S. economy and the labor market will grow moderately in 2017, boosted by stable oil/energy prices, improving consumer spending and housing activity, and expanded federal fiscal policy stimulus as a result of the 2016 elections. Short-term interest rates and bond yields are expected to continue rising in 2017, along with inflation. Specifically, our business outlook reflects our expectation of two 25 basis point increases in short-term interest rates by the Federal Reserve in June and December of 2017. See the Cautionary Statement Regarding Forward-Looking Information section in this Item 7 and Item 1A Risk Factors in our 2016 Form 10-K for other factors that could cause future events to differ, perhaps materially, from those anticipated in these forward-looking statements.

For the full year 2017 compared to full year 2016, we expect:

- Loan growth to be up mid-single digits, on a percentage basis;
- Revenue to increase mid-single digits, on a percentage basis;
- Purchase accounting accretion to decline \$75 million;
- Noninterest expense to increase by low single digits, on a percentage basis; and
- The effective tax rate to be approximately 25% to 26%, absent any tax reform.

In 2017, we expect quarterly other noninterest income to be between \$250 million to \$275 million, excluding debt securities gains and net Visa activity.

For the first quarter of 2017 compared to the fourth quarter of 2016, we expect:

- Modest loan growth;
- Stable net interest income;
- Fee income to decrease by mid-single digits, on a percentage basis, mainly attributable to seasonality and lower first quarter client activity. Fee income consists of asset management, consumer services, corporate services, residential mortgage and service charges on deposits;
- Provision for credit losses to be between \$75 million and \$125 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 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

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

Year Ended December 31 Dollars in millions	2016			2015		
	Average Balances	Average Yields/Rates	Interest Income/ Expense	Average Balances	Average Yields/Rates	Interest Income/ Expense
<b>Assets</b>						
Interest-earning assets						
Investment securities	\$ 72,046	2.62%	\$ 1,889	\$ 61,665	2.83%	\$ 1,744
Loans	208,817	3.61%	7,543	205,349	3.57%	7,333
Interest-earning deposits with banks	26,328	.52%	136	32,908	.26%	86
Other	7,843	3.56%	279	8,903	4.00%	356
Total interest-earning assets/interest income	<u>\$315,034</u>	<u>3.13%</u>	<u>9,847</u>	<u>\$308,825</u>	<u>3.08%</u>	<u>9,519</u>
<b>Liabilities</b>						
Interest-bearing liabilities						
Interest-bearing deposits	\$172,764	.25%	430	\$163,965	.25%	403
Borrowed funds	52,939	1.57%	831	56,513	1.14%	642
Total interest-bearing liabilities/interest expense	<u>\$225,703</u>	<u>.56%</u>	<u>1,261</u>	<u>\$220,478</u>	<u>.47%</u>	<u>1,045</u>
Net interest income/margin (Non-GAAP)		2.73%	8,586		2.74%	8,474
Taxable-equivalent adjustments			(195)			(196)
Net interest income (GAAP)			<u>\$8,391</u>			<u>\$8,278</u>

- (a) Interest income calculated as taxable-equivalent interest income. The interest income earned on certain earning assets is completely or partially exempt from federal income tax. 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 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 \$113 million, or 1%, in 2016 compared with 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.

Average investment securities increased due to higher 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. Total investment securities increased to 23% of average interest-earning assets in 2016 compared to 20% in 2015.

The increase in average loans was driven by 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 declines in certain run-off consumer loan portfolios. Loans represented 66% of average interest-earning assets in 2016 and 2015.

Average interest-bearing deposits increased \$8.8 billion primarily due to higher average savings deposits, which largely reflected a shift from money market deposits to relationship-based savings products, as well as higher average interest-bearing demand deposits. Average interest-bearing deposits increased to 77% of average interest-bearing liabilities in 2016 compared to 74% in 2015.

## Noninterest Income

Table 2: Noninterest Income

Year ended December 31 Dollars in millions	2016	2015	Change	
			\$	%
<b>Noninterest income</b>				
Asset management	\$1,521	\$1,567	\$ (46)	(3)%
Consumer services	1,388	1,335	53	4%
Corporate services	1,504	1,491	13	1%
Residential mortgage	567	566	1	—
Service charges on deposits	667	651	16	2%
Other	1,124	1,337	(213)	(16)%
Total noninterest income	<u>\$6,771</u>	<u>\$6,947</u>	<u>\$(176)</u>	(3)%

Noninterest income as a percentage of total revenue was 45% for 2016 and 46% for 2015.

Asset management revenue decreased 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 primarily from growth in payment-related products including debit card and credit card, as well as higher brokerage fees.

Corporate service fees increased 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 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 the 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.

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.

## 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. Additionally, overall credit portfolio performance and loan growth contributed to the higher provision.

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	2016	2015	Change	
			\$	%
<b>Noninterest expense</b>				
Personnel	\$4,841	\$4,831	\$ 10	—
Occupancy	861	842	19	2%
Equipment	974	925	49	5%
Marketing	247	249	(2)	(1)%
Other	2,553	2,616	(63)	(2)%
Total noninterest expense	<u>\$9,476</u>	<u>\$9,463</u>	<u>\$ 13</u>	—

Noninterest expense increased slightly in the comparison to the prior year as we continued to focus on disciplined expense management. The increase reflected higher 2016 contributions to the PNC Foundation, a new FDIC deposit insurance surcharge and investments in technology and business infrastructure mostly 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. In 2017, we have a goal of \$350 million in cost savings through our continuous improvement program, which we expect will substantially fund our 2017 business and technology investments.

#### **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**

**Table 4: Summarized Balance Sheet Data**

Dollars in millions	December 31	December 31	Change	
	2016	2015	\$	%
<b>Assets</b>				
Interest-earning deposits with banks	\$ 25,711	\$ 30,546	\$(4,835)	(16)%
Loans held for sale	2,504	1,540	964	63%
Investment securities	75,947	70,528	5,419	8%
Loans	210,833	206,696	4,137	2%
Allowance for loan and lease losses	(2,589)	(2,727)	138	5%
Mortgage servicing rights	1,758	1,589	169	11%
Goodwill	9,103	9,103	—	—
Other, net	43,113	41,218	1,895	5%
Total assets	\$ 366,380	\$ 358,493	\$ 7,887	2%
<b>Liabilities</b>				
Deposits	\$ 257,164	\$ 249,002	\$ 8,162	3%
Borrowed funds	52,706	54,532	(1,826)	(3)%
Other	9,656	8,979	677	8%
Total liabilities	319,526	312,513	7,013	2%
<b>Equity</b>				
Total shareholders' equity	45,699	44,710	989	2%
Noncontrolling interests	1,155	1,270	(115)	(9)%
Total equity	46,854	45,980	874	2%
Total liabilities and equity	\$ 366,380	\$ 358,493	\$ 7,887	2%

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

Our balance sheet reflected asset growth compared to December 31, 2015 and we maintained strong liquidity and capital positions at December 31, 2016.

- Total assets increased primarily due to higher investment securities and loan balances, partially offset by lower interest-earning deposits with banks.
- Higher total liabilities were driven by deposit growth.
- The increase to total equity reflected increased retained earnings driven by net income, partially offset by share repurchases.

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: Details of Loans

Dollars in millions	December 31	December 31	Change	
	2016	2015	\$	%
<b>Commercial lending</b>				
Commercial				
Manufacturing	\$ 18,891	\$ 19,014	\$ (123)	(1)%
Retail/wholesale trade	16,752	16,661	91	1%
Service providers	14,707	13,970	737	5%
Real estate related (a)	11,920	11,659	261	2%
Health care	9,491	9,210	281	3%
Financial services	7,241	7,234	7	—
Other industries	22,362	20,860	1,502	7%
Total commercial	101,364	98,608	2,756	3%
Commercial real estate	29,010	27,468	1,542	6%
Equipment lease financing	7,581	7,468	113	2%
Total commercial lending	137,955	133,544	4,411	3%
<b>Consumer lending</b>				
Home equity	29,949	32,133	(2,184)	(7)%
Residential real estate	15,598	14,411	1,187	8%
Credit card	5,282	4,862	420	9%
Other consumer				
Automobile	12,380	11,157	1,223	11%
Education	5,159	5,881	(722)	(12)%
Other	4,510	4,708	(198)	(4)%
Total consumer lending	72,878	73,152	(274)	—
<b>Total loans</b>	<b>\$ 210,833</b>	<b>\$ 206,696</b>	<b>\$ 4,137</b>	<b>2%</b>

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

Loan growth was the result of an increase in total commercial lending from higher commercial and commercial real estate loans. Consumer lending declined due to lower home equity and education loans, partially offset by higher automobile loans, residential real estate loans and credit cards.

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

## Investment Securities

Table 6: Investment Securities

Dollars in millions	December 31, 2016		December 31, 2015		Ratings (a) As of December 31, 2016				
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	AAA/AA	A	BBB	BB and Lower	No Rating
U.S. Treasury and government agencies	\$ 13,627	\$ 13,714	\$ 10,022	\$10,172	100%				
Agency residential mortgage-backed	37,319	37,109	34,250	34,408	100				
Non-agency residential mortgage-backed	3,382	3,564	4,225	4,392	11		4%	76%	9%
Agency commercial mortgage-backed	3,053	3,046	3,045	3,086	100				
Non-agency commercial mortgage-backed (b)	4,590	4,602	5,624	5,630	82	6%	2	1	9
Asset-backed (c)	6,496	6,524	6,134	6,130	84	5	3	7	1
Other debt (d)	6,679	6,810	6,147	6,355	73	16	7	1	3
Corporate stock and other	603	601	590	589					100
Total investment securities (e)	\$ 75,749	\$ 75,970	\$ 70,037	\$70,762	91%	2%	1%	4%	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.

Investment securities increased \$5.4 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 agencies and agency residential mortgage-backed securities, partially offset by prepayments of non-agency commercial mortgage-backed and non-agency residential mortgage-backed securities.

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 OTTI credit losses that would impact our Consolidated Income Statement.

The duration of investment securities was 3.0 years at December 31, 2016. We estimate that at December 31, 2016 the effective duration of investment securities was 3.1 years for an immediate 50 basis points parallel increase in interest rates and 2.9 years for an immediate 50 basis points parallel decrease in interest rates. Comparable amounts at December 31, 2015 for the effective duration of investment securities were 2.8 years and 2.6 years, respectively.

Based on expected prepayment speeds, the weighted-average expected maturity of the investment securities portfolio (excluding corporate stock and other) was 5.0 years at December 31, 2016 compared to 4.8 years at December 31, 2015.

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

December 31, 2016	Years
Agency residential mortgage-backed	5.2
Non-agency residential mortgage-backed	5.8
Agency commercial mortgage-backed	3.5
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

Dollars in millions	December 31	December 31	Change	
	2016	2015	\$	%
<b>Deposits</b>				
Money market	\$ 105,849	\$ 118,079	\$(12,230)	(10)%
Demand	96,799	90,038	6,761	8%
Savings	36,956	20,375	16,581	81%
Time deposits	17,560	20,510	(2,950)	(14)%
Total deposits	257,164	249,002	8,162	3%
<b>Borrowed funds</b>				
FHLB borrowings	17,549	20,108	(2,559)	(13)%
Bank notes and senior debt	22,972	21,298	1,674	8%
Subordinated debt	8,009	8,556	(547)	(6)%
Other	4,176	4,570	(394)	(9)%
Total borrowed funds	52,706	54,532	(1,826)	(3)%
<b>Total funding sources</b>	<b>\$ 309,870</b>	<b>\$ 303,534</b>	<b>\$ 6,336</b>	<b>2%</b>

Total deposits increased in the comparison mainly due to strong growth in demand and savings deposits which reflected in part a shift from money market deposits to relationship-based savings products. Total borrowed funds decreased in the comparison due to maturities of FHLB borrowings, partially offset by higher bank notes and senior debt.

See the Liquidity and Capital Management portion of the Risk Management section of this Item 7 for additional information regarding our 2016 capital and liquidity activities.

## Shareholders' Equity

Total shareholders' equity as of December 31, 2016 grew \$1.0 billion compared to December 31, 2015 due to an increase in retained earnings and higher 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 December 31, 2015, respectively, reflecting repurchases of 22.8 million shares during 2016.

## 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 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 2016, 2015 and 2014.

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 gains or losses related to BlackRock transactions, integration costs, asset and liability management activities including net securities gains or losses, other-than-temporary impairment of investment securities and certain trading activities, exited businesses, certain non-strategic runoff consumer loan portfolios, private equity investments, intercompany eliminations, most corporate overhead, tax adjustments that are not allocated to business segments 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	2016	2015	Change	
			\$	%
<b>Income Statement</b>				
Net interest income	\$ 4,511	\$ 4,308	\$ 203	5%
Noninterest income	<u>2,693</u>	<u>2,781</u>	<u>(88)</u>	(3)%
Total revenue	7,204	7,089	115	2%
Provision for credit losses	297	253	44	17%
Noninterest expense	<u>5,291</u>	<u>5,444</u>	<u>(153)</u>	(3)%
Pretax earnings	1,616	1,392	224	16%
Income taxes	<u>593</u>	<u>508</u>	<u>85</u>	17%
Earnings	<u>\$ 1,023</u>	<u>\$ 884</u>	<u>\$ 139</u>	<u>16%</u>
<b>Average Balance Sheet</b>				
Loans held for sale	\$ 942	\$ 1,111	\$ (169)	(15)%
Loans				
Consumer				
Home equity	\$ 26,204	\$ 27,657	\$ (1,453)	(5)%
Automobile	11,248	10,433	815	8%
Education	5,562	6,307	(745)	(12)%
Credit cards	4,889	4,527	362	8%
Other	<u>1,789</u>	<u>1,881</u>	<u>(92)</u>	(5)%
Total consumer	49,692	50,805	(1,113)	(2)%
Commercial and commercial real estate	11,410	12,011	(601)	(5)%
Residential mortgage	<u>10,682</u>	<u>9,618</u>	<u>1,064</u>	<u>11%</u>
Total loans	\$ 71,784	\$ 72,434	\$ (650)	(1)%
Total assets	\$ 85,871	\$ 86,977	\$ (1,106)	(1)%
Deposits				
Noninterest-bearing demand	\$ 28,364	\$ 25,106	\$ 3,258	13%
Interest-bearing demand	38,584	36,005	2,579	7%
Money market	44,855	53,520	(8,665)	(16)%
Savings	27,340	14,358	12,982	90%
Certificates of deposit	<u>14,770</u>	<u>16,488</u>	<u>(1,718)</u>	(10)%
Total deposits	<u>\$153,913</u>	<u>\$145,477</u>	<u>\$ 8,436</u>	<u>6%</u>
<b>Performance Ratios</b>				
Return on average assets	1.19%	1.02%		
Noninterest income to total revenue	37%	39%		
Efficiency	<u>73%</u>	<u>77%</u>		

Dollars in millions, except as noted	2016	2015	Change	
			\$	%
<b>Supplemental Noninterest Income Information</b>				
Consumer services	\$1,061	\$1,015	\$ 46	5%
Brokerage	\$ 295	\$ 284	\$ 11	4%
Residential mortgage	\$ 567	\$ 566	\$ 1	—
Service charges on deposits	\$ 639	\$ 623	\$ 16	3%
<b>Residential Mortgage Information</b>				
<u>Residential mortgage servicing statistics (in billions, except as noted) (a)</u>				
Serviced portfolio balance (b)	\$ 125	\$ 123	\$ 2	2%
Serviced portfolio acquisitions	\$ 19	\$ 29	\$ (10)	(34)%
MSR asset value (b)	\$ 1.2	\$ 1.1	\$ .1	9%
MSR capitalization value (in basis points) (b)	94	86	8	9%
Servicing income: (in millions)				
Servicing fees, net (c)	\$ 192	\$ 178	\$ 14	8%
Mortgage servicing rights valuation, net of economic hedge	\$ 92	\$ 89	\$ 3	3%
<u>Residential mortgage loan statistics</u>				
Loan origination volume (in billions)	\$ 10.6	\$ 10.5	\$ .1	1%
Loan sale margin percentage	3.17%	3.32%		
Percentage of originations represented by:				
Purchase volume (d)	40%	45%		
Refinance volume	60%	55%		
<b>Other Information (b)</b>				
Customer-related statistics (average)				
Non-teller deposit transactions (e)	49%	43%		
Digital consumer customers (f)	58%	52%		
<u>Credit-related statistics</u>				
Nonperforming assets (g)	\$1,257	\$1,325	\$ (68)	(5)%
Net charge-offs	\$ 351	\$ 347	\$ 4	1%
<u>Other statistics</u>				
ATMs	9,024	8,956	68	1%
Branches (h)	2,520	2,616	(96)	(4)%
Universal branches (i)	526	359	167	47%
Brokerage account client assets (in billions) (j)	\$ 44	\$ 43	\$ 1	2%

- (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 \$1.2 billion at both December 31, 2016 and December 31, 2015.
- (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) Included in total branches, represents branches operating under our Universal model.
- (j) Includes cash and money market balances.



Retail Banking earned \$1.0 billion in 2016 compared with \$884 million for 2015. The increase in earnings was driven by higher net interest income and a decrease in noninterest expense, partially offset by lower noninterest income and increased provision for credit losses.

Net interest income increased in 2016 compared to 2015 due to growth in deposit balances and improved interest rate spread on the value of deposits, partially offset by lower loan balances and interest rate spread compression on the value of loans.

The decline in noninterest income compared to the prior year reflected the impact of lower net gains on sales of Visa Class B common shares in 2016 of \$32 million compared with net gains of \$166 million in 2015. Net gains on Visa sales include derivative fair value adjustments related to swap agreements with purchasers of Visa Class B common shares in connection with all prior sales to date.

Other forms of noninterest income grew in the comparison, reflecting execution on our strategy to provide diverse product and service offerings. Higher transaction volumes in 2016 contributed to consumer service fee growth from payment-related products, specifically in debit and credit card, as well as increased service charges on deposits and brokerage fees.

The decline in noninterest expense in the comparison was due to lower legal reserves, a decrease in personnel expense, lower residential mortgage foreclosure-related expense, lower marketing expense, and reduced branch network expenses as a result of network transformation and transaction migration to lower cost digital and ATM channels.

Provision for credit losses increased compared to 2015, reflecting overall credit portfolio performance.

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 2016, average total deposits increased compared to 2015, driven by growth in savings deposits reflecting in part a shift from money market deposits to relationship-based savings products. Additionally, demand deposit categories increased, partially offset by a decline in certificates of deposit due to the net runoff of maturing accounts.

Retail Banking continued to focus on a relationship-based lending strategy. The decrease in average total loans in 2016 compared to 2015 was due to a decline in home equity and commercial loans, as well as runoff of certain portions of the portfolios, as more fully described below.

- Average home equity loans decreased as pay-downs and payoffs on loans exceeded new originated volume. Retail Banking's home equity loan portfolio is relationship based, with over 97% of the portfolio attributable to borrowers in our primary geographic footprint. The weighted-average updated FICO scores for this portfolio were 746 at December 31, 2016 and 752 at December 31, 2015.
- Average commercial and commercial real estate loans declined as pay-downs and payoffs on loans exceeded new volume.
- Average residential mortgages increased as a result of new volumes exceeding portfolio liquidations.
- Average automobile loans, which consisted of both direct and indirect auto loans, increased primarily due to portfolio growth in previously underpenetrated markets.
- Average credit card balances increased as a result of organic growth.
- In 2016, average loan balances for the education and other loan portfolios declined \$837 million, or 10%, compared to 2015, driven by declines in the government guaranteed education and indirect other portfolios, which are primarily runoff portfolios.

Nonperforming assets decreased compared to December 31, 2015 driven by declines in both consumer and commercial nonperforming loans.

Retail Banking continues to enhance the customer experience with refinements to product offerings that drive product 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.

Retail Banking continued to focus on the strategic priority of transforming the customer experience through transaction migration, branch network transformation, home lending transformation, and multi-channel engagement and service strategies.

- In 2016, approximately 58% of consumer customers used non-teller channels for the majority of their transactions compared with 52% for 2015.
- Deposit transactions via ATM and mobile channels increased to 49% of total deposit transactions in 2016 compared with 43% for 2015.
- We had a network of 2,520 branches and 9,024 ATMs at December 31, 2016. Approximately 21% of the branch network operates under the universal model.
- Instant debit card issuance, which enables us to print a customer's debit card in minutes, was available in 2,207 branches, or 88% of the branch network, as of December 31, 2016.
- Mortgage loan originations increased 1% compared to 2015. 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.

Table 10: Corporate &amp; Institutional Banking Table

Year ended December 31 Dollars in millions, except as noted	2016	2015	Change	
			\$	%
<b>Income Statement</b>				
Net interest income	\$ 3,312	\$ 3,274	\$ 38	1%
Noninterest income	2,035	1,947	88	5%
Total revenue	5,347	5,221	126	2%
Provision for credit losses	177	78	99	127%
Noninterest expense	2,222	2,187	35	2%
Pretax earnings	2,948	2,956	(8)	—
Income taxes	1,039	1,064	(25)	(2)%
Earnings	\$ 1,909	\$ 1,892	\$ 17	1%
<b>Average Balance Sheet</b>				
Loans held for sale	\$ 868	\$ 966	\$ (98)	(10)%
Loans				
Commercial	\$ 88,934	\$ 86,046	\$ 2,888	3%
Commercial real estate	26,677	23,208	3,469	15%
Equipment lease financing	7,463	7,570	(107)	(1)%
Total commercial lending	123,074	116,824	6,250	5%
Consumer	424	869	(445)	(51)%
Total loans	\$123,498	\$117,693	\$ 5,805	5%
Total assets	\$140,309	\$133,754	\$ 6,555	5%
Deposits				
Noninterest-bearing demand	\$ 48,072	\$ 49,946	\$(1,874)	(4)%
Money market	22,543	23,241	(698)	(3)%
Interest-bearing demand and other	13,943	10,403	3,540	34%
Total deposits	\$ 84,558	\$ 83,590	\$ 968	1%
<b>Performance Ratios</b>				
Return on average assets	1.36%	1.41%		
Noninterest income to total revenue	38%	37%		
Efficiency	42%	42%		
<b>Other Information</b>				
Commercial loan servicing portfolio (in billions) (a) (b)	\$ 487	\$ 447	\$ 40	9%
Consolidated revenue from: (c)				
Treasury Management (d)	\$ 1,348	\$ 1,166	\$ 182	16%
Capital Markets (d)	\$ 808	\$ 813	\$ (5)	(1)%
Commercial mortgage banking activities				
Commercial mortgage loans held for sale (e)	\$ 127	\$ 140	\$ (13)	(9)%
Commercial mortgage loan servicing income (f)	248	250	(2)	(1)%
Commercial mortgage servicing rights valuation, net of economic hedge (g)	44	28	16	57%
Total	\$ 419	\$ 418	\$ 1	—
Net carrying amount of commercial mortgage servicing rights (a)	\$ 576	\$ 526	\$ 50	10%
Average Loans (by C&IB business)				
Corporate Banking	\$ 51,392	\$ 50,375	\$ 1,017	2%
Real Estate	36,493	31,312	5,181	17%
Business Credit	14,763	14,615	148	1%
Equipment Finance	11,826	11,584	242	2%
Commercial Banking	7,159	7,685	(526)	(7)%
Other	1,865	2,122	(257)	(12)%
Total average loans	\$123,498	\$117,693	\$ 5,805	5%
<b>Credit-related statistics</b>				
Nonperforming assets (a) (h)	\$ 691	\$ 584	\$ 107	18%
Net charge-offs	\$ 180	\$ 21	\$ 159	*

\* - Not meaningful.

(a) As of December 31.

(b) Represents loans serviced for PNC and others.

(c) 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 the Corporate &amp; Institutional Banking portion of this Business Segments Review section.

(d) Includes amounts reported in net interest income, corporate service fees and other noninterest income.

(e) Includes other noninterest income for valuations on commercial mortgage loans held for sale and related commitments, derivative valuations, origination fees, gains on sale of loans held for sale and net interest income on loans held for sale.

(f) Includes net interest income and noninterest income (primarily in corporate services 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.

(g) Amounts reported in corporate service fees.

(h) Includes nonperforming loans of \$.6 billion at December 31, 2016 and \$.5 billion at December 31, 2015.

Corporate & Institutional Banking earned \$1.9 billion in both 2016 and 2015. Earnings remained stable as higher revenue was offset by an increase in the provision for credit losses. We continue to focus on building client relationships with appropriate risk-return profiles.

Net interest income increased modestly compared with 2015, reflecting the impacts of higher average loans and interest rate spread expansion on deposits, as well as interest rate spread compression on loans.

Growth in noninterest income in the comparison was driven by higher treasury management fees, an equity investment gain in 2016, increased fees from underwriting activities and higher structuring fees on asset securitizations. These increases were partially offset by lower merger and acquisition advisory fees.

Overall credit quality in 2016 remained relatively stable, except for deterioration related to certain energy related loans, which was the primary driver for the increase in provision for credit losses, net charge-offs and nonperforming assets in the year over year comparisons. Increased provision for credit losses also reflected the impact of continued loan growth.

Noninterest expense increased nominally in the comparison reflecting disciplined expense management.

Average loans increased in 2016 compared with 2015 due to strong growth in Real Estate:

- 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 both commercial real estate and commercial lending.
- 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 increased in the comparison reflecting increased lending to large corporate clients partially offset by the impact of capital and liquidity management activities.
- 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 in the comparison due to new originations.
- 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 were \$12.6 billion in 2016, compared with \$12.4 billion in 2015.
- Commercial Banking provides lending, treasury management and capital markets-related products and services to smaller corporations and businesses. Average loans for this business decreased in the comparison primarily due to the impact of capital management activities.

Average deposits increased modestly compared with 2015, as growth in other deposits, driven by interest-bearing demand deposit growth, was mostly offset by decreases in noninterest-bearing demand deposits and money market deposits.

Growth in the commercial loan servicing portfolio was reflected by servicing additions from new and existing customers exceeding portfolio run-off.

#### **Product Revenue**

In addition to credit and deposit products for commercial customers, Corporate & Institutional Banking offers other services, for customers of all business segments, including treasury management, capital markets-related products and services, and commercial mortgage banking activities. 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 revenue consists of fees and net interest income from customer deposit balances. Compared with 2015, revenue from treasury management increased driven by liquidity-related revenue associated with customer deposit balances and interest rate spread expansion.

Capital markets-related products and services include foreign exchange, derivatives, securities, loan syndications, mergers and acquisitions advisory and equity capital markets advisory related services. Revenue from capital markets-related products and services decreased slightly in the comparison as both lower merger and acquisition advisory fees and loan syndication fees were mostly offset by increased fees from underwriting activities and higher structuring fees on asset securitizations.

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 commercial mortgage banking activities increased marginally in the comparison as a higher benefit from commercial mortgage servicing rights valuation, net of economic hedge, was mostly offset by lower revenue from commercial mortgage loans held for sale.

**Asset Management Group** (Unaudited)

**Table 11: Asset Management Group Table**

Year ended December 31 Dollars in millions, except as noted	2016	2015	Change	
			\$	%
<b>Income Statement</b>				
Net interest income	\$ 300	\$ 292	\$ 8	3%
Noninterest income	851	869	(18)	(2)%
Total revenue	1,151	1,161	(10)	(1)%
Provision for credit losses (benefit)	(6)	9	(15)	(167)%
Noninterest expense	825	846	(21)	(2)%
Pretax earnings	332	306	26	8%
Income taxes	122	112	10	9%
Earnings	\$ 210	\$ 194	\$ 16	8%
<b>Average Balance Sheet</b>				
<b>Loans</b>				
Consumer	\$ 5,436	\$ 5,655	\$ (219)	(4)%
Commercial and commercial real estate	754	880	(126)	(14)%
Residential mortgage	1,058	919	139	15%
Total loans	\$ 7,248	\$ 7,454	\$ (206)	(3)%
Total assets	\$ 7,707	\$ 7,920	\$ (213)	(3)%
<b>Deposits</b>				
Noninterest-bearing demand	\$ 1,431	\$ 1,272	\$ 159	13%
Interest-bearing demand	4,013	4,144	(131)	(3)%
Money market	4,128	5,161	(1,033)	(20)%
Savings	2,303	361	1,942	538%
Other	275	277	(2)	(1)%
Total deposits	\$12,150	\$11,215	\$ 935	8%
<b>Performance Ratios</b>				
Return on average assets	2.72%	2.45%		
Noninterest income to total revenue	74%	75%		
Efficiency	72%	73%		
<b>Other Information</b>				
Nonperforming assets (a) (b)	\$ 53	\$ 53	—	—
Net charge-offs	\$ 9	\$ 13	\$ (4)	(31)%
<b>Client Assets Under Administration</b> (in billions) (a) (c) (d)				
Discretionary client assets under management	\$ 137	\$ 134	\$ 3	2%
Nondiscretionary client assets under administration	129	125	4	3%
Total	\$ 266	\$ 259	\$ 7	3%
<b>Discretionary client assets under management</b>				
Personal	\$ 85	\$ 85	—	—
Institutional	52	49	\$ 3	6%
Total	\$ 137	\$ 134	\$ 3	2%
Equity	\$ 73	\$ 72	\$ 1	1%
Fixed Income	39	40	(1)	(3)%
Liquidity/Other	25	22	3	14%
Total	\$ 137	\$ 134	\$ 3	2%

(a) As of December 31.

(b) Includes nonperforming loans of \$46 million at December 31, 2016 and \$48 million at December 31, 2015.

(c) Excludes brokerage account client assets.

(d) As a result of certain investment advisory services performed by one of our registered investment advisors, certain assets are reported as both discretionary client assets under management and nondiscretionary client assets under administration. The amount of such assets was approximately \$9 billion at December 31, 2016 and \$6 billion at December 31, 2015.

Asset Management Group earned \$210 million in 2016 compared to \$194 million in 2015. Earnings increased due to declines in noninterest expense and provision for credit losses, as well as an increase in net interest income, partially offset by a decrease in noninterest income.

The decline in revenue in the comparison was driven by lower noninterest income, partially offset by higher net interest income. The decline in noninterest income reflected the impact from a \$30 million trust settlement in 2015, which was partially offset by new sales production and stronger average equity markets. Increased net interest income in the comparison was primarily due to higher average deposit balances, partially offset by a decrease in loan balances.

The reduction in noninterest expense in 2016 compared to the prior year was primarily attributable to lower compensation expense. Asset Management Group remains focused on disciplined expense management as it invests in strategic growth opportunities.

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. Key growth opportunities include: maximizing front line productivity, ensuring a relationship-based approach with other lines of business partners, and optimizing market presence across our footprint.

Wealth Management and Hawthorn have nearly 100 offices operating in seven out 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.

The increase in assets under administration in the comparison to the prior year reflected growth in discretionary client assets under management, which was driven by higher equity markets.

**BlackRock** (Unaudited)

**Table 13: BlackRock Table**

Information related to our equity investment in BlackRock follows:

Year ended December 31 Dollars in millions	2016	2015
Business segment earnings (a)	\$532	\$548
PNC's economic interest in BlackRock (b)	22%	22%

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

In billions	December 31 2016	December 31 2015
Carrying value of our investment in BlackRock (c)	\$ 7.0	\$ 6.7
Market value of our investment in BlackRock (d)	13.4	12.0

- (c) We account for our investment in BlackRock under the equity method of accounting, exclusive of a related deferred tax liability of \$2.3 billion at December 31, 2016 and \$2.2 billion at December 31, 2015. Our voting interest in BlackRock common stock was approximately 21% at December 31, 2016.
- (d) Does not include liquidity discount.

In addition to our investment in BlackRock reflected in Table 13, at December 31, 2016, we held approximately .8 million shares of BlackRock Series C Preferred Stock valued at \$232 million, which are available to fund our obligation in connection with certain BlackRock long-term incentive plan (LTIP) programs. We account for the BlackRock Series C Preferred Stock at fair value, which offsets the impact of marking-to-market the obligation to deliver these shares to BlackRock. The fair value amount of the BlackRock Series C Preferred Stock is included on our Consolidated Balance Sheet within Other assets. 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 February 1, 2017 transfer of .5 million shares of Series C Preferred Stock to BlackRock to satisfy a portion of our LTIP obligation.

**2015 VERSUS 2014**

**Consolidated Income Statement Review**

**Summary Results**

Net income for 2015 of \$4.1 billion, or \$7.39 per diluted common share, decreased compared to 2014 net income of \$4.2 billion, or \$7.30 per diluted common share. A decrease in revenue of 1% was partially offset by reductions in noninterest expense and the provision for credit losses. Lower revenue was driven by a 3% decrease in net interest income, offset in part by a 1% increase in noninterest income reflecting strong fee income growth.

---

### **Net Interest Income**

Net interest income was \$8.3 billion in 2015 and decreased by \$247 million, or 3%, compared with 2014 due to lower purchase accounting accretion and lower interest-earning asset yields driven by the low rate environment, partially offset by commercial and commercial real estate loan growth and higher securities balances. The decline also reflected the impact from the second quarter 2014 correction to reclassify certain commercial facility fees from net interest income to noninterest income.

Net interest margin was 2.74% in 2015 and 3.08% in 2014. The decrease was driven by a 32 basis point decline in the yield on total interest-earning assets, which was principally due to the impact of increasing the company's liquidity position, lower loan and securities yields, and lower benefit from purchase accounting accretion. The decline also included the impact of the second quarter 2014 correction to reclassify certain commercial facility fees.

### **Noninterest Income**

Noninterest income was \$6.9 billion for 2015 and 2014, as strong growth in consumer and corporate services fees and asset management revenue was partially offset by lower gains on asset sales and lower residential mortgage revenue. Noninterest income as a percentage of total revenue was 46% for 2015, up from 45% for 2014.

Asset management revenue increased \$54 million, or 4%, in 2015 to \$1.6 billion, compared to 2014, driven by new sales production and stronger average equity markets, as well as the benefit from a \$30 million trust settlement in 2015. Discretionary client assets under management in the Asset Management Group were \$134 billion at December 31, 2015 compared with \$135 billion at December 31, 2014.

Consumer service fees increased \$81 million, or 6%, in 2015 compared to 2014, primarily due to growth in customer-initiated transaction volumes related to debit card, credit card and merchant services activity, along with higher brokerage revenue.

Corporate service fees increased to \$1.5 billion in 2015 compared to \$1.4 billion in 2014, driven by higher treasury management, commercial mortgage servicing and equity capital markets advisory fees, partially offset by lower merger and acquisition advisory fees. The increase also reflected the impact of the correction to reclassify certain commercial facility fees from net interest income to noninterest income beginning in the second quarter of 2014.

Residential mortgage revenue decreased to \$566 million in 2015 from \$618 million in 2014, primarily due to lower loan sales and servicing revenue, partially offset by higher net hedging gains on residential mortgage servicing rights.

Other noninterest income decreased to \$1.3 billion in 2015 compared to \$1.4 billion in 2014. The decline was primarily attributable to lower gains on asset dispositions, including the impact of the 2014 gain of \$94 million on the sale of our Washington, D.C. regional headquarters building and lower net gains on sales of Visa Class B common shares.

Net gains on sales of Visa Class B Common shares were \$166 million in 2015 compared to \$150 million in 2014. 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 totaled \$255 million in 2015 compared with \$273 million in 2014, reflecting improved credit quality.

### **Noninterest Expense**

Noninterest expense decreased \$25 million to \$9.5 billion in 2015 compared to 2014, reflecting our focus on expense management. Higher personnel expense associated with higher business activity and investments in technology and business infrastructure were more than offset by lower legal and residential mortgage compliance costs and third party expenses, as well as the impact of the fourth quarter 2014 contribution to the PNC Foundation.

During 2015, we completed actions and exceeded our 2015 continuous improvement program goal of \$500 million in cost savings. The program focused on reducing costs in part to fund investments in technology and business infrastructure.

### **Effective Income Tax Rate**

The effective income tax rate was 24.8% for 2015 compared with 25.1% for 2014. 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 effective tax rate for 2015 included tax benefits attributable to settling acquired entity tax contingencies.

---

## **Consolidated Balance Sheet Review**

### **Summary Results**

Our balance sheet reflected asset growth and strong liquidity and capital positions at December 31, 2015. Total assets increased in 2015 compared to 2014 primarily due to an increase of \$14.7 billion in investment securities driven by deposit growth. Total liabilities increased in 2015 compared to 2014 mainly due to an increase in deposits. Total equity in 2015 remained relatively stable compared to 2014 mainly due to increased retained earnings driven by net income, offset by share repurchases and redemption of preferred stock.

### **Loans**

Loans increased \$1.9 billion to \$206.7 billion as of December 31, 2015 compared with December 31, 2014. Loan growth was the result of an increase in total commercial lending driven by commercial real estate loans, partially offset by a decline in consumer lending due to lower home equity, education and automobile loans.

Average total loans increased by \$5.7 billion to \$205.3 billion in 2015, which was driven by increases in average commercial loans of \$5.7 billion and average commercial real estate loans of \$2.5 billion. These increases were partially offset by a decrease in consumer loans of \$2.4 billion primarily attributable to lower home equity and education loans.

### **Investment Securities**

Investment securities increased \$14.7 billion to \$70.5 billion at December 31, 2015 compared to December 31, 2014, due to deposit growth. The majority of increases were in U.S. Treasury and government agency securities and agency residential mortgage-backed securities.

Average investment securities increased to \$61.7 billion during 2015 compared to \$55.8 billion during 2014, 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 weighed-average expected maturity of the investment securities portfolio (excluding corporate stock and other) was 4.8 years at December 31, 2015 and 4.3 years at December 31, 2014.

### **Funding Sources**

Total deposits increased \$16.8 billion to \$249.0 billion at December 31, 2015 compared with December 31, 2014 due to strong growth in savings, demand and money market deposits, partially offset by a decline in retail certificates of deposit.

Average total deposits increased \$17.4 billion to \$240.4 billion in 2015 compared with 2014, primarily due to increases in average money market deposits, average non-interest-bearing deposits and average interest-bearing demand deposits driven by both commercial and retail deposit growth.

Total borrowed funds decreased \$2.2 billion to \$54.5 billion at December 31, 2015 compared with December 31, 2014, as declines in commercial paper, federal funds purchased and repurchase agreements and subordinated debt were partially offset by higher net issuances of bank notes and senior debt.

Average borrowed funds increased to \$56.5 billion in 2015 from \$48.8 billion in 2014 primarily due to an increase in average FHLB borrowings and average bank notes and senior debt. These increases were partially offset by a decline in average commercial paper balances. The changes in the composition of funding sources were attributable to our actions to enhance our funding structure in light of regulatory liquidity standards and a rating agency methodology change.

### **Shareholders' Equity**

Total shareholders' equity increased \$159 million to \$44.7 billion at December 31, 2015 compared with December 31, 2014, mainly due to a \$2.8 billion increase in retained earnings, partially offset by common share repurchases of \$2.1 billion and the redemption of \$500 million of preferred stock. The increase in retained earnings was driven by net income of \$4.1 billion, reduced by \$1.3 billion of common and preferred dividends declared. Common shares outstanding were 504 million and 523 million at December 31, 2015 and 2014, respectively.

## RISK MANAGEMENT

### Enterprise Risk Management

We have an Enterprise Risk Management Framework which is structurally aligned with enhanced prudential standards that establish minimum requirements for the design and implementation of a risk governance framework. 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.

This Risk Management section describes our Enterprise Risk Management (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 the 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, decision, and report risk.



## Enterprise Strategy

We ensure that our overall enterprise strategy is within acceptable risk parameters through 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 Oversight

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 in our 2016 Form 10-K.

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

*Board of Directors* – The Board of Directors oversees our risk-taking activities and exercises 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 Independent Risk Management. 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. The manner in which the first line of defense executes its responsibilities must reflect our risk culture.

*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* promotes our best interests and those of our shareholders through implementation of sound corporate governance principles and practices.
- *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.

*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 (KRIs), Key Performance Indicators (KPIs), Risk Control and Self-Assessments (RCSAs), 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 as established through the policy 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 allows 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. The use of analytical tools and methods help identify and prioritize risks. 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 the 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. The risk profile 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.

Risk reports are produced at the enterprise level as well as the risk area, line of business, and support area levels. Each individual risk report includes an assessment of inherent risk, quality of risk management, residual risk, Risk Appetite, and risk outlook. The enterprise 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.

### **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 15. 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 15: Nonperforming Assets by Type**

Dollars in millions	December 31	December 31	Change	
	2016	2015	\$	%
<b>Nonperforming loans</b>				
Commercial lending	\$ 655	\$ 545	\$110	20%
Consumer lending (a)	1,489	1,581	(92)	(6)%
Total nonperforming loans (b)	2,144	2,126	18	1%
OREO, foreclosed and other assets	230	299	(69)	(23)%
Total nonperforming assets	\$ 2,374	\$ 2,425	\$ (51)	(2)%
Amount of TDRs included in nonperforming loans	\$ 1,112	\$ 1,119	\$ (7)	(1)%
Percentage of total nonperforming loans	52%	53%		
Nonperforming loans to total loans	1.02%	1.03%		
Nonperforming assets to total loans, OREO, foreclosed and other assets	1.12%	1.17%		
Nonperforming assets to total assets	.65%	.68%		
Allowance for loan and lease losses to total nonperforming loans	121%	128%		

- (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) The recorded investment of loans collateralized by residential real estate property that are in process of foreclosure was \$.4 billion and \$.6 billion at December 31, 2016 and December 31, 2015, respectively, and included \$.2 billion and \$.3 billion, respectively, of loans that are government insured/guaranteed.

**Table 16: Change in Nonperforming Assets**

In millions	2016	2015
January 1	\$2,425	\$2,880
New nonperforming assets	1,835	1,459
Charge-offs and valuation adjustments	(604)	(499)
Principal activity, including paydowns and payoffs	(697)	(687)
Asset sales and transfers to loans held for sale	(336)	(364)
Returned to performing status	(249)	(364)
December 31	\$2,374	\$2,425

As of December 31, 2016, approximately 84% 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, 2016, commercial lending nonperforming loans were carried at approximately 66% of their unpaid principal balance, due to charge-offs recorded to date, before consideration of the ALLL.

Within consumer nonperforming loans, residential real estate TDRs comprise 70% of total residential real estate nonperforming loans at December 31, 2016, up from 68% at December 31, 2015. Home equity TDRs comprise 52% of home equity nonperforming loans at December 31, 2016 and 51% at December 31, 2015. 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, 2016, our largest nonperforming asset was \$46 million in the Mining, Quarrying, Oil and Gas Extraction Industry and our average nonperforming loan associated with commercial lending was less than \$1 million. The ten largest individual nonperforming assets are from the commercial lending portfolio and represented 40% and 11% of total commercial lending nonperforming loans and total nonperforming assets, respectively, as of December 31, 2016.

#### 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 17: Accruing Loans Past Due (a)**

Dollars in millions	Amount		Change		Percentage of Total Loans Outstanding	
	December 31 2016	December 31 2015	\$	%	December 31 2016	December 31 2015
<b>Early stage loan delinquencies</b>						
Accruing loans past due 30 to 59 days	\$ 562	\$ 511	\$ 51	10%	.27%	.25%
Accruing loans past due 60 to 89 days	232	248	(16)	(6)%	.11%	.12%
Total	794	759	35	5%	.38%	.37%
<b>Late stage loan delinquencies</b>						
Accruing loans past due 90 days or more	782	881	(99)	(11)%	.37%	.43%
Total	\$ 1,576	\$ 1,640	\$(64)	(4)%	.75%	.80%

(a) Past due loan amounts include government insured or guaranteed loans of \$ .9 billion and \$1.1 billion as of December 31, 2016 and December 31, 2015, respectively.

Accruing loans past due 90 days or more decreased at December 31, 2016 compared to December 31, 2015 driven by declines in government insured residential real estate and other consumer loans. 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.

#### Home Equity Loan Portfolio

Our home equity loan portfolio totaled \$29.9 billion as of December 31, 2016, or 14% of the total loan portfolio. Of that total, \$17.7 billion, or 59%, were outstanding under primarily variable-rate home equity lines of credit and \$12.2 billion, or 41%, consisted of closed-end home equity installment loans. Approximately 4% of the home equity portfolio was purchased impaired and 3% of the home equity portfolio was on nonperforming status as of December 31, 2016.

As of December 31, 2016, we were in an originated first lien position for approximately 55% of the total outstanding portfolio and, where originated as a second lien, we held or serviced the first lien position for an additional 3% of the portfolio. The remaining 42% of the portfolio was secured by second liens where we do not hold the first lien position. The credit performance of the majority of the home equity portfolio where we are in, hold or service 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.

We track borrower performance monthly, including obtaining original LTVs and updated FICO scores at least quarterly, updated LTVs semi-annually, and other credit metrics at least quarterly, including the historical performance of any 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 segment the home equity portfolio based upon the loan delinquency, modification status and bankruptcy status, as well as the delinquency, modification status and bankruptcy status of any mortgage loan with the same borrower (regardless of whether it is a first lien senior to our second lien).

In establishing our ALLL for non-impaired loans, we utilize a delinquency roll-rate methodology for pools of loans. The roll-rate methodology estimates transition/roll of loan balances from one delinquency state to the next delinquency state and ultimately to charge-off. The roll through to charge-off is based on our actual loss experience for each type of pool. Each of our home equity pools contains both first and second liens. Our experience has been that the ratio of first to second lien loans has been consistent over time and the charge-off amounts for the pools, used to establish our allowance, include losses on both first and second lien loans.

Generally, our variable-rate home equity lines of credit have either a seven or ten year draw period, followed by a 20-year amortization term. During the draw period, we have home equity lines of credit where borrowers pay either interest only or principal and interest. We view home equity lines of credit where borrowers are paying principal and interest under the draw period as less risky than those where the borrowers are paying interest only, as these borrowers have a demonstrated ability to make some level of principal and interest payments. The risk associated with the borrower's ability to satisfy the loan terms upon the draw period ending is considered in establishing our ALLL. Based upon outstanding balances at December 31, 2016, the following table presents the periods when home equity lines of credit draw periods are scheduled to end.

**Table 18: Home Equity Lines of Credit – Draw Period End Dates**

In millions	Interest Only Product	Principal and Interest Product
2017	\$ 1,657	\$ 434
2018	796	636
2019	546	483
2020	442	434
2021 and thereafter	2,960	6,438
Total (a) (b)	<u>\$ 6,401</u>	<u>\$ 8,425</u>

- (a) Includes all home equity lines of credit that mature in 2017 or later, including those with borrowers where we have terminated borrowing privileges.
- (b) Includes home equity lines of credit with balloon payments, including those where we have terminated borrowing privileges, of \$35 million, \$27 million, \$20 million, \$71 million and \$416 million with draw periods scheduled to end in 2017, 2018, 2019, 2020 and 2021 and thereafter, respectively.

Based upon outstanding balances, and excluding purchased impaired loans, at December 31, 2016, for home equity lines of credit for which the borrower can no longer draw (e.g., draw period has ended or borrowing privileges have been terminated), approximately 3% were 30-89 days past due and approximately 6% were 90 days or more past due, which are accounted for as nonperforming. Generally, when a borrower becomes 60 days past due, we terminate borrowing privileges and those privileges are not subsequently reinstated. At that point, we continue our collection/recovery processes, which may include loan modification resulting in a loan that is classified as a TDR.

#### Auto Loan Portfolio

The auto loan portfolio totaled \$12.4 billion as of December 31, 2016, or 6% of our total loan portfolio. Of that total, \$10.8 billion resides in the indirect auto portfolio, \$1.3 billion in the direct auto portfolio, and \$.3 billion in acquired or securitized portfolios, which has been declining as no pools have been recently acquired. Indirect auto loan applications are generated from franchised automobile dealers. This business is strategically aligned with our core retail business.

We have elected not to pursue non-prime auto lending as evidenced by an average new loan origination FICO score during 2016 of 760 for indirect auto loans and 775 for direct auto loans. As of December 31, 2016, .4% of our auto loan portfolio was nonperforming and .5% of the portfolio was accruing past due. We offer both new and used automobile financing to customers through our various channels. The portfolio was composed of 57% new vehicle loans and 43% used vehicle loans at December 31, 2016.

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, loan-to-value and term.

#### Energy Related Loan Portfolio

Our portfolio of loans outstanding in the oil and gas industry totaled \$2.4 billion as of December 31, 2016, or 1% of our total loan portfolio and 2% of our total commercial lending portfolio. This portfolio comprised approximately \$1.0 billion in the midstream and downstream sectors, \$.8 billion to oil services companies and \$.6 billion to upstream sectors. Of the oil services portfolio, approximately \$.2 billion is not asset-based or investment grade. Nonperforming loans in the oil and gas sector as of December 31, 2016 totaled \$184 million, or 8% of total nonperforming assets.

Our portfolio of loans outstanding in the coal industry totaled \$.4 billion as of December 31, 2016, or less than 1% of both our total loan portfolio and our total commercial lending portfolio. Nonperforming loans in the coal industry as of December 31, 2016 totaled \$61 million, or 3% of total nonperforming assets.

### **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 between three and 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 19 provides the number of accounts and unpaid principal balance of modified consumer real estate related loans at the end of each year presented.

**Table 19: Consumer Real Estate Related Loan Modifications**

Dollars in millions	December 31, 2016		December 31, 2015	
	Number of Accounts	Unpaid Principal Balance	Number of Accounts	Unpaid Principal Balance
Temporary modifications	3,484	\$ 258	4,469	\$ 337
Permanent modifications	23,904	2,693	24,055	2,809
Total consumer real estate related loan modifications	27,388	\$ 2,951	28,524	\$ 3,146

#### 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 20: Summary of Troubled Debt Restructurings (a)**

In millions	December 31	December 31	Change	
	2016	2015	\$	%
Total consumer lending	\$ 1,793	\$ 1,917	\$(124)	(6)%
Total commercial lending	428	434	(6)	(1)%
Total TDRs	\$ 2,221	\$ 2,351	\$(130)	(6)%
Nonperforming	\$ 1,112	\$ 1,119	\$ (7)	(1)%
Accruing (b)	1,109	1,232	(123)	(10)%
Total TDRs	\$ 2,221	\$ 2,351	\$(130)	(6)%

- (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, 2016 and December 31, 2015. Nonperforming TDRs represented approximately 52% and 53% of total nonperforming loans, and 50% and 48% of total TDRs at December 31, 2016 and December 31, 2015, 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, 2016 consisted of \$1.5 billion and \$1.1 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.

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.

Reserves are established for non-impaired commercial loan classes based on probability of default (PD) and loss given default (LGD) credit risk ratings.

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.

Allocations to non-impaired consumer loan classes are primarily based upon a roll-rate model which uses statistical relationships, calculated from historical data that estimate the movement of loan outstandings through the various stages of delinquency and ultimately charge-off.

A portion of the ALLL is related to qualitative and 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. In the hypothetical event that the aggregate weighted average commercial loan risk grades would experience a 1% deterioration, assuming all other variables remain constant, the allowance for commercial loans would increase by approximately \$40 million as of December 31, 2016. In the hypothetical event that consumer loss rates would increase by 10%, assuming all other variables remain constant, the allowance for consumer loans would increase by approximately \$25 million at December 31, 2016.

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, 2016, 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 21: Allowance for Loan and Lease Losses**

Dollars in millions	2016	2015
January 1	\$2,727	\$3,331
Total net charge-offs	(543)	(386)
Provision for credit losses	433	255
Net change in allowance for unfunded loan commitments and letters of credit	(40)	(2)
Net recoveries / (write-offs) of purchased impaired loans and other	12	(471)
December 31	\$2,589	\$2,727
Net charge-offs to average loans (for the year ended)	.26%	.19%
Allowance for loan and lease losses to total loans	1.23	1.32
Commercial lending net charge-offs	\$ (185)	\$ (15)
Consumer lending net charge-offs	(358)	(371)
Total net charge-offs	\$ (543)	\$ (386)
Net charge-offs to average loans (for the year ended)		
Commercial lending	.14%	.01%
Consumer lending	.50	.50

At December 31, 2016, total ALLL to total nonperforming loans was 121%. The comparable amount for December 31, 2015 was 128%. These ratios are 89% and 98%, respectively, when excluding the \$.7 billion and \$.6 billion of ALLL at December 31, 2016 and December 31, 2015, respectively, allocated to consumer loans and lines of credit not secured by residential real estate and purchased impaired loans. We have excluded from these ratios purchased impaired loans, consumer loans and consumer lines of credit not secured by real estate that are excluded from nonperforming loans. See Table 15 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 2016, overall credit quality remained relatively stable despite negative impacts from certain energy related loans, which resulted in an ALLL balance decline of \$138 million, or 5.1% to \$2.6 billion as of December 31, 2016 compared to December 31, 2015.

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

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

Table 22: Loan Charge-Offs and Recoveries

Year ended December 31 Dollars in millions	Gross Charge-offs	Recoveries	Net Charge-offs / (Recoveries)	Percent of Average Loans
<b>2016</b>				
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	<u>\$ 886</u>	<u>\$ 343</u>	<u>\$ 543</u>	.26%
<b>2015</b>				
Commercial	\$ 206	\$ 170	\$ 36	.04%
Commercial real estate	44	66	(22)	(.09)%
Equipment lease financing	5	4	1	.01%
Home equity	181	93	88	.26%
Residential real estate	24	13	11	.08%
Credit card	160	21	139	3.06%
Other consumer	185	52	133	.60%
Total	<u>\$ 805</u>	<u>\$ 419</u>	<u>\$ 386</u>	.19%

See Note 1 Accounting Policies in the Notes To Consolidated Financial Statements in Item 8 of this Report regarding changes in the ALLL.

### Residential Mortgage Repurchase Obligations

As discussed in Note 2 Loan Sale and Servicing Activities and Variable Interest Entities in the Notes To Consolidated Financial Statements in Item 8 of this Report, we have sold residential mortgage loans directly or indirectly through securitization and loan sale transactions in which we have continuing involvement. One form of continuing involvement includes certain loan repurchase obligations associated with the transferred assets.

While residential mortgage loans are sold on a non-recourse basis, we assume certain loan repurchase obligations associated with mortgage loans we have sold to investors. These loan repurchase obligations primarily relate to situations where we are alleged to have breached certain origination covenants and representations and warranties made to purchasers of the loans in the respective purchase and sale agreements. Our historical exposure and activity associated with Agency securitization repurchase obligations has primarily been related to transactions with FNMA and FHLMC, as indemnification and repurchase losses associated with FHA and VA-insured and uninsured loans pooled in GNMA securitizations historically have been minimal. In addition to indemnification and repurchase risk, we face other risks of loss with respect to our participation in these programs, some of which are described in Note 19 Legal Proceedings in the Notes To Consolidated Financial Statements in Item 8 of this Report with respect to governmental inquiries related to FHA-insured loans. Repurchase obligation activity associated with residential mortgages is reported in the Retail Banking segment.

Origination and sale of residential mortgages is an ongoing business activity and, accordingly, management continually assesses the need to recognize indemnification and repurchase liabilities pursuant to the associated investor sale agreements. We establish indemnification and repurchase liabilities for estimated losses on sold mortgages for which indemnification is expected to be provided or for loans that are expected to be repurchased. To estimate the mortgage repurchase liability arising from breaches of representations and warranties, we consider the following factors: (i) borrower performance in our historically sold portfolio (both actual and estimated future defaults); (ii) the level of outstanding unresolved repurchase claims; (iii) estimated probable future repurchase claims, considering information about expected investor behaviors, delinquent and liquidated loans, resolved and unresolved mortgage insurance rescission notices and our historical experience with claim rescissions; (iv) the potential ability to cure the defects identified in the repurchase claims ("rescission rate"); (v) the availability of legal defenses; and (vi) the estimated severity of loss upon repurchase of the loan or collateral, make-whole settlement or indemnification.

Our repurchase obligations involve Agency securitizations and other loan sales with FNMA and FHLMC subsequent to 2008, as well as Agency securitizations with GNMA and Non-Agency securitizations and other loan sales with private investors. The unpaid principal balance of loans associated with our exposure to repurchase obligations totaled \$60.5 billion at December 31, 2016, of which \$.9 billion was 90 days or more delinquent. The comparative amounts were \$65.3 billion and \$1.2 billion, respectively, at December 31, 2015. At December 31, 2016 and December 31, 2015, the residential mortgage indemnification and repurchase liability for estimated losses on indemnification and repurchase claims totaled \$66 million and \$94 million, respectively, and was included in Other liabilities on the Consolidated Balance Sheet.

## **Liquidity and Capital Management**

### **Liquidity Risk**

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 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 LCR, a regulatory minimum liquidity requirement designed to ensure that covered banking organizations maintain an adequate level of liquidity to meet net liquidity needs over the course of a 30-day stress scenario. The LCR is calculated by dividing the amount of an institution’s high quality, unencumbered liquid assets (HQLA), as defined and calculated in accordance with the LCR rules, by its estimated net cash outflows, with net cash outflows determined by applying the assumed outflow factors in the LCR rules. The resulting quotient is expressed as a percentage. The minimum LCR that PNC and PNC Bank were required to maintain was 90% in 2016 and the minimum increased to 100% in 2017. PNC and PNC Bank calculate the LCR on a daily basis and as of December 31, 2016, the LCR for PNC and PNC Bank exceeded the 2017 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 in our 2016 Form 10-K.

### **Sources of Funding**

Our largest source of liquidity on a consolidated basis is the customer deposit base generated by our retail and commercial banking businesses. These deposits provide relatively stable and low-cost funding. Total deposits increased to \$257.2 billion at December 31, 2016 from \$249.0 billion at December 31, 2015, driven by growth in demand and savings deposits, which reflected in part a shift from money market deposits, partially offset by a decline in time deposits. Certain assets determined by us to be liquid and unused borrowing capacity from a number of sources are also available to maintain our liquidity position.

At December 31, 2016, our liquid assets consisted of short-term investments (Federal funds sold, resale agreements, trading securities and interest-earning deposits with banks) totaling \$29.6 billion and securities available for sale totaling \$60.1 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 \$89.7 billion, we had \$4.5 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, \$5.0 billion of securities held to maturity were also pledged as collateral for these purposes.

We also obtain liquidity through the issuance of traditional forms of funding, including long-term debt (senior notes, subordinated debt and FHLB advances) and short-term borrowings (Federal funds purchased, securities sold under repurchase agreements, commercial paper and other short-term borrowings).

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, 2016, PNC Bank had \$24.8 billion of notes outstanding under this program of which \$19.1 billion were senior bank notes and \$5.7 billion were subordinated bank notes. The following table details issuances for the three months ended December 31, 2016:

**Table 23: PNC Bank Notes Issued During Fourth Quarter 2016**

<u>Issuance Date</u>	<u>Amount</u>	<u>Description of Issuance</u>
December 9, 2016	\$600 million	Senior notes with a maturity date of December 7, 2018. Interest is payable semi-annually at a fixed rate of 1.700% on June 7 and December 7 of each year, beginning June 7, 2017.
December 9, 2016	\$750 million	Senior notes with a maturity date of December 9, 2021. Interest is payable semi-annually at a fixed rate of 2.550% on June 9 and December 9 of each year, beginning June 9, 2017.
December 9, 2016	\$400 million	Floating rate senior notes with a maturity date of December 7, 2018. Interest is payable at the 3-month LIBOR rate, reset quarterly, plus a spread of .40% per annum on March 7, June 7, September 7 and December 7 of each year, beginning on March 7, 2017.

See Note 23 Subsequent Events for information on the February 17, 2017 issuance of 2.625% Senior Notes due February 17, 2022 in the principal amount of \$1.0 billion by PNC Bank.

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

**Table 24: Senior and Subordinated Debt**

<u>In billions</u>	<u>2016</u>
January 1	\$29.9
Issuances	5.6
Calls and maturities	(4.2)
Other	(0.3)
December 31	<u>\$31.0</u>

PNC Bank is a member of the FHLB-Pittsburgh and, as such, has access to advances from FHLB-Pittsburgh secured generally by residential mortgage loans, other mortgage-related loans and commercial mortgage-backed securities. At December 31, 2016, our unused secured borrowing capacity was \$27.5 billion with the FHLB-Pittsburgh. Total FHLB borrowings decreased to \$17.5 billion at December 31, 2016 compared with \$20.1 billion at December 31, 2015 as maturities outpaced draws.

The FHLB-Pittsburgh also periodically provides standby letters of credit on behalf of PNC Bank to secure certain public deposits. If the FHLB-Pittsburgh is required to make payment for a beneficiary's draw, the payment amount is converted into a collateralized advance to PNC Bank. At December 31, 2016, standby letters of credit issued on our behalf by the FHLB-Pittsburgh totaled \$4.4 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, 2016, there were no issuances outstanding under this program.

PNC Bank can also borrow from the Federal Reserve Bank discount window to meet short-term liquidity requirements. 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. These potential borrowings are secured by commercial loans. At December 31, 2016, our unused secured borrowing capacity was \$17.5 billion with the Federal Reserve Bank.

Borrowed funds come from a diverse mix of short-term and long-term funding sources. See Note 10 Borrowed Funds and the Funding sources section of the Consolidated Balance Sheet Review for additional information related to our Borrowings.

In addition to managing liquidity risk at the consolidated company 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, 2016, available parent company liquidity totaled \$4.5 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 its subsidiary 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. The amount available for dividend payments by PNC Bank to the parent company without prior regulatory approval was approximately \$1.7 billion at December 31, 2016. 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. We provide additional information on certain contractual restrictions in Note 15 Equity in the Notes To Consolidated Financial Statements in Item 8 of this Report.

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, 2016, there were no 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.

See Note 23 Subsequent Events for information on the February 7, 2017 issuance of \$575 million Floating Rate Senior Notes due August 7, 2018 off of the shelf registration statement.

Total parent company borrowings outstanding totaled \$6.2 billion at December 31, 2016 compared with \$7.5 billion at December 31, 2015. The decline was primarily attributable to maturities of \$1.2 billion during the year. As of December 31, 2016, there were approximately \$601 million of parent company borrowings with contractual maturities of less than one year.

### Commitments

The following tables set forth contractual obligations and various other commitments as of December 31, 2016 representing required and potential cash outflows.

**Table 25: Contractual Obligations**

December 31, 2016 – 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	\$17,560	\$ 12,200	\$ 1,413	\$ 1,908	\$ 2,039
Borrowed funds (a)	52,706	14,381	22,516	6,806	9,003
Minimum annual rentals on noncancellable leases	2,532	381	657	459	1,035
Nonqualified pension and postretirement benefits	506	56	112	104	234
Purchase obligations (b)	1,029	394	397	170	68
Total contractual cash obligations	<u>\$74,333</u>	<u>\$ 27,412</u>	<u>\$ 25,095</u>	<u>\$ 9,447</u>	<u>\$12,379</u>

(a) Includes basis adjustment relating to accounting hedges.

(b) Includes purchase obligations for goods and services covered by noncancellable contracts and contracts including cancellation fees.

At December 31, 2016, we had unrecognized tax benefits of \$22 million, which represents a reserve for tax positions that we have taken in our tax returns which ultimately may not be sustained upon examination by taxing authorities. Since the ultimate amount and timing of any future cash settlements cannot be predicted with reasonable certainty, this estimate has been excluded from the contractual obligations table. See Note 17 Income Taxes in the Notes To Consolidated Financial Statements in Item 8 of this Report for additional information.

Our contractual obligations totaled \$79.1 billion at December 31, 2015. The decrease in the comparison is primarily attributable to declines in borrowed funds and time deposits. See Funding Sources in the Consolidated Balance Sheet Review section of this Item 7 for additional information regarding our funding sources.

**Table 26: Other Commitments (a)**

December 31, 2016 – 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)	\$ 151,981	\$ 57,413	\$ 55,045	\$ 38,617	\$ 906
Net outstanding standby letters of credit (c)	8,324	4,327	2,943	1,021	33
Reinsurance agreements (d)	1,835	4	24	17	1,790
Standby bond purchase agreements	790	541	225	24	
Other commitments (e)	967	564	334	44	25
Total commitments	\$ 163,897	\$ 62,849	\$ 58,571	\$ 39,723	\$ 2,754

- (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 \$3.9 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 \$215 million that were not on our Consolidated Balance Sheet. The remaining \$752 million of other commitments were included in Other liabilities on our Consolidated Balance Sheet.

Our total commitments were \$155.1 billion at December 31, 2015. The increase in the comparison is primarily attributable to an increase in commitments to extend credit, partially offset by declines in net outstanding standby letters of credit.

### 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 27: Credit Ratings as of December 31, 2016 for PNC and PNC Bank**

	Moody's	Standard & Poor's	Fitch
<b>PNC</b>			
Senior debt	A3	A-	A+
Subordinated debt	A3	BBB+	A
Preferred stock	Baa2	BBB-	BBB-
<b>PNC Bank</b>			
Senior debt	A2	A	A+
Subordinated debt	A3	A-	A
Long-term deposits	Aa2	A	AA-
Short-term deposits	P-1	A-1	F+
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, and managing dividend policies and retaining earnings.

For the full year 2016, we returned \$3.1 billion of capital to shareholders. Repurchases totaled 22.8 million common shares for \$2.0 billion and dividends on common shares were \$1.1 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.

For the five quarter period ended June 30, 2016, we repurchased 29.9 million shares of PNC common stock for \$2.7 billion, which was consistent with the 2015 capital plan accepted by the Federal Reserve as part of our 2015 CCAR submission. Of the total repurchased, 12.0 million shares for \$1.0 billion occurred in the first two quarters of 2016.

In connection with the 2016 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 April 2016. As provided for in the 2016 capital plan, we announced new share repurchase programs of up to \$2.0 billion for the four quarter period beginning in the third quarter of 2016, including repurchases of up to \$200 million related to employee benefit plans. We repurchased 10.8 million common shares for \$1.0 billion during the third and fourth quarters of 2016 under these share repurchase programs.

In January 2017, we announced a \$300 million increase in our share repurchase programs for the four quarter period ended June 30, 2017.

The quarterly cash dividend on common stock was increased to 55 cents from 51 cents effective with the August 5, 2016 dividend payment date.

On November 1, 2016 we issued 525,000 depository shares, each representing a 1/100<sup>th</sup> interest in a share of our Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series S, in an underwritten public offering resulting in gross proceeds of \$525 million to us before commissions and expenses. We issued 5,250 shares of Series S Preferred Stock to the depository in this transaction. See Note 15 Equity in the Notes to Consolidated Financial Statements in Item 8 of this Report for more information on the terms of the securities.

See the Supervision and Regulation section of Item 1 Business in our 2016 Form 10-K for further information concerning the CCAR process and the factors the Federal Reserve takes into consideration in its evaluation of capital plans.

See Note 23 Subsequent Events for discussion of our February 2017 announcement of our March 2017 redemption of the Fixed-to-Floating Rate Non-Cumulative Exchangeable Perpetual Trust Securities of PNC Preferred Funding Trust I and PNC Preferred Funding Trust II.

Table 28: Basel III Capital

Dollars in millions	December 31, 2016	
	2016 Transitional Basel III (a)	Pro forma Fully Phased-In Basel III (Non-GAAP) (estimated) (b)(c)
<b>Common equity Tier 1 capital</b>		
Common stock plus related surplus, net of treasury stock	\$ 10,317	\$ 10,317
Retained earnings	31,670	31,670
Accumulated other comprehensive income for securities currently and previously held as available for sale	94	157
Accumulated other comprehensive income for pension and other postretirement plans	(332)	(553)
Goodwill, net of associated deferred tax liabilities	(8,826)	(8,826)
Other disallowed intangibles, net of deferred tax liabilities	(148)	(247)
Other adjustments/(deductions)	(214)	(221)
<b>Total common equity Tier 1 capital before threshold deductions</b>	<b>32,561</b>	<b>32,297</b>
Total threshold deductions	(762)	(1,469)
<b>Common equity Tier 1 capital</b>	<b>31,799</b>	<b>30,828</b>
<b>Additional Tier 1 capital</b>		
Preferred stock plus related surplus	3,976	3,976
Noncontrolling interests (d)	418	45
Other adjustments/(deductions)	(92)	(113)
<b>Tier 1 capital</b>	<b>36,101</b>	<b>34,736</b>
<b>Additional Tier 2 capital</b>		
Qualifying subordinated debt	3,899	3,749
Trust preferred capital securities	119	—
Allowance for loan and lease losses included in Tier 2 capital	2,891	2,891
Other (d)	6	10
<b>Total Basel III capital</b>	<b>\$ 43,016</b>	<b>\$ 41,386</b>
<b>Risk-weighted assets</b>		
Basel III standardized approach risk-weighted assets (e)	\$ 300,533	\$ 308,517
Basel III advanced approaches risk-weighted assets (f)	N/A	\$ 277,896
<b>Average quarterly adjusted total assets</b>	<b>\$ 355,838</b>	<b>\$ 355,003</b>
<b>Supplementary leverage exposure (g)</b>	<b>\$ 421,732</b>	<b>\$ 420,897</b>
<b>Basel III risk-based capital and leverage ratios</b>		
Common equity Tier 1	10.6%	10.0%(h)(i)
Tier 1	12.0%	11.3%(h)(j)
Total	14.3%	13.4%(h)(k)
Leverage (l)	10.1%	9.8%
Supplementary leverage ratio (m)	8.6%	8.3%

- (a) Calculated using the regulatory capital methodology applicable to us during 2016.
- (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 will 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) Primarily includes REIT Preferred Securities for transitional and pro forma fully phased-in.
- (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 11.1%. 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 12.5%. 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 13.9%. 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 related risk-weighted assets, and dividing by estimated Basel III advanced approach 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 will be subject to a 3% minimum supplementary leverage ratio effective January 1, 2018.



As a result of the phase-in periods included in the final U.S. Basel III regulatory capital rules (Basel III 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 2016 were based on the definitions of, and deductions from, regulatory capital under the Basel III rules (as such definitions and deductions were phased-in for 2016) and the standardized approach for determining risk-weighted assets. Until we have exited parallel run, our regulatory risk-based Basel III ratios will be calculated using the standardized approach for determining risk-weighted assets, and the definitions of, and deductions from, capital under Basel III (as such definitions and deductions are phased-in through 2019). 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 in effect for 2016 and, for the risk-based ratios, standardized approach risk-weighted assets, as the 2016 Transitional Basel III ratios. Under the standardized approach for determining credit risk-weighted assets, exposures are generally assigned a pre-defined risk weight. Exposures to high volatility commercial real estate, past due exposures, equity exposures and securitization exposures are generally subject to higher risk weights than other types of exposures.

Under the Basel III rules adopted by the U.S. banking agencies, significant common stock investments in unconsolidated financial institutions, 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 the institution's adjusted common equity Tier 1 capital. Also, Basel III regulatory capital includes (subject to a phase-in schedule) accumulated other comprehensive income related to securities currently and previously held as available for sale, as well as pension and other postretirement plans.

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, 2016 capital levels were aligned with them.

At December 31, 2016, 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 the Supervision and Regulation section of Item 1 Business and Item 1A Risk Factors in our 2016 Form 10-K 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, 2015 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.

Asset and Liability Management 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 2016 and 2015 follow:

**Table 29: Interest Sensitivity Analysis**

	<b>Fourth Quarter 2016</b>	Fourth Quarter 2015
<b>Net Interest Income Sensitivity Simulation (a)</b>		
Effect on net interest income in first year from gradual interest rate change over the following 12 months of:		
100 basis point increase	2.6 %	2.4 %
100 basis point decrease	(4.2)%	(1.9)%
Effect on net interest income in second year from gradual interest rate change over the preceding 12 months of:		
100 basis point increase	4.7 %	5.3 %
100 basis point decrease	(8.3)%	(5.3)%
<b>Duration of Equity Model (a)</b>		
Base case duration of equity (in years)	(2.5)	(4.1)
<b>Key Period-End Interest Rates</b>		
One-month LIBOR	.77 %	.43 %
Three-year swap	1.69 %	1.42 %

(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 30 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 1-month and ten-year rates superimposed on current base rates) scenario.

**Table 30: Net Interest Income Sensitivity to Alternative Rate Scenarios (Fourth Quarter 2016)**

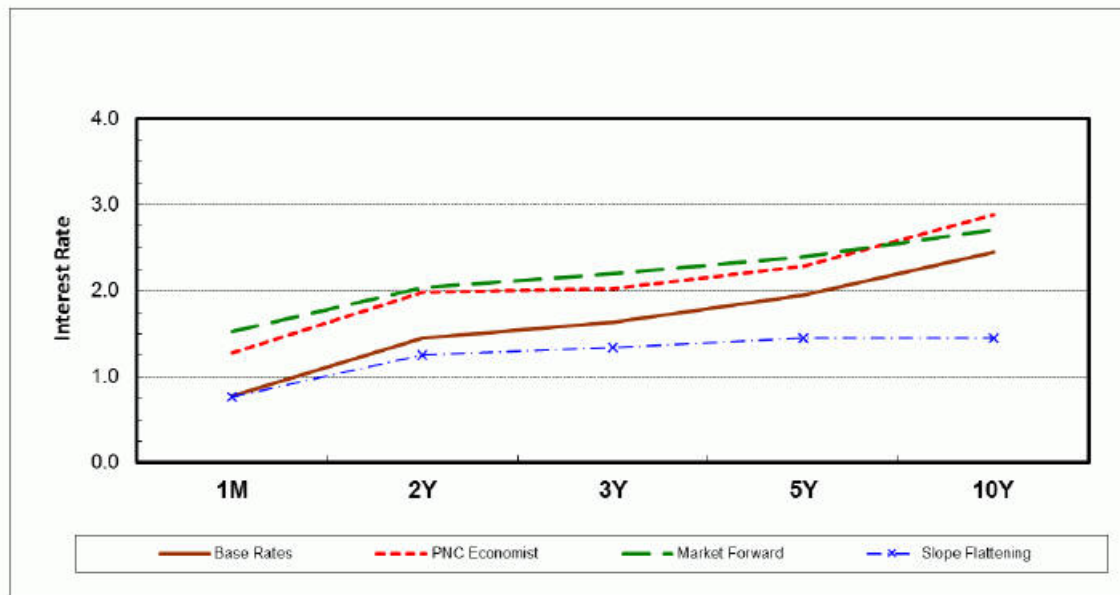
	PNC Economist	Market Forward	Slope Flattening
First year sensitivity	1.5%	2.1%	(2.4)%
Second year sensitivity	5.1%	3.4%	(6.9)%

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 29 and 30 above. 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 31: Alternate Interest Rate Scenarios: One Year Forward



The fourth quarter 2016 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 (CVA) 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 2016 and 2015 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 two and seven instances during 2016 and 2015, 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 \$203 million for full year 2016 compared with \$210 million for full year 2015 and is recorded in Other noninterest income and Other interest income on our Consolidated Income Statement. The decrease was mainly due to market interest rate changes impacting valuations for customer-related derivatives, partially offset by higher derivative and fixed income client sales.

#### 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, securities underwriting 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 and in debt and equity-oriented hedge funds. The economic and/or book value of these investments and other assets such as loan servicing rights are directly affected by changes in market factors.

Various of our 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 32: Equity Investments Summary**

In millions	December 31	December 31	Change	
	2016	2015	\$	%
BlackRock	\$ 6,886	\$ 6,626	\$ 260	4%
Tax credit investments	2,090	2,254	(164)	(7)%
Private equity and other	1,752	1,707	45	3%
Total	\$ 10,728	\$ 10,587	\$ 141	1%

#### BlackRock

We owned approximately 35 million common stock equivalent shares of BlackRock equity at December 31, 2016, accounted for under the equity method. The primary risk measurement, similar to other equity investments, is economic capital. 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 \$.7 billion at both December 31, 2016 and December 31, 2015. 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 consisted of mezzanine and equity investments that vary by industry, stage and type of investment. Private equity investments carried at estimated fair value totaled \$1.4 billion at both December 31, 2016 and December 31, 2015. As of December 31, 2016, \$1.1 billion was invested directly in a variety of companies and \$.3 billion was invested indirectly through various private equity funds. See Item 1 Business – Supervision and Regulation and Item 1A Risk Factors in our 2016 Form 10-K 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.

Included in our other equity investments are Visa Class B common shares, which are recorded at cost. At December 31, 2016, the fair value of our investment in Visa Class B common shares was approximately \$452 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. Please 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.

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 2016 and 2015.

#### **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 the bank.

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 RCSAs, 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 risk 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 with 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, 2016 and December 31, 2015, 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 33: Fair Value Measurements—Summary

Dollars in millions	December 31, 2016		December 31, 2015	
	Total Fair Value	Level 3	Total Fair Value	Level 3
Total assets	\$ 74,608	\$8,830	\$ 68,804	\$8,606
Total assets at fair value as a percentage of consolidated assets	20%		19%	
Level 3 assets as a percentage of total assets at fair value		12%		13%
Level 3 assets as a percentage of consolidated assets		2%		2%
Total liabilities	\$ 4,818	\$ 433	\$ 4,892	\$ 495
Total liabilities at fair value as a percentage of consolidated liabilities	2%		2%	
Level 3 liabilities as a percentage of total liabilities at fair value		9%		10%
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. 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 Allowances 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 2016 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 2015 or 2014.

Given our segment realignment, as described in the Business Segments Review section of this Item 7, we performed an interim impairment test as of March 31, 2017. The results indicated that the estimated fair value of our reporting units exceeded their carrying values by at least 10% and are not considered to be at risk of not passing Step 1.

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 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 economic 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.

### **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 to depict the satisfaction of a performance obligation by transfer of promised goods or services to customers. The ASU also requires additional qualitative and quantitative disclosures relating to the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

In August 2015, the FASB issued guidance deferring the mandatory effective date of ASU 2014-09 for one year, to annual reporting periods beginning after December 15, 2017. During 2016, the FASB also issued four separate ASUs which amend the original standard to clarify guidance regarding principal versus agent considerations, identifying performance obligations and licensing, certain narrow-scope amendments which address the presentation of sales tax, noncash consideration, contract modifications at transition and assessing collectability and other minor technical corrections and improvements.

The requirements within ASU 2014-09 and its subsequent amendments should be applied retrospectively to each prior period presented (with several practical expedients for certain completed contracts) or retrospectively with the cumulative effect of initially applying ASU 2014-09 recognized at the date of initial application (i.e., modified retrospective application). We plan to adopt the ASU consistent with the deferred mandatory effective date using the modified retrospective approach. Based on our evaluation to date, we do not expect the adoption of this standard to have a significant impact on our consolidated results of operations or our consolidated financial position. We expect that the most significant impact related to the standard's expanded disclosure requirements will be the disaggregation of revenue.

#### **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. The ASU also simplifies the impairment assessment of equity investments for which fair value is not readily determinable. Additionally, the ASU changes the presentation of certain fair value changes for financial liabilities measured at fair value, and amends certain disclosure requirements relating to the fair value of financial instruments. The ASU is effective for annual periods, and interim periods



within those annual periods, beginning after December 15, 2017 and should be applied using a modified retrospective approach through a cumulative-effect adjustment to the balance sheet, except for the amendment related to equity securities without readily determinable fair values, which should be applied prospectively. We plan to adopt all provisions consistent with the effective date and are currently evaluating the impact of this ASU on our results of operations and financial position. However, we expect the standard will most significantly impact equity investments that are currently accounted for under the cost method which will likely have a positive impact on income when transitioned to fair value measurement.

#### **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. We are currently evaluating the impact of adopting this standard.

#### **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, expected credit losses for the remaining life of the asset will be recognized at the time of origination or acquisition. The expected credit loss 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, except for purchased credit deteriorated assets, 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 development of an expected credit loss methodology and new disclosures will require significant data collection, building or enhancing loss models, and process re-development prior to adoption. 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 have established a company-wide, cross-functional governance structure. We have also begun assessing the required changes to our credit loss estimation methodologies and systems, as well as additional data and resource requirements to be able to comply with the standard. We continue to assess the impact of the standard; however, we expect the guidance will result in an increase in the allowance for loan losses to cover credit losses over the estimated life of the financial assets. The magnitude of the increase in our allowance for loan losses at the adoption date will be dependent upon the nature of the 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. The ASU is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, provided that all of the amendments are adopted in the same period. The guidance requires application using a retrospective transition method. We are currently evaluating the impact of adopting this standard.

#### **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.

We consolidate variable interest entities (VIEs) when we are deemed to be the 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.

A summary of VIEs, including those that we have consolidated and those in which we hold variable interests but have not consolidated into our financial statements, as of December 31, 2016 and December 31, 2015 is included in Note 2 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, Note 15 Equity and Note 23 Subsequent Events 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 and REIT preferred securities issued by PNC Preferred Funding Trust I and PNC Preferred Funding Trust II including information on contractual limitations potentially imposed on payments (including dividends) with respect to PNC and PNC Bank's equity capital securities.

### **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 previously held as available for sale, plus accumulated other comprehensive income for pension and other postretirement benefit plans, less goodwill, net of associated deferred tax liabilities, less other disallowed intangibles, net of deferred tax liabilities and plus/less other adjustments.

**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 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 (CVA)**—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 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 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**—Common equity calculated under Basel III using phased-in definitions and deductions applicable to us during the related presentation period.

**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, 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 and do not undertake 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 law and policy accompanying the new presidential administration and uncertainty or speculation pending the enactment of such changes.
  - Changes in customers’, suppliers’ and other counterparties’ performance and creditworthiness.
  - Slowing or reversal of the current U.S. economic expansion.
  - Continued residual effects of recessionary conditions and uneven spread of positive impacts of recovery on the economy and our counterparties, including adverse impacts on levels of unemployment, loan utilization rates, delinquencies, defaults and counterparty ability to meet credit and other obligations.
  - Commodity price volatility.
  - Changes in customer preferences and behavior, whether due to changing business and economic conditions, legislative and regulatory initiatives, or other factors.
- 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. These statements are based on our current view that the U.S. economy and the labor market will grow moderately in 2017, boosted by stable oil/energy prices, improving consumer spending and housing activity, and expanded federal fiscal policy stimulus as a result of the 2016 elections. Short-term interest rates and bond yields are expected to continue rising in 2017, along with inflation. These forward-looking statements also do not, unless otherwise indicated, take into account the impact of potential legal and regulatory contingencies.

- Our ability to take certain capital actions, including paying dividends and any plans to increase common stock dividends, repurchase common stock under current or future programs, or issue or redeem preferred stock or other regulatory capital instruments, is subject to the review of such proposed actions 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), the international body responsible for developing global regulatory standards for banking organizations for consideration and adoption by national jurisdictions), 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, tax, 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 by acquiring from time to time other financial services companies, financial services assets and related deposits and other liabilities. 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 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.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, of comprehensive income, of changes in equity, and of cash flows present fairly, in all material respects, the financial position of The PNC Financial Services Group, Inc. and its subsidiaries (the “Company”) at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with 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, 2016, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company’s management is responsible for these 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 these financial statements and on the Company’s internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. 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.

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, 2017, except with respect to our opinion on the consolidated financial statements insofar as it relates to the change in composition of reportable segments discussed in Note 22, as to which the date is May 3, 2017

**CONSOLIDATED INCOME STATEMENT**  
THE PNC FINANCIAL SERVICES GROUP, INC.

In millions, except per share data	Year ended December 31		
	2016	2015	2014
<b>Interest Income</b>			
Loans	\$ 7,414	\$ 7,203	\$ 7,427
Investment securities	1,826	1,679	1,624
Other	412	441	380
Total interest income	<u>9,652</u>	<u>9,323</u>	<u>9,431</u>
<b>Interest Expense</b>			
Deposits	430	403	325
Borrowed funds	831	642	581
Total interest expense	<u>1,261</u>	<u>1,045</u>	<u>906</u>
Net interest income	<u>8,391</u>	<u>8,278</u>	<u>8,525</u>
<b>Noninterest Income</b>			
Asset management	1,521	1,567	1,513
Consumer services	1,388	1,335	1,254
Corporate services	1,504	1,491	1,415
Residential mortgage	567	566	618
Service charges on deposits	667	651	662
Other	1,124	1,337	1,388
Total noninterest income	<u>6,771</u>	<u>6,947</u>	<u>6,850</u>
Total revenue	<u>15,162</u>	<u>15,225</u>	<u>15,375</u>
<b>Provision For Credit Losses</b>	433	255	273
<b>Noninterest Expense</b>			
Personnel	4,841	4,831	4,611
Occupancy	861	842	833
Equipment	974	925	859
Marketing	247	249	253
Other	2,553	2,616	2,932
Total noninterest expense	<u>9,476</u>	<u>9,463</u>	<u>9,488</u>
Income before income taxes and noncontrolling interests	5,253	5,507	5,614
Income taxes	1,268	1,364	1,407
Net income	<u>3,985</u>	<u>4,143</u>	<u>4,207</u>
Less: Net income attributable to noncontrolling interests	82	37	23
Preferred stock dividends	209	220	232
Preferred stock discount accretion and redemptions	6	5	5
Net income attributable to common shareholders	<u>\$ 3,688</u>	<u>\$ 3,881</u>	<u>\$ 3,947</u>
<b>Earnings Per Common Share</b>			
Basic	\$ 7.42	\$ 7.52	\$ 7.44
Diluted	\$ 7.30	\$ 7.39	\$ 7.30
<b>Average Common Shares Outstanding</b>			
Basic	494	514	529
Diluted	<u>500</u>	<u>521</u>	<u>537</u>

See accompanying Notes To Consolidated Financial Statements.



**CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**  
THE PNC FINANCIAL SERVICES GROUP, INC.

<i>In millions</i>	Year ended December 31		
	2016	2015	2014
<b>Net income</b>	<b>\$3,985</b>	<b>\$4,143</b>	<b>\$4,207</b>
<b>Other comprehensive income (loss), before tax and net of reclassifications into Net income:</b>			
Net unrealized gains (losses) on non-OTTI securities	(369)	(569)	375
Net unrealized gains (losses) on OTTI securities	63	(13)	79
Net unrealized gains (losses) on cash flow hedge derivatives	(153)	127	168
Pension and other postretirement benefit plan adjustments	1	(54)	(446)
Other	(59)	(42)	(39)
<b>Other comprehensive income (loss), before tax and net of reclassifications into Net income</b>	<b>(517)</b>	<b>(551)</b>	<b>137</b>
Income tax benefit (expense) related to items of other comprehensive income	122	178	(70)
<b>Other comprehensive income (loss), after tax and net of reclassifications into Net income</b>	<b>(395)</b>	<b>(373)</b>	<b>67</b>
<b>Comprehensive income</b>	<b>3,590</b>	<b>3,770</b>	<b>4,274</b>
Less: Comprehensive income attributable to noncontrolling interests	82	37	23
<b>Comprehensive income attributable to PNC</b>	<b>\$3,508</b>	<b>\$3,733</b>	<b>\$4,251</b>

See accompanying Notes To Consolidated Financial Statements.

**CONSOLIDATED BALANCE SHEET**  
THE PNC FINANCIAL SERVICES GROUP, INC.

In millions, except par value	December 31 2016	December 31 2015
<b>Assets</b>		
Cash and due from banks	\$ 4,879	\$ 4,065
Interest-earning deposits with banks	25,711	30,546
Loans held for sale (a)	2,504	1,540
Investment securities—available for sale	60,104	55,760
Investment securities—held to maturity	15,843	14,768
Loans (a)	210,833	206,696
Allowance for loan and lease losses	(2,589)	(2,727)
Net loans	208,244	203,969
Equity investments	10,728	10,587
Mortgage servicing rights	1,758	1,589
Goodwill	9,103	9,103
Other (a)	27,506	26,566
Total assets	<u>\$ 366,380</u>	<u>\$ 358,493</u>
<b>Liabilities</b>		
Deposits		
Noninterest-bearing	\$ 80,230	\$ 79,435
Interest-bearing	176,934	169,567
Total deposits	257,164	249,002
Borrowed funds		
Federal Home Loan Bank borrowings	17,549	20,108
Bank notes and senior debt	22,972	21,298
Subordinated debt	8,009	8,556
Other (b)	4,176	4,570
Total borrowed funds	52,706	54,532
Allowance for unfunded loan commitments and letters of credit	301	261
Accrued expenses and other liabilities	9,355	8,718
Total liabilities	<u>319,526</u>	<u>312,513</u>
<b>Equity</b>		
Preferred stock (c)		
Common stock (\$5 par value, Authorized 800 shares, issued 542 shares)	2,709	2,708
Capital surplus	16,651	16,197
Retained earnings	31,670	29,043
Accumulated other comprehensive income (loss)	(265)	130
Common stock held in treasury at cost: 57 and 38 shares	(5,066)	(3,368)
Total shareholders' equity	45,699	44,710
Noncontrolling interests	1,155	1,270
Total equity	46,854	45,980
Total liabilities and equity	<u>\$ 366,380</u>	<u>\$ 358,493</u>

- (a) Our consolidated assets included the following for which we have elected the fair value option: Loans held for sale of \$2.4 billion, Loans of \$.9 billion, and Other assets of \$.5 billion at December 31, 2016 and Loans held for sale of \$1.5 billion, Loans of \$.9 billion, and Other assets of \$.7 billion at December 31, 2015.
- (b) Our consolidated liabilities included Other borrowed funds of \$.1 billion at both December 31, 2016 and December 31, 2015, 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.

	<b>Shareholders' Equity</b>								
	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
<i>In millions</i>									
Balance at January 1, 2014 (a)	533	\$ 2,698	\$ 3,941	\$ 12,416	\$ 23,253	\$ 436	\$ (408)	\$ 1,703	\$ 44,039
Net income					4,184			23	4,207
Other comprehensive income, net of tax						67			67
Cash dividends declared									
Common					(1,000)				(1,000)
Preferred					(232)				(232)
Preferred stock discount accretion			5		(5)				
Common stock activity	1	7		81					88
Treasury stock activity	(11)			14			(1,022)		(1,008)
Other				116				(203)	(87)
Balance at December 31, 2014 (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 (loss), net of tax						(373)			(373)
Cash dividends declared									
Common					(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					(1,061)				(1,061)
Preferred					(209)				(209)
Preferred stock discount accretion			6		(6)				
Preferred stock issuance—Series S (c)			519						519
Common stock activity		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

- (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.

See accompanying Notes To Consolidated Financial Statements.

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

<i>In millions</i>	Year ended December 31		
	2016	2015	2014
<b>Operating Activities</b>			
Net income	\$ 3,985	\$ 4,143	\$ 4,207
Adjustments to reconcile net income to net cash provided (used) by operating activities			
Provision for credit losses	433	255	273
Depreciation and amortization	1,193	1,088	988
Deferred income taxes	326	404	255
Changes in fair value of mortgage servicing rights	179	274	514
Gain on sales of Visa Class B common shares	(126)	(169)	(209)
Undistributed earnings of BlackRock	(361)	(407)	(441)
Net change in			
Trading securities and other short-term investments	(1,167)	203	757
Loans held for sale	(935)	393	(405)
Other assets	(644)	1,568	(8)
Accrued expenses and other liabilities	652	(1,788)	169
Other	100	(439)	(515)
Net cash provided (used) by operating activities	<u>3,635</u>	<u>5,525</u>	<u>5,585</u>
<b>Investing Activities</b>			
Sales			
Securities available for sale	3,456	6,723	4,432
Loans	1,897	2,040	2,870
Repayments/maturities			
Securities available for sale	11,061	7,920	6,915
Securities held to maturity	3,209	2,032	1,987
Purchases			
Securities available for sale	(19,495)	(26,367)	(7,989)
Securities held to maturity	(4,305)	(4,896)	(500)
Loans	(1,334)	(748)	(750)
Net change in			
Federal funds sold and resale agreements	126	481	131
Interest-earning deposits with banks	4,835	1,233	(19,643)
Loans	(5,940)	(3,972)	(12,147)
Other	(952)	(706)	(199)
Net cash provided (used) by investing activities	<u>(7,442)</u>	<u>(16,260)</u>	<u>(24,893)</u>

(continued on following page)

**CONSOLIDATED STATEMENT OF CASH FLOWS**  
**THE PNC FINANCIAL SERVICES GROUP, INC.**  
(continued from previous page)

<i>In millions</i>	Year ended December 31		
	2016	2015	2014
<b>Financing Activities</b>			
Net change in			
Noninterest-bearing deposits	\$ 1,212	\$ 5,765	\$ 3,182
Interest-bearing deposits	7,367	10,812	8,130
Federal funds purchased and repurchase agreements	18	(1,733)	(778)
Other borrowed funds	272	(9)	109
<b>Sales/issuances</b>			
Federal Home Loan Bank borrowings	1,000	2,250	15,685
Bank notes and senior debt	5,601	8,173	6,184
Subordinated debt			745
Commercial paper		1,394	8,797
Other borrowed funds	165	694	505
Preferred stock	519		
Common and treasury stock	151	139	252
<b>Repayments/maturities</b>			
Federal Home Loan Bank borrowings	(3,559)	(2,147)	(8,592)
Bank notes and senior debt	(3,750)	(2,624)	(3,089)
Subordinated debt	(488)	(524)	57
Commercial paper	(14)	(6,219)	(8,687)
Other borrowed funds	(541)	(1,622)	(467)
Preferred stock redemption		(500)	
Acquisition of treasury stock	(2,062)	(2,152)	(1,176)
Preferred stock cash dividends paid	(209)	(219)	(232)
Common stock cash dividends paid	(1,061)	(1,038)	(1,000)
Net cash provided (used) by financing activities	<u>4,621</u>	<u>10,440</u>	<u>19,625</u>
<b>Net Increase (Decrease) In Cash And Due From Banks</b>	<b>814</b>	<b>(295)</b>	<b>317</b>
Cash and due from banks at beginning of period	<u>4,065</u>	<u>4,360</u>	<u>4,043</u>
Cash and due from banks at end of period	<u>\$ 4,879</u>	<u>\$ 4,065</u>	<u>\$ 4,360</u>
<b>Supplemental Disclosures</b>			
Interest paid	\$ 1,317	\$ 1,005	\$ 863
Income taxes paid	\$ 658	\$ 919	\$ 1,102
Income taxes refunded	\$ 111	\$ 286	\$ 12
<b>Non-cash Investing and Financing Items</b>			
Transfer from loans to loans held for sale, net	\$ 606	\$ 285	\$ 724
Transfer from loans to foreclosed assets	<u>\$ 281</u>	<u>\$ 435</u>	<u>\$ 604</u>

See accompanying Notes To Consolidated Financial Statements.

---

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

THE PNC FINANCIAL SERVICES GROUP, INC.

### 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 Pennsylvania, Ohio, New Jersey, Michigan, Illinois, Maryland, Indiana, Florida, North Carolina, Kentucky, Washington, D.C., Delaware, Virginia, Georgia, Alabama, Missouri, Wisconsin and South Carolina. 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 2016 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 revenue.

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.

#### Special Purpose Entities

Special purpose entities (SPEs) are defined as legal entities structured for a particular purpose. We use special purpose entities in various legal forms to conduct normal business activities. We review the structure and activities of special purpose entities for possible consolidation under the applicable GAAP guidance.

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 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, and
- Participating in certain capital markets transactions.

Revenue earned on interest-earning assets, including unearned income and the amortization/accretion of premiums or discounts recognized on acquired loans and debt securities, is recognized based on the constant effective yield of the financial instrument or based on other applicable accounting guidance.

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 calculated over the estimated lives of the securities taking into account anticipated prepayments. 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.

In certain situations, management may elect to transfer certain debt securities from the securities available for sale to the held to maturity classification. In such cases, the securities are reclassified at fair value at the time of transfer. Any unrealized gain or loss included in Accumulated other comprehensive income (loss) at the time of transfer is retained therein and amortized over the remaining life of the security as a yield adjustment, such that only the remaining initial discount/premium from the purchase date is recognized in income.

### **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. 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 for lack of marketability, 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 are the general partner and 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 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, credit card and other loans through securitization transactions. In a securitization, financial assets are transferred into trusts or to SPEs in transactions to effectively legally isolate the assets from us.

ASC 860—Transfers and Servicing requires a true sale legal analysis to address several relevant factors, such as the nature and level of recourse to the transferor, and the amount and nature of retained interests in the loans sold to support whether the transferred loans would be legally isolated from the transferor's assets in the case of bankruptcy. Once the legal isolation test has been met, other factors concerning the nature and extent of the transferor's control and the rights of the transferee over the transferred assets are taken into account in order to determine whether derecognition of assets is warranted.

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**

- Purchased impaired loans because interest income is accreted through the accounting model.
- 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, 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 revolving. 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 Allowances 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 Allowance for Loan and

Lease Losses (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 Allowances 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 a roll-rate model based on 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 newly acquired or originated servicing rights are initially 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 MSR 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 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 economic 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. If we determine that the derivative no longer qualifies as a fair value or cash flow hedge and hedge accounting is discontinued, the derivative will continue to be recorded on the balance sheet at its fair value with changes in fair value included in current earnings. For a discontinued fair value hedge, the previously hedged item is no longer adjusted for changes in fair value. For a discontinued cash flow hedge the amount reported in Accumulated other comprehensive income (loss) up to the date of sale, termination or de-designation continues to be reported in Accumulated other comprehensive income (loss) until the forecasted transaction affects earnings.

For a cash flow hedge that is discontinued because it is no longer probable that a forecasted transaction will occur, the gains and losses in Accumulated other comprehensive income (loss) will be recognized immediately into earnings. We did not terminate any cash flow hedges in 2016, 2015 or 2014 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. 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.

#### **Recently Adopted Accounting Standards**

In March 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2016-09, Compensation – Stock Compensation (Topic 718): *Improvements to Employee Share-Based Payment Accounting*. This ASU simplifies the accounting for several aspects of share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The changes which impacted us included a requirement that all excess tax benefits and deficiencies that pertain to share-based payment arrangements be recognized within income tax expense line instead of Capital surplus – common stock and other. This change also removes the impact of the excess tax benefits and deficiencies from the calculation of diluted earnings per share. We are required to apply these changes on a prospective basis. Additionally, the ASU no longer requires a presentation of excess tax benefits and deficiencies related to the vesting and exercise of share-based compensation as both an operating outflow and financing inflow on the statement of cash flows. This change was applied on a retrospective basis. We elected to early adopt this standard as of January 1, 2016. Adoption of this ASU did not have a material impact on our results of operations or financial position.

In February 2015, the FASB issued ASU 2015-02, Consolidation (Topic 810): Amendments to the Consolidation Analysis. All legal entities are subject to evaluation under this ASU, including investment companies and certain other entities measured in a manner consistent with ASC 946 Financial Services – Investment Companies which were previously excluded. The ASU changes the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. Specifically, the ASU modifies the evaluation of whether limited partnerships and similar legal entities are variable interest entities (VIEs) or voting interest entities (VOEs); eliminates the presumption that a general partner should consolidate a limited partnership; potentially changes the consolidation conclusions of reporting entities that are involved with VIEs, in particular those that have fee arrangements and related party arrangements; and provides a scope exception for reporting entities with interests held in certain money market funds. We adopted this standard as of January 1, 2016 under a modified retrospective approach. The impact of adoption resulted in a decrease of \$4 billion in consolidated total assets at January 1, 2016. In addition the adoption impacted the classification of certain limited partnerships and legal entities as either VIEs or VOEs. See Note 2 Loan Sale and Servicing Activities and Variable Interest Entities for further disclosure on adoption of the standard.

#### **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 Federal National Mortgage Association (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 special purpose entities (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 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, the U.S. Department of Housing and Urban Development (HUD) 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 34: Cash Flows Associated with Loan Sale and Servicing Activities**

In millions	Residential Mortgages	Commercial Mortgages (a)
<b>CASH FLOWS—Year ended December 31, 2016</b>		
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)	<u>1,727</u>	<u>283</u>
<b>CASH FLOWS—Year ended December 31, 2015</b>		
Sales of loans (b)	\$ 8,121	\$ 4,398
Repurchases of previously transferred loans (c)	580	
Servicing fees (d)	339	120
Servicing advances recovered/(funded), net	90	48
Cash flows on mortgage-backed securities held (e)	<u>1,458</u>	<u>184</u>

- (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.
- (c) Includes residential mortgage government insured or guaranteed loans eligible for repurchase through the exercise of our ROAP 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 \$6.9 billion in residential mortgage-backed securities and \$0.9 billion in commercial mortgage-backed securities at December 31, 2016 and \$6.6 billion in residential mortgage-backed securities and \$1.3 billion in commercial mortgage-backed securities at December 31, 2015.

Table 35 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, 2016.

**Table 35: Principal Balance, Delinquent Loans, and Net Charge-offs Related to Serviced Loans For Others**

In millions	Residential Mortgages	Commercial Mortgages (a)
<b>December 31, 2016</b>		
Total principal balance	\$ 66,081	\$ 45,855
Delinquent loans (b)	<u>\$ 1,422</u>	<u>\$ 941</u>
<b>December 31, 2015</b>		
Total principal balance	\$ 72,898	\$ 53,789
Delinquent loans (b)	<u>\$ 1,923</u>	<u>\$ 1,057</u>
<b>Year ended December 31, 2016</b>		
Net charge-offs (c)	<u>\$ 97</u>	<u>\$ 1,439</u>
<b>Year ended December 31, 2015</b>		
Net charge-offs (c)	<u>\$ 117</u>	<u>\$ 595</u>

- (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. In the first quarter of 2016, we adopted ASU 2015-02 which modified the evaluation of whether limited partnerships and similar legal entities are VIEs or voting interest entities (VOEs). We have not provided additional financial support to these entities which we are not contractually required to provide. As a result of the adoption of ASU 2015-02, our consolidated VIEs were insignificant at December 31, 2016. Total assets of consolidated VIEs at December 31, 2015 were \$1.9 billion which mainly comprised \$1.3 billion of loans and \$.4 billion of other assets. At December 31, 2015, total liabilities of consolidated VIEs were \$.4 billion.

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 36 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 36. These loans are included as part of the asset quality disclosures that we make in Note 3 Asset Quality.

**Table 36: Non-Consolidated VIEs**

In millions	PNC Risk of Loss (a)	Carrying Value of Assets Owned by PNC	Carrying Value of Liabilities Owned by PNC
<b>December 31, 2016 (b)</b>			
Mortgage-Backed Securitizations (c)	\$ 8,003	\$ 8,003(d)	
Tax Credit Investments and Other	3,083	3,043(e)	\$ 823(f)
Total	\$ 11,086	\$ 11,046	\$ 823
<b>December 31, 2015</b>			
Mortgage-Backed Securitizations (c)	\$ 8,178	\$ 8,178(d)	\$ 2
Tax Credit Investments and Other	2,551	2,622(e)	836(f)
Total	\$ 10,729	\$ 10,800	\$ 838

- (a) This represents loans, investments and other assets related to non-consolidated VIEs, net of collateral (if applicable).  
(b) Amounts for December 31, 2016 reflect the first quarter 2016 adoption of ASU 2015-02.  
(c) 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.  
(d) Included in Trading securities, Investment securities, Other intangible assets and Other assets on our Consolidated Balance Sheet.  
(e) Included in Loans, Equity investments and Other assets on our Consolidated Balance Sheet.  
(f) 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 36. Our maximum exposure to loss as a result of our involvement with these SPEs is the carrying value of the mortgage-backed securities, 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 36. 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, 2016, 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 36 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 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. The amounts for 2015 were \$.2 billion, \$.2 billion and \$.1 billion, respectively.

**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, 2016 and December 31, 2015, respectively.

Table 37: Analysis of Loan Portfolio (a)

Dollars in millions	Accruing					Nonperforming Loans	Fair Value Option Nonaccrual Loans (c)	Purchased Impaired Loans	Total Loans (d)
	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)				
<b>December 31, 2016</b>									
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%
<b>December 31, 2015</b>									
Commercial Lending									
Commercial	\$ 98,075	\$ 69	\$ 32	\$ 45	\$ 146	\$ 351		\$ 36	\$ 98,608
Commercial real estate	27,134	10	4		14	187		133	27,468
Equipment lease financing	7,440	19	2		21	7			7,468
Total commercial lending	132,649	98	38	45	181	545		169	133,544
Consumer Lending									
Home equity	29,656	63	30		93	977		1,407	32,133
Residential real estate	10,918	142	65	566	773(b)	549	\$ 225	1,946	14,411
Credit card	4,779	28	19	33	80	3			4,862
Other consumer									
Automobile	11,067	41	10	4	55	35			11,157
Education and other	10,114	139	86	233	458(b)	17			10,589
Total consumer lending	66,534	413	210	836	1,459	1,581	225	3,353	73,152
Total	\$ 199,183	\$ 511	\$ 248	\$ 881	\$ 1,640	\$ 2,126	\$ 225	\$ 3,522	\$206,696
Percentage of total loans	96.36%	.25%	.12%	.43%	.80%	1.03%	.11%	1.70%	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 accrued interest and 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 accruing 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 and Education and other consumer loans totaling \$.4 billion at both December 31, 2016 and December 31, 2015.
- (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 \$1.3 billion and \$1.4 billion at December 31, 2016 and December 31, 2015, 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, 2016, we pledged \$22.0 billion of commercial loans to the Federal Reserve Bank (FRB) and \$60.8 billion of residential real estate and other loans to the Federal Home Loan Bank (FHLB) as collateral for the contingent ability to borrow, if necessary. The comparable amounts at December 31, 2015 were \$20.2 billion and \$56.4 billion, respectively.

**Table 38: Nonperforming Assets**

Dollars in millions	December 31 2016	December 31 2015
<b>Nonperforming loans</b>		
Total commercial lending	\$ 655	\$ 545
Total consumer lending (a)	1,489	1,581
Total nonperforming loans (b)	2,144	2,126
OREO, foreclosed and other assets	230	299
Total nonperforming assets	\$ 2,374	\$ 2,425
Nonperforming loans to total loans	1.02%	1.03%
Nonperforming assets to total loans, OREO, foreclosed and other assets	1.12%	1.17%
Nonperforming assets to total assets	.65%	.68%
<b>Interest on nonperforming loans</b>		
Computed on original terms	\$ 111	\$ 115
Recognized prior to nonperforming status	\$ 21	\$ 22

- (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) The recorded investment of loans collateralized by residential real estate property that are in process of foreclosure was \$.4 billion and \$.6 billion at December 31, 2016 and December 31, 2015, which included \$.2 billion and \$.3 billion, respectively, of loans that are government insured/guaranteed.

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 within this Note.

Total nonperforming loans in Table 38 include TDRs of \$1.1 billion at both December 31, 2016 and December 31, 2015. TDRs that are performing, including consumer credit card TDR loans, totaled \$1.1 billion at December 31, 2016 and \$1.2 billion at December 31, 2015, 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 mortgage activities similar to commercial loans by analyzing PD and LGD. Additionally, risks connected 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.

**Table 39: Commercial Lending Asset Quality Indicators (a)**

In millions	Criticized Commercial Loans				Total Loans
	Pass Rated	Special Mention (b)	Substandard (c)	Doubtful (d)	
<b>December 31, 2016</b>					
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	<u>\$132,187</u>	<u>\$ 1,799</u>	<u>\$ 3,867</u>	<u>\$ 102</u>	<u>\$137,955</u>
<b>December 31, 2015</b>					
Commercial	\$ 93,364	\$ 2,029	\$ 3,124	\$ 91	\$ 98,608
Commercial real estate	26,729	126	603	10	27,468
Equipment lease financing	7,230	87	150	1	7,468
Total commercial lending	<u>\$127,323</u>	<u>\$ 2,242</u>	<u>\$ 3,877</u>	<u>\$ 102</u>	<u>\$133,544</u>

- (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 and apply a split rating classification to certain loans meeting threshold criteria. By assigning a split classification, a loan's exposure amount may be split into more than one classification category in this table.
- (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 37 for additional information.



---

Nonperforming Loans: We monitor trending of nonperforming loans for home equity and residential real estate loans. See Table 37 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 enhance 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 \$2.8 billion and \$3.4 billion at December 31, 2016 and 2015, respectively, and government insured or guaranteed residential real estate mortgages of \$.8 billion and \$.9 billion at December 31, 2016 and 2015, respectively.

Table 40: Asset Quality Indicators for Home Equity and Residential Real Estate Loans – Excluding Purchased Impaired and Government Insured or Guaranteed Loans (a)

December 31, 2016 - in millions	Home Equity		Residential Real Estate	Total
	1st Liens	2nd Liens		
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 660			1	1
Less than or equal to 660				
Missing FICO				
Total home equity and residential real estate loans	<u>\$16,600</u>	<u>\$12,228</u>	<u>\$ 13,028</u>	<u>\$41,856</u>

December 31, 2015 - in millions	Home Equity		Residential Real Estate	Total
	1st Liens	2nd Liens		
<b>Current estimated LTV ratios</b>				
Greater than or equal to 125% and updated FICO scores:				
Greater than 660	\$ 283	\$ 960	\$ 284	\$ 1,527
Less than or equal to 660 (b)	40	189	68	297
Missing FICO	1	8	5	14
Greater than or equal to 100% to less than 125% and updated FICO scores:				
Greater than 660	646	1,733	564	2,943
Less than or equal to 660 (b)	92	302	102	496
Missing FICO	3	4	8	15
Greater than or equal to 90% to less than 100% and updated FICO scores:				
Greater than 660	698	1,492	615	2,805
Less than or equal to 660	88	226	94	408
Missing FICO	1	3	10	14
Less than 90% and updated FICO scores:				
Greater than 660	13,895	7,808	9,117	30,820
Less than or equal to 660	1,282	923	570	2,775
Missing FICO	31	18	105	154
Total home equity and residential real estate loans	<u>\$17,060</u>	<u>\$13,666</u>	<u>\$ 11,542</u>	<u>\$42,268</u>

(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, 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 higher risk loans individually, and collectively they represent approximately 27% of the higher risk loans. The following states had the highest percentage of higher risk loans at December 31, 2015: New Jersey 14%, Pennsylvania 12%, Illinois 11%, Ohio 11%, Florida 7%, Maryland 7% and Michigan 5%. The remainder of the states had lower than 4% of the high risk loans individually, and collectively they represent approximately 33% 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 41: Credit Card and Other Consumer Loan Classes Asset Quality Indicators**

Dollars in millions	Credit Card		Other Consumer (a)	
	Amount	% of Total Loans Using FICO Credit Metric	Amount	% of Total Loans Using FICO Credit Metric
<b>December 31, 2016</b>				
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
<b>Total loans using FICO credit metric</b>	<b>5,282</b>	<b>100%</b>	<b>15,793</b>	<b>100%</b>
Consumer loans using other internal credit metrics (a)			6,256	
<b>Total loan balance</b>	<b>5,282</b>		<b>22,049</b>	
Weighted-average updated FICO score (b)		736		744
<b>December 31, 2015</b>				
FICO score greater than 719	\$2,936	60%	\$ 9,371	65%
650 to 719	1,346	28	3,534	24
620 to 649	202	4	523	4
Less than 620	227	5	604	4
No FICO score available or required (b)	151	3	501	3
<b>Total loans using FICO credit metric</b>	<b>4,862</b>	<b>100%</b>	<b>14,533</b>	<b>100%</b>
Consumer loans using other internal credit metrics (a)			7,213	
<b>Total loan balance</b>	<b>4,862</b>		<b>21,746</b>	
Weighted-average updated FICO score (b)		734		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 \$.3 billion at both December 31, 2016 and December 31, 2015, for the total TDR portfolio.

Table 42 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 2016, 2015 and 2014. 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 42. 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 42. After that, consumer loan concessions would follow the previously discussed priority of concessions for the commercial loan portfolio.

**Table 42: Financial Impact and TDRs by Concession Type (a)**

During the year ended December 31, 2016 Dollars in millions	Number of Loans	Pre-TDR Recorded Investment (b)	Post-TDR Recorded Investment (c)			
			Principal Forgiveness	Rate Reduction	Other	Total
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
During the year ended December 31, 2014 Dollars in millions						
Total commercial lending	210	\$ 363	\$ 37	\$ 22	\$237	\$296
Total consumer lending	12,289	344		135	190	325
Total TDRs	12,499	\$ 707	\$ 37	\$ 157	\$427	\$621

(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, 2016, 2015 and 2014, and (ii) subsequently defaulted during the 12-month period following each of January 1, 2016, 2015 and 2014, totaled \$.2 billion, \$.1 billion and \$.2 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, 2016 and December 31, 2015. 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 43: Impaired Loans

In millions	Unpaid Principal Balance	Recorded Investment	Associated Allowance	Average Recorded Investment (a)
<b>December 31, 2016</b>				
<u>Impaired loans with an associated allowance</u>				
Total commercial lending	\$ 742	\$ 477	\$ 105	\$ 497
Total consumer lending	1,237	1,185	226	1,255
Total impaired loans with an associated allowance	<u>\$ 1,979</u>	<u>\$ 1,662</u>	<u>\$ 331</u>	<u>\$ 1,752</u>
<u>Impaired loans without an associated allowance</u>				
Total commercial lending	\$ 447	\$ 322		\$ 365
Total consumer lending	982	608		604
Total impaired loans without an associated allowance	<u>\$ 1,429</u>	<u>\$ 930</u>		<u>\$ 969</u>
Total impaired loans	<u>\$ 3,408</u>	<u>\$ 2,592</u>	<u>\$ 331</u>	<u>\$ 2,721</u>
<b>December 31, 2015</b>				
<u>Impaired loans with an associated allowance</u>				
Total commercial lending	\$ 696	\$ 467	\$ 119	\$ 503
Total consumer lending	1,389	1,307	276	1,474
Total impaired loans with an associated allowance	<u>\$ 2,085</u>	<u>\$ 1,774</u>	<u>\$ 395</u>	<u>\$ 1,977</u>
<u>Impaired loans without an associated allowance</u>				
Total commercial lending	\$ 407	\$ 276		\$ 255
Total consumer lending	1,000	610		512
Total impaired loans without an associated allowance	<u>\$ 1,407</u>	<u>\$ 886</u>		<u>\$ 767</u>
Total impaired loans	<u>\$ 3,492</u>	<u>\$ 2,660</u>	<u>\$ 395</u>	<u>\$ 2,744</u>

(a) Average recorded investment is for the years ended December 31, 2016 and 2015.

## NOTE 4 ALLOWANCES 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 44: Rollforward of Allowance for Loan and Lease Losses and Associated Loan Data**

In millions	Commercial Lending	Consumer Lending	Total
<b>December 31, 2016</b>			
<u>Allowance for Loan and Lease Losses</u>			
January 1	\$ 1,605	\$ 1,122	\$ 2,727
Charge-offs	(363)	(523)	(886)
Recoveries	178	165	343
Net (charge-offs) / recoveries	(185)	(358)	(543)
Provision for credit losses	153	280	433
Net change in allowance for unfunded loan commitments and letters of credit	(39)	(1)	(40)
Net recoveries of purchased impaired loans and other		12	12
December 31	<u>\$ 1,534</u>	<u>\$ 1,055</u>	<u>\$ 2,589</u>
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	<u>\$ 1,534</u>	<u>\$ 1,055</u>	<u>\$ 2,589</u>
<u>Loan Portfolio</u>			
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	<u>\$ 137,955</u>	<u>\$ 72,878</u>	<u>\$210,833</u>
Portfolio segment ALLL as a percentage of total ALLL	59%	41%	100%
Ratio of the allowance for loan and lease losses to total loans	<u>1.11%</u>	<u>1.45%</u>	<u>1.23%</u>
<b>December 31, 2015</b>			
<u>Allowance for Loan and Lease Losses</u>			
January 1	\$ 1,571	\$ 1,760	\$ 3,331
Charge-offs	(255)	(550)	(805)
Recoveries	240	179	419
Net (charge-offs) / recoveries	(15)	(371)	(386)
Provision for credit losses	55	200	255
Net change in allowance for unfunded loan commitments and letters of credit	(3)	1	(2)
Net write-offs of purchased impaired loans and other (b)	(3)	(468)	(471)
December 31	<u>\$ 1,605</u>	<u>\$ 1,122</u>	<u>\$ 2,727</u>
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	<u>\$ 1,605</u>	<u>\$ 1,122</u>	<u>\$ 2,727</u>
<u>Loan Portfolio</u>			
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	<u>\$ 133,544</u>	<u>\$ 73,152</u>	<u>\$206,696</u>
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)	<u>1.20%</u>	<u>1.53%</u>	<u>1.32%</u>

**Table 44: Rollforward of Allowance for Loan and Lease Losses and Associated Loan Data**  
(continued from previous page)

<u>In millions</u>	<u>Commercial Lending</u>	<u>Consumer Lending</u>	<u>Total</u>
December 31, 2014			
<u>Allowance for Loan and Lease Losses</u>			
January 1	\$ 1,547	\$ 2,062	\$ 3,609
Charge-offs	(360)	(661)	(1,021)
Recoveries	305	185	490
Net charge-offs	(55)	(476)	(531)
Provision for credit losses	100	173	273
Net change in allowance for unfunded loan commitments and letters of credit	(18)	1	(17)
Other	(3)		(3)
December 31	<u>\$ 1,571</u>	<u>\$ 1,760</u>	<u>\$ 3,331</u>
TDRs individually evaluated for impairment	\$ 62	\$ 324	\$ 386
Other loans individually evaluated for impairment	77		77
Loans collectively evaluated for impairment	1,353	643	1,996
Purchased impaired loans	79	793	872
December 31	<u>\$ 1,571</u>	<u>\$ 1,760</u>	<u>\$ 3,331</u>
<u>Loan Portfolio</u>			
TDRs individually evaluated for impairment	\$ 542	\$ 2,041	\$ 2,583
Other loans individually evaluated for impairment	309		309
Loans collectively evaluated for impairment	127,207	68,826	196,033
Fair value option loans (a)		1,034	1,034
Purchased impaired loans	310	4,548	4,858
December 31	<u>\$ 128,368</u>	<u>\$ 76,449</u>	<u>\$204,817</u>
Portfolio segment ALLL as a percentage of total ALLL	47%	53%	100%
Ratio of the allowance for loan and lease losses to total loans	<u>1.22%</u>	<u>2.30%</u>	<u>1.63%</u>

- (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) See Note 1 Accounting Policies in our 2015 Form 10-K for information on our change in derecognition policy effective December 31, 2015 for certain purchased impaired loans.

Net interest income less the provision for credit losses was \$8.0 billion, \$8.0 billion and \$8.3 billion for 2016, 2015 and 2014, respectively.



**NOTE 5 INVESTMENT SECURITIES**
**Table 45: Investment Securities Summary**

In millions	Amortized Cost	Unrealized		Fair Value
		Gains	Losses	
<b>December 31, 2016</b>				
<b>Securities Available for Sale</b>				
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	<u>59,303</u>	<u>736</u>	<u>(536)</u>	<u>59,503</u>
Corporate stocks and other	603		(2)	601
Total securities available for sale	<u>\$ 59,906</u>	<u>\$736</u>	<u>\$(538)</u>	<u>\$60,104</u>
<b>Securities Held to Maturity</b>				
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	<u>\$ 15,843</u>	<u>\$220</u>	<u>\$(197)</u>	<u>\$15,866</u>
December 31, 2015				
<b>Securities Available for Sale</b>				
Debt securities				
U.S. Treasury and government agencies	\$ 9,764	\$152	\$ (42)	\$ 9,874
Residential mortgage-backed				
Agency	24,698	250	(128)	24,820
Non-agency	3,992	247	(88)	4,151
Commercial mortgage-backed				
Agency	1,917	11	(10)	1,918
Non-agency	4,902	30	(29)	4,903
Asset-backed	5,417	54	(48)	5,423
Other debt	3,989	110	(17)	4,082
Total debt securities	<u>54,679</u>	<u>854</u>	<u>(362)</u>	<u>55,171</u>
Corporate stocks and other	590		(1)	589
Total securities available for sale	<u>\$ 55,269</u>	<u>\$854</u>	<u>\$(363)</u>	<u>\$55,760</u>
<b>Securities Held to Maturity</b>				
Debt securities				
U.S. Treasury and government agencies	\$ 258	\$ 40		\$ 298
Residential mortgage-backed				
Agency	9,552	101	\$ (65)	9,588
Non-agency	233	8		241
Commercial mortgage-backed				
Agency	1,128	40		1,168
Non-agency	722	6	(1)	727
Asset-backed	717		(10)	707
Other debt	2,158	116	(1)	2,273
Total securities held to maturity	<u>\$ 14,768</u>	<u>\$311</u>	<u>\$(77)</u>	<u>\$15,002</u>

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, 2016, Accumulated other comprehensive income included pretax gains of \$96 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 46 presents gross unrealized losses and fair value of debt securities at December 31, 2016 and December 31, 2015. 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 a portion of OTTI has been recognized in Accumulated other comprehensive income (loss). The increase in total unrealized losses at December 31, 2016 when compared to December 31, 2015 was due to an increase in market interest rates.

**Table 46: 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
<b>December 31, 2016</b>						
<b>Securities Available for Sale</b>						
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	<u>\$ (410)</u>	<u>\$ 25,760</u>	<u>\$ (126)</u>	<u>\$ 6,287</u>	<u>\$ (536)</u>	<u>\$ 32,047</u>
<b>Securities Held to Maturity</b>						
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	(a)	1	(12)	147
Total debt securities held to maturity	<u>\$ (187)</u>	<u>\$ 8,425</u>	<u>\$ (10)</u>	<u>\$ 613</u>	<u>\$ (197)</u>	<u>\$ 9,038</u>
<b>December 31, 2015</b>						
<b>Securities Available for Sale</b>						
Debt securities						
U.S. Treasury and government agencies	\$ (40)	\$ 5,885	\$ (2)	\$ 120	\$ (42)	\$ 6,005
Residential mortgage-backed						
Agency	(103)	11,799	(25)	1,094	(128)	12,893
Non-agency	(3)	368	(85)	1,527	(88)	1,895
Commercial mortgage-backed						
Agency	(7)	745	(3)	120	(10)	865
Non-agency	(22)	2,310	(7)	807	(29)	3,117
Asset-backed	(30)	3,477	(18)	494	(48)	3,971
Other debt	(11)	1,085	(6)	248	(17)	1,333
Total debt securities available for sale	<u>\$ (216)</u>	<u>\$ 25,669</u>	<u>\$ (146)</u>	<u>\$ 4,410</u>	<u>\$ (362)</u>	<u>\$ 30,079</u>
<b>Securities Held to Maturity</b>						
Debt securities						
Residential mortgage-backed						
Agency	\$ (55)	\$ 4,842	\$ (10)	\$ 269	\$ (65)	\$ 5,111
Commercial mortgage-backed						
Non-agency	(1)	149	(a)	5	(1)	154
Asset-backed	(2)	171	(8)	529	(10)	700
Other debt	(1)	230	(a)	3	(1)	233
Total debt securities held to maturity	<u>\$ (59)</u>	<u>\$ 5,392</u>	<u>\$ (18)</u>	<u>\$ 806</u>	<u>\$ (77)</u>	<u>\$ 6,198</u>

(a) The unrealized loss on these securities was less than \$.5 million.

#### **Evaluating Investment Securities for Other-than-Temporary Impairments**

For the securities in Table 46, as of December 31, 2016 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, 2016, 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 2016, 2015 and 2014, 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 47: Gains (Losses) on Sales of Securities Available for Sale**

In millions	Proceeds	Gross Gains	Gross Losses	Net Gains	Tax Expense
<b>For the year ended December 31</b>					
<b>2016</b>	<b>\$ 3,489</b>	<b>\$ 24</b>	<b>\$ (8)</b>	<b>\$ 16</b>	<b>\$ 6</b>
2015	\$ 6,829	\$ 56	\$ (13)	\$ 43	\$ 15
2014	\$ 4,480	\$ 33	\$ (29)	\$ 4	\$ 1

The following table presents, by remaining contractual maturity, the amortized cost, fair value and weighted-average yield of debt securities at December 31, 2016.

**Table 48: Contractual Maturity of Debt Securities**

December 31, 2016 Dollars in millions	1 Year or Less	After 1 Year through 5 Years	After 5 Years through 10 Years	After 10 Years	Total
<b>Securities Available for Sale</b>					
U.S. Treasury and government agencies	\$ 479	\$ 5,673	\$ 5,778	\$ 1,170	\$13,100
Residential mortgage-backed					
Agency	1	127	740	25,377	26,245
Non-agency		2		3,189	3,191
Commercial mortgage-backed					
Agency	77	157	730	1,186	2,150
Non-agency		111	108	3,804	4,023
Asset-backed	7	2,046	1,716	2,169	5,938
Other debt	228	2,305	661	1,462	4,656
Total debt securities available for sale	<u>\$ 792</u>	<u>\$ 10,421</u>	<u>\$ 9,733</u>	<u>\$38,357</u>	<u>\$59,303</u>
Fair value	\$ 796	\$ 10,463	\$ 9,729	\$38,515	\$59,503
Weighted-average yield, GAAP basis	<u>3.13%</u>	<u>2.11%</u>	<u>2.06%</u>	<u>2.88%</u>	<u>2.61%</u>
<b>Securities Held to Maturity</b>					
U.S. Treasury and government agencies			\$ 108	\$ 419	\$ 527
Residential mortgage-backed					
Agency		\$ 18	458	10,598	11,074
Non-agency				191	191
Commercial mortgage-backed					
Agency	\$ 100	743	5	55	903
Non-agency				567	567
Asset-backed		1	452	105	558
Other debt	14	176	997	836	2,023
Total debt securities held to maturity	<u>\$ 114</u>	<u>\$ 938</u>	<u>\$ 2,020</u>	<u>\$12,771</u>	<u>\$15,843</u>
Fair value	\$ 114	\$ 966	\$ 2,070	\$12,716	\$15,866
Weighted-average yield, GAAP basis	<u>3.69%</u>	<u>3.64%</u>	<u>3.29%</u>	<u>3.23%</u>	<u>3.27%</u>

Weighted-average yields are based on historical cost with effective yields weighted for the contractual maturity of each security. At December 31, 2016, 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 \$27.1 billion and fair value of \$26.8 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 49: Fair Value of Securities Pledged and Accepted as Collateral**

In millions	December 31 2016	December 31 2015
Pledged to others	\$ 9,493	\$ 9,674
Accepted from others:		
Permitted by contract or custom to sell or repledge	\$ 912	\$ 1,100
Permitted amount repledged to others	\$ 799	\$ 943

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 Committee 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 52. 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 curves, whole loan sales and agency sales transactions. The significant unobservable inputs are management's assumption of the spread applied to the benchmark rate and the estimated servicing cash flows for loans sold to the agencies with servicing retained. 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. Significant increases (decreases) in the estimated servicing cash flows would result in significantly higher (lower) asset value. Based on the significance of unobservable inputs, we classified this portfolio as Level 3.

### **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. 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, 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, spread over the benchmark interest rate and the estimated servicing cash flows of commercial mortgage loan commitments, and expected interest rate volatility of interest rate options. 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, 2016 and 2015 are included in the Insignificant Level 3 assets, net of liabilities line item in Table 52 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 account for any future risk of converting Class B common shares to Class A common shares and to account for the corresponding change in value to the Class B shares. These adjustments result from resolution of the specified litigation or the changes in the amount in the litigation escrow account funded by Visa as well as from changes in the estimated litigation resolution date (see Note 19 Legal Proceedings). These swaps also require payments calculated by reference to the market price of the Class A common shares and a fixed rate of interest. An increase in the estimated growth rate of the Class A share price or the estimated length of litigation resolution date, or a decrease in the estimated conversion rate, will have a negative impact on the fair value of the swaps and vice versa, through its impact on periodic payments due to the counterparty until the maturity dates of the swaps.

The fair values of our derivatives include a credit valuation adjustment (CVA) to reflect our own and our counterparties' nonperformance risk. Our CVA 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 BlackRock Series C Preferred Stock and assets related to PNC's deferred compensation and supplemental incentive savings plans.

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.

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.

All Level 3 other assets and liabilities, excluding the BlackRock Series C Preferred Stock are included in the Insignificant Level 3 assets, net of liabilities line item in Table 52 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 52 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 50: Fair Value Measurements—Recurring Basis Summary

In millions	December 31, 2016				December 31, 2015			
	Level 1	Level 2	Level 3	Total Fair Value	Level 1	Level 2	Level 3	Total Fair Value
<b>Assets</b>								
Residential mortgage loans held for sale		\$ 1,008	\$ 2	\$ 1,010		\$ 838	\$ 5	\$ 843
Commercial mortgage loans held for sale			1,400	1,400			641	641
Securities available for sale								
U.S. Treasury and government agencies	\$12,572	602		13,174	\$ 9,267	607		9,874
Residential mortgage-backed								
Agency		26,128		26,128		24,820		24,820
Non-agency		112	3,254	3,366		143	4,008	4,151
Commercial mortgage-backed								
Agency		2,119		2,119		1,918		1,918
Non-agency		4,025		4,025		4,903		4,903
Asset-backed		5,565	403	5,968		4,941	482	5,423
Other debt		4,657	66	4,723		4,037	45	4,082
Total debt securities	12,572	43,208	3,723	59,503	9,267	41,369	4,535	55,171
Corporate stocks and other	541	60		601	527	62		589
Total securities available for sale	13,113	43,268	3,723	60,104	9,794	41,431	4,535	55,760
Loans								
		558	335	893		565	340	905
Equity investments (a)								
			1,331	1,381			1,098	1,445
Residential mortgage servicing rights								
			1,182	1,182			1,063	1,063
Commercial mortgage servicing rights								
			576	576			526	526
Trading securities (b)								
	1,458	1,169	2	2,629	996	727	3	1,726
Financial derivatives (b) (c)								
	10	4,566	40	4,616		4,910	31	4,941
Other								
	266	312	239	817	254	336	364	954
Total assets	\$14,847	\$50,881	\$8,830	\$ 74,608	\$11,044	\$48,807	\$8,606	\$ 68,804
<b>Liabilities</b>								
Other borrowed funds								
	\$ 799	\$ 161	\$ 10	\$ 970	\$ 960	\$ 108	\$ 12	\$ 1,080
Financial derivatives (c) (d)								
	1	3,424	414	3,839	1	3,328	473	3,802
Other liabilities								
			9	9			10	10
Total liabilities	\$ 800	\$ 3,585	\$ 433	\$ 4,818	\$ 961	\$ 3,436	\$ 495	\$ 4,892

- (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, 2016 and December 31, 2015, 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 2016 and 2015 follow.

**Table 51: Reconciliation of Level 3 Assets and Liabilities**

**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)		Purchases	Sales	Issuances	Settlements	Transfers into Level 3	Transfers out of Level 3 (b)	Fair Value Dec. 31, 2016	Unrealized gains / losses on assets and liabilities held on Consolidated Balance Sheet at Dec. 31, 2016 (a) (c)
		Included in Earnings	Included in Other comprehensive income								
<b>Assets</b>											
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(d)	(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
<b>Liabilities</b>											
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(e)									\$ 194(f)

Year Ended December 31, 2015

Level 3 Instruments Only In millions	Total realized / unrealized gains or losses for the period (a)							Transfers into Level 3	Transfers out of Level 3 (b)	Fair Value Dec. 31, 2015	Unrealized gains / losses on assets and liabilities held on Consolidated Balance Sheet at Dec. 31, 2015 (a) (c)
	Fair Value Dec. 31, 2014	Included in Earnings	Included in Other comprehensive income	Purchases	Sales	Issuances	Settlements				
<b>Assets</b>											
Residential mortgage loans held for sale	\$ 6	\$ 1		\$ 25	\$ (4)			\$ 6	\$ (29)	\$ 5	\$ 1
Commercial mortgage loans held for sale	893	76			(4,455)	\$ 4,163	\$ (36)			641	(5)
<b>Securities available for sale</b>											
Residential mortgage-backed non-agency	4,798	114	\$ (58)				(846)			4,008	(2)
Commercial mortgage-backed non-agency		8					(8)				
Asset-backed	563	20					(101)			482	(2)
Other debt	164	2	(2)	13	(7)		(125)			45	
Total securities available for sale	5,525	144	(60)	13	(7)		(1,080)			4,535	(4)
<b>Loans</b>											
Equity investments	397	23		114	(26)		(122)	25	(71)	340	12
Residential mortgage servicing rights	1,152	120		274	(448)					1,098	86
Commercial mortgage servicing rights	845	2		316		78	(178)			1,063	5
Trading securities	506	(9)		55		63	(89)			526	(10)
Financial derivatives	32						(29)			3	
Other assets	42	135		3			(149)			31	126
Total assets	390	(18)			(7)		(1)			364	(18)
Total assets	\$ 9,788	\$ 474	\$ (60)	\$ 800	\$ (4,947)	\$ 4,304	\$ (1,684)	\$ 31	\$ (100)	\$ 8,606	\$ 193
<b>Liabilities</b>											
Other borrowed funds	\$ 181	\$ (3)				\$ 92	\$ (258)			\$ 12	
Financial derivatives	526	22			\$ 1		(76)			473	\$ 4
Other liabilities	9	1								10	
Total liabilities	\$ 716	\$ 20			\$ 1	\$ 92	\$ (334)			\$ 495	\$ 4
Net gains (losses)		\$ 454(e)									\$ 189(f)

- (a) Losses for assets are bracketed while losses for liabilities are not.
- (b) 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.
- (c) 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.
- (d) Reflects transfers into Level 3 associated with a change in valuation methodology.
- (e) 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.
- (f) 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 52: Fair Value Measurements—Recurring Quantitative Information**

**December 31, 2016**

<b>Level 3 Instruments Only</b> Dollars in millions	<b>Fair Value</b>	<b>Valuation Techniques</b>	<b>Unobservable Inputs</b>	<b>Range (Weighted Average)</b>
Commercial mortgage loans held for sale	<b>\$ 1,400</b>	Discounted cash flow	Spread over the benchmark curve (a) Estimated servicing cash flows	<b>42bps-1,725bps (362bps)</b> <b>0.0%-7.3% (1.5%)</b>
Residential mortgage-backed non-agency securities	<b>3,254</b>	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR) Constant default rate (CDR) Loss severity Spread over the benchmark curve (a)	<b>1.0%-24.2%(7.2%)</b> <b>0.0%-16.7%(5.3%)</b> <b>10.0%-98.5%(53.5%)</b> <b>236bps weighted average</b>
Asset-backed securities	<b>403</b>	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR) Constant default rate (CDR) Loss severity Spread over the benchmark curve (a)	<b>1.0%-16.0%(6.4%)</b> <b>2.0%-13.9%(6.6%)</b> <b>24.2%-100.0%(77.3%)</b> <b>278bps weighted average</b>
Loans	<b>141</b>	Consensus pricing (b)	Cumulative default rate Loss severity Discount rate	<b>11.0%-100.0%(86.9%)</b> <b>0.0%-100.0%(22.9%)</b> <b>4.7%-6.7%(5.1%)</b>
	<b>116</b>	Discounted cash flow	Loss severity Discount rate	<b>8.0% weighted average</b> <b>4.2% weighted average</b>
	<b>78</b>	Consensus pricing (b)	Credit and Liquidity discount	<b>0.0%-99.0%(57.9%)</b>
Equity investments	<b>1,331</b>	Multiple of adjusted earnings Consensus pricing (b)	Multiple of earnings Liquidity discount	<b>4.5x-12.0x (7.8x)</b> <b>0.0%-40.0%</b>
Residential mortgage servicing rights	<b>1,182</b>	Discounted cash flow	Constant prepayment rate (CPR) Spread over the benchmark curve (a)	<b>0.0%-36.0%(9.4%)</b> <b>341bps-1,913bps (850bps)</b>
Commercial mortgage servicing rights	<b>576</b>	Discounted cash flow	Constant prepayment rate (CPR) Discount rate	<b>7.5%-43.4%(8.6%)</b> <b>3.5%-7.6%(7.5%)</b>
Other assets—BlackRock Series C Preferred Stock	<b>232</b>	Consensus pricing (b)	Liquidity discount	<b>15.0%-25.0%(20.0%)</b>
Financial derivatives—BlackRock LTIP	<b>(232)</b>	Consensus pricing (b)	Liquidity discount	<b>15.0%-25.0%(20.0%)</b>
Financial derivatives—Swaps related to sales of certain Visa Class B common shares	<b>(164)</b>	Discounted cash flow	Estimated conversion factor of Class B shares into Class A shares Estimated growth rate of Visa Class A share price Estimated length of litigation resolution date	<b>164.4% weighted average</b> <b>14.0%</b> <b>Q2 2019</b>
Insignificant Level 3 assets, net of liabilities (c)	<b>80</b>			
Total Level 3 assets, net of liabilities (d)	<b>\$ 8,397</b>			

December 31, 2015

**Level 3 Instruments Only**

Dollars in millions

	Fair Value	Valuation Techniques	Unobservable Inputs	Range (Weighted Average)
Commercial mortgage loans held for sale	\$ 641	Discounted cash flow	Spread over the benchmark curve (a) Estimated servicing cash flows	85bps-4,270bps (547bps) 0.0%-7.0%(0.9%)
Residential mortgage-backed non-agency securities	4,008	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR) Constant default rate (CDR) Loss severity Spread over the benchmark curve (a)	1.0%-24.2%(7.0%) 0.0%-16.7%(5.4%) 10.0%-98.5%(53.3%) 241bps weighted average
Asset-backed securities	482	Priced by a third-party vendor using a discounted cash flow pricing model	Constant prepayment rate (CPR) Constant default rate (CDR) Loss severity Spread over the benchmark curve (a)	1.0%-14.0%(6.3%) 1.7%-13.9%(6.8%) 24.2%-100.0%(77.5%) 324bps weighted average
Loans	123	Consensus pricing (b)	Cumulative default rate Loss severity	2.0%-100.0%(85.1%) 0.0%-100.0%(27.3%)
	116	Discounted cash flow	Discount rate Loss severity Discount rate	4.9%-7.0%(5.2%) 8.0% weighted average 3.9% weighted average
	101	Consensus pricing (b)	Credit and Liquidity discount	26.0%-99.0%(54.0%)
Equity investments	1,098	Multiple of adjusted earnings	Multiple of earnings	4.2x-14.1x (7.6x)
Residential mortgage servicing rights	1,063	Discounted cash flow	Constant prepayment rate (CPR) Spread over the benchmark curve (a)	0.3%-46.5%(10.6%) 559bps-1,883bps (893bps)
Commercial mortgage servicing rights	526	Discounted cash flow	Constant prepayment rate (CPR) Discount rate	3.9%-26.5%(5.7%) 2.6%-7.7%(7.5%)
Other assets—BlackRock Series C Preferred Stock	357	Consensus pricing (b)	Liquidity discount	20.0%
Financial derivatives—BlackRock LTIP	(357)	Consensus pricing (b)	Liquidity discount	20.0%
Financial derivatives—Swaps related to sales of certain Visa Class B common shares	(104)	Discounted cash flow	Estimated conversion factor of Class B shares into Class A shares  Estimated growth rate of Visa Class A share price	164.3% weighted average  16.3%
Insignificant Level 3 assets, net of liabilities (c)	57			
Total Level 3 assets, net of liabilities (d)	<u>\$ 8,111</u>			

- (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 \$8.8 billion and total Level 3 liabilities of \$4 billion as of December 31, 2016 and \$8.6 billion and \$5 billion as of December 31, 2015, 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 53 and Table 54.

### 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 or LGD percentage. The LGD percentage represents the amount that we expect to lose in the event a borrower defaults on an obligation and is used to determine the weighted average loss severity of the nonaccrual loans.

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. If an appraisal is outdated due to changed project or market conditions, or if the net book value is utilized, management uses an LGD percentage.

### OREO and Foreclosed Assets

The carrying value of OREO and foreclosed assets includes valuation adjustments recorded subsequent to the transfer to OREO and foreclosed assets. 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.

### Insignificant Assets

Insignificant assets represent the aggregate amount of assets measured at fair value on a nonrecurring basis that are individually and in the aggregate insignificant. Long-lived assets held for sale and certain equity investments are included in insignificant assets and are classified as Level 3.

Table 53: Fair Value Measurements—Nonrecurring

In millions	Fair Value		
	December 31 2016	December 31 2015	
<b>Assets (a)</b>			
Nonaccrual loans	\$ 187	\$	30
OREO and foreclosed assets	107		137
Insignificant assets	19		28
Total assets	<u>\$ 313</u>	<u>\$</u>	<u>195</u>

Year ended December 31 In millions	Gains (Losses)		
	2016	2015	2014
<b>Assets (a)</b>			
Nonaccrual loans	\$(106)	\$(44)	\$(19)
OREO and foreclosed assets	(16)	(18)	(19)
Insignificant assets	(17)	(23)	(16)
Total assets	<u>\$(139)</u>	<u>\$(85)</u>	<u>\$(54)</u>

(a) All Level 3 as of December 31, 2016 and 2015.

Quantitative information about the significant unobservable inputs within Level 3 nonrecurring assets follows.

**Table 54: Fair Value Measurements—Nonrecurring Quantitative Information**

Level 3 Instruments Only Dollars in millions	Fair Value	Valuation Techniques	Unobservable Inputs	Range (Weighted Average)
<b>December 31, 2016</b>				
Assets				
Nonaccrual loans	\$ 112	LGD percentage	Loss severity	6.0%-77.1%(31.3%)
	75	Fair value of property or collateral	Appraised value/sales price	Not meaningful
OREO and foreclosed assets	107	Fair value of property or collateral	Appraised value/sales price	Not meaningful
Insignificant assets	19			
Total assets	<u>\$ 313</u>			
December 31, 2015				
Assets				
Nonaccrual loans	\$ 20	LGD percentage	Loss severity	8.1%-73.3%(58.6%)
	10	Fair value of property or collateral	Appraised value/sales price	Not meaningful
OREO and foreclosed assets	137	Fair value of property or collateral	Appraised value/sales price	Not meaningful
Insignificant assets	28			
Total assets	<u>\$ 195</u>			

**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 55: Fair Value Option—Fair Value and Principal Balances**

In millions	Fair Value	Aggregate Unpaid Principal Balance	Difference
<b>December 31, 2016</b>			
<b>Assets</b>			
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
<b>Liabilities</b>			
Other borrowed funds	<u>\$ 81</u>	<u>\$ 82</u>	<u>\$ (1)</u>
<b>December 31, 2015</b>			
<b>Assets</b>			
Residential mortgage loans held for sale			
Performing loans	\$ 832	\$ 804	\$ 28
Accruing loans 90 days or more past due	4	4	
Nonaccrual loans	7	8	(1)
Total	843	816	27
Commercial mortgage loans held for sale (a)			
Performing loans	639	659	(20)
Nonaccrual loans	2	3	(1)
Total	641	662	(21)
Residential mortgage loans			
Performing loans	204	260	(56)
Accruing loans 90 days or more past due	475	478	(3)
Nonaccrual loans	226	361	(135)
Total	905	1,099	(194)
Other assets	301	292	9
<b>Liabilities</b>			
Other borrowed funds	<u>\$ 93</u>	<u>\$ 95</u>	<u>\$ (2)</u>

(a) There were no accruing loans 90 days or more past due within this category at December 31, 2016 or December 31, 2015.

The changes in fair value for items for which we elected the fair value option and are included in Noninterest income and Noninterest expense on the Consolidated Income Statement are as follows.

**Table 56: Fair Value Option—Changes in Fair Value (a)**

Year ended December 31 In millions	Gains (Losses)		
	2016	2015	2014
<b>Assets</b>			
Residential mortgage loans held for sale	\$152	\$152	\$212
Commercial mortgage loans held for sale	\$76	\$96	\$50
Residential mortgage loans	\$30	\$43	\$157
Other assets	\$50	\$(8)	\$42
<b>Liabilities</b>			
Other borrowed funds		\$4	\$(5)

(a) The impact on earnings of offsetting hedged items or hedging instruments is not reflected in these amounts.

#### **Additional Fair Value Information Related to Financial Instruments Not Recorded at Fair Value**

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 \$1.7 billion at December 31, 2016 and \$1.8 billion at December 31, 2015, 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. Because our obligation on substantially all unfunded loan commitments and letters of credit varies with changes in interest rates, these instruments are subject to little fluctuation in fair value due to changes in interest rates. 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, 2016 and December 31, 2015 are as follows.

**Table 57: Additional Fair Value Information Related to Other Financial Instruments**

In millions	Carrying Amount	Fair Value			
		Total	Level 1	Level 2	Level 3
<b>December 31, 2016</b>					
<b>Assets</b>					
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
<b>Liabilities</b>					
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
<b>December 31, 2015</b>					
<b>Assets</b>					
Cash and due from banks	\$ 4,065	\$ 4,065	\$ 4,065		
Interest-earning deposits with banks	30,546	30,546		\$ 30,546	
Securities held to maturity	14,768	15,002	298	14,698	\$ 6
Net loans (excludes leases)	195,579	197,611			197,611
Other assets	4,286	4,877		4,221	656
Total assets	\$ 249,244	\$ 252,101	\$ 4,363	\$ 49,465	\$ 198,273
<b>Liabilities</b>					
Deposits	\$ 249,002	\$ 248,963		\$ 248,963	
Borrowed funds	53,452	53,693		52,269	\$ 1,424
Unfunded loan commitments and letters of credit	245	245			245
Other liabilities	309	309		309	
Total liabilities	\$ 303,008	\$ 303,210		\$ 301,541	\$ 1,669

The aggregate fair value in Table 57 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 50),
- 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 2016, 2015 and 2014 follow:

Table 58: Goodwill by Business Segment (a)

In millions	Retail Banking	Corporate & Institutional Banking	Asset Management Group	Total
<b>Goodwill</b>	<b><u>\$ 5,795</u></b>	<b><u>\$ 3,244</u></b>	<b><u>\$ 64</u></b>	<b><u>\$9,103</u></b>

(a) The BlackRock business segment did not have any allocated goodwill during 2016, 2015 and 2014.

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 2016, 2015 or 2014.

### 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. MSR are purchased or originated when loans are sold with servicing retained. MSR totaled \$1.8 billion and \$1.6 billion at December 31, 2016 and December 31, 2015, 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 MSR. Commercial MSR are subject to declines 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 MSR with securities and derivative instruments which are expected to increase (or decrease) in value when the value of commercial MSR declines (or increases).

The fair value of commercial MSR 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 MSR follow:

Table 59: Commercial Mortgage Servicing Rights

In millions	2016	2015	2014
January 1	\$ 526	\$ 506	\$ 552
Additions:			
From loans sold with servicing retained	61	63	53
Purchases	36	55	43
Changes in fair value due to:			
Time and payoffs (a)	(92)	(89)	(89)
Other (b)	45	(9)	(53)
December 31	\$ 576	\$ 526	\$ 506
Related unpaid principal balance at December 31	\$143,139	\$145,823	\$143,738
Servicing advances at December 31	\$ 265	\$ 251	\$ 299

- (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 MSR are subject to declines 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 MSR with securities and derivative instruments which are expected to increase (or decrease) in value when the value of residential MSR declines (or increases).

The fair value of residential MSR 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 economic factors which are determined based on current market conditions.

Changes in the residential MSR follow:

**Table 60: Residential Mortgage Servicing Rights**

In millions	2016	2015	2014
January 1	\$ 1,063	\$ 845	\$ 1,087
Additions:			
From loans sold with servicing retained	62	78	85
Purchases	188	316	45
Changes in fair value due to:			
Time and payoffs (a)	(168)	(178)	(134)
Other (b)	37	2	(238)
December 31	\$ 1,182	\$ 1,063	\$ 845
Unpaid principal balance of loans serviced for others at December 31	\$125,381	\$123,466	\$108,010
Servicing advances at December 31	\$ 302	\$ 411	\$ 501

- (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.

### Sensitivity Analysis

The fair value of commercial and residential MSR and significant inputs to the valuation models as of December 31, 2016 are shown in Tables 61 and 62. 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 MSR. 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 MSR to adverse changes in key assumptions is presented in Tables 61 and 62. 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 MSR 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 MSR and the sensitivity analysis of the hypothetical effect on the fair value of MSR to immediate adverse changes of 10% and 20% in those assumptions:

**Table 61: Commercial Mortgage Loan Servicing Rights—Key Valuation Assumptions**

Dollars in millions	December 31 2016	December 31 2015
Fair value	\$ 576	\$ 526
Weighted-average life (years)	4.6	4.7
Weighted-average constant prepayment rate	8.61%	5.71%
Decline in fair value from 10% adverse change	\$ 11	\$ 10
Decline in fair value from 20% adverse change	\$ 21	\$ 19
Effective discount rate	7.52%	7.49%
Decline in fair value from 10% adverse change	\$ 16	\$ 14
Decline in fair value from 20% adverse change	\$ 31	\$ 29

**Table 62: Residential Mortgage Loan Servicing Rights—Key Valuation Assumptions**

Dollars in millions	December 31 2016	December 31 2015
Fair value	\$ 1,182	\$ 1,063
Weighted-average life (years)	6.8	6.3
Weighted-average constant prepayment rate	9.41%	10.61%
Decline in fair value from 10% adverse change	\$ 45	\$ 44
Decline in fair value from 20% adverse change	\$ 86	\$ 85
Weighted-average option adjusted spread	850 bps	893 bps
Decline in fair value from 10% adverse change	\$ 37	\$ 34
Decline in fair value from 20% adverse change	\$ 72	\$ 67

Fees from mortgage loan servicing, which includes contractually specified servicing fees, late fees and ancillary fees were \$.5 billion for 2016, 2015 and 2014. 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 MSR 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 63: Premises, Equipment and Leasehold Improvements**

In millions	December 31 2016	December 31 2015
Premises, equipment and leasehold improvements	\$ 10,410	\$ 10,257
Accumulated depreciation and amortization	(4,888)	(4,349)
Net book value	\$ 5,522	\$ 5,908

Depreciation expense on premises, equipment and leasehold improvements and amortization expense, excluding intangible assets, primarily for capitalized internally developed software was as follows:

**Table 64: Depreciation and Amortization Expense**

Year ended December 31 In millions	2016	2015	2014
Depreciation	\$683	\$643	\$618
Amortization	46	40	30
Total depreciation and amortization	729	683	648

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 65: Lease Rental Expense**

Year ended December 31 In millions	2016	2015	2014
Lease rental expense	\$442	\$460	\$414

Required minimum annual rentals that we owe on noncancelable leases having initial or remaining terms in excess of one year totaled \$2.5 billion at December 31, 2016. Future minimum annual rentals are as follows:

**Table 66: Minimum Annual Lease Rentals**

<u>In millions</u>	
2017	\$ 381
2018	\$ 356
2019	\$ 301
2020	\$ 251
2021	\$ 208
2022 and thereafter	\$1,035

**NOTE 9 TIME DEPOSITS**

Total time deposits of \$17.6 billion at December 31, 2016 have future contractual maturities, including related purchase accounting adjustments, as follows:

**Table 67: Time Deposits**

<u>In billions</u>	
2017	\$12.2
2018	\$ 1.0
2019	\$ 0.5
2020	\$ 0.9
2021	\$ 1.0
2022 and thereafter	\$ 2.0

**NOTE 10 BORROWED FUNDS**

The following shows the carrying value of total borrowed funds of \$52.7 billion at December 31, 2016 (including adjustments related to purchase accounting, accounting hedges and unamortized original issuance discounts) by remaining contractual maturity:

**Table 68: Borrowed Funds**

<u>In billions</u>	
2017	\$14.4
2018	\$12.2
2019	\$10.3
2020	\$ 4.6
2021	\$ 2.2
2022 and thereafter	\$ 9.0

The following table presents the contractual rates and maturity dates of our FHLB borrowings, senior debt and subordinated debt as of December 31, 2016 and the carrying values as of December 31, 2016 and 2015.

**Table 69: FHLB Borrowings, Senior Debt and Subordinated Debt**

In millions	Stated Rate	Maturity	Carrying Value	
	2016	2016	2016	2015
<b>Parent Company</b>				
Senior debt	2.85%-6.70%	2019-2022	\$ 3,960	\$ 5,265
Subordinated debt	3.90%-6.88%	2017-2024	2,038	2,061
Junior subordinated debt	1.50%	2028	205	205
<b>Subtotal</b>			<b>6,203</b>	<b>7,531</b>
<b>Bank</b>				
FHLB (a)	zero-6.50%	2017-2030	17,549	20,108
Senior debt	0.45%-3.30%	2017-2043	19,012	16,033
Subordinated debt	1.32%-6.88%	2017-2025	5,766	6,290
<b>Subtotal</b>			<b>42,327</b>	<b>42,431</b>
<b>Total</b>			<b>\$48,530</b>	<b>\$49,962</b>

(a) FHLB borrowings are generally collateralized by residential mortgage loans, other mortgage-related loans and commercial mortgage-backed securities.

In Table 69, the carrying values for Parent Company senior and subordinated debt include basis adjustments of \$118 million and \$42 million, respectively, whereas Bank senior and subordinated debt include basis adjustments of \$(75) million and \$67 million, respectively, related to fair value accounting hedges as of December 31, 2016.

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 PNC, 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 PNC, 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. PNC and PNC Bank are also subject to restrictions on dividends and other provisions potentially imposed by the REIT preferred securities, including under the Exchange Agreement with PNC Preferred Funding Trust II, as described in Note 15 Equity.

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, then we would be subject during the period of such default or deferral to restrictions on dividends and other provisions protecting the status of the debenture holders similar to or in some ways more restrictive than those potentially imposed under the Exchange Agreement with PNC Preferred Funding Trust II, as described in Note 15 Equity.

#### **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 voluntary contributions of \$.3 billion and \$.2 billion in December 2016 and February 2015, respectively, to the qualified pension plan.

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 70. 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 70: Reconciliation of Changes in Projected Benefit Obligation and Change in Plan Assets**

December 31 (Measurement Date) – in millions	Qualified Pension		Nonqualified Pension		Postretirement Benefits	
	2016	2015	2016	2015	2016	2015
Accumulated benefit obligation at end of year	<u>\$4,495</u>	<u>\$4,330</u>	<u>\$ 282</u>	<u>\$ 292</u>		
Projected benefit obligation at beginning of year	<u>\$4,397</u>	<u>\$4,499</u>	<u>\$ 298</u>	<u>\$ 322</u>	<u>\$ 368</u>	<u>\$ 379</u>
Service cost	102	107	3	3	6	5
Interest cost	186	177	12	11	15	15
Actuarial (gains)/losses and changes in assumptions	131	(126)	7	(10)	6	(9)
Participant contributions					4	5
Federal Medicare subsidy on benefits paid					1	2
Benefits paid	(269)	(260)	(31)	(28)	(27)	(28)
Settlement payments						(1)
Projected benefit obligation at end of year	<u>\$4,547</u>	<u>\$4,397</u>	<u>\$ 289</u>	<u>\$ 298</u>	<u>\$ 373</u>	<u>\$ 368</u>
Fair value of plan assets at beginning of year	<u>\$4,316</u>	<u>\$4,357</u>			<u>\$ 200</u>	
Actual return on plan assets	320	19			(7)	
Employer contribution	250	200	\$ 31	\$ 28	37	\$ 222
Participant contributions					4	5
Federal Medicare subsidy on benefits paid					1	2
Benefits paid	(269)	(260)	(31)	(28)	(27)	(28)
Settlement payments						(1)
Fair value of plan assets at end of year	<u>\$4,617</u>	<u>\$4,316</u>	<u>—</u>	<u>—</u>	<u>\$ 208</u>	<u>200</u>
Funded status	<u>\$ 70</u>	<u>\$ (81)</u>	<u>\$(289)</u>	<u>\$(298)</u>	<u>\$(165)</u>	<u>\$(168)</u>
Amounts recognized on the consolidated balance sheet						
Noncurrent asset	\$ 70					
Current liability			\$ (27)	\$ (27)	\$ (2)	\$ (2)
Noncurrent liability		\$ (81)	(262)	(271)	(163)	(166)
Net amount recognized on the consolidated balance sheet	<u>\$ 70</u>	<u>\$ (81)</u>	<u>\$(289)</u>	<u>\$(298)</u>	<u>\$(165)</u>	<u>\$(168)</u>
Amounts recognized in accumulated other comprehensive income consist of:						
Prior service cost (credit)	\$ (7)	\$ (13)		\$ 1	\$ (3)	\$ (3)
Net actuarial loss	841	794	\$ 74	71	40	22
Amount recognized in AOCI	<u>\$ 834</u>	<u>\$ 781</u>	<u>\$ 74</u>	<u>\$ 72</u>	<u>\$ 37</u>	<u>\$ 19</u>

At December 31, 2016, 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 2016 and 2015, and the target allocation range at the end of 2016, by asset category, are as follows.

**Table 71: Asset Strategy Allocations**

PNC Pension Plan Asset Category	Target Allocation Range	Target Percentage of Plan Assets by Strategy at December 31	
		2016	2015
Domestic Equity	20 - 40%	28%	32%
International Equity	10 - 25%	21%	23%
Private Equity	0 -15%	8%	8%
<b>Total Equity</b>	<b>40 -70%</b>	<b>57%</b>	<b>63%</b>
Domestic Fixed Income	10 - 40%	16%	17%
High Yield Fixed Income	0 -25%	12%	12%
<b>Total Fixed Income</b>	<b>10 - 65%</b>	<b>28%</b>	<b>29%</b>
Real estate	0 -15%	5%	5%
Other	0 - 5%	10%	3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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, 2016 for equity securities, fixed income securities, real estate and all other assets are 65%, 19%, 5% and 11%, 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, 2016 and December 31, 2015 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, 2016 and 2015.

**Table 72: Pension Plan Assets—Fair Value Hierarchy**

In millions	Fair Value Measurements Using:			
	December 31, 2016 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	\$ 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

In millions	Fair Value Measurements Using:			
	December 31, 2015 Fair Value	Quoted Prices in Active Markets For Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Money market funds	\$ 154	\$ 154		
U.S. government and agency securities	324	186	\$ 138	
Corporate debt	575		568	\$ 7
Common stock	660	630	30	
Other	25	1	24	
Investments measured at net asset value (a)	2,578			
<b>Total</b>	<b>\$ 4,316</b>	<b>\$ 971</b>	<b>\$ 760</b>	<b>\$ 7</b>

- (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 73: Estimated Cash Flows**

In millions	Pension Plans		Postretirement Benefits	
	Qualified Pension	Nonqualified Pension	Gross PNC Benefit Payments	Reduction in PNC Benefit Payments Due to Medicare Part D Subsidy
Estimated 2017 employer contributions		\$ 27	\$ 29	\$ 1
Estimated future benefit payments				
2017	\$ 285	\$ 28	\$ 29	\$ 1
2018	\$ 300	\$ 29	\$ 30	\$ 1
2019	\$ 310	\$ 26	\$ 29	\$ 1
2020	\$ 311	\$ 25	\$ 29	\$ 1
2021	\$ 312	\$ 24	\$ 28	\$ 1
2022-2026	\$ 1,563	\$ 104	\$ 132	\$ 2

The qualified pension plan contributions are deposited into the Trust, and the qualified pension plan benefit payments are paid from the Trust. Notwithstanding the contributions, we do not expect to be required to make a contribution to the qualified plan for 2017 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 74: Components of Net Periodic Benefit Cost**

Year ended December 31 – in millions	Qualified Pension Plan			Nonqualified Pension Plan			Postretirement Benefits		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Net periodic cost consists of:									
Service cost	\$ 102	\$ 107	\$ 103	\$ 3	\$ 3	\$ 3	\$ 6	\$ 5	\$ 5
Interest cost	186	177	187	12	11	12	15	15	16
Expected return on plan assets	(281)	(297)	(289)				(6)		
Amortization of prior service cost/(credit)	(7)	(9)	(8)				(1)	(1)	(2)
Amortization of actuarial (gain)/loss	45	31		5	7	4			
Net periodic cost (benefit)	45	9	(7)	20	21	19	14	19	19
Other changes in plan assets and benefit obligations recognized in Other comprehensive income:									
Current year prior service cost/(credit)			(7)						
Amortization of prior service (cost)/credit	7	9	8				1	1	2
Current year actuarial loss/(gain)	91	152	434	7	(10)	40	17	(9)	4
Amortization of actuarial gain/(loss)	(45)	(31)		(5)	(7)	(4)			
Total recognized in OCI	53	130	435	2	(17)	36	18	(8)	6
Total amounts recognized in net periodic cost and OCI	\$ 98	\$ 139	\$ 428	\$ 22	\$ 4	\$ 55	\$ 32	\$ 11	\$ 25

The weighted-average assumptions used (as of the beginning of each year) to determine the net periodic costs shown in Table 74 were as follows.

**Table 75: Net Periodic Costs - Assumptions**

Year ended December 31	Net Periodic Cost Determination		
	2016	2015	2014
Discount rate			
Qualified pension	4.25%	3.95%	4.75%
Nonqualified pension	3.95%	3.65%	4.35%
Postretirement benefits	4.15%	3.80%	4.50%
Rate of compensation increase (average)	3.50%	4.00%	4.00%
Assumed health care cost trend rate			
Initial trend	7.25%	7.50%	7.75%
Ultimate trend	5.00%	5.00%	5.00%
Year ultimate trend reached	2025	2025	2025
Expected long-term return on plan assets	6.75%	6.75%	7.00%

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 76: Other Pension Assumptions**

Year ended December 31	2016	2015
Discount rate		
Qualified pension	4.00%	4.25%
Nonqualified pension	3.80%	3.95%
Postretirement benefits	3.90%	4.15%
Rate of compensation increase (average)	3.50%	3.50%
Assumed health care cost trend rate		
Initial trend	7.00%	7.25%
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 2016 was 6.75%. We are reducing our expected long-term return on assets to 6.375% for determining pension cost for 2017. 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 2016, and to be recognized in 2017. 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 75 and 76 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 \$.1 billion in 2016, 2015 and 2014, 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 2016, 2015 and 2014. The total tax benefit recognized related to compensation expense on all share-based payment arrangements was approximately \$.1 billion during each of 2016, 2015 and 2014. At December 31, 2016, 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 five years.

## Nonqualified Stock Options

We did not grant any stock options in 2016, 2015 or 2014. Prior to 2014, options were granted at exercise prices not less than the market value of a share of common stock on the grant date. 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 2016.

Table 77: Stock Options - Rollforward (a)

Year ended December 31, 2016 In millions except weighted-average data	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding, January 1	5	\$ 55.50		
Exercised	(2)	\$ 56.43		
<b>Outstanding, December 31</b>	<b>3</b>	<b>\$ 55.16</b>	<b>2.7 years</b>	<b>\$ 181</b>
<b>Vested and exercisable, December 31</b>	<b>3</b>	<b>\$ 55.16</b>	<b>2.7 years</b>	<b>\$ 181</b>

(a) Cancelled stock options during 2016 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, 2015 and 2014, options for 5 million and 6 million shares of common stock were exercisable at a weighted-average price of \$55.42 and \$56.21, respectively. The total intrinsic value of options exercised was approximately \$1 billion during 2016, 2015 and 2014.

Cash received from option exercises under all Incentive Plans for 2016, 2015 and 2014 was approximately \$1 billion, \$1 billion and \$2 billion, respectively. The tax benefit realized from option exercises under all Incentive Plans was insignificant for 2016, 2015 and 2014.

Shares of common stock available during the next year for the granting of options and other awards under the Incentive Plans were approximately 39 million shares at December 31, 2016. Total shares of PNC common stock authorized for future issuance under all equity compensation plans totaled approximately 40 million shares at December 31, 2016.

During 2016, 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 2016, 2015 and 2014 was \$78.37, \$91.57 and \$80.79 per share, respectively. The total intrinsic value of incentive/performance unit and restricted share/restricted share unit awards vested during 2016, 2015 and 2014 was approximately \$1 billion, \$2 billion and \$1 billion, respectively. We recognize compensation expense for such awards ratably over the corresponding vesting and/or performance periods for each type of program.

**Table 78: 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, 2015	2	\$ 79.27	3	\$ 79.26
Granted (b)	1	\$ 77.77	1	\$ 78.71
Vested/Released (b)	(1)	\$ 71.59	(1)	\$ 65.53
<b>December 31, 2016</b>	<b>2</b>	<b>\$ 81.42</b>	<b>3</b>	<b>\$ 83.27</b>

(a) Forfeited awards during 2016 were insignificant.

(b) Includes adjustments for achieving specific performance goals for Incentive/Performance Unit Share Awards granted in prior periods.

In Table 78, 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 2016, we transferred .5 million shares of BlackRock Series C Preferred Stock to BlackRock in connection with our obligation. At December 31, 2016, we held approximately .8 million shares of BlackRock Series C Preferred Stock which were available to fund our obligations. See Note 23 Subsequent Events for information on our February 1, 2017 transfer of .5 million shares of the Series C Preferred Stock to BlackRock to satisfy a portion of our LTIP obligation.

We account for our BlackRock Series C Preferred Stock at fair value, which offsets the impact of marking-to-market the obligation to deliver these shares to BlackRock. See Note 6 Fair Value for additional information regarding the valuation of the BlackRock Series C Preferred Stock.

**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 79: Total Gross Derivatives**

In millions	December 31, 2016			December 31, 2015		
	Notional / Contract Amount	Asset Fair Value (a)	Liability Fair Value (b)	Notional / Contract Amount	Asset Fair Value (a)	Liability Fair Value (b)
<b>Derivatives used for hedging under GAAP</b>						
Interest rate contracts (c):						
Fair value hedges	\$ 34,010	\$ 551	\$ 214	\$ 31,690	\$ 712	\$ 171
Cash flow hedges	20,831	313	71	19,279	416	3
Foreign exchange contracts:						
Net investment hedges	945	25		1,105	31	
<b>Total derivatives designated for hedging</b>	<b>\$ 55,786</b>	<b>\$ 889</b>	<b>\$ 285</b>	<b>\$ 52,074</b>	<b>\$ 1,159</b>	<b>\$ 174</b>
<b>Derivatives not used for hedging under GAAP</b>						
Derivatives used for mortgage banking activities (d):						
Interest rate contracts:						
Swaps	\$ 49,071	\$ 783	\$ 505	\$ 41,527	\$ 835	\$ 462
Futures (e)	36,264			36,127		
Mortgage-backed commitments	13,317	96	56	13,039	47	22
Other	31,907	28	4	7,289	29	15
Subtotal	130,559	907	565	97,982	911	499
Derivatives used for customer-related activities:						
Interest rate contracts:						
Swaps	173,777	2,373	2,214	157,041	2,507	2,433
Futures (e)	4,053			1,673		
Mortgage-backed commitments	2,955	10	8	1,910	5	2
Other	16,203	55	53	16,083	104	24
Subtotal	196,988	2,438	2,275	176,707	2,616	2,459
Foreign exchange contracts and other	21,889	342	309	15,914	196	202
Subtotal	218,877	2,780	2,584	192,621	2,812	2,661
Derivatives used for other risk management activities:						
Foreign exchange contracts and other (f)	5,581	40	405	5,299	59	468
<b>Total derivatives not designated for hedging</b>	<b>\$355,017</b>	<b>\$ 3,727</b>	<b>\$ 3,554</b>	<b>\$295,902</b>	<b>\$ 3,782</b>	<b>\$ 3,628</b>
<b>Total gross derivatives</b>	<b>\$410,803</b>	<b>\$ 4,616</b>	<b>\$ 3,839</b>	<b>\$347,976</b>	<b>\$ 4,941</b>	<b>\$ 3,802</b>
Less: Impact of legally enforceable master netting agreements		(2,460)	(2,460)		(2,554)	(2,554)
Less: Cash collateral received/paid		(657)	(484)		(551)	(608)
<b>Total derivatives</b>		<b>\$ 1,499</b>	<b>\$ 895</b>		<b>\$ 1,836</b>	<b>\$ 640</b>

(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) Includes both residential and commercial mortgage banking activities.

(e) Futures contracts settle in cash daily and, therefore, no derivative asset or derivative liability is recognized on our Consolidated Balance Sheet.

(f) 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 80: Gains (Losses) on Derivatives and Related Hedged Items - Fair Value Hedges (a)**

In millions	Hedged Items	Location	Year ended					
			December 31, 2016		December 31, 2015		December 31, 2014	
			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)	\$ 142	\$ (141)	(b)	(b)	\$ (111)	\$ 116
Interest rate contracts	Subordinated Debt and Bank Notes and Senior Debt	Borrowed funds (interest expense)	(332)	299	\$ (108)	\$ 67	123	(158)
Total (a)			\$ (190)	\$ 158	\$ (108)	\$ 67	\$ 12	\$ (42)

- (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.
- (b) The gains (losses) on derivatives and their related hedged items recognized in income were less than \$.5 million.

## 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, 2016, we expect to reclassify net derivative gains of \$186 million pretax, or \$120 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, 2016. As of December 31, 2016, the maximum length of time over which forecasted transactions are hedged is five years. During 2016, 2015 and 2014, 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 81: Gains (Losses) on Derivatives and Related Cash Flows - Cash Flow Hedges (a) (b)**

In millions	Year ended December 31		
	2016	2015	2014
Gains (losses) on derivatives recognized in OCI - (effective portion)	\$ 100	\$415	\$431
Less: Gains (losses) reclassified from accumulated OCI into income - (effective portion)			
Interest income	\$ 253	\$293	\$263
Noninterest income		(5)	
Total gains (losses) reclassified from accumulated OCI into income - (effective portion)	\$ 253	\$288	\$263
Net unrealized gains (losses) on cash flow hedge derivatives	<u>\$ (153)</u>	<u>\$127</u>	<u>\$168</u>

(a) All cash flow hedge derivatives are interest rate contracts as of December 31, 2016, December 31, 2015 and December 31, 2014.

(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 2016, 2015 and 2014, there was no net investment hedge ineffectiveness. Net gains on net investment hedge derivatives recognized in OCI were \$186 million in 2016, \$60 million in 2015 and \$54 million in 2014.

#### Derivatives Not Designated As Hedging Instruments under GAAP

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 \$4.3 billion at December 31, 2016 and \$2.5 billion at December 31, 2015. 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, 2016 and December 31, 2015 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 82: Gains (Losses) on Derivatives Not Designated for Hedging under GAAP**

In millions	Year ended December 31		
	2016	2015	2014
Derivatives used for mortgage banking activities:			
Interest rate contracts (a)	\$152	\$220	\$318
Derivatives used for customer-related activities:			
Interest rate contracts	\$ 78	\$ 71	\$ 41
Foreign exchange contracts and other	84	78	46
Gains (losses) from customer-related activities (b)	\$162	\$149	\$ 87
Derivatives used for other risk management activities:			
Interest rate contracts			\$(19)
Foreign exchange contracts and other (c)	\$(7)	\$282	54
Gains (losses) from other risk management activities (b)	\$(7)	\$282	\$ 35
<b>Total gains (losses) from derivatives not designated as hedging instruments</b>	<b>\$307</b>	<b>\$651</b>	<b>\$440</b>

(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 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 83 shows the impact legally enforceable master netting agreements had on our derivative assets and derivative liabilities as of December 31, 2016 and December 31, 2015. 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 83: Derivative Assets and Liabilities Offsetting**

In millions	Amounts Offset on the Consolidated Balance Sheet				Securities Collateral Held / (Pledged) Under Master Netting Agreements	Net Amounts
	Gross Fair Value	Fair Value Offset Amount	Cash Collateral	Net Fair Value		
<b>December 31, 2016</b>						
<b>Derivative assets</b>						
Interest rate contracts:						
Cleared	\$ 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
<b>Total derivative assets</b>	<b>\$ 4,616</b>	<b>\$ 2,460</b>	<b>\$ 657</b>	<b>\$ 1,499(a)</b>	<b>\$ 62</b>	<b>\$ 1,437</b>
<b>Derivative liabilities</b>						
Interest rate contracts:						
Cleared	\$ 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
<b>Total derivative liabilities</b>	<b>\$ 3,839</b>	<b>\$ 2,460</b>	<b>\$ 484</b>	<b>\$ 895(b)</b>		<b>\$ 895</b>
<b>December 31, 2015</b>						
<b>Derivative assets</b>						
Interest rate contracts:						
Cleared	\$ 1,003	\$ 779	\$ 195	\$ 29		\$ 29
Over-the-counter	3,652	1,645	342	1,665	\$ 178	1,487
Foreign exchange and other contracts	286	130	14	142	2	140
<b>Total derivative assets</b>	<b>\$ 4,941</b>	<b>\$ 2,554</b>	<b>\$ 551</b>	<b>\$ 1,836(a)</b>	<b>\$ 180</b>	<b>\$ 1,656</b>
<b>Derivative liabilities</b>						
Interest rate contracts:						
Cleared	\$ 855	\$ 779	\$ 57	\$ 19		\$ 19
Exchange-traded	1			1		1
Over-the-counter	2,276	1,687	530	59		59
Foreign exchange and other contracts	670	88	21	561		561
<b>Total derivative liabilities</b>	<b>\$ 3,802</b>	<b>\$ 2,554</b>	<b>\$ 608</b>	<b>\$ 640(b)</b>		<b>\$ 640</b>

(a) Represents the net amount of derivative assets included in Other assets on our Consolidated Balance Sheet.

(b) Represents the net amount of derivative liabilities included in Other liabilities on our Consolidated Balance Sheet.

Table 83 includes over-the-counter (OTC) derivatives, 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 ISDA documentation or other legally enforceable industry standard master netting agreements. 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, 2016, we held cash, U.S. government securities and mortgage-backed securities totaling \$1.0 billion under master netting agreements and other collateral agreements to collateralize net derivative assets due from counterparties, and we pledged cash totaling \$1.3 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, 2016 was \$1.0 billion for which we had posted collateral of \$.6 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, 2016 would be \$.4 billion.

**NOTE 14 EARNINGS PER SHARE**

**Table 84: Basic and Diluted Earnings Per Common Share**

In millions, except per share data	2016	2015	2014
<b>Basic</b>			
Net income	\$3,985	\$4,143	\$4,207
Less:			
Net income attributable to noncontrolling interests	82	37	23
Preferred stock dividends and discount accretion and redemptions	215	225	237
Net income attributable to common shares	3,688	3,881	3,947
Less:			
Dividends and undistributed earnings allocated to participating securities	26	17	11
Net income attributable to basic common shares	\$3,662	\$3,864	\$3,936
Basic weighted-average common shares outstanding	494	514	529
Basic earnings per common share (a)	<u>\$ 7.42</u>	<u>\$ 7.52</u>	<u>\$ 7.44</u>
<b>Diluted</b>			
Net income attributable to basic common shares	\$3,662	\$3,864	\$3,936
Less: Impact of BlackRock earnings per share dilution	12	18	18
Net income attributable to diluted common shares	\$3,650	\$3,846	\$3,918
Basic weighted-average common shares outstanding	494	514	529
Dilutive potential common shares	6	7	8
Diluted weighted-average common shares outstanding	500	521	537
Diluted earnings per common share (a)	<u>\$ 7.30</u>	<u>\$ 7.39</u>	<u>\$ 7.30</u>

- (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 85: Preferred Stock—Authorized, Issued and Outstanding**

December 31 Shares in thousands	Liquidation value per share	Preferred Shares	
		2016	2015
Authorized			
\$1 par value		16,593	16,588
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	36

The following table discloses information related to the preferred stock outstanding as of December 31, 2016.

**Table 86: Terms of Outstanding Preferred Stock**

Preferred Stock	Issue Date	Number of Depository Shares Issued	Fractional Interest in a share of preferred stock represented by each Depository Share	Dividend Dates (a)	Annual Per Share Dividend Rate	Optional Redemption Date (b)
Series B (c)	(c)	N/A	N/A	Quarterly from March 10 <sup>th</sup> Semi-annually beginning on February 1, 2012 until August 1, 2021	\$1.80	None
Series O (d)	July 27, 2011	1 million	1/100 <sup>th</sup>	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	1/4,000 <sup>th</sup>	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	1/4,000 <sup>th</sup>	Quarterly beginning on December 1, 2012	5.375%	December 1, 2017
Series R (d)	May 7, 2013	500,000	1/100 <sup>th</sup>	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	1/100 <sup>th</sup>	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.

Our Series K preferred stock was issued on May 21, 2008. Dividends were paid at a rate of 8.25% until May 21, 2013 and at a rate of three month LIBOR plus 422 basis points beginning May 21, 2013. On May 4, 2015, we redeemed all 500,000 depository shares representing interests in our Series K preferred stock and all 50,000 shares of Series K preferred stock underlying such depository shares, resulting in a net outflow of \$500 million.

We have authorized but unissued Series H and Series I preferred stock. As described below in the Perpetual Trust Securities portion of the Noncontrolling Interests section of this Note, the PNC Preferred Funding Trust II securities are automatically exchangeable into shares of PNC Series I preferred stock under certain conditions relating to the capitalization or the financial condition of PNC Bank and upon the direction of the Office of the Comptroller of the Currency (OCC). The Series A preferred stock of PNC REIT Corp. is also automatically exchangeable under similar conditions into shares of PNC Series H preferred stock.

### **Warrants**

We had 11.3 million and 13.4 million warrants outstanding as of December 31, 2016 and 2015, respectively. The reduction was due to 2.1 million warrants that were exercised during 2016. Each warrant entitles the holder to purchase one share of PNC common stock at an exercise price of \$67.33 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 2016, we issued 0.7 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.

### **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 0.3 million shares for 2016, 2015 and 2014.

At December 31, 2016, we had reserved approximately 119 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, we repurchased 17.9 million shares in 2015 and 22.8 million shares in 2016. A maximum amount of 59.3 million shares remained available for repurchase under this program at December 31, 2016. This program will remain in effect until fully utilized or until modified, superseded or terminated.

### **Noncontrolling Interests**

#### **Perpetual Trust Securities**

In December 2006, one of our indirect subsidiaries, PNC REIT Corp., sold \$500 million of 6.517% Fixed-to-Floating Rate Non-Cumulative Exchangeable Perpetual Trust Securities (the "Trust I Securities") of PNC Preferred Funding Trust I ("Trust I"), in a private placement. PNC REIT Corp. had previously acquired the Trust I Securities from the trust in exchange for an equivalent amount of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Securities (the "LLC Preferred Securities"), of PNC Preferred Funding LLC, (the "LLC"), held by PNC REIT Corp. The LLC's initial material assets consist of indirect interests in mortgages and mortgage-related assets previously owned by PNC REIT Corp. The rate on these securities at December 31, 2016 was 2.613%.

In March 2007, the LLC, sold \$500 million of 6.113% Fixed-to-Floating Rate Non-Cumulative Exchangeable Perpetual Trust Securities (the "Trust II Securities") of PNC Preferred Funding Trust II ("Trust II") in a private placement. In connection with the private placement, Trust II acquired \$500 million of LLC Preferred Securities, from the LLC. The rate on these securities at December 31, 2016 was 2.186%.

The Trust I Securities and Trust II Securities are redeemable in whole or in part at par (\$100,000 per security), plus any declared and unpaid dividends to the redemption date, on the quarterly dividend payment date in March 2017 and on the March quarterly dividend payment date in each fifth succeeding year (each, a "Five Year Date").

The Trust I Securities and Trust II Securities are also redeemable in whole, but not in part, on any quarterly dividend payment date that is not a Five Year Date at a redemption price equal to the sum of: (i) the greater of (A) \$100,000 per security or (B) the sum of present values of \$100,000 per security and all undeclared dividends for the dividend periods from the redemption date to and including the next succeeding Five Year Date, discounted to the redemption date on a quarterly basis at the 3-month USD LIBOR rate applicable to the dividend period immediately preceding such redemption date plus (ii) any declared and unpaid dividends to the redemption date.

The Trust I Securities and Trust II Securities are also redeemable in whole, but not in part, on any quarterly dividend payment date that is not a Five Year Date in the case of certain tax, investment company or regulatory capital events at a redemption price of par plus declared and unpaid dividends to the redemption date.

Upon certain conditions relating to the capitalization or the financial condition of PNC Bank and upon the direction of the OCC, the Trust I Securities are automatically exchangeable into shares of Series F preferred stock of PNC Bank and the Trust II Securities are automatically exchangeable into shares of Series I preferred stock of PNC.

Any redemption is subject to compliance with the applicable Replacement Capital Covenant (see Table 87) and approval of the OCC.

PNC REIT Corp. owns 100% of the LLC's common voting securities. As a result, the LLC is an indirect subsidiary of PNC and is consolidated on our Consolidated Balance Sheet. Trust I and Trust II's investment in the LLC Preferred Securities is characterized as a noncontrolling interest on our Consolidated Balance Sheet since we are not the primary beneficiary of Trust I and Trust II. This noncontrolling interest totaled \$1.0 billion at December 31, 2016.

Information related to the capital covenants and contractual commitments of the perpetual trust securities, including limitations potentially imposed on PNC and PNC Bank's payment of dividends on their respective equity capital securities, follows.

**Table 87: Summary of Replacement Capital Covenants of Perpetual Trust Securities**

Replacement Capital Covenant (RCC) (a)	Trust	Description of Capital Covenants
Trust I RCC	Trust I	Neither we nor our subsidiaries (other than PNC Bank and its subsidiaries) would purchase the Trust Securities, the LLC Preferred Securities or the PNC Bank Preferred Stock unless such repurchases or redemptions are made from proceeds of the issuance of certain qualified securities and pursuant to the other terms and conditions set forth in the Trust I RCC.
Trust II RCC	Trust II	Until March 29, 2017, neither we nor our subsidiaries would purchase or redeem the Trust II Securities, the LLC Preferred Securities or the Series I Preferred Stock unless such repurchases or redemptions are made from proceeds of the issuance of certain qualified securities and pursuant to the other terms and conditions set forth in the Trust II RCC.

- (a) As of December 31, 2016, each of the Trust I RCC and the Trust II RCC are for the benefit of PNC Capital Trust C as the sole holder of \$200 million of junior subordinated debentures issued in June 1998. See Note 10 Borrowed Funds for additional information regarding these debentures.

**Table 88: Summary of Contractual Commitments of Perpetual Trust Securities**

Trust	Description of Restrictions on Dividend Payments (a)
Trust I (b)	If full dividends are not paid in a dividend period, neither PNC Bank nor its subsidiaries will declare or pay dividends or other distributions with respect to, or redeem, purchase or acquire or make a liquidation payment with respect to, any of its equity capital securities during the next succeeding period (other than to holders of the LLC Preferred Securities and any parity equity securities issued by the LLC). (c)
Trust II (d)	If full dividends are not paid in a dividend period, PNC will not declare or pay dividends with respect to, or redeem, purchase or acquire, any of its equity capital securities during the next succeeding dividend period. (e)

- (a) Applies to the applicable Trust Securities and the LLC Preferred Securities.
- (b) Contractual commitments made by PNC Bank.
- (c) Except: (i) in the case of dividends payable to subsidiaries of PNC Bank, to PNC Bank or another wholly-owned subsidiary of PNC Bank or (ii) in the case of dividends payable to persons that are not subsidiaries of PNC Bank, to such persons only if, (A) in the case of a cash dividend, PNC has first irrevocably committed to contribute amounts at least equal to such cash dividend or (B) in the case of in-kind dividends payable by PNC REIT Corp., PNC has committed to purchase such in-kind dividend from the applicable PNC REIT Corp. holders in exchange for a cash payment representing the market value of such in-kind dividend, and PNC has committed to contribute such in-kind dividend to PNC Bank.
- (d) Contractual commitments made by PNC.
- (e) Except for: (i) purchases, redemptions or other acquisitions of shares of capital stock of PNC in connection with any employment contract, benefit plan or other similar arrangement with or for the benefit of employees, officers, directors or consultants, (ii) purchases of shares of common stock of PNC pursuant to a contractually binding requirement to buy stock existing prior to the commencement of the extension period, including under a contractually binding stock repurchase plan, (iii) any dividend in connection with the implementation of a shareholders' rights plan, or the redemption or repurchase of any rights under any such plan, (iv) as a result of any exchange or conversion of any class or series of PNC's capital stock for any other class or series of PNC's capital stock, (v) the purchase of fractional interests in shares of PNC capital stock pursuant to the conversion or exchange provisions of such stock or the security being converted or exchanged or (vi) any stock dividends paid by PNC where the dividend stock is the same stock as that on which the dividend is being paid.

**NOTE 16 OTHER COMPREHENSIVE INCOME**

Details of other comprehensive income (loss) are as follows:

*Table 89: Other Comprehensive Income*

In millions	2016	2015	2014
<b>Net unrealized gains (losses) on non-OTTI securities</b>			
Increase in net unrealized gains (losses) on non-OTTI securities	\$ (329)	\$ (494)	\$ 410
Less: Net gains (losses) realized as a yield adjustment reclassified to investment securities interest income	24	27	31
Less: Net gains (losses) realized on sales of securities reclassified to noninterest income	16	48	4
<b>Net increase (decrease), pre-tax</b>	<b>(369)</b>	<b>(569)</b>	<b>375</b>
Effect of income taxes	135	208	(137)
<b>Net increase (decrease), after-tax</b>	<b>(234)</b>	<b>(361)</b>	<b>238</b>
<b>Net unrealized gains (losses) on OTTI securities</b>			
Increase in net unrealized gains (losses) on OTTI securities	61	(17)	68
Less: OTTI losses realized on securities reclassified to noninterest income	(2)	(4)	(11)
<b>Net increase (decrease), pre-tax</b>	<b>63</b>	<b>(13)</b>	<b>79</b>
Effect of income taxes	(23)	5	(29)
<b>Net increase (decrease), after-tax</b>	<b>40</b>	<b>(8)</b>	<b>50</b>
<b>Net unrealized gains (losses) on cash flow hedge derivatives</b>			
Increase in net unrealized gains (losses) on cash flow hedge derivatives	100	415	431
Less: Net gains (losses) realized as a yield adjustment reclassified to loan interest income	219	270	251
Less: Net gains (losses) realized as a yield adjustment reclassified to investment securities interest income	34	23	12
Less: Net gains (losses) realized on sales of securities reclassified to noninterest income		(5)	
<b>Net increase (decrease), pre-tax</b>	<b>(153)</b>	<b>127</b>	<b>168</b>
Effect of income taxes	56	(47)	(61)
<b>Net increase (decrease), after-tax</b>	<b>(97)</b>	<b>80</b>	<b>107</b>
<b>Pension and other postretirement benefit plan adjustments</b>			
Net pension and other postretirement benefit activity	(41)	(82)	(440)
Amortization of actuarial loss (gain) reclassified to other noninterest expense	50	38	4
Amortization of prior service cost (credit) reclassified to other noninterest expense	(8)	(10)	(10)
<b>Net increase (decrease), pre-tax</b>	<b>1</b>	<b>(54)</b>	<b>(446)</b>
Effect of income taxes		20	163
<b>Net increase (decrease), after-tax</b>	<b>1</b>	<b>(34)</b>	<b>(283)</b>
<b>Other</b>			
PNC's portion of BlackRock's OCI	(63)	(39)	(36)
Net investment hedge derivatives	186	60	54
Foreign currency translation adjustments	(182)	(63)	(57)
<b>Net increase (decrease), pre-tax</b>	<b>(59)</b>	<b>(42)</b>	<b>(39)</b>
Effect of income taxes	(46)	(8)	(6)
<b>Net increase (decrease), after-tax</b>	<b>(105)</b>	<b>(50)</b>	<b>(45)</b>
<b>Total other comprehensive income, pre-tax</b>	<b>(517)</b>	<b>(551)</b>	<b>137</b>
Total other comprehensive income, tax effect	122	178	(70)
<b>Total other comprehensive income, after-tax</b>	<b>\$(395)</b>	<b>\$(373)</b>	<b>\$ 67</b>



**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, 2013	\$ 409	\$ 24	\$ 243	\$ (237)	\$ (3)	\$ 436
Net activity	238	50	107	(283)	(45)	67
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)
<b>Balance at December 31, 2016</b>	<b>\$ 52</b>	<b>\$ 106</b>	<b>\$ 333</b>	<b>\$ (553)</b>	<b>\$ (203)</b>	<b>\$ (265)</b>

**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	2016	2015	2014
<b>Current</b>			
Federal	\$ 871	\$ 927	\$ 1,084
State	71	33	68
Total current	942	960	1,152
<b>Deferred</b>			
Federal	301	320	220
State	25	84	35
Total deferred	326	404	255
<b>Total</b>	<b>\$1,268</b>	<b>\$1,364</b>	<b>\$1,407</b>

Significant components of deferred tax assets and liabilities are as follows:

**Table 92: Deferred Tax Assets and Liabilities**

December 31 - in millions	2016	2015
<b>Deferred tax assets</b>		
Allowance for loan and lease losses	\$ 976	\$ 1,032
Compensation and benefits	548	654
Partnership investments	307	295
Loss and credit carryforward	460	502
Accrued expenses	505	542
Other	252	320
Total gross deferred tax assets	3,048	3,345
Valuation allowance	(75)	(61)
Total deferred tax assets	2,973	3,284
<b>Deferred tax liabilities</b>		
Leasing	1,374	1,413
Goodwill and intangibles	312	320
Fixed assets	391	391
Net unrealized gains on securities and financial instruments	284	453
BlackRock basis difference	2,361	2,327
Other	617	542
Total deferred tax liabilities	5,339	5,446
<b>Net deferred tax liability</b>	<b>\$2,366</b>	<b>\$2,162</b>

A reconciliation between the statutory and effective tax rates follows:

**Table 93: Reconciliation of Statutory and Effective Tax Rates**

Year ended December 31	2016	2015	2014
Statutory tax rate	35.0%	35.0%	35.0%
Increases (decreases) resulting from			
State taxes net of federal benefit	1.2	1.4	1.2
Tax-exempt interest	(2.4)	(2.3)	(2.2)
Life insurance	(1.9)	(1.7)	(1.7)
Dividend received deduction	(1.8)	(1.7)	(1.5)
Tax credits	(4.4)	(3.9)	(4.4)
Other	(1.6)	(2.0)(a)	(1.3)
Effective tax rate	24.1%	24.8%	25.1%

(a) Includes tax benefits associated with settlement of acquired entity tax contingencies.

The net operating loss carryforwards at December 31, 2016 and 2015 follow:

**Table 94: Net Operating Loss Carryforwards**

Dollars in millions	December 31 2016	December 31 2015	Expiration
Net Operating Loss Carryforwards:			
Federal	\$ 759	\$ 878	2032
State	\$ 2,345	\$ 2,272	2017 - 2036

The majority of the tax credit carryforwards expire in 2032 and were insignificant at December 31, 2016 and December 31, 2015. 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, 2016. 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 of December 31, 2016, we had approximately \$.1 billion of earnings attributed to foreign subsidiaries that have been indefinitely reinvested for which no incremental U.S. income tax provision has been recorded.

Retained earnings included \$.1 billion at both December 31, 2016 and December 31, 2015 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	2016	2015	2014
Balance of gross unrecognized tax benefits at January 1	\$ 26	\$ 77	\$ 110
Increases:			
Positions taken during a prior period	14	17	
Decreases:			
Positions taken during a prior period	(14)	(9)	(27)
Settlements with taxing authorities		(52)	(1)
Reductions resulting from lapse of statute of limitations	(4)	(7)	(5)
Balance of gross unrecognized tax benefits at December 31	\$ 22	\$ 26	\$ 77
Favorable impact if recognized	\$ 18	\$ 20	\$ 64

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	2011 - 2013 2014 - 2015	Completed 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 2011. For all open audits, any potential adjustments have been considered in establishing our unrecognized tax benefits as of December 31, 2016.

Our policy is to classify interest and penalties associated with income taxes as income tax expense. For 2016 and 2015, the amount of gross interest and penalties was insignificant. At December 31, 2016 and 2015, 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, 2016 and December 31, 2015, 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, 2016 and December 31, 2015 for PNC and PNC Bank.

**Table 97: Basel Regulatory Capital (a)**

December 31 Dollars in millions	Amount		Ratios		"Well Capitalized" Requirements
	2016	2015	2016	2015	
<b>Risk-based capital</b>					
Common equity Tier 1					
PNC	\$31,799	\$31,493	10.6%	10.6%	N/A
PNC Bank	\$27,896	\$27,484	9.7%	9.7%	6.5%
Tier 1					
PNC	\$36,101	\$35,522	12.0%	12.0%	6.0%
PNC Bank	\$29,495	\$29,425	10.2%	10.4%	8.0%
Total					
PNC	\$43,016	\$43,260	14.3%	14.6%	10.0%
PNC Bank	\$35,842	\$36,482	12.4%	12.9%	10.0%
<b>Leverage</b>					
PNC	\$36,101	\$35,522	10.1%	10.1%	N/A
PNC Bank	\$29,495	\$29,425	8.6%	8.7%	5.0%

(a) Calculated using the Transitional Basel III regulatory capital methodology applicable to us during both 2016 and 2015.

The principal source of parent company cash flow is the dividends it receives from its subsidiary 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 \$1.7 billion at December 31, 2016.

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 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, 2016, the balance outstanding at the FRB was \$25.1 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, 2016, 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 \$475 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 PNC) 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-Discant Antitrust Litigation* (Master File No. 1:05-md-1720-JG-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, which is still pending.

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.

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. In March 2011, we 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.

### **CBNV Mortgage Litigation**

Between 2001 and 2003, on behalf of either individual plaintiffs or proposed classes of plaintiffs, several separate lawsuits were filed in state and federal courts against Community Bank of Northern Virginia (CBNV), a PNC Bank predecessor, and other defendants asserting claims arising from second mortgage loans made to the plaintiffs. The state lawsuits were removed to federal court and, with the lawsuits that had been filed in federal court, were consolidated for pre-trial proceedings in a multidistrict litigation (MDL) proceeding in the U.S. District Court for the Western District of Pennsylvania under the caption *In re: Community Bank of Northern Virginia Lending Practices Litigation* (No. 03-0425 (W.D. Pa.), MDL No. 1674). In January 2008, the Pennsylvania district court issued an order sending back to the General Court of Justice, Superior Court Division, for Wake County, North Carolina the claims of two proposed class members, which have subsequently been dismissed.

In October 2011, the plaintiffs in the MDL proceeding filed a joint consolidated amended class action complaint covering all of the class action lawsuits pending in this proceeding. The amended complaint names CBNV, another bank, and purchasers of loans originated by CBNV and the other bank (including Residential Funding Company, LLC (RFC)) as defendants. (In December 2013, the Chapter 11 bankruptcy proceeding involving RFC was completed with the company being liquidated and claims against the company being resolved, including, through a settlement between the plaintiffs and RFC approved in November 2013, the claims in these lawsuits.) The principal allegations in the amended complaint are that a group of persons and entities collectively characterized as the "Shumway/Bapst Organization" referred prospective second residential mortgage loan borrowers to CBNV and the other bank, that CBNV and the other bank charged these borrowers improper title and loan fees at loan closings, that the disclosures provided to the borrowers at loan closings were inaccurate, and that CBNV and the other bank paid some of the loan fees to the Shumway/Bapst Organization as purported "kickbacks" for the referrals. The amended complaint asserts claims for violations of the Real Estate Settlement Procedures Act (RESPA), the Truth in Lending Act (TILA), as amended by the Home Ownership and Equity Protection Act (HOEPA), and the Racketeer Influenced and Corrupt Organizations Act (RICO).

The amended complaint seeks to certify a class of all borrowers who obtained a second residential non-purchase money mortgage loan, secured by their principal dwelling, from either CBNV or the other defendant bank, the terms of which made the loan subject to HOEPA. The plaintiffs seek, among other things, unspecified damages (including treble damages under RICO and RESPA), rescission of loans, declaratory and injunctive relief, interest, and attorneys' fees. In November 2011, the defendants filed a motion to dismiss the amended complaint. In June 2013, the court granted in part and denied in part the motion, dismissing the claims of any plaintiff whose loan did not originate or was not assigned to CBNV, narrowing the scope of the RESPA claim, and dismissing several of the named plaintiffs for lack of standing. The court also dismissed the claims against the other lender defendant on jurisdictional grounds. The limitation of the potential class to CBNV borrowers reduces its size to approximately 26,500 from the 50,000 members alleged in the amended complaint. Also in June 2013, the plaintiffs filed a motion for class certification, which was granted in July 2013. In July 2015, the U.S. Court of Appeals for the Third Circuit affirmed the grant of class certification by the Pennsylvania district court. We moved for a rehearing of the appeal, which was denied in October 2015. In November 2015, we filed a petition for a writ of certiorari with the U.S. Supreme Court seeking review of the decision of the court of appeals, which was denied in February 2016. We filed motions with the district court for decertification and summary judgment in April 2016.

In August 2016, we reached a settlement with the plaintiffs. In December 2016, the court granted final approval of the settlement. Under this settlement, in February 2017, the matter was submitted to binding arbitration before a panel of three arbitrators, who will determine whether we will pay the plaintiff class either an amount (inclusive of class counsel fees and expenses) we proposed (\$24 million) or an amount proposed by the plaintiffs (\$70 million), with no discretion to choose any other amount. The arbitrators are required to reach a decision by the end of March 2017.

### **Overdraft Litigation**

Beginning in October 2009, PNC Bank, National City Bank and RBC Bank (USA) have been named in lawsuits brought as class actions relating to the manner in which they charged overdraft fees on ATM and debit transactions to customers and related matters. All but two of these lawsuits, both pending against RBC Bank (USA), have been settled. The following is a description of the remaining pending lawsuits.

The pending lawsuits naming RBC Bank (USA), along with similar lawsuits pending against other banks, have been consolidated for pre-trial proceedings in the U.S. District Court for the Southern District of Florida (the MDL Court) under the caption *In re Checking Account Overdraft Litigation* (MDL No. 2036, Case No. 1:09-MD-02036-JLK ). A consolidated amended complaint was filed in December 2010 that consolidated all of the claims in these MDL Court cases. The first case against RBC Bank (USA) pending in the MDL Court (*Dasher v. RBC Bank* (10-cv-22190-JLK)) was filed in July 2010 in the U.S. District Court for the Southern District of Florida. The other case against RBC Bank (USA) (*Avery v. RBC Bank* (Case No. 10-cv-329)) was originally filed in North Carolina state court in July 2010 and was removed to the U.S. District Court for the Eastern District of North Carolina before being transferred to the MDL Court. A consolidated amended complaint was filed in November 2014.

These cases seek to certify multi-state classes of customers for the common law claims described below (covering all states in which RBC Bank (USA) had retail branch operations during the class periods), and subclasses of RBC Bank (USA) customers with accounts in North Carolina branches, with each subclass being asserted for purposes of claims under those states' consumer protection statutes. No class periods are stated in any of the complaints, other than for the applicable statutes of limitations, which vary by state and claim.

The customer agreements with the plaintiffs in these two cases contain arbitration provisions. RBC Bank (USA)'s original motion *in Dasher* to compel arbitration under these provisions was denied by the MDL Court. This denial was appealed to the U.S. Court of Appeals for the Eleventh Circuit. While this appeal was pending, the U.S. Supreme Court issued its decision in *AT&T Mobility v. Concepcion*, following which the court of appeals vacated the MDL Court's denial of the arbitration motion and remanded to the MDL Court for further consideration in light of the *Concepcion* decision. RBC Bank (USA)'s motion to compel arbitration, now

covering both *Dasher* and *Avery*, was denied in January 2013. We appealed the denial of the motion to the U.S. Court of Appeals for the Eleventh Circuit, which, in February 2014, affirmed the order of the district court denying arbitration. We filed a motion asking the court of appeals to reconsider its decision, which it denied in March 2014. In December 2014, we filed a motion to compel arbitration as to the claims of the plaintiff in *Dasher* based on an arbitration provision added to the PNC account agreement in 2013. In August 2015, the district court denied our motion. Later in August 2015, we appealed the denial of our arbitration motion to the court of appeals. The appeal is pending. In December 2014, we filed a motion to dismiss the complaint. In February 2016, the district court denied our motion.

The consolidated amended complaint alleges that the banks engaged in unlawful practices in assessing overdraft fees arising from electronic point-of-sale and ATM debits. The principal practice challenged in these lawsuits is the banks' purportedly common policy of posting debit transactions on a daily basis from highest amount to lowest amount, thereby allegedly inflating the number of overdraft fees assessed. Other practices challenged include the failure to decline to honor debit card transactions where the account has insufficient funds to cover the transactions.

The plaintiffs assert claims for breach of contract and the covenant of good faith and fair dealing; unconscionability; conversion; unjust enrichment; and violation of the consumer protection statute of North Carolina. The plaintiffs seek, among other things, restitution of overdraft fees paid, unspecified actual and punitive damages (with actual damages, in some cases, trebled under state law), pre-judgment interest, attorneys' fees, and declaratory relief finding the overdraft policies to be unfair and unconscionable.

#### **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. Each of the lawsuits alleges 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 alleges 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 alleges 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.

In the case against PNC (*Fulton Financial Advisors, N.A. v. PNC Capital Markets, LLC* (CI 09-10838)), PNC filed preliminary objections to Fulton's complaint, which were denied. 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.

#### **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 violation theory" 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 violation theory to assert claims under RESPA. We have filed a petition to certify this issue for interlocutory appeal to U.S. Court of Appeals for the Third Circuit and have sought a stay in the district court pending an appeal.

### **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 alleges 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 alleges that PNC Bank breached representations and warranties made under seller contracts in connection with these sales. The complaint asserts claims for breach of contract and indemnification. RFC seeks, 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, as well as a motion to transfer the lawsuit to the U.S. Bankruptcy Court for the Southern District of New York. In April 2014, we moved to dismiss the amended complaint. In June 2014, RFC withdrew its motion to transfer the lawsuit. 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 alleges 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 alleges 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 asserts claims for breach of contract and indemnification and seeks, among other things, monetary damages, costs, and attorney's fees. The action has been consolidated for pre-trial purposes into *In Re: RFC and RESCAP Liquidating Trust Litigation*.

### **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, 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. These appeals were argued before the court of appeals in September 2016.

#### **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 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. These inquiries, including those described below, may lead to administrative, civil or criminal proceedings, and possibly result in remedies including fines, penalties, restitution, or alterations in our business practices, and in additional expenses and collateral costs and other consequences. These inquiries may result in significant reputational harm or other adverse collateral consequences even if direct resulting remedies are not material to us.

- One area of significant regulatory and governmental focus has been mortgage lending and servicing. Numerous federal and state governmental, legislative and regulatory authorities are investigating practices in this area. We have received inquiries from, or is the subject of investigations by, a broad range of governmental, legislative and regulatory authorities relating to our activities in this area and is cooperating with these investigations and inquiries. As a result of the number and range of authorities conducting the investigations and inquiries, as well as the nature of these types of investigations and inquiries, among other factors, we cannot at this time predict the ultimate overall cost to or effect on us from potential governmental, legislative or regulatory actions arising out of these investigations and inquiries.
  - In April 2011, as a result of a publicly-disclosed interagency horizontal review of residential mortgage servicing operations at fourteen federally regulated mortgage servicers, PNC 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 PNC 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 connection with these orders, we established a Compliance Committee of the Boards of Directors of PNC and PNC Bank to monitor and coordinate PNC's and PNC Bank's implementation of the commitments under the orders. PNC and PNC Bank are executing Action Plans designed to meet the requirements of the orders. Consistent with the orders, we also engaged an independent consultant to conduct a review of certain residential foreclosure actions, including those identified through borrower complaints, and identify whether any remedial actions for borrowers are necessary.

In early 2013, PNC and PNC Bank, along with twelve other residential mortgage servicers, reached agreements with the OCC and the Federal Reserve to amend these consent orders. Pursuant to the amended consent orders, in order to accelerate the remediation process, we agreed to make a payment of \$70 million for distribution to potentially affected borrowers in the review population and to provide \$111 million in additional loss mitigation or other foreclosure prevention relief, which could be satisfied pursuant to the amended consent orders by a variety of borrower relief actions or by additional cash payments or resource commitments to borrower counseling or education.

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. The OCC retained jurisdiction over the distribution of remaining funds contributed by PNC Bank under its 2013 amended consent order. PNC's consent order with the Federal Reserve, as amended, remains open and does not foreclose the potential for civil money penalties from the Federal Reserve. The range of potential penalties communicated to PNC from the Federal Reserve in connection with the consent orders is not material and we do not otherwise expect any additional financial charges from the Federal Reserve consent orders to be material.

- In February 2012, the Department of Justice, other federal regulators and 49 state attorneys general announced agreements with the five largest mortgage servicers. Written agreements were filed with the U.S. District Court for the Southern District of New York in March 2012. Under these agreements, the mortgage servicers will make cash payments to federal and state governments, provide various forms of financial relief to borrowers, and implement new mortgage servicing standards. These governmental authorities are continuing their review of, and have engaged in discussions with, other mortgage servicers, including PNC, that were subject to the interagency horizontal review, which could result in the imposition of substantial payments and other forms of relief (similar to that agreed to by the five largest servicers) on some or all of these mortgage servicers, including PNC. Whether and to what extent any such relief may be imposed on PNC is not yet known.
- 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, 2016 and December 31, 2015, respectively.

*Table 98: Commitments to Extend Credit and Other Commitments*

In millions	December 31 2016	December 31 2015
Commitments to extend credit		
Total commercial lending	\$ 108,256	\$ 101,252
Home equity lines of credit	17,438	17,268
Credit card	22,095	19,937
Other	4,192	4,032
Total commitments to extend credit	<u>151,981</u>	<u>142,489</u>
Net outstanding standby letters of credit (a)	<u>8,324</u>	<u>8,765</u>
Reinsurance agreements (b)	<u>1,835</u>	<u>2,010</u>
Standby bond purchase agreements (c)	<u>790</u>	<u>911</u>
Other commitments (d)	<u>967</u>	<u>966</u>
Total commitments to extend credit and other commitments	<u>\$ 163,897</u>	<u>\$ 155,141</u>

- (a) Net outstanding standby letters of credit include \$3.9 billion and \$4.7 billion which support remarketing programs at December 31, 2016 and December 31, 2015, respectively.
- (b) Represents aggregate maximum exposure up to the specified limits of the reinsurance contracts, and reflects estimates based on availability of financial information from insurance carriers. As of December 31, 2016, the aggregate maximum exposure amount comprised \$1.5 billion for accidental death & dismemberment contracts and \$.3 billion for credit life, accident & health contracts. Comparable amounts at December 31, 2015 were \$1.6 billion and \$.4 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, 2016 and December 31, 2015.

### 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 94% and 93% of our net outstanding standby letters of credit were rated as Pass as of December 31, 2016 and December 31, 2015, 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, 2016 had terms ranging from less than 1 year to 8 years.

As of December 31, 2016, assets of \$1.0 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, 2016 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	2016	2015	2014
<b>Operating Revenue</b>			
Dividends from:			
Bank subsidiaries and bank holding company	\$2,906	\$3,110	\$3,115
Non-bank subsidiaries	130	49	115
Interest income	93	82	88
Noninterest income	13	56	80
Total operating revenue	<u>3,142</u>	<u>3,297</u>	<u>3,398</u>
<b>Operating Expense</b>			
Interest expense	197	193	227
Other expense	108	89	127
Total operating expense	<u>305</u>	<u>282</u>	<u>354</u>
Income before income taxes and equity in undistributed net income of subsidiaries	2,837	3,015	3,044
Income tax benefits	(96)	(98)	(60)
Income before equity in undistributed net income of subsidiaries	2,933	3,113	3,104
Equity in undistributed net income of subsidiaries:			
Bank subsidiaries and bank holding company	818	736	854
Non-bank subsidiaries	153	257	226
Net income	<u>\$3,904</u>	<u>\$4,106</u>	<u>\$4,184</u>
Other comprehensive income, net of tax:			
Net pension and other postretirement benefit plan activity arising during the period	13	(3)	(17)
Other comprehensive income (loss)	13	(3)	(17)
Comprehensive income	<u>\$3,917</u>	<u>\$4,103</u>	<u>\$4,167</u>

**Table 100: Parent Company – Balance Sheet**

December 31 - in millions	2016	2015
<b>Assets</b>		
Cash held at banking subsidiary	\$ 1	\$ 1
Restricted deposits with banking subsidiary	175	
Nonrestricted interest-earning deposits	4,684	3,077
Restricted interest-earning deposits		300
Investments in:		
Bank subsidiaries and bank holding company	42,361	41,919
Non-bank subsidiaries	2,859	2,747
Bank debt securities with affiliates		1,850
Loans with affiliates	1,358	1,669
Other assets	1,322	1,724
Total assets	<u>\$52,760</u>	<u>\$53,287</u>
<b>Liabilities</b>		
Subordinated debt (a)	\$ 2,242	\$ 2,267
Senior debt (a)	3,959	5,264
Other borrowed funds from affiliates	223	347
Accrued expenses and other liabilities	637	699
Total liabilities	<u>7,061</u>	<u>8,577</u>
<b>Equity</b>		
Shareholders' equity	45,699	44,710
Total liabilities and equity	<u>\$52,760</u>	<u>\$53,287</u>

(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)
<b>2016</b>	\$ 317	\$ 183
2015	\$ 404	\$ 64
2014	\$ 442	\$ (10)

**Table 102: Parent Company – Statement of Cash Flows**

Year ended December 31 - in millions	2016	2015	2014
<b>Operating Activities</b>			
Net income	\$ 3,904	\$ 4,106	\$ 4,184
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed net earnings of subsidiaries	(971)	(993)	(1,080)
Other	142	149	122
Net cash provided (used) by operating activities	<u>3,075</u>	<u>3,262</u>	<u>3,226</u>
<b>Investing Activities</b>			
Net change in loans and securities from affiliates	2,161	(185)	2,098
Net change in restricted deposits with banking subsidiary	(175)	400	
Net change in nonrestricted interest-earning deposits	(1,607)	3,244	(2,455)
Net change in restricted interest-earning deposits	300	(300)	
Other	266	(82)	(82)
Net cash provided (used) by investing activities	<u>945</u>	<u>3,077</u>	<u>(439)</u>
<b>Financing Activities</b>			
Net change in other borrowed funds from affiliates	(124)	(100)	(14)
Net change in senior debt	(1,252)	(1,888)	(1,379)
Net change in subordinated debt	17	(580)	762
Preferred stock issuances	519		
Preferred stock redemptions		(500)	
Common and treasury stock issuances	151	139	252
Acquisition of treasury stock	(2,062)	(2,152)	(1,176)
Preferred stock cash dividends paid	(209)	(219)	(232)
Common stock cash dividends paid	(1,060)	(1,039)	(1,000)
Net cash provided (used) by financing activities	<u>(4,020)</u>	<u>(6,339)</u>	<u>(2,787)</u>
Cash held at banking subsidiary at beginning of year	<u>1</u>	<u>1</u>	<u>1</u>
Cash held at banking subsidiary at end of year	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 1</u>

## 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

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

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.

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 gains or losses related to BlackRock transactions, integration costs, asset and liability management activities including net securities gains or losses, other-than-temporary impairment of investment securities and certain trading activities, exited businesses, certain non-strategic runoff consumer loan portfolios, private equity investments, intercompany eliminations, most corporate overhead, tax adjustments that are not allocated to business segments 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, 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 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. Our mortgage servicing operation performs all functions related to servicing residential mortgage loans for investors and for loans we own. Brokerage, investment management and cash management products and services include managed accounts, education accounts, retirement accounts and trust and estate services.

**Corporate & Institutional Banking** provides lending, treasury management, and capital markets-related products and services to mid-sized and large corporations, 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, 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 generally provided within our primary geographic markets, with certain products and services offered nationally and 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 and risk management 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, 2016, our economic interest in BlackRock was 22%. We received cash dividends from BlackRock of \$331 million, \$320 million, and \$285 million during 2016, 2015, and 2014, respectively.

Table 103: Results of Businesses

Year ended December 31 In millions	Retail Banking	Corporate & Institutional Banking	Asset Management Group	BlackRock	Other	Consolidated (a)
<b>2016</b>						
<b>Income Statement</b>						
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 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
<b>2015</b>						
<b>Income Statement</b>						
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 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
<b>2014</b>						
<b>Income Statement</b>						
Net interest income	\$ 3,775	\$ 3,461	\$ 258		\$ 1,031	\$ 8,525
Noninterest income	2,740	1,756	818	\$ 703	833	6,850
Total revenue	6,515	5,217	1,076	703	1,864	15,375
Provision for credit losses (benefit)	285	90	(1)		(101)	273
Depreciation and amortization	190	139	41		406	776
Other noninterest expense	5,176	1,978	778		780	8,712
Income before income taxes and noncontrolling interests	864	3,010	258	703	779	5,614
Income taxes (benefit)	314	1,010	95	173	(185)	1,407
Net income	\$ 550	\$ 2,000	\$ 163	\$ 530	\$ 964	\$ 4,207
Average Assets (b)	\$88,869	\$ 124,633	\$ 7,712	\$ 6,640	\$ 99,999	\$ 327,853

(a) There were no material intersegment revenues for the years ended 2016, 2015 and 2014.

(b) Period-end balances for BlackRock.

#### NOTE 23 SUBSEQUENT EVENTS

On January 30, 2017, we announced a \$300 million increase in our share repurchase programs for the four-quarter period ended June 30, 2017. This amount is in addition to the share repurchase programs of up to \$2.0 billion during this period authorized as part of our 2016 capital plan under the Federal Reserve's Comprehensive Capital Analysis and Review, which included up to \$200 million related to employee benefit plans.

On February 1, 2017, we transferred 0.5 million 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 \$155 million, representing the fair value of the shares transferred. After this transfer, we hold approximately 0.3 million shares of BlackRock Series C Preferred Stock which are available to fund our remaining obligation in connection with the BlackRock LTIP programs.

On February 3, 2017, we announced that on March 15, 2017 we will redeem all of the Fixed-to-Floating Rate Non-Cumulative Exchangeable Perpetual Trust Securities of PNC Preferred Funding Trust I with a current distribution rate of 2.61344% and all of the Fixed-to-Floating Rate Non-Cumulative Exchangeable Perpetual Trust Securities of PNC Preferred Funding Trust II with a current distribution rate of 2.18594%. The redemption price will be \$100,000 per security. The previously declared regular first quarter distribution on the securities is payable on March 15, 2017 to holders of record on March 1, 2017.

On February 7, 2017, the parent company issued \$575 million in Floating Rate Senior Notes with a maturity date of August 7, 2018. Interest is payable at the 3-month LIBOR rate reset quarterly, plus a spread of 0.25% per annum, on February 7, May 7, August 7, and November 7 of each year, commencing on May 7, 2017.

On February 17, 2017, PNC Bank issued \$1.0 billion of Senior Notes with a maturity date of February 17, 2022. Interest is payable semi-annually at a fixed rate of 2.625% on February 17 and August 17 of each year, commencing on August 17, 2017.

## STATISTICAL INFORMATION (UNAUDITED)

THE PNC FINANCIAL SERVICES GROUP, INC.

### SELECTED QUARTERLY FINANCIAL DATA

Dollars in millions,  
except per share data

	2016				2015			
	Fourth	Third	Second	First	Fourth	Third	Second	First
<b>Summary Of Operations</b>								
Interest income	\$2,453	\$2,408	\$2,384	\$2,407	\$2,358	\$2,341	\$2,305	\$2,319
Interest expense	323	313	316	309	266	279	253	247
Net interest income	2,130	2,095	2,068	2,098	2,092	2,062	2,052	2,072
Noninterest income	1,744	1,734	1,726	1,567	1,761	1,713	1,814	1,659
Total revenue	3,874	3,829	3,794	3,665	3,853	3,775	3,866	3,731
Provision for credit losses	67	87	127	152	74	81	46	54
Noninterest expense	2,441	2,394	2,360	2,281	2,396	2,352	2,366	2,349
Income before income taxes and noncontrolling interests	1,366	1,348	1,307	1,232	1,383	1,342	1,454	1,328
Income taxes	319	342	318	289	361	269	410	324
Net income	1,047	1,006	989	943	1,022	1,073	1,044	1,004
Less: Net income (loss) attributable to noncontrolling interests	22	18	23	19	14	18	4	1
Preferred stock dividends and discount accretion and redemptions	43	64	43	65	43	64	48	70
Net income attributable to common shareholders	\$ 982	\$ 924	\$ 923	\$ 859	\$ 965	\$ 991	\$ 992	\$ 933
<b>Per Common Share Data</b>								
Book value	\$85.94	\$86.57	\$85.33	\$83.47	\$81.84	\$81.42	\$79.64	\$78.99
Basic earnings from net income	\$ 2.01	\$ 1.87	\$ 1.84	\$ 1.70	\$ 1.90	\$ 1.93	\$ 1.92	\$ 1.79
Diluted earnings from net income	\$ 1.97	\$ 1.84	\$ 1.82	\$ 1.68	\$ 1.87	\$ 1.90	\$ 1.88	\$ 1.75

**AVERAGE CONSOLIDATED BALANCE SHEET AND NET INTEREST ANALYSIS (a) (b) (c)**

Taxable-equivalent basis Dollars in millions	2016			2015			2014		
	Average Balances	Interest Income/ Expense	Average Yields/ Rates	Average Balances	Interest Income/ Expense	Average Yields/ Rates	Average Balances	Interest Income/ Expense	Average Yields/ Rates
<b>Assets</b>									
Interest-earning assets:									
Investment securities									
Securities available for sale									
Residential mortgage-backed									
Agency	\$ 25,442	\$ 617	2.43%	\$ 21,371	\$ 540	2.53%	\$ 18,935	\$ 503	2.66%
Non-agency	3,613	175	4.84%	4,374	207	4.73%	5,106	244	4.78%
Commercial mortgage-backed	6,369	167	2.62%	6,372	195	3.06%	5,461	192	3.52%
Asset-backed	5,741	132	2.30%	5,234	111	2.12%	5,321	105	1.97%
U.S. Treasury and government agencies	10,590	155	1.46%	6,486	79	1.22%	4,837	57	1.18%
Other	5,064	152	3.00%	4,344	146	3.36%	4,566	148	3.24%
Total securities available for sale	56,819	1,398	2.46%	48,181	1,278	2.65%	44,226	1,249	2.82%
Securities held to maturity									
Residential mortgage-backed	10,529	290	2.75%	8,238	251	3.05%	5,885	207	3.52%
Commercial mortgage-backed	1,693	62	3.66%	1,976	75	3.80%	2,502	99	3.96%
Asset-backed	677	14	2.07%	738	11	1.49%	908	14	1.54%
U.S. Treasury and government agencies	308	11	3.57%	253	10	3.95%	243	9	3.70%
Other	2,020	114	5.64%	2,279	119	5.22%	2,056	105	5.11%
Total securities held to maturity	15,227	491	3.22%	13,484	466	3.46%	11,594	434	3.74%
Total investment securities	72,046	1,889	2.62%	61,665	1,744	2.83%	55,820	1,683	3.02%
Loans									
Commercial	100,319	3,141	3.13%	98,093	2,975	3.03%	92,411	3,029	3.28%
Commercial real estate	28,729	964	3.36%	25,177	896	3.56%	22,646	919	4.06%
Equipment lease financing	7,463	266	3.56%	7,570	260	3.43%	7,567	278	3.67%
Consumer	57,499	2,476	4.31%	60,094	2,505	4.17%	62,529	2,609	4.17%
Residential real estate	14,807	696	4.70%	14,415	697	4.84%	14,495	721	4.97%
Total loans	208,817	7,543	3.61%	205,349	7,333	3.57%	199,648	7,556	3.78%
Interest-earning deposits with banks	26,328	136	.52%	32,908	86	.26%	19,204	49	.26%
Other interest-earning assets	7,843	279	3.56%	8,903	356	4.00%	8,633	332	3.85%
Total interest-earning assets/interest income	315,034	9,847	3.13%	308,825	9,519	3.08%	283,305	9,620	3.40%
Noninterest-earning assets									
Total assets	\$361,260			\$354,964			\$327,853		
<b>Liabilities and Equity</b>									
Interest-bearing liabilities:									
Interest-bearing deposits									
Money market									
Demand	\$ 71,530	\$ 146	.20%	\$ 81,911	\$ 214	.26%	\$ 75,513	\$ 140	.19%
Savings	52,701	40	.08%	46,649	26	.06%	43,367	22	.05%
Time deposits	29,643	119	.40%	14,719	32	.22%	11,990	14	.12%
Total interest-bearing deposits	18,890	125	.66%	20,686	131	.63%	21,944	149	.68%
Total interest-bearing deposits	172,764	430	.25%	163,965	403	.25%	152,814	325	.21%
Borrowed funds									
Federal Home Loan Bank borrowings	18,385	155	.84%	21,365	104	.49%	14,863	73	.49%
Bank notes and senior debt	21,906	352	1.61%	17,937	223	1.24%	14,114	202	1.43%
Subordinated debt	8,324	264	3.17%	8,796	236	2.68%	8,559	219	2.56%
Other	4,324	60	1.39%	8,415	79	.94%	11,281	87	.77%
Total borrowed funds	52,939	831	1.57%	56,513	642	1.14%	48,817	581	1.19%
Total interest-bearing liabilities/interest expense	225,703	1,261	.56%	220,478	1,045	.47%	201,631	906	.45%
Noninterest-bearing liabilities and equity:									
Noninterest-bearing deposits	78,085			76,398			70,108		
Accrued expenses and other liabilities	11,083			12,210			10,768		
Equity	46,389			45,878			45,346		
Total liabilities and equity	\$361,260			\$354,964			\$327,853		
Interest rate spread									
Impact of noninterest-bearing sources			2.57%			2.61%			2.95%
Net interest income/margin		\$ 8,586	2.73%		\$ 8,474	2.74%		\$ 8,714	3.08%

- (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, 2016, 2015 and 2014 were \$137 million, \$106 million and \$162 million, respectively.
- (c) Interest income calculated as taxable-equivalent interest income. 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 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 In millions	2016/2015			2015/2014		
	Increase/(Decrease) in Income/ Expense Due to Changes in:			Increase/(Decrease) in Income/ Expense Due to Changes in:		
	Volume	Rate	Total	Volume	Rate	Total
<b>Interest-Earning Assets</b>						
Investment securities						
Securities available for sale						
Residential mortgage-backed						
Agency	\$ 99	\$ (22)	\$ 77	\$ 63	\$ (26)	\$ 37
Non-agency	(37)	5	(32)	(34)	(3)	(37)
Commercial mortgage-backed						
Asset-backed	12	9	21	(2)	8	6
U.S. Treasury and government agencies	58	18	76	20	2	22
Other	23	(17)	6	(7)	5	(2)
Total securities available for sale	217	(97)	120	107	(78)	29
Securities held to maturity						
Residential mortgage-backed	66	(27)	39	75	(31)	44
Commercial mortgage-backed	(10)	(3)	(13)	(20)	(4)	(24)
Asset-backed	(1)	4	3	(3)		(3)
U.S. Treasury and government agencies	2	(1)	1		1	1
Other	(15)	10	(5)	12	2	14
Total securities held to maturity	58	(33)	25	66	(34)	32
Total investment securities	280	(135)	145	171	(110)	61
Loans						
Commercial	67	99	166	182	(236)	(54)
Commercial real estate	120	(52)	68	97	(120)	(23)
Equipment lease financing	(4)	10	6		(18)	(18)
Consumer	(111)	82	(29)	(104)		(104)
Residential real estate	19	(20)	(1)	(4)	(20)	(24)
Total loans	126	84	210	209	(432)	(223)
Interest-earning deposits with banks	(20)	70	50	37		37
Other interest-earning	(40)	(37)	(77)	10	14	24
Total interest-earning assets	\$ 182	\$ 146	\$ 328	\$ 838	\$ (939)	\$ (101)
<b>Interest-Bearing Liabilities</b>						
Interest-bearing deposits						
Money market	\$ (24)	\$ (44)	\$ (68)	\$ 14	\$ 60	\$ 74
Demand	4	10	14	1	3	4
Savings	49	38	87	4	14	18
Time deposits	(12)	6	(6)	(8)	(10)	(18)
Total interest-bearing deposits	27		27	21	57	78
Borrowed funds						
Federal Home Loan Bank borrowings	(17)	68	51	31		31
Bank notes and senior debt	55	74	129	50	(29)	21
Subordinated debt	(13)	41	28	6	11	17
Other	(48)	29	(19)	(25)	17	(8)
Total borrowed funds	(43)	232	189	86	(25)	61
Total interest-bearing liabilities	24	192	216	95	44	139
Change in net interest income	\$ 160	\$ (48)	\$ 112	\$ 746	\$ (986)	\$ (240)

(a) Changes attributable to rate/volume are prorated into rate and volume components.

(b) Interest income calculated as taxable-equivalent interest income. 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 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)**

In millions	Year ended December 31		
	2016	2015	2014
Net interest income (GAAP)	<b>\$8,391</b>	\$8,278	\$8,525
Taxable-equivalent adjustments	<b>195</b>	196	189
Net interest income (Non-GAAP)	<b>\$8,586</b>	<b>\$8,474</b>	<b>\$8,714</b>

- (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.

**LOANS SUMMARY**

December 31 - in millions	2016	2015	2014	2013	2012
<b>Commercial lending</b>					
Commercial	\$ 101,364	\$ 98,608	\$ 97,420	\$ 88,378	\$ 83,040
Commercial real estate	29,010	27,468	23,262	21,191	18,655
Equipment lease financing	7,581	7,468	7,686	7,576	7,247
<b>Total commercial lending</b>	<b>137,955</b>	<b>133,544</b>	<b>128,368</b>	<b>117,145</b>	<b>108,942</b>
<b>Consumer lending</b>					
Home equity	29,949	32,133	34,677	36,447	35,920
Residential real estate	15,598	14,411	14,407	15,065	15,240
Credit card	5,282	4,862	4,612	4,425	4,303
Other consumer	22,049	21,746	22,753	22,531	21,451
<b>Total consumer lending</b>	<b>72,878</b>	<b>73,152</b>	<b>76,449</b>	<b>78,468</b>	<b>76,914</b>
<b>Total loans</b>	<b>\$ 210,833</b>	<b>\$ 206,696</b>	<b>\$ 204,817</b>	<b>\$ 195,613</b>	<b>\$ 185,856</b>

**RECONCILIATION OF TANGIBLE BOOK VALUE PER COMMON SHARE (NON-GAAP)**

December 31	2016	2015	2014	2013	2012
Dollars in millions, except per share data					
<b>Book value per common share</b>	<b>\$ 85.94</b>	\$ 81.84	\$ 77.61	\$ 72.07	\$ 66.95
<b>Tangible book value per common share</b>					
Common shareholders' equity	\$41,723	\$41,258	\$40,605	\$38,392	\$35,358
Goodwill and Other Intangible Assets	(9,376)	(9,482)	(9,595)	(9,654)	(9,798)
Deferred tax liabilities on Goodwill and Other Intangible Assets	304	310	320	333	354
<b>Tangible common shareholders' equity</b>	<b>\$32,651</b>	<b>\$32,086</b>	<b>\$31,330</b>	<b>\$29,071</b>	<b>\$25,914</b>
Period-end common shares outstanding (in millions)	485	504	523	533	528
<b>Tangible book value per common share (Non-GAAP) (a)</b>	<b>\$ 67.26</b>	<b>\$ 63.65</b>	<b>\$ 59.88</b>	<b>\$ 54.57</b>	<b>\$ 49.07</b>

- (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	2016	2015	2014
Dollars in millions			
<b>Noninterest income</b>			
Asset management	\$1,521	\$1,567	\$1,513
Consumer services	1,388	1,335	1,254
Corporate services	1,504	1,491	1,415
Residential mortgage	567	566	618
Service charges on deposits	667	651	662
<b>Total fee income</b>	<b>5,647</b>	<b>5,610</b>	<b>5,462</b>
Other	1,124	1,337	1,388
<b>Total noninterest income</b>	<b>\$6,771</b>	<b>\$6,947</b>	<b>\$6,850</b>

**NONPERFORMING ASSETS AND RELATED INFORMATION**

December 31 - dollars in millions	2016	2015	2014	2013	2012
<b>Nonperforming loans</b>					
Commercial	\$ 496	\$ 351	\$ 290	\$ 457	\$ 590
Commercial real estate	143	187	334	518	807
Equipment lease financing	16	7	2	5	13
Total commercial lending	<u>655</u>	<u>545</u>	<u>626</u>	<u>980</u>	<u>1,410</u>
<b>Consumer lending (a)</b>					
Home equity (b)	914	977	1,112	1,139	951
Residential real estate (b)	501	549	706	904	845
Credit card	4	3	3	4	5
Other consumer (b)	70	52	63	61	43
Total consumer lending	<u>1,489</u>	<u>1,581</u>	<u>1,884</u>	<u>2,108</u>	<u>1,844</u>
Total nonperforming loans (c)	<u>2,144</u>	<u>2,126</u>	<u>2,510</u>	<u>3,088</u>	<u>3,254</u>
OREO, foreclosed and other assets	230	299	370	369	540
Total nonperforming assets	<u>\$2,374</u>	<u>\$2,425</u>	<u>\$2,880</u>	<u>\$3,457</u>	<u>\$3,794</u>
Nonperforming loans to total loans	1.02%	1.03%	1.23%	1.58%	1.75%
Nonperforming assets to total loans, OREO, foreclosed and other assets	1.12%	1.17%	1.40%	1.76%	2.04%
Nonperforming assets to total assets	.65%	.68%	.83%	1.08%	1.24%
<b>Interest on nonperforming loans</b>					
Computed on original terms	\$ 111	\$ 115	\$ 125	\$ 163	\$ 212
Recognized prior to nonperforming status	\$ 21	\$ 22	\$ 25	\$ 30	\$ 30
<b>Troubled Debt Restructurings</b>					
Nonperforming	\$1,112	\$1,119	\$1,370	\$1,511	\$1,589
Performing	<u>\$1,109</u>	<u>\$1,232</u>	<u>\$1,213</u>	<u>\$1,228</u>	<u>\$1,270</u>
<b>Past due loans</b>					
Accruing loans past due 90 days or more (d)	\$ 782	\$ 881	\$1,105	\$1,491	\$2,351
As a percentage of total loans	.37%	.43%	.54%	.76%	1.26%
<b>Past due loans held for sale</b>					
Accruing loans held for sale past due 90 days or more	\$ 4	\$ 4	\$ 9	\$ 4	\$ 38
As a percentage of total loans held for sale	.16%	.29%	.40%	.18%	1.03%

- (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) Past due loan amounts include government insured or guaranteed consumer loans of \$.7 billion, \$.8 billion, \$1.0 billion, \$1.0 billion and \$2.2 billion at December 31, 2016, 2015, 2014, 2013 and 2012, respectively.

## SUMMARY OF LOAN LOSS EXPERIENCE

Year ended December 31 - dollars in millions	2016	2015	2014	2013	2012
Allowance for loan and lease losses – January 1	\$2,727	\$3,331	3,609	\$ 4,036	\$ 4,347
Gross charge-offs					
Commercial	(332)	(206)	(276)	(395)	(474)
Commercial real estate	(26)	(44)	(70)	(203)	(314)
Equipment lease financing	(5)	(5)	(14)	(8)	(16)
Home equity	(143)	(181)	(275)	(486)	(560)
Residential real estate	(14)	(24)	(40)	(133)	(110)
Credit card	(161)	(160)	(163)	(178)	(200)
Other consumer	(205)	(185)	(183)	(185)	(196)
Total charge-offs	(886)	(805)	(1,021)	(1,588)	(1,870)
Recoveries					
Commercial	117	170	207	248	300
Commercial real estate	51	66	84	93	115
Equipment lease financing	10	4	14	16	30
Home equity	84	93	78	73	61
Residential real estate	9	13	26	4	(1)
Credit card	19	21	21	22	26
Other consumer	53	52	60	55	50
Total recoveries	343	419	490	511	581
Net charge-offs	(543)	(386)	(531)	(1,077)	(1,289)
Provision for credit losses	433	255	273	643	987
Net change in allowance for unfunded loan commitments and letters of credit	(40)	(2)	(17)	8	(10)
Net recovery/(write-offs) of purchased impaired loans and other (a)	12	(471)	(3)	(1)	1
Allowance for loan and lease losses – December 31	\$2,589	\$2,727	3,331	\$ 3,609	\$ 4,036
Allowance as a percentage of December 31:					
Loans (a)	1.23%	1.32%	1.63%	1.84%	2.17%
Nonperforming loans	121%	128%	133%	117%	124%
As a percentage of average loans:					
Net charge-offs	.26%	.19%	.27%	.57%	.73%
Provision for credit losses	.21%	.12%	.14%	.34%	.56%
Allowance for loan and lease losses (a)	1.24%	1.33%	1.67%	1.90%	2.28%
Allowance as a multiple of net charge-offs	4.77x	7.06x	6.27x	3.35x	3.13x

(a) See Note 1 Accounting Policies in our 2015 Form 10-K for information on our change in derecognition policy effective December 31, 2015 for certain purchased impaired loans.

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

December 31 Dollars in millions	2016		2015		2014		2013		2012	
	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	\$ 1,179	48.1%	\$ 1,286	47.7%	\$ 1,209	47.6%	\$ 1,100	45.2%	\$ 1,131	44.7%
Commercial real estate	320	13.8	281	13.3	318	11.4	400	10.8	589	10.0
Equipment lease financing	35	3.6	38	3.6	44	3.7	47	3.9	54	3.9
Home equity	357	14.2	484	15.5	872	16.9	1,051	18.6	1,044	19.3
Residential real estate	332	7.4	307	7.0	561	7.0	642	7.7	847	8.2
Credit card	181	2.5	167	2.4	173	2.3	169	2.3	199	2.3
Other consumer	185	10.4	164	10.5	154	11.1	200	11.5	172	11.6
Total	\$ 2,589	100.0%	\$ 2,727	100.0%	\$ 3,331	100.0%	\$ 3,609	100.0%	\$ 4,036	100.0%



## TIME DEPOSITS

The aggregate amount of time deposits with a denomination of \$100,000 or more was \$7.7 billion at December 31, 2016 and \$9.4 billion at December 31, 2015. Time deposits of \$100,000 or more included time deposits in foreign offices of \$1.7 billion at December 31, 2016. Domestic time deposits of \$100,000 or more were \$6.0 billion at December 31, 2016 with the following maturities:

December 31, 2016 – in billions	Domestic Certificates of Deposit
Three months or less	\$ 1.6
Over three through six months	1.0
Over six through twelve months	1.5
Over twelve months	1.9
Total	<u>\$ 6.0</u>

## SELECTED LOAN MATURITIES AND INTEREST SENSITIVITY

December 31, 2016 In millions	1 Year or Less	1 Through 5 Years	After 5 Years	Gross Loans
Commercial	\$27,656	\$ 64,109	\$ 9,599	\$ 101,364
Commercial real estate	7,404	15,658	5,948	29,010
Total	<u>\$35,060</u>	<u>\$ 79,767</u>	<u>\$ 15,547</u>	<u>\$ 130,374</u>
Loans with:				
Predetermined rate	\$ 5,902	\$ 11,116	\$ 6,392	\$ 23,410
Floating or adjustable rate	29,158	68,651	9,155	106,964
Total	<u>\$35,060</u>	<u>\$ 79,767</u>	<u>\$ 15,547</u>	<u>\$ 130,374</u>

At December 31, 2016, we had no pay-fixed interest rate swaps designated to commercial loans as part of fair value hedge strategies. At December 31, 2016, \$17.5 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)
<b>2016 Quarter</b>				
<b>First</b>	\$ 94.26	\$77.67	\$ 84.57	\$ .51
<b>Second</b>	90.85	77.40	81.39	.51
<b>Third</b>	91.39	77.86	90.09	.55
<b>Fourth</b>	118.57	87.34	116.96	.55
Total				<u>\$ 2.12</u>
<b>2015 Quarter</b>				
First	\$ 96.71	\$81.84	\$ 93.24	\$ .48
Second	99.61	90.42	95.65	.51
Third	100.52	82.77	89.20	.51
Fourth	97.50	84.93	95.31	.51
Total				<u>\$ 2.01</u>

(a) Our Board of Directors approved a first quarter 2017 cash dividend of \$.55 per common share, which was payable on February 5, 2017.

**TRANSITIONAL BASEL III AND PRO FORMA FULLY PHASED-IN BASEL III COMMON EQUITY TIER 1 CAPITAL RATIOS (NON-GAAP)—2012-2015 PERIODS**

Our regulatory risk-based ratios in 2015 were calculated using the standardized approach, effective January 1, 2015, 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 2015). We refer to the capital ratios calculated using the phased-in Basel III provisions in effect for 2015 and, for the risk-based ratios, standardized approach risk-weighted assets as the 2015 Transitional Basel III ratios.

<i>Dollars in millions</i>	Transitional Basel III		Pro forma Fully Phased-In Basel III (Non-GAAP) (a) (b)			
	December 31 2015	December 31 2014	December 31 2015	December 31 2014	December 31 2013	December 31 2012
Common stock, related surplus and retained earnings, net of treasury stock	\$ 41,128	\$ 40,103	\$ 41,128	\$ 40,103	\$ 38,031	\$ 34,579
Less regulatory capital adjustments:						
Goodwill and disallowed intangibles, net of deferred tax liabilities	(8,972)	(8,939)	(9,172)	(9,276)	(9,321)	(9,445)
Basel III total threshold deductions	(470)	(212)	(1,294)	(1,081)	(1,386)	(2,330)
Accumulated other comprehensive income (c)	(81)	40	(201)	201	196	276
All other adjustments	(112)	(63)	(182)	(121)	(64)	(579)
Basel III Common equity Tier 1 capital	\$ 31,493	\$ 30,929	\$ 30,279	\$ 29,826	\$ 27,456	\$ 22,501
Basel III standardized approach risk-weighted assets (d)	\$ 295,905	\$ 284,018	\$ 303,707	\$ 298,786	\$ 291,977	\$ N/A
Basel III advanced approaches risk-weighted assets (e)	N/A	N/A	264,931	\$ 285,870	\$ 290,080	\$ 301,006
Basel III Common equity Tier 1 capital ratio	10.6%	10.9%	10.0%	10.0%	9.4%	7.5%
Risk weight and associated rules utilized	Standardized (with 2015 transition adjustments)	Standardized (with 2014 transition adjustments)	Standardized		Advanced	

- (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 will be ultimately 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 as we move through the parallel run process.
- (c) Represents net adjustments related to accumulated other comprehensive income for securities currently and previously held as 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. The Transitional Basel III ratio in 2014 was based on the definitions of, and deductions from, capital under Basel III (as such definitions and deductions are phased-in for 2014) and Basel I risk-weighted assets (subject to certain adjustments as defined by the Basel III rules).
- (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)**

<i>Dollars in millions</i>	December 31 2013	December 31 2012
Basel I Tier 1 common capital	\$ 28,484	24,951
Basel I risk-weighted assets	272,169	260,847
Basel I Tier 1 common capital ratio	10.5%	9.6%

- (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 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, 2016. 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, 2016.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited our consolidated financial statements as of and for the year ended December 31, 2016 included in this Report, has also audited the effectiveness of PNC’s internal control over financial reporting as of December 31, 2016. 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, 2016, 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, 2016, and that there has been no change in PNC’s internal control over financial reporting that occurred during the fourth quarter of 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.