

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

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2017

Commission file number 001-2979

WELLS FARGO & COMPANY
(Exact name of registrant as specified in its charter)

Delaware **No. 41-0449260**
(State of incorporation) (I.R.S. Employer Identification No.)

420 Montgomery Street, San Francisco, California 94163
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **1-866-249-3302**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

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

Common stock, \$1-2/3 par value	Shares Outstanding <u>July 26, 2017</u> 4,963,944,641
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PART I - FINANCIAL INFORMATION

FINANCIAL REVIEW

Summary Financial Data

(\$ in millions, except per share amounts)	% Change							
	Quarter ended			Jun 30, 2017 from		Six months ended		% Change
	Jun 30, 2017	Mar 31, 2017	Jun 30, 2016	Mar 31, 2017	Jun 30, 2016	Jun 30, 2017	Jun 30, 2016	
For the Period								
Wells Fargo net income	\$ 5,810	5,457	5,558	6%	5	\$ 11,267	11,020	2%
Wells Fargo net income applicable to common stock	5,404	5,056	5,173	7	4	10,460	10,258	2
Diluted earnings per common share	1.07	1.00	1.01	7	6	2.07	2.00	4
Profitability ratios (annualized):								
Wells Fargo net income to average assets (ROA)	1.21%	1.15	1.20	5	1	1.18%	1.20	(2)
Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity (ROE)	11.95	11.54	11.70	4	2	11.75	11.72	—
Return on average tangible common equity (ROTCE) (1)	14.26	13.85	14.15	3	1	14.06	14.15	(1)
Efficiency ratio (2)	61.1	62.7	58.1	(3)	5	61.9	58.4	6
Total revenue	\$ 22,169	22,002	22,162	1	—	\$ 44,171	44,357	—
Pre-tax pre-provision profit (PTPP) (3)	8,628	8,210	9,296	5	(7)	16,838	18,463	(9)
Dividends declared per common share	0.380	0.380	0.380	—	—	0.760	0.755	1
Average common shares outstanding	4,989.9	5,008.6	5,066.9	—	(2)	4,999.2	5,071.3	(1)
Diluted average common shares outstanding	5,037.7	5,070.4	5,118.1	(1)	(2)	5,054.8	5,129.8	(1)
Average loans	\$ 956,879	963,645	950,751	(1)	1	\$ 960,243	938,986	2
Average assets	1,927,079	1,931,041	1,862,084	—	3	1,929,049	1,840,980	5
Average total deposits	1,301,195	1,299,191	1,236,658	—	5	1,300,198	1,228,044	6
Average consumer and small business banking deposits (4)	760,149	758,754	726,359	—	5	759,455	720,598	5
Net interest margin	2.90%	2.87	2.86	1	1	2.89%	2.88	—
At Period End								
Investment securities	\$ 409,594	407,560	353,426	—	16	\$ 409,594	353,426	16
Loans	957,423	958,405	957,157	—	—	957,423	957,157	—
Allowance for loan losses	11,073	11,168	11,664	(1)	(5)	11,073	11,664	(5)
Goodwill	26,573	26,666	26,963	—	(1)	26,573	26,963	(1)
Assets	1,930,871	1,951,564	1,889,235	(1)	2	1,930,871	1,889,235	2
Deposits	1,305,830	1,325,444	1,245,473	(1)	5	1,305,830	1,245,473	5
Common stockholders' equity	181,428	178,388	178,633	2	2	181,428	178,633	2
Wells Fargo stockholders' equity	205,230	201,500	201,745	2	2	205,230	201,745	2
Total equity	206,145	202,489	202,661	2	2	206,145	202,661	2
Tangible common equity (1)	152,064	148,850	148,110	2	3	152,064	148,110	3
Capital ratios (5)(6):								
Total equity to assets	10.68%	10.38	10.73	3	—	10.68%	10.73	—
Risk-based capital:								
Common Equity Tier 1	11.87	11.52	10.82	3	10	11.87	10.82	10
Tier 1 capital	13.68	13.27	12.50	3	9	13.68	12.50	9
Total capital	16.91	16.41	15.14	3	12	16.91	15.14	12
Tier 1 leverage	9.28	9.07	9.25	2	—	9.28	9.25	—
Common shares outstanding	4,966.8	4,996.7	5,048.5	(1)	(2)	4,966.8	5,048.5	(2)
Book value per common share (7)	\$ 36.53	35.70	35.38	2	3	\$ 36.53	35.38	3
Tangible book value per common share (1) (7)	30.62	29.79	29.34	3	4	30.62	29.34	4
Common stock price:								
High	56.60	59.99	51.41	(6)	10	59.99	53.27	13
Low	50.84	53.35	44.50	(5)	14	50.84	44.50	14
Period end	55.41	55.66	47.33	—	17	55.41	47.33	17
Team members (active, full-time equivalent)	270,600	272,800	267,900	(1)	1	270,600	267,900	1

(1) Tangible common equity is a non-GAAP financial measure and represents total equity less preferred equity, noncontrolling interests, and goodwill and certain identifiable intangible assets (including goodwill and intangible assets associated with certain of our nonmarketable equity investments and held-for-sale assets, but excluding mortgage servicing rights), net of applicable deferred taxes. The methodology of determining tangible common equity may differ among companies. Management believes that return on average tangible common equity and tangible book value per common share, which utilize tangible common equity, are useful financial measures because they enable investors and others to assess the Company's use of equity. For additional information, including a corresponding reconciliation to GAAP financial measures, see the "Capital Management - Tangible Common Equity" section in this Report.

(2) The efficiency ratio is noninterest expense divided by total revenue (net interest income and noninterest income).

(3) Pre-tax pre-provision profit (PTPP) is total revenue less noninterest expense. Management believes that PTPP is a useful financial measure because it enables investors and others to assess the Company's ability to generate capital to cover credit losses through a credit cycle.

(4) Consumer and small business banking deposits are total deposits excluding mortgage escrow and wholesale deposits.

(5) The risk-based capital ratios were calculated under the lower of Standardized or Advanced Approach determined pursuant to Basel III with Transition Requirements. Accordingly, the total capital ratio was calculated under the Advanced Approach and the other ratios were calculated under the Standardized Approach, for each of the periods.

(6) See the "Capital Management" section and Note 19 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report for additional information.

(7) Book value per common share is common stockholders' equity divided by common shares outstanding. Tangible book value per common share is tangible common equity divided by common shares outstanding.

This Quarterly Report, including the Financial Review and the Financial Statements and related Notes, contains forward-looking statements, which may include forecasts of our financial results and condition, expectations for our operations and business, and our assumptions for those forecasts and expectations. Do not unduly rely on forward-looking statements. Actual results may differ materially from our forward-looking statements due to several factors. Factors that could cause our actual results to differ materially from our forward-looking statements are described in this Report, including in the “Forward-Looking Statements” section, and the “Risk Factors” and “Regulation and Supervision” sections of our Annual Report on Form 10-K for the year ended December 31, 2016 (2016 Form 10-K).

When we refer to “Wells Fargo,” “the Company,” “we,” “our” or “us” in this Report, we mean Wells Fargo & Company and Subsidiaries (consolidated). When we refer to the “Parent,” we mean Wells Fargo & Company. See the Glossary of Acronyms for terms used throughout this Report.

Financial Review

Overview

Wells Fargo & Company is a diversified, community-based financial services company with \$1.93 trillion in assets. Founded in 1852 and headquartered in San Francisco, we provide banking, insurance, investments, mortgage, and consumer and commercial finance through more than 8,500 locations, 13,000 ATMs, digital (online, mobile and social), and contact centers (phone, email and correspondence), and we have offices in 42 countries and territories to support customers who conduct business in the global economy. With approximately 271,000 active, full-time equivalent team members, we serve one in three households in the United States and ranked No. 25 on *Fortune's* 2017 rankings of America's largest corporations. We ranked third in assets and second in the market value of our common stock among all U.S. banks at June 30, 2017.

We use our *Vision and Values* to guide us toward growth and success. Our vision is to satisfy our customers' financial needs, help them succeed financially, be recognized as the premier financial services company in our markets, and be one of America's great companies. We aspire to create deep and enduring relationships with our customers by providing them with an exceptional experience and by understanding their needs and delivering the most relevant products, services, advice, and guidance.

We have five primary values, which are based on our vision and provide the foundation for everything we do. First, we value and support our people as a competitive advantage and strive to attract, develop, retain, and motivate the most talented people we can find. Second, we strive for the highest ethical standards with our team members, our customers, our communities, and our shareholders. Third, with respect to our customers, we strive to base our decisions and actions on what is right for them in everything we do. Fourth, for team members we strive to build and sustain a diverse and inclusive culture – one where they feel valued and respected for who they are as well as for the skills and experiences they bring to our company. Fifth, we also look to each of our team members to be leaders in establishing, sharing, and communicating our vision. In addition to our five primary values, one of our key day-to-day priorities is to make risk management a competitive advantage by working hard to ensure that appropriate controls are in place to reduce risks to our customers, maintain and increase our competitive market position, and protect Wells Fargo's long-term safety, soundness, and reputation.

In keeping with our primary values and risk management priorities, we announced six new long-term goals for the Company in March 2017, which entail becoming the leader in the following areas:

- Customer service and advice – provide best-in-class service and guidance to our customers to help them reach their

financial goals.

- Team member engagement – be a company where people matter, teamwork is rewarded, everyone feels respected and empowered to speak up, diversity and inclusion are embraced, and “how” our work gets done is just as important as getting the work done.
- Innovation – create new kinds of lasting value for our customers and businesses by using innovative technologies and moving quickly to bring about change.
- Risk management – desire to set the global standard in managing all forms of risk.
- Corporate citizenship – make better every community in which we live and do business.
- Shareholder value – earn the confidence of shareholders by maximizing long-term value.

Over the past several months, our Board of Directors (Board) has undertaken a series of significant actions to enhance Board oversight and governance. The actions the Board has taken to date, many of which reflect the feedback we received from our investors and other stakeholders, include separating the roles of Chairman of the Board and Chief Executive Officer, amending Wells Fargo's By-Laws to require that the Chairman be an independent director, adding two new independent directors in February 2017, and amending Board committee charters to enhance oversight of conduct risk. The Board recognizes that there is still work to be done and, in response to feedback received at our annual stockholders meeting in April 2017, the Board is engaging in an ongoing comprehensive review of its structure, composition and practices. This review is expected to result in actions in third quarter 2017, which will be publicly announced at that time. As has been our practice, we will continue our engagement efforts with our investors and other stakeholders.

Sales Practices Matters

As we have previously reported, on September 8, 2016, we announced settlements with the Consumer Financial Protection Bureau (CFPB), the Office of the Comptroller of the Currency (OCC), and the Office of the Los Angeles City Attorney, and entered into consent orders with the CFPB and the OCC, in connection with allegations that some of our retail customers received products and services they did not request. As a result, it remains our top priority to rebuild trust through a comprehensive action plan that includes making things right for our customers, team members, and other stakeholders, and to build a better Company for the future.

The job of rebuilding trust in Wells Fargo is a long-term effort – one requiring our commitment and perseverance. As we move forward, Wells Fargo has a specific action plan in place focused on reaching out to stakeholders who may have been affected by improper retail banking sales practices, including our

communities, our customers, our regulators, our team members, and our investors.

Our priority of rebuilding trust has included the following additional actions, which have been focused on identifying potential financial harm and customer remediation:

Identifying Potential Financial Harm

- In the fall of 2016, the Board and management undertook an enterprise-wide review of sales practices issues. This review is ongoing.
- A third-party consulting firm performed an initial review of accounts opened from May 2011 to mid-2015 to identify financial harm stemming from potentially unauthorized accounts.
- We expanded the time periods of this review to cover the entire consent order period of January 2011 through September 2016, and to perform a voluntary review of accounts from 2009 to 2010. We expect to complete this expanded review process and commence remaining remediation for these additional periods by the end of third quarter 2017.
- As part of this expanded review process, we also expect to complete the review and validation of the number of potentially unauthorized accounts previously identified by the third-party consulting firm, including refinements to the practices and methodologies previously used to determine such number and to remediate sales practices related matters. We expect that our review of the expanded time periods, which adds over three years to the initial review period of approximately four years (May 2011 to mid-2015), and our review and validation efforts for the initial review period, may lead to a significant increase in the identified number of potentially unauthorized accounts. However, we do not expect any incremental customer remediation costs as a result of these efforts to have a significant financial impact on the Company.

Customer Remediation

- We refunded \$3.26 million to customers under the stipulated judgment with the Los Angeles City Attorney and under the CFPB and OCC consent orders, covering the period from May 2011 to mid-2015.
- As of May 31, 2017, we had paid \$1.8 million in additional payments to customers nationwide through our ongoing complaints process and free mediation services that were put in place in connection with the sales practices matters.
- On July 9, 2017, we announced updates to the settlement agreement for a class-action lawsuit concerning improper retail sales practices. With the court's preliminary approval of the settlement agreement, Wells Fargo and the plaintiffs are preparing to issue notices that will provide information about the process for making claims. We expect this settlement to resolve substantially all claims in other similar pending class actions that allege unauthorized accounts were opened in customers' names or that customers were enrolled in certain products or services without their consent. The settlement class covers the period from May 1, 2002 to April 20, 2017, and includes funds to ensure that each customer who was affected by improper retail sales practices has an opportunity for remediation.
- We are working to complete the requirements of our regulatory consent orders, which include a review by an independent consultant to determine the "root cause" of the sales practices issues and the implementation of an action plan that addresses the findings of the independent review. The independent consultant's report, which is regulatory

supervisory information that cannot be publicly disclosed, is expected to be completed in third quarter 2017.

For additional information regarding sales practices matters, including related legal matters, see the "Risk Factors" section in our 2016 Form 10-K and Note 11 (Legal Actions) to Financial Statements in this Report.

Additional Efforts to Rebuild Trust

Our priority of rebuilding trust has also included an effort to identify other areas or instances where customers may have experienced financial harm. We are working with our regulatory agencies in this effort. As part of this effort, we are focused on the following key areas:

- Practices concerning the origination, servicing, and/or collection of indirect consumer auto loans, including related insurance products. For example:
 - The Company recently announced a plan to remediate customers who may have been financially harmed due to issues related to automobile collateral protection insurance (CPI) policies purchased through a third-party vendor on their behalf (based on an understanding by the vendor that the borrowers' insurance had lapsed). The plan currently consists of approximately \$64 million in cash remediation and \$16 million in account adjustments. The Company discontinued the CPI placement program in September 2016.
 - The Company has identified certain issues related to the unused portion of guaranteed automobile protection waiver or insurance agreements between the dealer and, by assignment, the lender, which may result in refunds to customers in certain states.
- Policies and procedures regarding the circumstances in which the Company required customers to pay fees for the extension of interest rate lock periods for residential mortgages.
- Practices related to certain consumer "add-on" products (e.g., identity theft and debt protection), including those products that are subject to an OCC consent order entered into in May 2015.
- Procedures regarding the freezing (and, in many cases, closing) of consumer deposit accounts after the Company detected suspected fraudulent activity (by third-parties or account holders) that affected those accounts.

For more information, see the "Risk Factors" section in our 2016 Form 10-K and Note 11 (Legal Actions) to Financial Statements in this Report.

This effort to identify similar instances in which customers may have experienced harm is ongoing, and it is possible that we may identify other areas of potential concern.

Financial Performance

Wells Fargo net income was \$5.8 billion in second quarter 2017 with diluted earnings per common share (EPS) of \$1.07, compared with \$5.6 billion and \$1.01, respectively, a year ago. We have now generated quarterly earnings of more than \$5 billion for 19 consecutive quarters, which reflected the ability of our diversified business model and risk discipline to generate consistent financial performance during a period that included market volatility and economic uncertainty. We remain focused on meeting the financial needs of our customers and on investing in our businesses so we may continue to meet the evolving needs of our customers in the future.

Overview (continued)

Compared with a year ago:

- revenue was \$22.2 billion, stable compared with a year ago, with record net interest income in second quarter 2017, up 6% from a year ago;
- average loans of \$956.9 billion increased \$6.1 billion, or 1%;
- total deposits were \$1.3 trillion, up \$60.4 billion, or 5%;
- our credit results improved with a net charge-off rate of 0.27% (annualized) of average loans and we had a \$100 million release from the allowance for credit losses; and
- we returned \$3.4 billion to shareholders through common stock dividends and net share repurchases, which was the eighth consecutive quarter of returning more than \$3 billion.

Balance Sheet and Liquidity

Our balance sheet remained strong during second quarter 2017 with high levels of liquidity and capital. Our total assets were \$1.93 trillion at June 30, 2017. Investment securities reached \$409.6 billion, with approximately \$37 billion of gross purchases during second quarter 2017, largely offset by runoff and the sale of approximately \$15 billion of lower-yielding short-duration securities. Loans were down \$10.2 billion, or 1%, from December 31, 2016, largely due to a decline in junior lien mortgage and automobile loans.

Average deposits in second quarter 2017 reached a record \$1.30 trillion, up \$64.5 billion, or 5%, from second quarter 2016. Our average deposit cost in second quarter 2017 was 21 basis points, up 10 basis points from a year ago, which reflected an increase in commercial deposit rates. We successfully grew our primary consumer checking customers (i.e., customers who actively use their checking account with transactions such as debit card purchases, online bill payments, and direct deposit) by 0.7% (May 2017 compared with May 2016).

Credit Quality

Solid overall credit results continued in second quarter 2017 as losses remained low and we continued to originate high quality loans, reflecting our long-term risk focus. Net charge-offs were \$655 million, or 0.27% (annualized) of average loans, in second quarter 2017, compared with \$924 million a year ago (0.39%). The decrease in net charge-offs in second quarter 2017, compared with a year ago, was driven by lower losses in the oil and gas portfolio and increased recoveries in the commercial portfolio. Our total oil and gas loan exposure of \$48.3 billion, which includes unfunded commitments and loans outstanding, was down 14% from a year ago.

Our commercial portfolio net charge-offs were \$75 million, or 6 basis points of average commercial loans, in second quarter 2017, compared with net charge-offs of \$357 million, or 29 basis points, a year ago. Net consumer credit losses increased to 51 basis points of average consumer loans in second quarter 2017 from 49 basis points in second quarter 2016. Our commercial real estate portfolios were in a net recovery position for the 18th consecutive quarter, reflecting our conservative risk discipline and improved market conditions. Losses on our consumer real estate portfolios declined \$96 million, or 126%, from a year ago, reflecting the benefit of the continued improvement in the housing market and our continued focus on originating high quality loans. Approximately 76% of the consumer first mortgage portfolio outstanding at June 30, 2017, was originated after 2008, when more stringent underwriting standards were implemented.

The allowance for credit losses as of June 30, 2017, decreased \$603 million compared with a year ago and decreased \$394 million from December 31, 2016. The allowance coverage for total loans was 1.27% at June 30, 2017, compared with 1.33% a year ago and 1.30% at December 31, 2016. The allowance covered 4.6 times annualized second quarter net charge-offs, compared with 3.4 times a year ago. Future allowance levels will be based on a variety of factors, including loan growth, portfolio performance and general economic conditions. Our provision for loan losses was \$555 million in second quarter 2017, down from \$1.1 billion a year ago, primarily reflecting improvement in the oil and gas portfolio.

Nonperforming assets decreased \$827 million, or 8%, from March 31, 2017, with improvement across our consumer and commercial portfolios and lower foreclosed assets.

Nonperforming assets were only 1.03% of total loans, the lowest level since the merger with Wachovia in 2008. Nonaccrual loans decreased \$703 million from the prior quarter partially due to a \$321 million decrease in commercial nonaccruals. In addition, foreclosed assets were down \$124 million from the prior quarter.

Capital

Our financial performance in second quarter 2017 resulted in strong capital generation, which increased total equity to a record \$206.1 billion at June 30, 2017, up \$5.6 billion from December 31, 2016. We returned \$3.4 billion to shareholders in second quarter 2017 through common stock dividends and net share repurchases and our net payout ratio (which is the ratio of (i) common stock dividends and share repurchases less issuances and stock compensation-related items, divided by (ii) net income applicable to common stock) was 63%, up from 61% in the prior quarter, and within our targeted range of 55-75%. We continued to reduce our common shares outstanding through the repurchase of 43.0 million common shares in the quarter. We also entered into a \$1 billion forward repurchase contract with an unrelated third party in July 2017 that is expected to settle in fourth quarter 2017 for approximately 19 million shares. We expect to reduce our common shares outstanding through share repurchases throughout the remainder of 2017.

We believe an important measure of our capital strength is the Common Equity Tier 1 ratio under Basel III, fully phased-in, which was 11.59% at June 30, 2017. Likewise, our other regulatory capital ratios remained strong. We also received a non-objection to our 2017 Capital Plan submission from the Federal Reserve. See the “Capital Management” section in this Report for more information regarding our capital, including the calculation of our regulatory capital amounts.

Earnings Performance

Wells Fargo net income for second quarter 2017 was \$5.8 billion (\$1.07 diluted earnings per common share), compared with \$5.6 billion (\$1.01 diluted per share) for second quarter 2016. Net income for the first half of 2017 was \$11.3 billion (\$2.07), compared with \$11.0 billion (\$2.00) for the same period a year ago. We generated revenue growth across many of our businesses. Our financial performance in the first half of 2017, compared with the same period a year ago, benefited from a \$1.4 billion increase in net interest income and a \$1.0 billion decrease in our provision for credit losses, offset by a \$1.6 billion decrease in noninterest income and a \$1.4 billion increase in noninterest expense. In the first half of 2017, net interest income represented 56% of revenue, compared with 53% for the same period in 2016. Noninterest income was \$19.4 billion in the first half of 2017, representing 44% of revenue, compared with \$21.0 billion (47%) in the first half of 2016.

Revenue, the sum of net interest income and noninterest income, was \$22.2 billion in the second quarter of both 2017 and 2016. Revenue for the first half of 2017 was \$44.2 billion, compared with \$44.4 billion for the first half of 2016. The decrease in revenue for the first half of 2017, compared with the same period in 2016, was due to a decline in noninterest income, partially offset by an increase in interest income from loans and investment securities.

Earnings Performance (continued)

Net Interest Income

Net interest income is the interest earned on debt securities, loans (including yield-related loan fees) and other interest-earning assets minus the interest paid on deposits, short-term borrowings and long-term debt. The net interest margin is the average yield on earning assets minus the average interest rate paid for deposits and our other sources of funding. Net interest income and the net interest margin are presented on a taxable-equivalent basis in Table 1 to consistently reflect income from taxable and tax-exempt loans and securities based on a 35% federal statutory tax rate.

While the Company believes that it has the ability to increase net interest income over time, net interest income and the net interest margin in any one period can be significantly affected by a variety of factors including the mix and overall size of our earning assets portfolio and the cost of funding those assets. In addition, some variable sources of interest income, such as resolutions from purchased credit-impaired (PCI) loans, loan fees and collection of interest on nonaccrual loans, can vary from period to period. Net interest income and net interest margin growth has been challenged during the prolonged low interest rate environment as higher yielding loans and securities have run off and been replaced with lower yielding assets.

Net interest income on a taxable-equivalent basis was \$12.8 billion and \$25.4 billion in the second quarter and first half of 2017, respectively, compared with \$12.0 billion and \$24.0 billion for the same periods a year ago. The net interest margin was 2.90% and 2.89% for the second quarter and first half of 2017, respectively, up from 2.86% and 2.88% for the same periods a year ago. The increase in net interest income in the second quarter and first half of 2017 from the same periods a year ago resulted from an increase in interest income, partially offset by an increase in interest expense on funding sources. The increase in interest income was driven by balance growth in earning assets and the benefit of higher interest rates, offset by lower variable income. Interest expense on funding sources increased in the second quarter and first half of 2017, compared with the same periods a year ago, with a significant portion due to growth and repricing of long-term debt. Deposit interest expense was also higher, predominantly due to an increase in wholesale pricing resulting from higher interest rates.

The increase in net interest margin in the second quarter and first half of 2017, compared with the same periods a year ago, was primarily due to repricing benefits of earning assets from higher interest rates exceeding the repricing costs of deposits and market based funding sources.

Average earning assets increased \$82.4 billion and \$101.9 billion in the second quarter and first half of 2017, respectively, compared with the same periods a year ago, as average loans increased \$6.1 billion in the second quarter and \$21.3 billion in the first half of 2017, average investment securities increased \$67.5 billion in second quarter 2017 and \$68.6 billion in the first half of 2017, and average trading assets increased \$16.7 billion in the second quarter and \$15.0 billion in the first half of 2017, compared with the same periods a year ago. In addition, average federal funds sold and other short-term investments decreased \$12.2 billion and \$6.6 billion in the second quarter and first half of 2017, respectively, compared with the same periods a year ago.

Deposits are an important low-cost source of funding and affect both net interest income and the net interest margin. Deposits include noninterest-bearing deposits, interest-bearing checking, market rate and other savings, savings certificates, other time deposits, and deposits in foreign offices. Average deposits of \$1.30 trillion in both the second quarter and first half of 2017, increased compared with \$1.24 trillion and \$1.23 trillion for the same periods a year ago, and represented 136% of average loans in second quarter 2017 (135% in the first half of 2017), compared with 130% in second quarter 2016 (131% in the first half of 2016). Average deposits remained stable at 74% and 73% of average earning assets in the second quarter and first half of 2017, respectively, compared with 73% and 74% for the same periods a year ago.

Table 1: Average Balances, Yields and Rates Paid (Taxable-Equivalent Basis) (1)(2)

(in millions)	Quarter ended June 30,					
	2017	2016	2017	2016	2017	2016
Earning assets						
Federal funds sold, securities purchased under resale agreements and other short-term investments	\$ 281,619	0.99%	\$ 698	293,783	0.49%	\$ 359
Trading assets	98,086	2.95	722	81,380	2.86	582
Investment securities (3):						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	18,099	1.53	69	31,525	1.56	123
Securities of U.S. states and political subdivisions	53,492	4.03	540	52,201	4.24	553
Mortgage-backed securities:						
Federal agencies	132,032	2.63	868	92,010	2.53	583
Residential and commercial	12,586	5.55	175	19,571	5.44	266
Total mortgage-backed securities	144,618	2.89	1,043	111,581	3.04	849
Other debt and equity securities	48,962	3.87	472	53,301	3.48	461
Total available-for-sale securities	265,171	3.21	2,124	248,608	3.20	1,986
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	44,701	2.19	244	44,671	2.19	243
Securities of U.S. states and political subdivisions	6,270	5.29	83	2,155	5.41	29
Federal agency and other mortgage-backed securities	83,116	2.44	507	35,057	1.90	166
Other debt securities	2,798	2.34	16	4,077	1.92	20
Total held-to-maturity securities	136,885	2.49	850	85,960	2.14	458
Total investment securities	402,056	2.96	2,974	334,568	2.93	2,444
Mortgages held for sale (4)	19,758	3.94	195	20,140	3.60	181
Loans held for sale (4)	210	6.95	4	239	4.83	3
Loans:						
Commercial:						
Commercial and industrial – U.S.	273,073	3.70	2,521	270,862	3.45	2,328
Commercial and industrial – Non U.S.	56,426	2.86	402	51,201	2.35	300
Real estate mortgage	131,293	3.68	1,206	126,126	3.41	1,069
Real estate construction	25,271	4.10	259	23,115	3.49	200
Lease financing	19,058	4.82	230	18,930	5.12	242
Total commercial	505,121	3.67	4,618	490,234	3.39	4,139
Consumer:						
Real estate 1-4 family first mortgage	275,108	4.08	2,805	275,854	4.01	2,765
Real estate 1-4 family junior lien mortgage	43,602	4.78	521	50,609	4.37	551
Credit card	34,868	12.18	1,059	33,368	11.52	956
Automobile	59,112	5.43	800	61,149	5.66	860
Other revolving credit and installment	39,068	6.13	596	39,537	5.91	581
Total consumer	451,758	5.13	5,781	460,517	4.98	5,713
Total loans (4)	956,879	4.36	10,399	950,751	4.16	9,852
Other	10,713	2.00	54	6,014	2.30	35
Total earning assets	\$ 1,769,321	3.41%	\$ 15,046	1,686,875	3.20%	\$ 13,456
Funding sources						
Deposits:						
Interest-bearing checking	\$ 48,465	0.41%	\$ 50	39,772	0.13%	\$ 13
Market rate and other savings	683,014	0.13	214	658,944	0.07	110
Savings certificates	22,599	0.30	17	26,246	0.35	23
Other time deposits	57,158	1.43	203	61,170	0.85	129
Deposits in foreign offices	123,684	0.65	199	97,525	0.23	57
Total interest-bearing deposits	934,920	0.29	683	883,657	0.15	332
Short-term borrowings	95,763	0.69	164	111,848	0.28	78
Long-term debt	249,518	2.05	1,278	236,156	1.56	921
Other liabilities	20,981	2.05	108	16,336	2.06	83
Total interest-bearing liabilities	1,301,182	0.69	2,233	1,247,997	0.45	1,414
Portion of noninterest-bearing funding sources	468,139	—	—	438,878	—	—
Total funding sources	\$ 1,769,321	0.51	2,233	1,686,875	0.34	1,414
Net interest margin and net interest income on a taxable-equivalent basis (5)						
Noninterest-earning assets						
Cash and due from banks	\$ 18,171				18,818	
Goodwill	26,664				27,037	
Other	112,923				129,354	
Total noninterest-earning assets	\$ 157,758				175,209	
Noninterest-bearing funding sources						
Deposits	\$ 366,275				353,001	
Other liabilities	53,654				60,083	
Total equity	205,968				201,003	
Noninterest-bearing funding sources used to fund earning assets	(468,139)				(438,878)	
Net noninterest-bearing funding sources	\$ 157,758				175,209	
Total assets	\$ 1,927,079				1,862,084	

(1) Our average prime rate was 4.05% and 3.50% for the quarters ended June 30, 2017 and 2016, respectively, and 3.92% and 3.50% for the first half of 2017 and 2016, respectively. The average three-month London Interbank Offered Rate (LIBOR) was 1.21% and 0.64% for the quarters ended June 30, 2017 and 2016, respectively, and 1.14% and 0.63% for the first half of 2017 and 2016, respectively.

(2) Yields/rates and amounts include the effects of hedge and risk management activities associated with the respective asset and liability categories.

(3) Yields and rates are based on interest income/expense amounts for the period, annualized based on the accrual basis for the respective accounts. The average balance amounts represent amortized cost for the periods presented.

(4) Nonaccrual loans and related income are included in their respective loan categories.

(5) Includes taxable-equivalent adjustments of \$330 million and \$309 million for the quarters ended June 30, 2017 and 2016, respectively, and \$648 million and \$599 million for the first half of 2017 and 2016, respectively, predominantly related to tax-exempt income on certain loans and securities. The federal statutory tax rate utilized was 35% for the periods presented.

(in millions)	Six months ended June 30,					
	2017			2016		
	Average balance	Yields/ rates	Interest income/ expense	Average balance	Yields/ rates	Interest income/ expense
Earning assets						
Federal funds sold, securities purchased under resale agreements and other short-term investments	\$ 282,687	0.88%	\$ 1,230	289,240	0.49%	\$ 703
Trading assets	95,937	2.87	1,377	80,922	2.94	1,187
Investment securities (3):						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	21,547	1.53	164	33,000	1.58	259
Securities of U.S. states and political subdivisions	52,873	4.03	1,066	51,357	4.24	1,088
Mortgage-backed securities:						
Federal agencies	144,257	2.61	1,879	94,216	2.67	1,258
Residential and commercial	13,514	5.43	367	20,199	5.32	537
Total mortgage-backed securities	157,771	2.85	2,246	114,415	3.14	1,795
Other debt and equity securities	49,787	3.73	924	53,430	3.34	890
Total available-for-sale securities	281,978	3.13	4,400	252,202	3.20	4,032
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	44,697	2.20	487	44,667	2.19	487
Securities of U.S. states and political subdivisions	6,271	5.30	166	2,155	5.41	58
Federal agency and other mortgage-backed securities	67,538	2.46	831	31,586	2.16	341
Other debt securities	3,062	2.34	35	4,338	1.92	42
Total held-to-maturity securities	121,568	2.51	1,519	82,746	2.25	928
Total investment securities	403,546	2.94	5,919	334,948	2.97	4,960
Mortgages held for sale (4)	19,825	3.82	379	19,005	3.60	342
Loans held for sale (4)	161	6.08	5	260	3.97	5
Loans:						
Commercial:						
Commercial and industrial – U.S.	273,905	3.65	4,957	264,295	3.42	4,505
Commercial and industrial – Non U.S.	55,890	2.80	775	50,354	2.23	558
Real estate mortgage	131,868	3.62	2,370	124,432	3.41	2,109
Real estate construction	24,933	3.91	484	22,859	3.55	403
Lease financing	19,064	4.88	465	16,989	4.95	420
Total commercial	505,660	3.61	9,051	478,929	3.35	7,995
Consumer:						
Real estate 1-4 family first mortgage	275,293	4.05	5,571	275,288	4.03	5,547
Real estate 1-4 family junior lien mortgage	44,439	4.69	1,036	51,423	4.38	1,122
Credit card	35,151	12.07	2,105	33,367	11.56	1,919
Automobile	60,304	5.45	1,628	60,631	5.66	1,708
Other revolving credit and installment	39,396	6.07	1,186	39,348	5.95	1,165
Total consumer	454,583	5.09	11,526	460,057	5.00	11,461
Total loans (4)	960,243	4.31	20,577	938,986	4.16	19,456
Other	8,801	2.37	104	5,910	2.18	65
Total earning assets	\$ 1,771,200	3.36%	\$ 29,591	1,669,271	3.21%	\$ 26,718
Funding sources						
Deposits:						
Interest-bearing checking	\$ 49,569	0.35%	\$ 87	39,242	0.12%	\$ 24
Market rate and other savings	683,591	0.11	371	655,247	0.07	217
Savings certificates	23,030	0.29	34	27,063	0.40	54
Other time deposits	56,043	1.37	381	59,688	0.80	236
Deposits in foreign offices	122,946	0.57	347	97,604	0.22	108
Total interest-bearing deposits	935,179	0.26	1,220	878,844	0.15	639
Short-term borrowings	97,149	0.58	279	109,853	0.27	145
Long-term debt	254,627	1.94	2,461	226,519	1.56	1,763
Other liabilities	18,905	2.12	200	16,414	2.10	172
Total interest-bearing liabilities	1,305,860	0.64	4,160	1,231,630	0.44	2,719
Portion of noninterest-bearing funding sources	465,340		—	437,641	—	—
Total funding sources	\$ 1,771,200	0.47	\$ 4,160	1,669,271	0.33	\$ 2,719
Net interest margin and net interest income on a taxable-equivalent basis (5)		2.89%	\$ 25,431		2.88%	\$ 23,999
Noninterest-earning assets						
Cash and due from banks	\$ 18,437				18,407	
Goodwill	26,668				26,553	
Other	112,744				126,749	
Total noninterest-earning assets	\$ 157,849				171,709	
Noninterest-bearing funding sources						
Deposits	\$ 365,019				349,200	
Other liabilities	54,291				61,355	
Total equity	203,879				198,795	
Noninterest-bearing funding sources used to fund earning assets	(465,340)				(437,641)	
Net noninterest-bearing funding sources	\$ 157,849				171,709	
Total assets	\$ 1,929,049				1,840,980	

Noninterest Income

Table 2: Noninterest Income

(in millions)	Quarter ended June 30,		%	Six months ended June 30,		%
	2017	2016		2017	2016	
Service charges on deposit accounts	\$ 1,276	1,336	(4)%	\$ 2,589	2,645	(2)%
Trust and investment fees:						
Brokerage advisory, commissions and other fees	2,329	2,291	2	4,653	4,530	3
Trust and investment management	837	835	—	1,666	1,650	1
Investment banking	463	421	10	880	752	17
Total trust and investment fees	3,629	3,547	2	7,199	6,932	4
Card fees	1,019	997	2	1,964	1,938	1
Other fees:						
Charges and fees on loans	325	317	3	632	630	—
Cash network fees	134	138	(3)	260	269	(3)
Commercial real estate brokerage commissions	102	86	19	183	203	(10)
Letters of credit fees	76	83	(8)	150	161	(7)
Wire transfer and other remittance fees	112	101	11	219	193	13
All other fees	153	181	(15)	323	383	(16)
Total other fees	902	906	—	1,767	1,839	(4)
Mortgage banking:						
Servicing income, net	400	360	11	856	1,210	(29)
Net gains on mortgage loan origination/sales activities	748	1,054	(29)	1,520	1,802	(16)
Total mortgage banking	1,148	1,414	(19)	2,376	3,012	(21)
Insurance	280	286	(2)	557	713	(22)
Net gains from trading activities	237	328	(28)	676	528	28
Net gains on debt securities	120	447	(73)	156	691	(77)
Net gains from equity investments	188	189	(1)	591	433	36
Lease income	493	497	(1)	974	870	12
Life insurance investment income	145	149	(3)	289	303	(5)
All other	249	333	(25)	250	1,053	(76)
Total	\$ 9,686	10,429	(7)	\$ 19,388	20,957	(7)

Noninterest income was \$9.7 billion and \$19.4 billion for the second quarter and first half of 2017, respectively, compared with \$10.4 billion and \$21.0 billion for the same periods a year ago. This income represented 44% of revenue for both the second quarter and first half of 2017, compared with 47% for the same periods a year ago. The decline in noninterest income in the second quarter and first half of 2017, compared with the same periods a year ago, was driven by lower net gains on debt securities, and lower mortgage banking income. Noninterest income in the first half of 2017 also reflected lower insurance income due to the divestiture of our crop insurance business in first quarter 2016, and lower all other noninterest income due to unfavorable net hedge ineffectiveness accounting results, but benefited from higher trust and investment fees, net gains on equity investments, deferred compensation plan investment results (offset in employee benefits expense), and lease income related to the GE Capital business acquisitions in 2016.

Brokerage advisory, commissions and other fees are received for providing full-service and discount brokerage services predominantly to retail brokerage clients. Income from these brokerage-related activities include asset-based fees for advisory accounts, which are based on the market value of the client's assets, and transactional commissions based on the number and size of transactions executed at the client's direction. These fees were \$2.33 billion and \$4.65 billion in the second quarter and first half of 2017, respectively, compared with \$2.29 billion and

\$4.53 billion for the same periods in 2016. The increase in both periods was due to higher asset-based fees, partially offset by lower transactional commission revenue. Retail brokerage client assets totaled \$1.6 trillion at June 30, 2017, compared with \$1.5 trillion at June 30, 2016, with all retail brokerage services provided by our Wealth and Investment Management (WIM) operating segment. For additional information on retail brokerage client assets, see the discussion and Tables 4d and 4e in the "Operating Segment Results – Wealth and Investment Management – Retail Brokerage Client Assets" section in this Report.

We earn trust and investment management fees from managing and administering assets, including mutual funds, institutional separate accounts, corporate trust, personal trust, employee benefit trust and agency assets. Trust and investment management fee income is primarily from client assets under management (AUM) for which the fees are determined based on a tiered scale relative to the market value of the AUM. AUM consists of assets for which we have investment management discretion. Our AUM totaled \$663.2 billion at June 30, 2017, compared with \$649.1 billion at June 30, 2016, with substantially all of our AUM managed by our WIM operating segment. Additional information regarding our WIM operating segment AUM is provided in Table 4f and the related discussion in the "Operating Segment Results – Wealth and Investment Management – Trust and Investment Client Assets Under

Earnings Performance (continued)

Management" section in this Report. In addition to AUM we have client assets under administration (AUA) that earn various administrative fees which are generally based on the extent of the services provided to administer the account. Our AUA totaled \$1.7 trillion at June 30, 2017, compared with \$1.6 trillion at June 30, 2016. Trust and investment management fees increased slightly to \$837 million and \$1.67 billion in the second quarter and first half of 2017, respectively, from \$835 million and \$1.65 billion for the same periods in 2016 due to growth in management fees for investment advice on mutual funds, and corporate trust fees.

We earn investment banking fees from underwriting debt and equity securities, arranging loan syndications, and performing other related advisory services. Investment banking fees increased to \$463 million and \$880 million in the second quarter and first half of 2017, respectively, from \$421 million and \$752 million for the same periods in 2016, due to an increase in advisory services, and equity originations.

Card fees were \$1.0 billion and \$2.0 billion in the second quarter and first half of 2017, respectively, compared with \$997 million and \$1.9 billion for the same periods a year ago, predominantly due to an increase in debit card purchase activity.

Other fees decreased to \$902 million and \$1.77 billion in the second quarter and first half of 2017, respectively, from \$906 million and \$1.84 billion for the same periods in 2016, driven by lower all other fees. All other fees were \$153 million and \$323 million in the second quarter and first half of 2017, respectively, compared with \$181 million and \$383 million for the same periods in 2016, driven by lower hedge fund fees, merchant-related services, and the impact of the sale of our global fund services business in fourth quarter 2016. Commercial real estate brokerage commissions increased to \$102 million in second quarter 2017, compared with \$86 million in second quarter 2016, driven by higher sales and other property-related activities, but decreased to \$183 million in the first half of 2017, compared with \$203 million for the same period a year ago, driven by lower sales and other property-related activities including financing and advisory services.

Mortgage banking noninterest income, consisting of net servicing income and net gains on mortgage loan origination/sales activities, totaled \$1.1 billion and \$2.4 billion in the second quarter and first half of 2017, respectively, compared with \$1.4 billion and \$3.0 billion for the same periods a year ago.

In addition to servicing fees, net mortgage loan servicing income includes amortization of commercial mortgage servicing rights (MSRs), changes in the fair value of residential MSRs during the period, as well as changes in the value of derivatives (economic hedges) used to hedge the residential MSRs. Net servicing income of \$400 million for second quarter 2017 included a \$71 million net MSR valuation gain (\$360 million decrease in the fair value of the MSRs and a \$431 million hedge gain). Net servicing income of \$360 million for second quarter 2016 included a \$154 million net MSR valuation gain (\$824 million decrease in the fair value of the MSRs and a \$978 million hedge gain). For the first half of 2017, net servicing income of \$856 million included a \$173 million net MSR valuation gain (\$186 million decrease in the fair value of the MSRs and a \$359 million hedge gain), and for the same period in 2016 net servicing income of \$1.2 billion included a \$652 million net MSR valuation gain (\$1.8 billion decrease in the fair value of the MSRs and a \$2.4 billion hedge gain). Net servicing income decreased for the first half of 2017, compared with the same period a year ago, due to lower net MSR valuation gains. The decrease in net MSR valuation gains in the first half of 2017, compared with the same period in 2016, was primarily

attributable to MSR valuation adjustments in the first quarter of 2016 that reflected a reduction in forecasted prepayments due to updated economic, customer data attributes, and mortgage market rate inputs as well as higher actual prepayments experienced in second quarter 2017.

Our portfolio of mortgage loans serviced for others was \$1.66 trillion at June 30, 2017 and \$1.68 trillion at December 31, 2016. At both June 30, 2017 and December 31, 2016, the ratio of combined residential and commercial MSRs to related loans serviced for others was 0.85%. See the "Risk Management – Asset/Liability Management – Mortgage Banking Interest Rate and Market Risk" section in this Report for additional information regarding our MSRs risks and hedging approach.

Net gains on mortgage loan origination/sales activities was \$748 million and \$1.5 billion in the second quarter and first half of 2017, respectively, compared with \$1.1 billion and \$1.8 billion for the same periods a year ago. The decrease in the second quarter and first half of 2017, compared with the same periods a year ago, was due to lower held for sale funding volume and production margins. Total mortgage loan originations were \$56 billion and \$100 billion for the second quarter and first half of 2017, respectively, compared with \$63 billion and \$107 billion for the same periods a year ago. The production margin on residential held-for-sale mortgage originations, which represents net gains on residential mortgage loan origination/sales activities divided by total residential held-for-sale mortgage originations, provides a measure of the profitability of our residential mortgage origination activity. Table 2a presents the information used in determining the production margin.

Table 2a: Selected Mortgage Production Data

		Quarter ended June 30,	Six months ended June 30,		
		2017	2016	2017	2016
Net gains on mortgage loan origination/sales activities (in millions):					
Residential	(A)	\$ 521	744	1,090	1,276
Commercial		81	72	182	143
Residential pipeline and unsold/repurchased loan management (1)		146	238	248	383
Total		\$ 748	1,054	1,520	1,802
Residential real estate originations (in billions):					
Held-for-sale	(B)	\$ 42	46	76	77
Held-for-investment		14	17	24	30
Total		\$ 56	63	100	107
Production margin on residential held-for-sale mortgage originations					
	(A)/ (B)	1.24%	1.66	1.44	1.67

(1) Largely includes the results of GNMA loss mitigation activities, interest rate management activities and changes in estimate to the liability for mortgage loan repurchase losses.

The production margin was 1.24% and 1.44% for the second quarter and first half of 2017, respectively, compared with 1.66% and 1.67% for the same periods in 2016. The decline in production margin in the second quarter and first half of 2017 was attributable to lower margins in both our retail and correspondent production channels as well as a shift to more correspondent origination volume, which has a lower production margin. Mortgage applications were \$83 billion and \$142 billion for the second quarter and first half of 2017, respectively,

compared with \$95 billion and \$172 billion for the same periods a year ago. The 1-4 family first mortgage unclosed pipeline was \$34 billion at June 30, 2017, compared with \$47 billion at June 30, 2016. For additional information about our mortgage banking activities and results, see the “Risk Management – Asset/Liability Management – Mortgage Banking Interest Rate and Market Risk” section and Note 8 (Mortgage Banking Activities) and Note 13 (Fair Values of Assets and Liabilities) to Financial Statements in this Report.

Net gains on mortgage loan origination/sales activities include adjustments to the mortgage repurchase liability. Mortgage loans are repurchased from third parties based on standard representations and warranties, and early payment default clauses in mortgage sale contracts. For the first half of 2017, we had a net \$39 million release to the repurchase liability, compared with a net \$93 million release for the first half of 2016. For additional information about mortgage loan repurchases, see the “Risk Management – Credit Risk Management – Liability for Mortgage Loan Repurchase Losses” section and Note 8 (Mortgage Banking Activities) to Financial Statements in this Report.

Insurance income was \$280 million and \$557 million in the second quarter and first half of 2017, respectively, compared with \$286 million and \$713 million in the same periods a year ago. The decrease was driven by the divestiture of our crop insurance business in first quarter 2016.

Net gains from trading activities, which reflect unrealized changes in fair value of our trading positions and realized gains and losses, were \$237 million and \$676 million in the second quarter and first half of 2017, respectively, compared with \$328 million and \$528 million in the same periods a year ago. The decrease in second quarter 2017, compared with second quarter 2016, was predominantly driven by lower customer accommodation trading activity, partially offset by higher deferred compensation plan investment results (offset in employee benefits expense) and higher economic hedge income. The increase in the first half of 2017, compared with the same period in 2016, was predominantly driven by higher deferred compensation plan investment results (offset in employee benefits expense). Net gains from trading activities do not include interest and dividend income and expense on trading securities. Those amounts are reported within interest income from trading assets and other interest expense from trading liabilities. For additional information about trading activities, see the “Risk Management – Asset/Liability Management – Market Risk – Trading Activities” section in this Report.

Net gains on debt and equity securities totaled \$308 million and \$747 million for the second quarter and first half of 2017, respectively, compared with \$636 million and \$1.1 billion in the second quarter and first half of 2016, after other-than-temporary impairment (OTTI) write-downs of \$73 million and \$202 million for the second quarter and first half of 2017, respectively, compared with \$130 million and \$328 million for the same periods in 2016. The decreases in net gains on debt and equity securities for the second quarter and first half of 2017, compared with the same periods a year ago, primarily reflected lower net gains from debt securities.

Lease income was \$493 million and \$974 million in the second quarter and first half of 2017, respectively, compared with \$497 million and \$870 million for the same periods a year ago. The increase in the first half of 2017, compared with the same period a year ago, was predominantly driven by the GE Capital business acquisitions completed in the first quarter of 2016, partially offset by lower gains on early leveraged lease terminations.

All other income was \$249 million and \$250 million in the second quarter and first half of 2017, respectively, compared with \$333 million and \$1.1 billion for the same periods a year ago. All other income includes ineffectiveness recognized on derivatives that qualify for hedge accounting, the results of certain economic hedges, losses on low income housing tax credit investments, foreign currency adjustments, and income from investments accounted for under the equity method, any of which can cause decreases and net losses in other income. The decrease in other income in the first half of 2017, compared with the same period a year ago, was predominantly due to net hedge ineffectiveness results, the gain from the sale of our crop insurance business in first quarter 2016, and a gain from the sale of our health benefits services business in second quarter 2016, partially offset by a \$309 million gain from the sale of a Pick-a-Pay PCI loan portfolio in second quarter 2017 and higher income from equity method investments. Hedge ineffectiveness was driven by changes in ineffectiveness recognized on interest rate swaps used to hedge our exposure to interest rate risk on long-term debt and cross-currency swaps, cross-currency interest rate swaps and forward contracts used to hedge our exposure to foreign currency risk and interest rate risk involving non-U.S. dollar denominated long-term debt. The portion of the hedge ineffectiveness recognized was partially offset by the results of certain economic hedges and, accordingly, we recognized a net hedge benefit of \$21 million for second quarter 2017 and a net hedge loss of \$172 million for the first half of 2017, compared with a net hedge benefit of \$56 million and \$435 million for the same periods a year ago. For additional information about derivatives used as part of our asset/liability management, see Note 12 (Derivatives) to Financial Statements in this Report.

Earnings Performance (continued)

Noninterest Expense

Table 3: Noninterest Expense

(in millions)	Quarter ended June 30,		%	Six months ended June 30,		%
	2017	2016		2017	2016	
Salaries	\$ 4,343	4,099	6%	\$ 8,604	8,135	6%
Commission and incentive compensation	2,499	2,604	(4)	5,224	5,249	—
Employee benefits	1,308	1,244	5	2,994	2,770	8
Equipment	529	493	7	1,106	1,021	8
Net occupancy	706	716	(1)	1,418	1,427	(1)
Core deposit and other intangibles	287	299	(4)	576	592	(3)
FDIC and other deposit assessments	328	255	29	661	505	31
Outside professional services	1,029	769	34	1,833	1,352	36
Operating losses	350	334	5	632	788	(20)
Operating leases	334	352	(5)	679	587	16
Contract services	349	283	23	674	565	19
Outside data processing	236	225	5	456	433	5
Travel and entertainment	171	193	(11)	350	365	(4)
Postage, stationery and supplies	134	153	(12)	279	316	(12)
Advertising and promotion	150	166	(10)	277	300	(8)
Telecommunications	91	94	(3)	182	186	(2)
Foreclosed assets	52	66	(21)	138	144	(4)
Insurance	24	22	9	48	133	(64)
All other	621	499	24	1,202	1,026	17
Total	\$ 13,541	12,866	5	\$ 27,333	25,894	6

NM - Not meaningful

Noninterest expense was \$13.5 billion in second quarter 2017, up 5% from \$12.9 billion a year ago, driven by higher outside professional and contract services, personnel expenses, FDIC expense, and other expense. In the first half of 2017, noninterest expense was \$27.3 billion, up 6% from the same period a year ago, due to higher personnel expenses, outside professional and contract services, FDIC expense, operating lease expense and other expense, partially offset by lower operating losses and insurance expense.

Personnel expenses, which include salaries, commissions, incentive compensation, and employee benefits, were up \$203 million, or 3%, in second quarter 2017 compared with the same quarter last year, and up \$668 million, or 4%, in the first half of 2017 compared with the same period a year ago. The increase in both periods was due to annual salary increases and staffing growth in technology and risk management. The increase in the first half of 2017 was also driven by higher deferred compensation costs (offset in trading revenue).

FDIC and other deposit assessments were up 29% and 31% in the second quarter and first half of 2017, compared with the same periods a year ago, due to an increase in deposit assessments as a result of a temporary surcharge which became effective on July 1, 2016. The FDIC expects the surcharge to be in effect for approximately two years.

Outside professional and contract services expense was up 31% in both the second quarter and first half of 2017, compared with the same periods a year ago. The increase in both periods reflected higher project and technology spending on regulatory and compliance related initiatives, as well as higher legal expense related to sales practices matters.

Operating losses were up 5% in second quarter 2017 and down 20% in the first half of 2017, compared with the same periods in 2016, predominantly due to litigation accruals for various legal matters.

Operating lease expense was down 5% in second quarter 2017 and up 16% in the first half of 2017, compared with the same periods a year ago, predominantly due to depreciation expense on the leases acquired from GE Capital.

Insurance expense was up 9% in second quarter 2017, compared with the same period a year ago, predominantly driven by our reinsurance business, and down 64% in the first half of 2017, compared with the same period a year ago, predominantly driven by the sale of our crop insurance business in first quarter 2016.

All other noninterest expense was up 24% and 17%, in the second quarter and first half of 2017, respectively, compared with the same periods a year ago, largely driven by higher donations expense. All other noninterest expense in second quarter 2017 included a \$94 million contribution to the Wells Fargo Foundation.

The efficiency ratio was 61.1% in second quarter 2017, compared with 58.1% in second quarter 2016.

Income Tax Expense

Our effective tax rate was 27.7% and 32.3% for second quarter 2017 and 2016, respectively, and was 27.5% in the first half of 2017, down from 32.1% in the first half of 2016. The effective tax rate for the first half of 2017 included discrete tax benefits associated with stock compensation activity subject to ASU 2016-09 accounting guidance adopted in first quarter 2017, and the tax benefits associated with our agreement to sell Wells Fargo Insurance Services USA (and related businesses) in second quarter 2017. See Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report for additional information about ASU 2016-09.

Operating Segment Results

We are organized for management reporting purposes into three operating segments: Community Banking; Wholesale Banking; and Wealth and Investment Management (WIM). These segments are defined by product type and customer segment and their results are based on our management accounting process, for which there is no comprehensive, authoritative financial accounting guidance equivalent to generally accepted accounting principles (GAAP). Commencing in second quarter 2016, operating segment results reflect a shift in expenses between the personnel and other expense categories as a result of the

movement of support staff from the Wholesale Banking and WIM segments into a consolidated organization within the Community Banking segment. Since then personnel expenses associated with the transferred support staff have been allocated from Community Banking back to the Wholesale Banking and WIM segments through other expense. Table 4 and the following discussion present our results by operating segment. For additional description of our operating segments, including additional financial information and the underlying management accounting process, see Note 18 (Operating Segments) to Financial Statements in this Report.

Table 4: Operating Segment Results – Highlights

(income/expense in millions, average balances in billions)	Community Banking		Wholesale Banking		Wealth and Investment Management		Other (1)		Consolidated Company	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Quarter ended June 30,										
Revenue	\$ 12,289	12,204	6,951	7,284	4,182	3,919	(1,253)	(1,245)	22,169	22,162
Provision (reversal of provision) for credit losses	623	689	(65)	385	7	2	(10)	(2)	555	1,074
Noninterest expense	7,223	6,648	4,078	4,036	3,075	2,976	(835)	(794)	13,541	12,866
Net income (loss)	2,993	3,179	2,388	2,073	682	584	(253)	(278)	5,810	5,558
Average loans	\$ 477.2	485.7	464.9	451.4	71.7	66.7	(56.9)	(53.0)	956.9	950.8
Average deposits	727.2	703.7	463.0	425.8	188.2	182.5	(77.2)	(75.3)	1,301.2	1,236.7
Six months ended June 30,										
Revenue	\$ 24,382	24,818	13,989	14,242	8,375	7,773	(2,575)	(2,476)	44,171	44,357
Provision (reversal of provision) for credit losses	1,269	1,409	(108)	748	3	(12)	(4)	15	1,160	2,160
Noninterest expense	14,444	13,484	8,303	8,004	6,281	6,018	(1,695)	(1,612)	27,333	25,894
Net income (loss)	6,002	6,475	4,503	3,994	1,305	1,096	(543)	(545)	11,267	11,020
Average loans	\$ 479.9	485.0	465.6	440.6	71.2	65.4	(56.5)	(52.0)	960.2	939.0
Average deposits	722.2	693.3	464.5	426.9	191.9	183.5	(78.4)	(75.7)	1,300.2	1,228.0

(1) Includes the elimination of certain items that are included in more than one business segment, substantially all of which represents products and services for WIM customers served through Community Banking distribution channels.

Earnings Performance (continued)

Community Banking offers a complete line of diversified financial products and services for consumers and small businesses including checking and savings accounts, credit and debit cards, and automobile, student, mortgage, home equity and small business lending, as well as referrals to Wholesale Banking and WIM business partners. The Community Banking segment

also includes the results of our Corporate Treasury activities net of allocations in support of the other operating segments and results of investments in our affiliated venture capital partnerships. Table 4a provides additional financial information for Community Banking.

Table 4a: Community Banking

(in millions, except average balances which are in billions)	Quarter ended June 30,		% Change	Six months ended June 30,		% Change
	2017	2016		2017	2016	
Net interest income	\$ 7,548	7,379	2%	\$ 15,175	14,847	2%
Noninterest income:						
Service charges on deposit accounts	724	773	(6)	1,465	1,526	(4)
Trust and investment fees:						
Brokerage advisory, commissions and other fees (1)	452	455	(1)	896	905	(1)
Trust and investment management (1)	216	204	6	434	409	6
Investment banking (2)	(20)	(50)	60	(47)	(69)	32
Total trust and investment fees	648	609	6	1,283	1,245	3
Card fees	925	907	2	1,793	1,759	2
Other fees	395	366	8	790	738	7
Mortgage banking	1,040	1,325	(22)	2,145	2,833	(24)
Insurance	16	—	NM	28	2	NM
Net gains (losses) from trading activities	19	(60)	132	69	(87)	179
Net gains on debt securities	184	394	(53)	286	613	(53)
Net gains from equity investments (3)	169	164	3	536	339	58
Other income of the segment	621	347	79	812	1,003	(19)
Total noninterest income	4,741	4,825	(2)	9,207	9,971	(8)
Total revenue	12,289	12,204	1	24,382	24,818	(2)
Provision for credit losses	623	689	(10)	1,269	1,409	(10)
Noninterest expense:						
Personnel expense	4,985	4,662	7	10,166	9,280	10
Equipment	507	466	9	1,058	959	10
Net occupancy	517	521	(1)	1,041	1,031	1
Core deposit and other intangibles	111	129	(14)	223	257	(13)
FDIC and other deposit assessments	185	148	25	376	294	28
Outside professional services	549	264	108	891	449	98
Operating losses	298	292	2	559	699	(20)
Other expense of the segment	71	166	(57)	130	515	(75)
Total noninterest expense	7,223	6,648	9	14,444	13,484	7
Income before income tax expense and noncontrolling interests	4,443	4,867	(9)	8,669	9,925	(13)
Income tax expense	1,404	1,667	(16)	2,531	3,364	(25)
Net income from noncontrolling interests (4)	46	21	119	136	86	58
Net income	\$ 2,993	3,179	(6)	\$ 6,002	6,475	(7)
Average loans	\$ 477.2	485.7	(2)	\$ 479.9	485.0	(1)
Average deposits	727.2	703.7	3	722.2	693.3	4

NM - Not meaningful

(1) Represents income on products and services for WIM customers served through Community Banking distribution channels and is eliminated in consolidation.

(2) Includes syndication and underwriting fees paid to Wells Fargo Securities which are offset in our Wholesale Banking segment.

(3) Predominantly represents gains resulting from venture capital investments.

(4) Reflects results attributable to noncontrolling interests largely associated with the Company's consolidated venture capital investments.

Community Banking reported net income of \$3.0 billion, down \$186 million, or 6%, from second quarter 2016, and \$6.0 billion for the first half of 2017, down \$473 million, or 7%, compared with the same period a year ago. First half 2017 results included a discrete tax benefit of \$172 million, largely associated with stock compensation activity subject to the adoption of accounting guidance in first quarter 2017. Revenue of \$12.3 billion increased \$85 million, or 1%, from second quarter 2016, and was \$24.4 billion for the first half of 2017, a decrease of \$436 million, or 2%, compared with the same period last year. The increase from second quarter 2016 was primarily due to the gain on the sale of a Pick-a-Pay PCI loan portfolio, higher net interest income, deferred compensation plan investments (offset in employee benefits expense), and card fees, partially offset by lower mortgage banking revenue and gains on sales of debt securities. The decrease from the first half of 2016 was primarily due to lower mortgage revenue, gains on sales of debt securities, and other income driven by net hedge ineffectiveness accounting

related to our long-term debt hedging results, partially offset by higher net interest income and gains on equity investments. Average loans of \$477.2 billion in second quarter 2017 decreased \$8.5 billion, or 2%, from second quarter 2016, and average loans of \$479.9 billion in the first half of 2017 decreased \$5.1 billion, or 1%, from the first half of 2016. Average deposits increased \$23.5 billion, or 3%, from second quarter 2016 and \$28.9 billion, or 4%, from the first half of 2016. Primary consumer checking customers (customers who actively use their checking account with transactions such as debit card purchases, online bill payments, and direct deposit) as of May 2017 were up 0.7% from May 2016. Noninterest expense increased 9% from second quarter 2016 and 7% from the first half of 2016. The increase from second quarter 2016 was driven by higher personnel expenses mainly due to the impact of annual salary increases and increased personnel, including the movement of certain support functions from our other operating segments into the Community Banking operating segment, and higher professional services

driven by increased project spending. The increase from the first half of 2016 was primarily due to higher personnel expenses, including deferred compensation plan expense (offset in trading revenue), and higher professional services, partially offset by lower other expense and operating losses. The provision for credit losses decreased \$66 million from second quarter 2016 and \$140 million from the first half of 2016 mostly due to an improvement in the consumer lending portfolio, primarily consumer real estate, compared with the same periods a year ago.

Wholesale Banking provides financial solutions to businesses across the United States and globally with annual sales generally in excess of \$5 million. Products and businesses include Business Banking, Commercial Real Estate, Corporate Banking, Financial Institutions Group, Government and Institutional Banking, Insurance, Middle Market Banking, Principal Investments, Treasury Management, Wells Fargo Commercial Capital, and Wells Fargo Securities. Table 4b provides additional financial information for Wholesale Banking.

Table 4b: Wholesale Banking

(in millions, except average balances which are in billions)	Quarter ended June 30,		% Change	Six months ended June 30,		% Change
	2017	2016		2017	2016	
Net interest income	\$ 4,278	3,919	9%	\$ 8,426	7,667	10%
Noninterest income:						
Service charges on deposit accounts	552	563	(2)	1,123	1,118	—
Trust and investment fees:						
Brokerage advisory, commissions and other fees	82	94	(13)	166	185	(10)
Trust and investment management	131	123	7	260	234	11
Investment banking	484	471	3	929	821	13
Total trust and investment fees	697	688	1	1,355	1,240	9
Card fees	93	89	4	170	178	(4)
Other fees	506	538	(6)	974	1,098	(11)
Mortgage banking	110	90	22	233	181	29
Insurance	256	286	(10)	512	711	(28)
Net gains from trading activities	168	344	(51)	458	551	(17)
Net gains (losses) on debt securities	(64)	52	NM	(130)	77	NM
Net gains from equity investments	16	26	(38)	52	92	(43)
Other income of the segment	339	689	(51)	816	1,329	(39)
Total noninterest income	2,673	3,365	(21)	5,563	6,575	(15)
Total revenue	6,951	7,284	(5)	13,989	14,242	(2)
Provision (reversal of provision) for credit losses	(65)	385	NM	(108)	748	NM
Noninterest expense:						
Personnel expense	1,618	1,783	(9)	3,441	3,757	(8)
Equipment	14	16	(13)	30	37	(19)
Net occupancy	110	116	(5)	220	234	(6)
Core deposit and other intangibles	103	95	8	208	185	12
FDIC and other deposit assessments	120	88	36	238	174	37
Outside professional services	293	276	6	541	490	10
Operating losses	6	38	(84)	12	75	(84)
Other expense of the segment	1,814	1,624	12	3,613	3,052	18
Total noninterest expense	4,078	4,036	1	8,303	8,004	4
Income before income tax expense and noncontrolling interests	2,938	2,863	3	5,794	5,490	6
Income tax expense	559	795	(30)	1,305	1,514	(14)
Net loss from noncontrolling interests	(9)	(5)	(80)	(14)	(18)	22
Net income	\$ 2,388	2,073	15	\$ 4,503	3,994	13
Average loans	\$ 464.9	451.4	3	\$ 465.6	440.6	6
Average deposits	463.0	425.8	9	464.5	426.9	9

NM – Not meaningful

Wholesale Banking reported net income of \$2.4 billion in second quarter 2017, up \$315 million, or 15%, from second quarter 2016. In the first half of 2017, net income of \$4.5 billion increased \$509 million, or 13%, from the same period a year ago. Net income results in second quarter 2017 included a tax benefit resulting from our agreement to sell Wells Fargo Insurance Services USA and related businesses. Revenue decreased \$333 million, or 5%, from second quarter 2016 and \$253 million, or 2%, from the first half of 2016 as increased net interest income was more than offset by lower noninterest income. Net interest income increased \$359 million, or 9%, from second quarter 2016 and \$759 million, or 10%, from the first half of 2016 driven by strong loan growth, which included the benefit from the GE Capital business acquisitions in 2016, and rising interest rates. Noninterest income decreased \$692 million, or 21%, from second quarter 2016 due primarily to the second quarter 2016 gain on the sale of our health benefits services business as well as lower

customer accommodation trading and principal investing gains. Noninterest income decreased \$1.0 billion, or 15%, from the first half of 2016 primarily due to the first quarter 2016 sale of our crop insurance business, which resulted in lower insurance and gain on sale income, and the second quarter 2016 gain on the sale of our health benefits services business, as well as lower gains on debt securities and customer accommodation trading. The decreases in noninterest income from the first half of 2016 were partially offset by higher investment banking fees as well as higher lease income related to the GE Capital business acquisitions. Average loans of \$464.9 billion in second quarter 2017 increased \$13.5 billion, or 3%, from second quarter 2016, and average loans of \$465.6 billion in the first half of 2017 increased \$25.0 billion, or 6%, from the first half of 2016. Average loan growth was driven by broad-based growth in asset backed finance, business banking, capital finance, commercial real estate, global banking, government and institutional banking

Earnings Performance (continued)

and middle market banking, as well as the GE Capital business acquisitions in 2016. Average deposits of \$463.0 billion increased \$37.2 billion, or 9%, from second quarter 2016 and \$37.6 billion, or 9%, from the first half of 2016 reflecting growth in corporate banking, commercial real estate, corporate trust and financial institutions. Noninterest expense increased \$42 million, or 1%, from second quarter 2016 and \$299 million, or 4%, from the first half of 2016, substantially due to the GE Capital business acquisitions and higher expense related to growth initiatives, compliance and regulatory requirements. The provision for credit losses decreased \$450 million from second quarter 2016 and \$856 million from the first half of 2016 driven by improvement in the oil and gas portfolio.

Wealth and Investment Management provides a full range of personalized wealth management, investment and retirement products and services to clients across U.S. based businesses including Wells Fargo Advisors, The Private Bank, Abbot Downing, Wells Fargo Institutional Retirement and Trust, and Wells Fargo Asset Management. We deliver financial planning, private banking, credit, investment management and fiduciary services to high-net worth and ultra-high-net worth individuals and families. We also serve clients' brokerage needs, supply retirement and trust services to institutional clients and provide investment management capabilities delivered to global institutional clients through separate accounts and the Wells Fargo Funds. Table 4c provides additional financial information for WIM.

Table 4c: Wealth and Investment Management

(in millions, except average balances which are in billions)	Quarter ended June 30,		% Change	Six months ended June 30,		% Change
	2017	2016		2017	2016	
Net interest income	\$ 1,127	932	21%	\$ 2,201	1,875	17%
Noninterest income:						
Service charges on deposit accounts	5	5	—	10	10	—
Trust and investment fees:						
Brokerage advisory, commissions and other fees	2,255	2,208	2	4,500	4,362	3
Trust and investment management	713	718	(1)	1,420	1,430	(1)
Investment banking (1)	(1)	(1)	—	(2)	(1)	(100)
Total trust and investment fees	2,967	2,925	1	5,918	5,791	2
Card fees	2	2	—	3	3	—
Other fees	4	5	(20)	9	9	—
Mortgage banking	(3)	(2)	(50)	(5)	(4)	(25)
Insurance	22	—	NM	42	—	NM
Net gains from trading activities	50	44	14	149	64	133
Net gains on debt securities	—	1	NM	—	1	NM
Net gains (losses) from equity investments	3	(1)	400	3	2	50
Other income of the segment	5	8	(38)	45	22	105
Total noninterest income	3,055	2,987	2	6,174	5,898	5
Total revenue	4,182	3,919	7	8,375	7,773	8
Provision (reversal of provision) for credit losses	7	2	250	3	(12)	125
Noninterest expense:						
Personnel expense	1,980	1,911	4	4,085	3,936	4
Equipment	9	13	(31)	20	28	(29)
Net occupancy	108	109	(1)	215	221	(3)
Core deposit and other intangibles	73	75	(3)	145	150	(3)
FDIC and other deposit assessments	39	31	26	79	62	27
Outside professional services	193	236	(18)	415	427	(3)
Operating losses	48	6	700	65	18	261
Other expense of the segment	625	595	5	1,257	1,176	7
Total noninterest expense	3,075	2,976	3	6,281	6,018	4
Income before income tax expense and noncontrolling interests	1,100	941	17	2,091	1,767	18
Income tax expense	417	358	16	779	672	16
Net income (loss) from noncontrolling interests	1	(1)	200	7	(1)	800
Net income	\$ 682	584	17	\$ 1,305	1,096	19
Average loans	\$ 71.7	66.7	7	\$ 71.2	65.4	9
Average deposits	188.2	182.5	3	191.9	183.5	5

NM – Not meaningful

(1) Includes syndication and underwriting fees paid to Wells Fargo Securities which are offset in our Wholesale Banking segment.

WIM reported net income of \$682 million in second quarter 2017, up \$98 million from second quarter 2016. Net income for the first half of 2017 was \$1.3 billion, up \$209 million, or 19%, compared with the same period a year ago. Revenue was up \$263 million, or 7%, from second quarter 2016 and up \$602 million, or 8%, from the first half of 2016, due to increases in both net interest income and noninterest income. Net interest income increased 21% from second quarter 2016 and 17% from the first half of 2016, due to higher interest rates and growth in investment securities and loan balances. Noninterest income increased 2% from second quarter 2016 and 5% from the first half of 2016 substantially driven by higher asset-based fees and

deferred compensation plan investments (offset in employee benefits expense), partially offset by lower brokerage transaction revenue. Asset-based fees were up primarily due to higher brokerage advisory account client assets driven by higher market valuations and positive net flows. Average loans of \$71.7 billion in second quarter 2017 increased 7% from second quarter 2016. Average loans in the first half of 2017 increased 9% from the same period a year ago. Average loan growth was driven by growth in non-conforming mortgage loans. Average deposits in second quarter 2017 of \$188.2 billion increased 3% from second quarter 2016. Average deposits in the first half of 2017 increased 5% from the same period a year ago. Noninterest expense was up

3% from second quarter 2016 and up 4% from the first half of 2016, due to higher broker commissions mainly due to higher brokerage revenue, higher non-personnel expenses, and higher deferred compensation plan expense (offset in trading revenue). Total provision for credit losses increased \$5 million from second quarter 2016 and increased \$15 million from the first half of 2016 driven by loan growth, and higher net charge-offs in the first half of 2017 compared with the first half of 2016.

The following discussions provide additional information for client assets we oversee in our retail brokerage advisory and trust and investment management business lines.

Retail Brokerage Client Assets Brokerage advisory, commissions and other fees are received for providing full-service and discount brokerage services predominantly to retail

brokerage clients. Offering advisory account relationships to our brokerage clients is an important component of our broader strategy of meeting their financial needs. Although a majority of our retail brokerage client assets are in accounts that earn brokerage commissions, the fees from those accounts generally represent transactional commissions based on the number and size of transactions executed at the client's direction. Fees earned from advisory accounts are asset-based and depend on changes in the value of the client's assets as well as the level of assets resulting from inflows and outflows. A majority of our brokerage advisory, commissions and other fee income is earned from advisory accounts. Table 4d shows advisory account client assets as a percentage of total retail brokerage client assets at June 30, 2017 and 2016.

Table 4d: Retail Brokerage Client Assets

(in billions)	June 30,		
	2017	2016	
Retail brokerage client assets	\$ 1,575.9	1,455.4	
Advisory account client assets	502.5	443.7	
Advisory account client assets as a percentage of total client assets	32%	30	

Retail Brokerage advisory accounts include assets that are financial advisor-directed and separately managed by third-party managers, as well as certain client-directed brokerage assets where we earn a fee for advisory and other services, but do not have investment discretion. These advisory accounts generate fees as a percentage of the market value of the assets, which vary across the account types based on the distinct services provided,

and are affected by investment performance as well as asset inflows and outflows. For the second quarter and first half of 2017 and 2016, the average fee rate by account type ranged from 80 to 120 basis points. Table 4e presents retail brokerage advisory account client assets activity by account type for the second quarter and first half of 2017 and 2016.

Table 4e: Retail Brokerage Advisory Account Client Assets

(in billions)	Quarter ended					Six months ended				
	Balance, beginning of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period	Balance, beginning of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period
June 30, 2017										
Client directed (4)	\$ 163.3	8.3	(9.6)	1.8	163.8	159.1	20.3	(21.2)	5.6	163.8
Financial advisor directed (5)	126.2	6.9	(6.2)	4.8	131.7	115.7	16.3	(12.2)	11.9	131.7
Separate accounts (6)	133.7	6.3	(6.0)	3.7	137.7	125.7	14.5	(12.2)	9.7	137.7
Mutual fund advisory (7)	66.9	2.9	(2.7)	2.2	69.3	63.3	6.7	(5.7)	5.0	69.3
Total advisory client assets	\$ 490.1	24.4	(24.5)	12.5	502.5	463.8	57.8	(51.3)	32.2	502.5
June 30, 2016										
Client directed (4)	\$ 155.3	9.3	(9.0)	2.9	158.5	154.7	18.2	(18.2)	3.8	158.5
Financial advisor directed (5)	97.4	7.8	(4.8)	3.8	104.2	91.9	15.1	(8.8)	6.0	104.2
Separate accounts (6)	113.5	7.3	(5.2)	3.3	118.9	110.4	13.0	(10.0)	5.5	118.9
Mutual fund advisory (7)	62.0	2.0	(2.9)	1.0	62.1	62.9	3.9	(5.9)	1.2	62.1
Total advisory client assets	\$ 428.2	26.4	(21.9)	11.0	443.7	419.9	50.2	(42.9)	16.5	443.7

(1) Inflows include new advisory account assets, contributions, dividends and interest.

(2) Outflows include closed advisory account assets, withdrawals, and client management fees.

(3) Market impact reflects gains and losses on portfolio investments.

(4) Investment advice and other services are provided to client, but decisions are made by the client and the fees earned are based on a percentage of the advisory account assets, not the number and size of transactions executed by the client.

(5) Professionally managed portfolios with fees earned based on respective strategies and as a percentage of certain client assets.

(6) Professional advisory portfolios managed by Wells Fargo Asset Management advisors or third-party asset managers. Fees are earned based on a percentage of certain client assets.

(7) Program with portfolios constructed of load-waived, no-load and institutional share class mutual funds. Fees are earned based on a percentage of certain client assets.

Earnings Performance (continued)

Trust and Investment Client Assets Under Management
 We earn trust and investment management fees from managing and administering assets, including mutual funds, institutional separate accounts, personal trust, employee benefit trust and agency assets through our asset management, wealth and retirement businesses. Our asset management business is conducted by Wells Fargo Asset Management (WFAM), which offers Wells Fargo proprietary mutual funds and manages institutional separate accounts. Our wealth business manages assets for high net worth clients, and our retirement business

provides total retirement management, investments, and trust and custody solutions tailored to meet the needs of institutional clients. Substantially all of our trust and investment management fee income is earned from AUM where we have discretionary management authority over the investments and generate fees as a percentage of the market value of the AUM. Table 4f presents AUM activity for the second quarter and first half of 2017 and 2016.

Table 4f: WIM Trust and Investment – Assets Under Management

(in billions)	Balance, beginning of period	Quarter ended					Six months ended					
		Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period			
June 30, 2017												
Assets managed by WFAM (4):												
Money market funds (5)	\$ 96.7	—	(2.0)	—	94.7	102.6	—	(7.9)	—	94.7		
Other assets managed	384.4	34.2	(33.4)	7.3	392.5	379.6	63.6	(67.6)	16.9	392.5		
Assets managed by Wealth and Retirement (6)	173.5	10.0	(11.0)	3.1	175.6	168.5	19.4	(20.4)	8.1	175.6		
Total assets under management	\$ 654.6	44.2	(46.4)	10.4	662.8	650.7	83.0	(95.9)	25.0	662.8		
June 30, 2016												
Assets managed by WFAM (4):												
Money market funds (5)	\$ 113.9	—	(5.0)	—	108.9	123.6	—	(14.7)	—	108.9		
Other assets managed	367.1	28.8	(26.4)	5.4	374.9	366.1	55.9	(54.9)	7.8	374.9		
Assets managed by Wealth and Retirement (6)	163.4	8.2	(9.2)	2.2	164.6	162.1	17.3	(18.0)	3.2	164.6		
Total assets under management	\$ 644.4	37.0	(40.6)	7.6	648.4	651.8	73.2	(87.6)	11.0	648.4		

(1) Inflows include new managed account assets, contributions, dividends and interest.

(2) Outflows include closed managed account assets, withdrawals and client management fees.

(3) Market impact reflects gains and losses on portfolio investments.

(4) Assets managed by WFAM consist of equity, alternative, balanced, fixed income, money market, and stable value, and include client assets that are managed or sub-advised on behalf of other Wells Fargo lines of business.

(5) Money Market funds activity is presented on a net inflow or net outflow basis, because the gross flows are not meaningful nor used by management as an indicator of performance.

(6) Includes \$5.7 billion and \$7.6 billion as of June 30, 2017 and 2016, respectively, of client assets invested in proprietary funds managed by WFAM.

Balance Sheet Analysis

At June 30, 2017, our assets totaled \$1.93 trillion, up \$756 million from December 31, 2016. Asset growth was predominantly driven by growth in held-to-maturity investment securities, which increased \$40.8 billion, partially offset by a \$39.2 billion decrease in available-for-sale investment securities and a \$10.2 billion decrease in loans. Total equity growth of \$5.6 billion from December 31, 2016, was the predominant source that funded our asset growth from December 31, 2016.

Investment Securities

Table 5: Investment Securities – Summary

(in millions)	June 30, 2017			December 31, 2016		
	Amortized Cost	Net unrealized gain (loss)	Fair value	Amortized Cost	Net unrealized gain (loss)	Fair value
Available-for-sale securities:						
Debt securities	\$ 267,476	698	268,174	309,447	(2,294)	307,153
Marketable equity securities	614	414	1,028	706	505	1,211
Total available-for-sale securities	268,090	1,112	269,202	310,153	(1,789)	308,364
Held-to-maturity debt securities	140,392	(2)	140,390	99,583	(428)	99,155
Total investment securities (1)	\$ 408,482	1,110	409,592	409,736	(2,217)	407,519

(1) Available-for-sale securities are carried on the balance sheet at fair value. Held-to-maturity securities are carried on the balance sheet at amortized cost.

Table 5 presents a summary of our investment securities portfolio, which increased \$1.6 billion from December 31, 2016, predominantly due to purchases of federal agency mortgage-backed securities partially offset by sales and paydowns on other security classes including securities of U.S. treasury and federal agencies, commercial mortgage-backed securities, corporate debt securities and collateralized debt obligations.

The total net unrealized gains on available-for-sale securities were \$1.1 billion at June 30, 2017, up from net unrealized losses of \$1.8 billion at December 31, 2016, primarily due to lower long-term interest rates, tighter credit spreads and the transfer of available-for-sale securities to held-to-maturity. For a discussion of our investment management objectives and practices, see the “Balance Sheet Analysis” section in our 2016 Form 10-K. Also, see the “Risk Management – Asset/Liability Management” section in this Report for information on our use of investments to manage liquidity and interest rate risk.

We analyze securities for other-than-temporary impairment (OTTI) quarterly or more often if a potential loss-triggering event occurs. Of the \$202 million in OTTI write-downs recognized in earnings in the first half of 2017, \$100 million related to debt securities, \$4 million related to marketable equity securities, which are included in available-for-sale securities, and \$98 million related to nonmarketable equity investments, which are included in other assets. OTTI write-downs recognized in earnings related to oil and gas investments totaled \$58 million in the first half of 2017, of which \$22 million related to investment securities and \$36 million related to nonmarketable equity investments. For a discussion of our OTTI accounting policies and underlying considerations and analysis see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K and Note 4 (Investment Securities) to Financial Statements in this Report.

At June 30, 2017, investment securities included \$58.3 billion of municipal bonds, of which 95.5% were rated “A-” or better based largely on external and, in some cases, internal ratings. Additionally, some of the securities in our total municipal bond portfolio are guaranteed against loss by bond insurers.

Equity growth benefited from \$6.4 billion in earnings net of dividends paid.

The following discussion provides additional information about the major components of our balance sheet. Information regarding our capital and changes in our asset mix is included in the “Earnings Performance – Net Interest Income” and “Capital Management” sections and Note 19 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

These guaranteed bonds are predominantly investment grade and were generally underwritten in accordance with our own investment standards prior to the determination to purchase, without relying on the bond insurer’s guarantee in making the investment decision. The credit quality of our municipal bond holdings are monitored as part of our ongoing impairment analysis.

The weighted-average expected maturity of debt securities available-for-sale was 6.7 years at June 30, 2017. The expected remaining maturity is shorter than the remaining contractual maturity for the 55% of this portfolio that is MBS because borrowers generally have the right to prepay obligations before the underlying mortgages mature. The estimated effects of a 200 basis point increase or decrease in interest rates on the fair value and the expected remaining maturity of the MBS available-for-sale portfolio are shown in Table 6.

Table 6: Mortgage-Backed Securities Available for Sale

(in billions)	Fair value	Net unrealized gain (loss)	Expected remaining maturity (in years)
At June 30, 2017			
Actual	\$ 148.7	0.2	6.7
Assuming a 200 basis point:			
Increase in interest rates	132.8	(15.7)	8.5
Decrease in interest rates	155.0	6.5	2.9

The weighted-average expected maturity of debt securities held-to-maturity was 6.8 years at June 30, 2017. See Note 4 (Investment Securities) to Financial Statements in this Report for a summary of investment securities by security type.

Balance Sheet Analysis (continued)

Loan Portfolios

Table 7 provides a summary of total outstanding loans by portfolio segment. Total loans decreased \$10.2 billion from December 31, 2016, driven by a continued decline in junior lien

mortgage loans, as well as an expected decline in automobile loans as continued proactive steps to tighten underwriting standards resulted in lower origination volume.

Table 7: Loan Portfolios

(in millions)	June 30, 2017	December 31, 2016
Commercial	\$ 505,901	506,536
Consumer	451,522	461,068
Total loans	\$ 957,423	967,604
Change from prior year-end	\$ (10,181)	51,045

A discussion of average loan balances and a comparative detail of average loan balances is included in Table 1 under “Earnings Performance – Net Interest Income” earlier in this Report. Additional information on total loans outstanding by portfolio segment and class of financing receivable is included in the “Risk Management – Credit Risk Management” section in this Report. Period-end balances and other loan related

information are in Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 8 shows contractual loan maturities for loan categories normally not subject to regular periodic principal reduction and the contractual distribution of loans in those categories to changes in interest rates.

Table 8: Maturities for Selected Commercial Loan Categories

(in millions)	June 30, 2017				December 31, 2016			
	Within one year	After one year through five years	After five years	Total	Within one year	After one year through five years	After five years	Total
Selected loan maturities:								
Commercial and industrial	\$ 98,198	207,201	25,714	331,113	105,421	199,211	26,208	330,840
Real estate mortgage	21,818	66,665	41,794	130,277	22,713	68,928	40,850	132,491
Real estate construction	10,877	13,087	1,373	25,337	9,576	13,102	1,238	23,916
Total selected loans	\$ 130,893	286,953	68,881	486,727	137,710	281,241	68,296	487,247
Distribution of loans to changes in interest rates:								
Loans at fixed interest rates	\$ 18,632	28,857	26,229	73,718	19,389	29,748	26,859	75,996
Loans at floating/variable interest rates	112,261	258,096	42,652	413,009	118,321	251,493	41,437	411,251
Total selected loans	\$ 130,893	286,953	68,881	486,727	137,710	281,241	68,296	487,247

Deposits

Deposits were \$1.3 trillion at June 30, 2017, down \$249 million from December 31, 2016, reflecting lower wealth and commercial deposits, partially offset by growth in retail deposits and Treasury institutional certificates of deposit. Table 9 provides additional

information regarding deposits. Information regarding the impact of deposits on net interest income and a comparison of average deposit balances is provided in the “Earnings Performance – Net Interest Income” section and Table 1 earlier in this Report.

Table 9: Deposits

(\$ in millions)	Jun 30, 2017	% of total deposits	Dec 31, 2016	% of total deposits	% Change
Noninterest-bearing	\$ 372,766	28%	\$ 375,967	29%	(1)
Interest-bearing checking	47,080	4	49,403	4	(5)
Market rate and other savings	680,971	52	687,846	52	(1)
Savings certificates	22,225	2	23,968	2	(7)
Other time and deposits	61,666	5	52,649	4	17
Deposits in foreign offices (1)	121,122	9	116,246	9	4
Total deposits	\$ 1,305,830	100%	\$ 1,306,079	100%	—

(1) Includes Eurodollar sweep balances of \$75.4 billion and \$74.8 billion at June 30, 2017, and December 31, 2016, respectively.

Fair Value of Financial Instruments

We use fair value measurements to record fair value adjustments to certain financial instruments and to determine fair value disclosures. See our 2016 Form 10-K for a description of our critical accounting policy related to fair value of financial instruments and a discussion of our fair value measurement techniques.

Table 10 presents the summary of the fair value of financial instruments recorded at fair value on a recurring basis, and the amounts measured using significant Level 3 inputs (before derivative netting adjustments). The fair value of the remaining assets and liabilities were measured using valuation methodologies involving market-based or market-derived information (collectively Level 1 and 2 measurements).

See Note 13 (Fair Values of Assets and Liabilities) to Financial Statements in this Report for additional information on fair value measurements and a description of the Level 1, 2 and 3 fair value hierarchy.

Equity

Total equity was \$206.1 billion at June 30, 2017, compared with \$200.5 billion at December 31, 2016. The increase was predominantly driven by a \$6.4 billion increase in retained earnings from earnings net of dividends paid, partially offset by a net reduction in common stock due to repurchases.

Table 10: Fair Value Level 3 Summary

(\$ in billions)	June 30, 2017		December 31, 2016	
	Total balance	Level 3 (1)	Total balance	Level 3 (1)
Assets carried at fair value	\$ 402.8	24.2	436.3	23.5
As a percentage of total assets	21%	1	23	1
Liabilities carried at fair value	\$ 28.5	1.9	30.9	1.7
As a percentage of total liabilities	2%	*	2	*

* Less than 1%.

(1) Before derivative netting adjustments.

Off-Balance Sheet Arrangements

In the ordinary course of business, we engage in financial transactions that are not recorded on the balance sheet, or may be recorded on the balance sheet in amounts that are different from the full contract or notional amount of the transaction. Our off-balance sheet arrangements include commitments to lend and purchase securities, transactions with unconsolidated entities, guarantees, derivatives, and other commitments. These transactions are designed to (1) meet the financial needs of customers, (2) manage our credit, market or liquidity risks, and/or (3) diversify our funding sources.

Commitments to Lend and Purchase Securities

We enter into commitments to lend funds to customers, which are usually at a stated interest rate, if funded, and for specific purposes and time periods. When we make commitments, we are exposed to credit risk. However, the maximum credit risk for these commitments will generally be lower than the contractual amount because a significant portion of these commitments is expected to expire without being used by the customer. For more information on lending commitments, see Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report. We also enter into commitments to purchase securities under resale agreements. For more information on commitments to purchase securities under resale agreements, see Note 3 (Federal Funds Sold, Securities Purchased under Resale Agreements and Other Short-Term Investments) to Financial Statements in this Report.

Transactions with Unconsolidated Entities

In the normal course of business, we enter into various types of on- and off-balance sheet transactions with special purpose entities (SPEs), which are corporations, trusts, limited liability companies or partnerships that are established for a limited purpose. Generally, SPEs are formed in connection with securitization transactions and are considered variable interest entities (VIEs). For more information on securitizations, including sales proceeds and cash flows from securitizations, see Note 7 (Securitizations and Variable Interest Entities) to Financial Statements in this Report.

Guarantees and Certain Contingent Arrangements

Guarantees are contracts that contingently require us to make payments to a guaranteed party based on an event or a change in an underlying asset, liability, rate or index. Guarantees are generally in the form of standby letters of credit, securities lending and other indemnifications, written put options, recourse obligations and other types of arrangements. For more information on guarantees and certain contingent arrangements, see Note 10 (Guarantees, Pledged Assets and Collateral) to Financial Statements in this Report.

Derivatives

We use derivatives to manage exposure to market risk, including interest rate risk, credit risk and foreign currency risk, and to assist customers with their risk management objectives. Derivatives are recorded on the balance sheet at fair value, and volume can be measured in terms of the notional amount, which is generally not exchanged but is used only as the basis on which interest and other payments are determined. The notional amount is not recorded on the balance sheet and is not, when viewed in isolation, a meaningful measure of the risk profile of the instruments. For more information on derivatives, see Note 12 (Derivatives) to Financial Statements in this Report.

Other Commitments

We also have other off-balance sheet transactions, including obligations to make rental payments under noncancelable operating leases and commitments to purchase certain debt and equity securities. Our operating lease obligations are discussed in Note 7 (Premises, Equipment, Lease Commitments and Other Assets) to Financial Statements in our 2016 Form 10-K. For more information on commitments to purchase debt and equity securities, see the “Off-Balance Sheet Arrangements – Contractual Cash Obligations” section in our 2016 Form 10-K.

Risk Management

Wells Fargo manages a variety of risks that can significantly affect our financial performance and our ability to meet the expectations of our customers, stockholders, regulators and other stakeholders. Among the risks that we manage are conduct risk, operational risk, credit risk, and asset/liability management related risks, which include interest rate risk, market risk, liquidity risk, and funding related risks. We operate under a Board-level approved risk framework which outlines our company-wide approach to risk management and oversight, and describes the structures and practices employed to manage current and emerging risks inherent to Wells Fargo. For more information about how we manage these risks, see the "Risk Management" section in our 2016 Form 10-K. The discussion that follows provides an update regarding these risks.

Conduct Risk Management

Our Board oversees the alignment of team member conduct to the Company's risk appetite (which the Board approves annually) and culture as reflected in our *Vision and Values* and Code of Ethics and Business Conduct. The Board's Risk Committee has primary oversight responsibility for enterprise-wide conduct risk, while certain other Board committees have primary oversight responsibility for specific components of conduct risk.

At the management level, several committees have primary oversight responsibility for key elements of conduct risk, including internal investigations, sales practices oversight, complaints oversight, and ethics oversight. These management-level committees have escalation and informational reporting paths to the relevant Board committee.

Our Office of Ethics, Oversight and Integrity, which reports to our Chief Risk Officer and has an informational reporting path to the Board's Risk Committee, is responsible for fostering and promoting an enterprise-wide culture of prudent conduct risk management and compliance with internal directives, rules, regulations, and regulatory expectations throughout the Company and to provide assurance that the Company's internal operations and its treatment of customers and other external stakeholders are safe and sound, fair, and ethical.

Operational Risk Management

Operational risk is the risk of loss resulting from inadequate or failed internal controls and processes, people and systems, or resulting from external events. These losses may be caused by events such as fraud, breaches of customer privacy, business disruptions, vendors that do not adequately or appropriately perform their responsibilities, and regulatory fines and penalties.

Information security is a significant operational risk for financial institutions such as Wells Fargo, and includes the risk of losses resulting from cyber attacks. Wells Fargo and other financial institutions continue to be the target of various evolving and adaptive cyber attacks, including malware and denial-of-service, as part of an effort to disrupt the operations of financial institutions, potentially test their cybersecurity capabilities, or obtain confidential, proprietary or other information. Cyber attacks have also focused on targeting the infrastructure of the internet, causing the widespread unavailability of websites and degrading website performance. Wells Fargo has not experienced any material losses relating to these or other cyber attacks. Addressing cybersecurity risks is a priority for Wells Fargo, and we continue to develop and enhance our controls, processes and systems in order to protect our networks, computers, software and data from attack, damage or unauthorized access. We are

also proactively involved in industry cybersecurity efforts and working with other parties, including our third-party service providers and governmental agencies, to continue to enhance defenses and improve resiliency to cybersecurity threats. See the "Risk Factors" section in our 2016 Form 10-K for additional information regarding the risks associated with a failure or breach of our operational or security systems or infrastructure, including as a result of cyber attacks.

Credit Risk Management

We define credit risk as the risk of loss associated with a borrower or counterparty default (failure to meet obligations in accordance with agreed upon terms). Credit risk exists with many of our assets and exposures such as debt security holdings, certain derivatives, and loans. The following discussion focuses on our loan portfolios, which represent the largest component of assets on our balance sheet for which we have credit risk. Table 11 presents our total loans outstanding by portfolio segment and class of financing receivable.

Table 11: Total Loans Outstanding by Portfolio Segment and Class of Financing Receivable

(in millions)	Jun 30, 2017	Dec 31, 2016
Commercial:		
Commercial and industrial	\$ 331,113	330,840
Real estate mortgage	130,277	132,491
Real estate construction	25,337	23,916
Lease financing	19,174	19,289
Total commercial	505,901	506,536
Consumer:		
Real estate 1-4 family first mortgage	276,566	275,579
Real estate 1-4 family junior lien mortgage	42,747	46,237
Credit card	35,305	36,700
Automobile	57,958	62,286
Other revolving credit and installment	38,946	40,266
Total consumer	451,522	461,068
Total loans	\$ 957,423	967,604

We manage our credit risk by establishing what we believe are sound credit policies for underwriting new business, while monitoring and reviewing the performance of our existing loan portfolios. We employ various credit risk management and monitoring activities to mitigate risks associated with multiple risk factors affecting loans we hold, could acquire or originate including:

- Loan concentrations and related credit quality
- Counterparty credit risk
- Economic and market conditions
- Legislative or regulatory mandates
- Changes in interest rates
- Merger and acquisition activities
- Reputation risk

Our credit risk management oversight process is governed centrally, but provides for decentralized management and accountability by our lines of business. Our overall credit process

includes comprehensive credit policies, disciplined credit underwriting, frequent and detailed risk measurement and modeling, extensive credit training programs, and a continual loan review and audit process.

A key to our credit risk management is adherence to a well-controlled underwriting process, which we believe is appropriate for the needs of our customers as well as investors who purchase the loans or securities collateralized by the loans.

Credit Quality Overview Credit quality improved in second quarter 2017, as our loss rate improved to 0.27% (annualized) of average total loans. We continued to benefit from improvements in the performance of our residential real estate portfolio as well as reduced losses in our oil and gas portfolio. In particular:

- Nonaccrual loans were \$9.1 billion at June 30, 2017, down from \$10.4 billion at December 31, 2016. Commercial nonaccrual loans declined to \$3.4 billion at June 30, 2017, compared with \$4.1 billion at December 31, 2016, and consumer nonaccrual loans declined to \$5.7 billion at June 30, 2017, compared with \$6.3 billion at December 31, 2016. The decline in consumer nonaccrual loans reflected an improved housing market, while the decline in commercial nonaccrual loans was predominantly driven by loans in our oil and gas portfolio. Nonaccrual loans represented 0.95% of total loans at June 30, 2017, compared with 1.07% at December 31, 2016.
- Net charge-offs (annualized) as a percentage of average total loans decreased to 0.27% and 0.31% in the second quarter and first half of 2017, respectively, compared with 0.39% in the same periods a year ago. Net charge-offs (annualized) as a percentage of our average commercial and consumer portfolios were 0.06% and 0.51% in the second quarter and 0.09% and 0.55% in the first half of 2017, respectively, compared with 0.29% and 0.49% in the second quarter and 0.25% and 0.53% in the first half of 2016.
- Loans that are not government insured/guaranteed and 90 days or more past due and still accruing were \$54 million and \$789 million in our commercial and consumer portfolios, respectively, at June 30, 2017, compared with \$64 million and \$908 million at December 31, 2016.
- Our provision for credit losses was \$555 million and \$1.2 billion in the second quarter and first half of 2017, respectively, compared with \$1.1 billion and \$2.2 billion for the same periods a year ago.
- The allowance for credit losses totaled \$12.1 billion, or 1.27% of total loans, at June 30, 2017, down from \$12.5 billion, or 1.30%, at December 31, 2016.

Additional information on our loan portfolios and our credit quality trends follows.

PURCHASED CREDIT-IMPAIRED (PCI) LOANS Loans acquired with evidence of credit deterioration since their origination and where it is probable that we will not collect all contractually required principal and interest payments are PCI loans. Substantially all of our PCI loans were acquired in the Wachovia acquisition on December 31, 2008. PCI loans are recorded at fair value at the date of acquisition, and the historical allowance for credit losses related to these loans is not carried over. The carrying value of PCI loans at June 30, 2017, totaled \$14.3 billion, compared with \$16.7 billion at December 31, 2016, and \$58.8 billion at December 31, 2008. The decrease from December 31, 2016, was due in part to higher prepayment trends observed in our Pick-a-Pay PCI portfolio, as home price appreciation and the resulting reduction in loan to collateral value ratios enabled more borrowers to qualify for refinancing options, as well as the sale of \$569 million of Pick-a-Pay PCI loans in second quarter 2017. PCI loans are considered to be accruing due to the existence of the accretable yield amount, which represents the cash expected to be collected in excess of their carrying value, and not based on consideration given to contractual interest payments. The accretable yield at June 30, 2017, was \$9.4 billion.

A nonaccrable difference is established for PCI loans to absorb losses expected on the contractual amounts of those loans in excess of the fair value recorded at the date of acquisition. Amounts absorbed by the nonaccrable difference do not affect the income statement or the allowance for credit losses. Since December 31, 2008, we have released \$13.3 billion in nonaccrable difference, including \$11.3 billion transferred from the nonaccrable difference to the accretable yield due to decreases in our initial estimate of loss on contractual amounts, and \$2.0 billion released to income through loan resolutions. Also, we have provided \$1.7 billion for losses on certain PCI loans or pools of PCI loans that have had credit-related decreases to cash flows expected to be collected. The net result is an \$11.6 billion reduction from December 31, 2008, through June 30, 2017, in our initial projected losses of \$41.0 billion on all PCI loans acquired in the Wachovia acquisition. At June 30, 2017, \$649 million in nonaccrable difference remained to absorb losses on PCI loans.

For additional information on PCI loans, see the “Risk Management – Credit Risk Management – Real Estate 1-4 Family First and Junior Lien Mortgage Loans – Pick-a-Pay Portfolio” section in this Report, Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K, and Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Significant Loan Portfolio Reviews Measuring and monitoring our credit risk is an ongoing process that tracks delinquencies, collateral values, FICO scores, economic trends by geographic areas, loan-level risk grading for certain portfolios (typically commercial) and other indications of credit risk. Our credit risk monitoring process is designed to enable early identification of developing risk and to support our determination of an appropriate allowance for credit losses. The following discussion provides additional characteristics and analysis of our significant portfolios. See Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for more analysis and credit metric information for each of the following portfolios.

COMMERCIAL AND INDUSTRIAL LOANS AND LEASE FINANCING For purposes of portfolio risk management, we aggregate commercial and industrial loans and lease financing according to market segmentation and standard industry codes. We generally subject commercial and industrial loans and lease financing to individual risk assessment using our internal borrower and collateral quality ratings. Our ratings are aligned to regulatory definitions of pass and criticized categories with criticized divided between special mention, substandard, doubtful and loss categories.

The commercial and industrial loans and lease financing portfolio totaled \$350.3 billion, or 37% of total loans, at June 30, 2017. The annualized net charge-off rate for this portfolio was 0.10% and 0.15% in the second quarter and first half of 2017, respectively, compared with 0.45% and 0.40% for the same periods a year ago. At June 30, 2017, 0.78% of this portfolio was nonaccruing, compared with 0.95% at December 31, 2016, reflecting a decrease of \$610 million in nonaccrual loans, predominantly due to improvement in the oil and gas portfolio. Also, \$20.3 billion of the commercial and industrial loan and lease financing portfolio was internally classified as criticized in accordance with regulatory guidance at June 30, 2017, compared with \$24.0 billion at December 31, 2016. The decrease in criticized loans, which also includes the decrease in nonaccrual loans, was mostly due to improvement in the oil and gas portfolio.

Most of our commercial and industrial loans and lease financing portfolio is secured by short-term assets, such as accounts receivable, inventory and securities, as well as long-lived assets, such as equipment and other business assets. Generally, the collateral securing this portfolio represents a secondary source of repayment.

Table 12 provides a breakout of commercial and industrial loans and lease financing by industry, and includes \$58.9 billion of foreign loans at June 30, 2017. Foreign loans totaled \$18.8 billion within the investor category, \$15.8 billion within the financial institutions category and \$1.4 billion within the oil and gas category.

The investors category includes loans to special purpose vehicles (SPVs) formed by sponsoring entities to invest in financial assets backed predominantly by commercial and residential real estate or corporate cash flow, and are repaid from the asset cash flows or the sale of assets by the SPV. We limit loan amounts to a percentage of the value of the underlying assets, as determined by us, based on analysis of underlying credit risk and other factors such as asset duration and ongoing performance.

We provide financial institutions with a variety of relationship focused products and services, including loans supporting short-term trade finance and working capital needs. The \$15.8 billion of foreign loans in the financial institutions category were predominantly originated by our Financial Institutions business.

The oil and gas loan portfolio totaled \$12.7 billion, or 1% of total outstanding loans at June 30, 2017, compared with \$14.8 billion, or 2% of total outstanding loans, at December 31, 2016. Unfunded loan commitments in the oil and gas loan portfolio totaled \$22.9 billion at June 30, 2017. Almost half of our oil and gas loans were to businesses in the exploration and production (E&P) sector. Most of these E&P loans are secured by oil and/or gas reserves and have underlying borrowing base arrangements which include regular (typically semi-annual) "redeterminations" that consider refinements to borrowing structure and prices used to determine borrowing limits. The majority of the other oil and gas loans were to midstream companies. We proactively monitor our oil and gas loan portfolio and work with customers to address any emerging issues. Oil and gas nonaccrual loans decreased to \$1.8 billion at June 30, 2017, compared with \$2.4 billion at December 31, 2016, due to improved portfolio performance.

Table 12: Commercial and Industrial Loans and Lease Financing by Industry (1)

(in millions)	June 30, 2017			
	Nonaccrual loans	Total portfolio	(2)	% of total loans
Investors	\$ 7	61,744		6%
Financial institutions	2	38,160		4
Cyclical retailers	84	26,987		3
Food and beverage	10	16,523		2
Healthcare	27	16,277		2
Industrial equipment	189	14,984		2
Real estate lessor	9	14,775		2
Technology	48	13,451		1
Oil and gas	1,823	12,723		1
Transportation	135	9,516		1
Public administration	58	9,349		1
Business services	27	8,451		1
Other	302	107,347	(3)	11
Total	\$ 2,721	350,287		37%

(1) Industry categories are based on the North American Industry Classification System and the amounts reported include foreign loans. See Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for a breakout of commercial foreign loans.

(2) Includes \$131 million of PCI loans, which are considered to be accruing due to the existence of the accretable yield and not based on consideration given to contractual interest payments.

(3) No other single industry had total loans in excess of \$6.9 billion.

Risk Management - Credit Risk Management (continued)

COMMERCIAL REAL ESTATE (CRE) We generally subject CRE loans to individual risk assessment using our internal borrower and collateral quality ratings. Our ratings are aligned to regulatory definitions of pass and criticized categories with criticized divided among special mention, substandard, doubtful and loss categories. The CRE portfolio, which included \$8.9 billion of foreign CRE loans, totaled \$155.6 billion, or 16% of total loans, at June 30, 2017, and consisted of \$130.3 billion of mortgage loans and \$25.3 billion of construction loans.

Table 13 summarizes CRE loans by state and property type with the related nonaccrual totals. The portfolio is diversified both geographically and by property type. The largest geographic concentrations of CRE loans are in California, New York, Texas and Florida, which combined represented 49% of the total CRE

portfolio. By property type, the largest concentrations are office buildings at 28% and apartments at 16% of the portfolio. CRE nonaccrual loans totaled 0.4% of the CRE outstanding balance at June 30, 2017, compared with 0.5% at December 31, 2016. At June 30, 2017, we had \$4.9 billion of criticized CRE mortgage loans, compared with \$5.4 billion at December 31, 2016, and \$320 million of criticized CRE construction loans, compared with \$461 million at December 31, 2016.

At June 30, 2017, the recorded investment in PCI CRE loans totaled \$132 million, down from \$12.3 billion when acquired at December 31, 2008, reflecting principal payments, loan resolutions and write-downs.

Table 13: CRE Loans by State and Property Type

(in millions)	June 30, 2017							
	Real estate mortgage		Real estate construction		Total		Nonaccrual loans	Total portfolio (1)
	Nonaccrual loans	Total portfolio (1)	Nonaccrual loans	Total portfolio (1)	Nonaccrual loans	Total portfolio (1)		
By state:								
California	\$ 132	37,277	—	4,747	132	42,024	4%	
New York	29	9,935	—	2,932	29	12,867	1	
Texas	96	9,393	—	2,378	96	11,771	1	
Florida	36	8,103	1	1,875	37	9,978	1	
North Carolina	31	4,055	6	857	37	4,912	1	
Arizona	26	4,020	—	609	26	4,629	*	
Georgia	19	3,555	1	860	20	4,415	*	
Washington	19	3,546	—	866	19	4,412	*	
Virginia	12	3,395	—	864	12	4,259	*	
Illinois	5	3,756	—	350	5	4,106	*	
Other	225	43,242	26	8,999	251	52,241	(2)	5
Total	\$ 630	130,277	34	25,337	664	155,614		16%
By property:								
Office buildings	\$ 126	39,975	—	3,326	126	43,301	5%	
Apartments	24	15,741	—	9,300	24	25,041	3	
Retail (excluding shopping center)	93	17,236	—	709	93	17,945	2	
Industrial/warehouse	135	14,832	—	1,887	135	16,719	2	
Shopping center	24	11,469	—	1,274	24	12,743	1	
Hotel/motel	8	10,388	4	1,630	12	12,018	1	
Real estate - other	97	7,360	—	168	97	7,528	1	
Institutional	30	3,080	—	1,392	30	4,472	*	
Agriculture	32	2,586	—	17	32	2,603	*	
1-4 family structure	—	10	7	2,520	7	2,530	*	
Other	61	7,600	23	3,114	84	10,714	1	
Total	\$ 630	130,277	34	25,337	664	155,614		16%

* Less than 1%.

(1) Includes a total of \$132 million PCI loans, consisting of \$119 million of real estate mortgage and \$13 million of real estate construction, which are considered to be accruing due to the existence of the accretable yield and not based on consideration given to contractual interest payments.

(2) Includes 40 states; no state had loans in excess of \$3.6 billion.

FOREIGN LOANS AND COUNTRY RISK EXPOSURE We classify loans for financial statement and certain regulatory purposes as foreign primarily based on whether the borrower's primary address is outside of the United States. At June 30, 2017, foreign loans totaled \$68.3 billion, representing approximately 7% of our total consolidated loans outstanding, compared with \$65.7 billion, or approximately 7% of total consolidated loans outstanding, at December 31, 2016. Foreign loans were approximately 4% of our consolidated total assets at June 30, 2017 and 3% at December 31, 2016.

Our country risk monitoring process incorporates frequent dialogue with our financial institution customers, counterparties and regulatory agencies, enhanced by centralized monitoring of macroeconomic and capital markets conditions in the respective countries. We establish exposure limits for each country through a centralized oversight process based on customer needs, and in consideration of relevant economic, political, social, legal, and transfer risks. We monitor exposures closely and adjust our country limits in response to changing conditions.

We evaluate our individual country risk exposure based on our assessment of the borrower's ability to repay, which gives consideration for allowable transfers of risk such as guarantees and collateral and may be different from the reporting based on the borrower's primary address. Our largest single foreign country exposure based on our assessment of risk at June 30, 2017, was the United Kingdom, which totaled \$26.8 billion, or approximately 1% of our total assets, and included \$4.8 billion of sovereign claims. Our United Kingdom sovereign claims arise predominantly from deposits we have placed with the Bank of England pursuant to regulatory requirements in support of our London branch. The United Kingdom officially announced its intention to leave the European Union (Brexit) on March 29, 2017, starting the two-year negotiation process leading to its departure. We continue to conduct assessments and are executing our implementation plans to ensure we can continue to prudently serve our customers post-Brexit.

We conduct periodic stress tests of our significant country risk exposures, analyzing the direct and indirect impacts on the risk of loss from various macroeconomic and capital markets scenarios. We do not have significant exposure to foreign country risks because our foreign credit exposure is relatively small. However, we have identified exposure to increased loss from U.S. borrowers associated with the potential impact of a regional or worldwide economic downturn on the U.S. economy. We seek to mitigate these potential impacts on the risk of loss through our normal risk management processes which include active monitoring and, if necessary, the application of aggressive loss mitigation strategies.

Table 14 provides information regarding our top 20 exposures by country (excluding the U.S.) and our Eurozone exposure, based on our assessment of risk, which gives consideration to the country of any guarantors and/or underlying collateral. Our exposure to Puerto Rico (considered part of U.S. exposure) is largely through automobile lending and was not material to our consolidated country exposure. We do not expect Puerto Rico's recent bankruptcy announcement to significantly impact these exposures.

Risk Management - Credit Risk Management (continued)

Table 14: Select Country Exposures-

(in millions)	June 30, 2017									
	Lending (1)		Securities (2)		Derivatives and other (3)		Total exposure			
	Sovereign	Non-sovereign	Sovereign	Non-sovereign	Sovereign	Non-sovereign	Sovereign	Non-sovereign (4)	Total	
Top 20 country exposures:										
United Kingdom	\$ 4,752	19,840	4	1,646	—	587	4,756	22,073	26,829	
Canada	23	17,875	118	137	—	608	141	18,620	18,761	
Cayman Islands	—	6,098	—	—	—	159	—	6,257	6,257	
Germany	2,790	1,334	39	16	4	374	2,833	1,724	4,557	
Ireland	—	3,597	—	100	—	111	—	3,808	3,808	
Bermuda	—	2,819	—	173	—	198	—	3,190	3,190	
Netherlands	—	2,375	21	361	2	160	23	2,896	2,919	
China	—	2,577	(2)	152	19	45	17	2,774	2,791	
India	200	1,865	—	168	—	—	200	2,033	2,233	
Australia	—	1,407	—	654	—	49	—	2,110	2,110	
Luxembourg	—	1,232	—	640	—	68	—	1,940	1,940	
Brazil	—	1,901	—	38	—	—	—	1,939	1,939	
Guernsey	—	1,879	—	(2)	—	3	—	1,880	1,880	
Switzerland	—	1,246	—	(18)	—	140	—	1,368	1,368	
Mexico	149	1,123	1	4	—	6	150	1,133	1,283	
Chile	—	1,272	—	10	1	—	1	1,282	1,283	
South Korea	—	1,207	6	54	1	2	7	1,263	1,270	
France	—	847	—	154	—	159	—	1,160	1,160	
Japan	315	675	6	62	—	99	321	836	1,157	
Jersey, Channel Islands	—	671	—	236	—	17	—	924	924	
Total top 20 country exposures	\$ 8,229	71,840	193	4,585	27	2,785	8,449	79,210	87,659	
Eurozone exposure:										
Eurozone countries included in Top 20 above (5)	\$ 2,790	9,385	60	1,271	6	872	2,856	11,528	14,384	
Austria	—	581	—	(1)	—	1	—	581	581	
Spain	—	309	—	46	—	21	—	376	376	
Belgium	—	295	—	(19)	—	1	—	277	277	
Other Eurozone exposure (6)	23	223	—	44	—	—	23	267	290	
Total Eurozone exposure	\$ 2,813	10,793	60	1,341	6	895	2,879	13,029	15,908	

(1) Lending exposure includes funded loans and unfunded commitments, leveraged leases, and money market placements presented on a gross basis prior to the deduction of impairment allowance and collateral received under the terms of the credit agreements. For the countries listed above, includes \$16 million in PCI loans to customers in Germany and the Netherlands, and \$753 million in defeased leases secured primarily by U.S. Treasury and government agency securities.

(2) Represents exposure on debt and equity securities of foreign issuers. Long and short positions are netted and net short positions are reflected as negative exposure.

(3) Represents counterparty exposure on foreign exchange and derivative contracts, and securities resale and lending agreements. This exposure is presented net of counterparty netting adjustments and reduced by the amount of cash collateral. It includes credit default swaps (CDS) predominantly used for market making activities in the U.S. and London based trading businesses, which sometimes results in selling and purchasing protection on the identical reference entities. Generally, we do not use market instruments such as CDS to hedge the credit risk of our investment or loan positions, although we do use them to manage risk in our trading businesses. At June 30, 2017, the gross notional amount of our CDS sold that reference assets in the Top 20 or Eurozone countries was \$316 million, which was offset by the notional amount of CDS purchased of \$404 million. We did not have any CDS purchased or sold that reference pools of assets that contain sovereign debt or where the reference asset was solely the sovereign debt of a foreign country.

(4) For countries presented in the table, total non-sovereign exposure comprises \$32.9 billion exposure to financial institutions and \$47.8 billion to non-financial corporations at June 30, 2017.

(5) Consists of exposure to Germany, Ireland, Netherlands, Luxembourg, and France included in Top 20.

(6) Includes non-sovereign exposure to Italy, Portugal, and Greece in the amount of \$132 million, \$27 million and \$3 million, respectively. We had no sovereign debt exposure in these countries at June 30, 2017.

REAL ESTATE 1-4 FAMILY FIRST AND JUNIOR LIEN MORTGAGE LOANS Our real estate 1-4 family first and junior lien mortgage loans, as presented in Table 15, include loans we have made to customers and retained as part of our asset/liability management strategy, the Pick-a-Pay portfolio acquired from

Wachovia which is discussed later in this Report and other purchased loans, and loans included on our balance sheet as a result of consolidation of variable interest entities (VIEs).

Table 15: Real Estate 1-4 Family First and Junior Lien Mortgage Loans

(in millions)	June 30, 2017		December 31, 2016	
	Balance	% of portfolio	Balance	% of portfolio
Real estate 1-4 family first mortgage	\$ 276,566	87%	\$ 275,579	86%
Real estate 1-4 family junior lien mortgage	42,747	13	46,237	14
Total real estate 1-4 family mortgage loans	\$ 319,313	100%	\$ 321,816	100%

The real estate 1-4 family mortgage loan portfolio includes some loans with adjustable-rate features and some with an interest-only feature as part of the loan terms. Interest-only loans were approximately 6% and 7% of total loans at June 30, 2017, and December 31, 2016, respectively. We believe we have manageable adjustable-rate mortgage (ARM) reset risk across our owned mortgage loan portfolios. We do not offer option ARM products, nor do we offer variable-rate mortgage products with fixed payment amounts, commonly referred to within the financial services industry as negative amortizing mortgage loans. The option ARMs we do have are included in the Pick-a-Pay portfolio which was acquired from Wachovia. Since our acquisition of the Pick-a-Pay loan portfolio at the end of 2008, the option payment portion of the portfolio has reduced from 86% to 37% at June 30, 2017, as a result of our modification and loss mitigation efforts. For more information, see the “Pick-a-Pay Portfolio” section in this Report.

We continue to modify real estate 1-4 family mortgage loans to assist homeowners and other borrowers experiencing financial difficulties. For more information on our modification programs, see the “Risk Management – Credit Risk Management – Real Estate 1-4 Family First and Junior Lien Mortgage Loans” section in our 2016 Form 10-K.

Part of our credit monitoring includes tracking delinquency, current FICO scores and loan/combined loan to collateral values (LTV/CLTV) on the entire real estate 1-4 family mortgage loan portfolio. These credit risk indicators, which exclude government insured/guaranteed loans, continued to improve in second quarter 2017 on the non-PCI mortgage portfolio. Loans 30 days or more delinquent at June 30, 2017, totaled \$5.0 billion, or 2% of total non-PCI mortgages, compared with \$5.9 billion, or 2%, at December 31, 2016. Loans with FICO scores lower than 640 totaled \$13.1 billion, or 4% of total non-PCI mortgages at June 30, 2017, compared with \$16.6 billion, or 5%, at December 31, 2016. Mortgages with a LTV/CLTV greater than 100% totaled \$7.8 billion at June 30, 2017, or 3% of total non-PCI mortgages, compared with \$8.9 billion, or 3%, at December 31, 2016. Information regarding credit quality indicators, including PCI credit quality indicators, can be found in Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Real estate 1-4 family first and junior lien mortgage loans by state are presented in Table 16. Our real estate 1-4 family mortgage loans (including PCI loans) to borrowers in California represented approximately 12% of total loans at June 30, 2017, located mostly within the larger metropolitan areas, with no single California metropolitan area consisting of more than 5% of total loans. We monitor changes in real estate values and underlying economic or market conditions for all geographic areas of our real estate 1-4 family mortgage portfolio as part of

our credit risk management process. Our underwriting and periodic review of loans secured by residential real estate collateral includes appraisals or estimates from automated valuation models (AVMs) to support property values. Additional information about AVMs and our policy for their use can be found in Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report and the “Risk Management – Credit Risk Management – Real Estate 1-4 Family First and Junior Lien Mortgage Loans” section in our 2016 Form 10-K.

Table 16: Real Estate 1-4 Family First and Junior Lien Mortgage Loans by State

(in millions)	June 30, 2017				
	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total real estate 1-4 family mortgage	% of total loans	
Real estate 1-4 family loans (excluding PCI):					
California	\$ 96,603	11,516	108,119	11%	
New York	25,145	2,058	27,203	3	
Florida	13,411	3,948	17,359	2	
New Jersey	12,831	3,809	16,640	2	
Virginia	7,718	2,519	10,237	1	
Texas	8,688	763	9,451	1	
Washington	8,240	945	9,185	1	
North Carolina	6,054	1,994	8,048	1	
Pennsylvania	5,667	2,345	8,012	1	
Other (1)	64,641	12,819	77,460	8	
Government insured/guaranteed loans (2)	13,589	—	13,589	1	
Real estate 1-4 family loans (excluding PCI)	262,587	42,716	305,303	32	
Real estate 1-4 family PCI loans (3)					
	13,979	31	14,010	1	
Total	\$ 276,566	42,747	319,313	33%	

(1) Consists of 41 states; no state had loans in excess of \$7.0 billion.

(2) Represents loans whose repayments are predominantly insured by the Federal Housing Administration (FHA) or guaranteed by the Department of Veterans Affairs (VA).

(3) Includes \$9.5 billion in real estate 1-4 family mortgage PCI loans in California.

First Lien Mortgage Portfolio Our total real estate 1-4 family first lien mortgage portfolio increased \$1.9 billion in second quarter 2017 and \$987 million in the first half of 2017, as non-conforming loan growth was partially offset by a decline in Pick-a-Pay loan balances. We retained \$13.2 billion and \$22.4 billion in non-conforming originations, consisting of loans that exceed conventional conforming loan amount limits established by federal government-sponsored entities (GSEs) in the second quarter and first half of 2017, respectively.

The credit performance associated with our real estate 1-4 family first lien mortgage portfolio continued to improve in second quarter 2017, as measured through net charge-offs and nonaccrual loans. Net charge-offs (annualized) as a percentage of average real estate 1-4 family first lien mortgage loans improved

to a net recovery of 0.02% and 0.01% in the second quarter and first half of 2017, respectively, compared with a net charge-off of 0.02% and 0.05% for the same periods a year ago. Nonaccrual loans were \$4.4 billion at June 30, 2017, compared with \$5.0 billion at December 31, 2016. Improvement in the credit performance was driven by an improving housing environment. Real estate 1-4 family first lien mortgage loans originated after 2008, which generally utilized tighter underwriting standards, have resulted in minimal losses to date and were approximately 76% of our total real estate 1-4 family first lien mortgage portfolio as of June 30, 2017.

Table 17 shows certain delinquency and loss information for the first lien mortgage portfolio and lists the top five states by outstanding balance.

Table 17: First Lien Mortgage Portfolio Performance

(in millions)	Outstanding balance		% of loans 30 days or more past due		Loss (recovery) rate (annualized) quarter ended				
	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
California	\$ 96,603	94,015	1.00%	1.21	(0.08)	(0.05)	(0.08)	(0.08)	(0.09)
New York	25,145	23,815	1.67	1.97	0.02	0.06	0.04	0.07	0.11
Florida	13,411	13,737	3.11	3.62	(0.18)	(0.08)	(0.18)	(0.04)	(0.19)
New Jersey	12,831	12,669	2.89	3.66	0.17	0.22	0.21	0.37	0.42
Texas	8,688	8,584	1.89	2.19	—	(0.01)	(0.01)	0.06	0.09
Other	92,320	91,136	2.09	2.51	0.01	0.05	0.06	0.10	0.10
Total	248,998	243,956	1.71	2.07	(0.03)	0.01	—	0.03	0.02
Government insured/guaranteed loans	13,589	15,605							
PCI	13,979	16,018							
Total first lien mortgages	\$ 276,566	275,579							

Pick-a-Pay Portfolio The Pick-a-Pay portfolio was one of the consumer residential first lien mortgage portfolios we acquired from Wachovia and a majority of the portfolio was identified as PCI loans.

The Pick-a-Pay portfolio includes loans that offer payment options (Pick-a-Pay option payment loans), and also includes loans that were originated without the option payment feature, loans that no longer offer the option feature as a result of our modification efforts since the acquisition, and loans where the customer voluntarily converted to a fixed-rate product. The Pick-a-Pay portfolio is included in the consumer real estate 1-4 family

first mortgage class of loans throughout this Report. Table 18 provides balances by types of loans as of June 30, 2017, as a result of modification efforts, compared to the types of loans included in the portfolio at acquisition. Total adjusted unpaid principal balance of PCI Pick-a-Pay loans was \$18.1 billion at June 30, 2017, compared with \$61.0 billion at acquisition. Due to loan modification and loss mitigation efforts, the adjusted unpaid principal balance of option payment PCI loans has declined to 14% of the total Pick-a-Pay portfolio at June 30, 2017, compared with 51% at acquisition.

Table 18: Pick-a-Pay Portfolio – Comparison to Acquisition Date

(in millions)	December 31,					
	June 30, 2017		2016		2008	
	Adjusted unpaid principal balance (1)	% of total	Adjusted unpaid principal balance (1)	% of total	Adjusted unpaid principal balance (1)	% of total
Option payment loans	\$ 12,099	37%	\$ 13,618	37%	\$ 99,937	86%
Non-option payment adjustable-rate and fixed-rate loans	4,148	13	4,630	13	15,763	14
Full-term loan modifications	16,589	50	18,598	50	—	—
Total adjusted unpaid principal balance	\$ 32,836	100%	\$ 36,846	100%	\$ 115,700	100%
Total carrying value	\$ 28,696		32,292		95,615	

(1) Adjusted unpaid principal balance includes write-downs taken on loans where severe delinquency (normally 180 days) or other indications of severe borrower financial stress exist that indicate there will be a loss of contractually due amounts upon final resolution of the loan.

Table 19 reflects the geographic distribution of the Pick-a-Pay portfolio broken out between PCI loans and all other loans. The LTV ratio is a useful metric in evaluating future real estate 1-4 family first mortgage loan performance, including potential charge-offs. Because PCI loans were initially recorded at fair value, including write-downs for expected credit losses, the ratio

of the carrying value to the current collateral value will be lower compared with the LTV based on the adjusted unpaid principal balance. For informational purposes, we have included both ratios for PCI loans in the following table.

Table 19: Pick-a-Pay Portfolio (1)

(in millions)	June 30, 2017					
	PCI loans			All other loans		
	Adjusted unpaid principal balance (2)	Current LTV ratio (3)	Carrying value (4)	Ratio of carrying value to current value (5)	Carrying value (4)	Ratio of carrying value to current value (5)
California	\$ 12,263	63%	\$ 9,511	48%	\$ 7,077	45%
Florida	1,540	70	1,146	51	1,502	56
New Jersey	609	77	447	56	995	63
New York	458	70	360	51	497	60
Texas	141	49	108	37	598	38
Other	3,057	70	2,308	52	4,147	57
Total Pick-a-Pay loans	\$ 18,068	65	\$ 13,880	49	\$ 14,816	51

(1) The individual states shown in this table represent the top five states based on the total net carrying value of the Pick-a-Pay loans at the beginning of 2017.
 (2) Adjusted unpaid principal balance includes write-downs taken on loans where severe delinquency (normally 180 days) or other indications of severe borrower financial stress exist that indicate there will be a loss of contractually due amounts upon final resolution of the loan.
 (3) The current LTV ratio is calculated as the adjusted unpaid principal balance divided by the collateral value. Collateral values are generally determined using automated valuation models (AVM) and are updated quarterly. AVMs are computer-based tools used to estimate market values of homes based on processing large volumes of market data including market comparables and price trends for local market areas.
 (4) Carrying value does not reflect related allowance for loan losses but does reflect remaining purchase accounting adjustments and any charge-offs.
 (5) The ratio of carrying value to current value is calculated as the carrying value divided by the collateral value.

Since the Wachovia acquisition, we have completed over 137,500 proprietary and Home Affordability Modification Program (HAMP) Pick-a-Pay loan modifications, including over 600 modifications in second quarter 2017. Pick-a-Pay loan modifications have resulted in over \$6.1 billion of principal forgiveness since December 31, 2008. We have also provided interest rate reductions and loan term extensions to enable sustainable homeownership for our Pick-a-Pay customers. As a result of these loss mitigation programs, approximately 71% of our Pick-a-Pay PCI adjusted unpaid principal balance as of June 30, 2017 has been modified.

The predominant portion of our PCI loans is included in the Pick-a-Pay portfolio. We regularly evaluate our estimates, of cash flows expected to be collected on our PCI loans. Our cash flows expected to be collected have been favorably affected over time by lower expected defaults and losses as a result of observed and forecasted economic strengthening, particularly in housing prices, and our loan modification efforts. When we periodically update our cash flow estimates we have historically expected that the credit-stressed borrower characteristics and distressed collateral values associated with our Pick-a-Pay PCI loans would limit the ability of these borrowers to prepay their loans, thus increasing the future expected weighted-average life of the portfolio since acquisition. However, the higher prepayment trend that emerged in our Pick-a-Pay PCI loans portfolio in the prior year, which we attribute to the benefits of home price appreciation has continued to result in more loan (unpaid principal balance) to value ratios reaching an important industry refinancing inflection point of below 80%. As a result, we have continued to experience an increased level of borrowers qualifying for products to refinance their loans which may not have previously been available to them. Therefore, during first quarter 2017, we revised our Pick-a-Pay PCI loan cash flow estimates to reflect our expectation that the modified portion of the portfolio will have higher prepayments over the remainder of

its life. The increase in expected prepayments in the first quarter and passage of time lowered our estimated weighted-average life to approximately 6.4 years at June 30, 2017, from 7.4 years at December 31, 2016. During second quarter 2017, we sold \$569 million of Pick-a-Pay PCI loans that resulted in a gain of \$309 million. Also, the accretable yield balance related to our Pick-a-Pay PCI loan portfolio declined \$916 million (\$946 million for all PCI loans) during second quarter 2017, driven by realized accretion of \$348 million (\$374 million for all PCI loans), \$309 million from the gain on sale of the Pick-a-Pay PCI loans in second quarter 2017 and a \$259 million reduction in expected interest cash flows resulting from the loan sale. The accretable yield percentage for Pick-a-Pay PCI loans for second quarter 2017 was 9.47%, up from 8.22% for fourth quarter 2016, due to an increase in the amount of accretable yield relative to the shortened weighted-average life. Due to the sale of the Pick-a-Pay PCI loans in second quarter 2017, we expect the accretable yield percentage to be 9.32% for third quarter 2017.

Since acquisition, due to better than expected performance observed on the PCI portion of the Pick-a-Pay portfolio compared with the original acquisition estimates, we have reclassified \$8.7 billion from the nonaccretable difference to the accretable yield. Fluctuations in the accretable yield are driven by changes in interest rate indices for variable rate PCI loans, prepayment assumptions, and expected principal and interest payments over the estimated life of the portfolio, which will be affected by the pace and degree of improvements in the U.S. economy and housing markets and projected lifetime performance resulting from loan modification activity. Changes in the projected timing of cash flow events, including loan liquidations, modifications and short sales, can also affect the accretable yield and the estimated weighted-average life of the portfolio.

For further information on the judgment involved in estimating expected cash flows for PCI loans, see the “Critical Accounting Policies – Purchased Credit-Impaired Loans” section

Risk Management - Credit Risk Management (continued)

and Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K.

For further information on the Pick-a-Pay portfolio, including recast risk, deferral of interest and loan modifications, see the “Risk Management – Credit Risk Management – Pick-a-Pay Portfolio” section in our 2016 Form 10-K.

Junior Lien Mortgage Portfolio The junior lien mortgage portfolio consists of residential mortgage lines and loans that are subordinate in rights to an existing lien on the same property. It is not unusual for these lines and loans to have draw periods, interest only payments, balloon payments, adjustable rates and similar features. Junior lien loan products are mostly amortizing payment loans with fixed interest rates and repayment periods between five to 30 years.

We continuously monitor the credit performance of our junior lien mortgage portfolio for trends and factors that influence the frequency and severity of loss. We have observed that the severity of loss for junior lien mortgages is high and generally not affected by whether we or a third party own or service the related first lien mortgage, but the frequency of delinquency is typically lower when we own or service the first lien mortgage. In general, we have limited information available on the delinquency status of the third party owned or serviced senior lien where we also hold a junior lien. To capture this inherent loss content, our allowance process for junior lien

mortgages considers the relative difference in loss experience for junior lien mortgages behind first lien mortgage loans we own or service, compared with those behind first lien mortgage loans owned or serviced by third parties. In addition, our allowance process for junior lien mortgages that are current, but are in their revolving period, considers the inherent loss where the borrower is delinquent on the corresponding first lien mortgage loans.

Table 20 shows certain delinquency and loss information for the junior lien mortgage portfolio and lists the top five states by outstanding balance. The decrease in outstanding balances since December 31, 2016, predominantly reflects loan paydowns. As of June 30, 2017, 11% of the outstanding balance of the junior lien mortgage portfolio was associated with loans that had a combined loan to value (CLTV) ratio in excess of 100%. Of those junior lien mortgages with a CLTV ratio in excess of 100%, 2.60% were 30 days or more past due. CLTV means the ratio of the total loan balance of first lien mortgages and junior lien mortgages (including unused line amounts for credit line products) to property collateral value. The unsecured portion (the outstanding amount that was in excess of the most recent property collateral value) of the outstanding balances of these loans totaled 4% of the junior lien mortgage portfolio at June 30, 2017. For additional information on consumer loans by LTV/CLTV, see Table 5.12 in Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 20: Junior Lien Mortgage Portfolio Performance

(in millions)	Outstanding balance		% of loans 30 days or more past due		Loss (recovery) rate (annualized) quarter ended				
	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
California	\$ 11,516	12,539	1.82%	1.86	(0.42)	(0.37)	(0.18)	(0.13)	0.07
Florida	3,948	4,252	2.19	2.17	(0.10)	0.30	0.47	0.56	0.76
New Jersey	3,809	4,031	2.59	2.79	0.44	1.06	1.36	0.96	1.10
Virginia	2,519	2,696	1.94	1.97	0.17	0.48	0.67	0.55	0.87
Pennsylvania	2,345	2,494	1.94	2.07	0.29	0.67	1.01	0.75	0.58
Other	18,579	20,189	1.97	2.09	0.05	0.28	0.39	0.51	0.53
Total	42,716	46,201	2.00	2.09	(0.03)	0.21	0.38	0.40	0.49
PCI	31	36							
Total junior lien mortgages	\$ 42,747	46,237							

Our junior lien, as well as first lien, lines of credit portfolios generally have draw periods of 10, 15 or 20 years with variable interest rate and payment options during the draw period of (1) interest only or (2) 1.5% of outstanding principal balance plus accrued interest. During the draw period, the borrower has the option of converting all or a portion of the line from a variable interest rate to a fixed rate with terms including interest-only payments for a fixed period between three to seven years or a fully amortizing payment with a fixed period between five to 30 years. At the end of the draw period, a line of credit generally converts to an amortizing payment schedule with repayment terms of up to 30 years based on the balance at time of conversion. Certain lines and loans have been structured with a balloon payment, which requires full repayment of the outstanding balance at the end of the term period. The conversion of lines or loans to fully amortizing or balloon payoff may result in a significant payment increase, which can affect some borrowers' ability to repay the outstanding balance.

On a monthly basis, we monitor the payment characteristics of borrowers in our junior lien portfolio. In June 2017, approximately 48% of these borrowers paid only the minimum amount due and approximately 46% paid more than the minimum amount due. The rest were either delinquent or paid less than the minimum amount due. For the borrowers with an

interest only payment feature, approximately 33% paid only the minimum amount due and approximately 62% paid more than the minimum amount due.

The lines that enter their amortization period may experience higher delinquencies and higher loss rates than the ones in their draw or term period. We have considered this increased inherent risk in our allowance for credit loss estimate.

In anticipation of our borrowers reaching the end of their contractual commitment, we have created a program to inform, educate and help these borrowers transition from interest-only to fully-amortizing payments or full repayment. We monitor the performance of the borrowers moving through the program in an effort to refine our ongoing program strategy.

Table 21 reflects the outstanding balance of our portfolio of junior lien mortgages, including lines and loans, and senior lien lines segregated into scheduled end of draw or end of term periods and products that are currently amortizing, or in balloon repayment status. It excludes real estate 1-4 family first lien line reverse mortgages, which total \$151 million, because they are predominantly insured by the FHA, and it excludes PCI loans, which total \$55 million, because their losses were generally reflected in our nonaccrable difference established at the date of acquisition.

Table 21: Junior Lien Mortgage Line and Loan and Senior Lien Mortgage Line Portfolios Payment Schedule

(in millions)	Outstanding balance June 30, 2017	Remainder of 2017	Scheduled end of draw / term					Amortizing
			2018	2019	2020	2021	2022 and thereafter (1)	
Junior lien lines and loans	\$ 42,716	1,371	1,941	822	747	1,474	22,866	13,495
First lien lines	14,265	221	621	305	281	633	10,120	2,084
Total (2)(3)	\$ 56,981	1,592	2,562	1,127	1,028	2,107	32,986	15,579
% of portfolios	100%	3	4	2	2	4	58	27

(1) Substantially all lines and loans are scheduled to convert to amortizing loans by the end of 2026, with annual scheduled amounts through that date ranging from \$4.4 billion to \$7.5 billion and averaging \$6.3 billion per year.
 (2) Junior and first lien lines are mostly interest-only during their draw period. The unfunded credit commitments for junior and first lien lines totaled \$63.9 billion at June 30, 2017.
 (3) Includes scheduled end-of-term balloon payments for lines and loans totaling \$109 million, \$284 million, \$292 million, \$320 million, \$504 million and \$302 million for 2017, 2018, 2019, 2020, 2021, and 2022 and thereafter, respectively. Amortizing lines and loans include \$104 million of end-of-term balloon payments, which are past due. At June 30, 2017, \$501 million, or 4% of outstanding lines of credit that are amortizing, are 30 days or more past due compared to \$631 million or 2% for lines in their draw period.

CREDIT CARDS Our credit card portfolio totaled \$35.3 billion at June 30, 2017, which represented 4% of our total outstanding loans. The net charge-off rate (annualized) for our credit card portfolio was 3.67% for second quarter 2017, compared with 3.25% for second quarter 2016 and 3.61% and 3.20% for the first half of 2017 and 2016, respectively, principally from portfolio growth and seasoning of newer vintages.

AUTOMOBILE Our automobile portfolio, predominantly composed of indirect loans, totaled \$58.0 billion at June 30, 2017. The net charge-off rate (annualized) for our automobile portfolio was 0.86% for second quarter 2017, compared with 0.59% for second quarter 2016 and 0.98% and 0.72% for the first half of 2017 and 2016, respectively. The increase in net charge-offs in 2017, compared with 2016, was due to increased loss severities and was consistent with trends in the automobile lending industry.

OTHER REVOLVING CREDIT AND INSTALLMENT Other revolving credit and installment loans totaled \$38.9 billion at June 30, 2017, and primarily included student and securities-based loans. Our private student loan portfolio totaled \$12.2 billion at June 30, 2017. All remaining student loans guaranteed by agencies on behalf of the U.S. Department of Education under the Federal Family Education Loan Program (FFELP) were sold as of March 31, 2017. The net charge-off rate (annualized) for other revolving credit and installment loans was 1.58% for second quarter 2017, compared with 1.32% for second quarter 2016 and 1.59% and 1.29% for the first half of 2017 and 2016, respectively.

NONPERFORMING ASSETS (NONACCRAUL LOANS AND FORECLOSED ASSETS) Table 22 summarizes nonperforming assets (NPAs) for each of the last four quarters. Total NPAs decreased \$827 million from first quarter to \$9.8 billion with improvement across our consumer and commercial portfolios. Nonaccrual loans decreased \$703 million from first quarter to \$9.1 billion reflecting declines across all major commercial asset classes, as well as continued lower consumer real estate nonaccruals. Foreclosed assets of \$781 million were down \$124 million from first quarter 2017.

We generally place loans on nonaccrual status when:

- the full and timely collection of interest or principal becomes uncertain (generally based on an assessment of the borrower's financial condition and the adequacy of collateral, if any);

- they are 90 days (120 days with respect to real estate 1-4 family first and junior lien mortgages) past due for interest or principal, unless both well-secured and in the process of collection;
- part of the principal balance has been charged off;
- for junior lien mortgages, we have evidence that the related first lien mortgage may be 120 days past due or in the process of foreclosure regardless of the junior lien delinquency status; or
- consumer real estate and automobile loans are discharged in bankruptcy, regardless of their delinquency status.

Credit card loans are not placed on nonaccrual status, but are generally fully charged off when the loan reaches 180 days past due.

Table 22: Nonperforming Assets (Nonaccrual Loans and Foreclosed Assets)

(\$ in millions)	June 30, 2017		March 31, 2017		December 31, 2016		September 30, 2016	
	Balance	% of total loans	Balance	% of total loans	Balance	% of total loans	Balance	% of total loans
Nonaccrual loans:								
Commercial:								
Commercial and industrial	\$ 2,632	0.79%	\$ 2,898	0.88%	\$ 3,216	0.97%	\$ 3,331	1.03%
Real estate mortgage	630	0.48	672	0.51	685	0.52	780	0.60
Real estate construction	34	0.13	40	0.16	43	0.18	59	0.25
Lease financing	89	0.46	96	0.50	115	0.60	92	0.49
Total commercial	3,385	0.67	3,706	0.73	4,059	0.80	4,262	0.86
Consumer:								
Real estate 1-4 family first mortgage (1)	4,413	1.60	4,743	1.73	4,962	1.80	5,310	1.91
Real estate 1-4 family junior lien mortgage	1,095	2.56	1,153	2.60	1,206	2.61	1,259	2.62
Automobile	104	0.18	101	0.17	106	0.17	108	0.17
Other revolving credit and installment	59	0.15	56	0.14	51	0.13	47	0.12
Total consumer	5,671	1.26	6,053	1.34	6,325	1.37	6,724	1.45
Total nonaccrual loans (2)(3)(4)	9,056	0.95	9,759	1.02	10,384	1.07	10,986	1.14
Foreclosed assets:								
Government insured/guaranteed (5)	149		179		197		282	
Non-government insured/guaranteed	632		726		781		738	
Total foreclosed assets	781		905		978		1,020	
Total nonperforming assets	\$ 9,837	1.03%	\$ 10,664	1.11%	\$ 11,362	1.17%	\$ 12,006	1.25%
Change in NPAs from prior quarter	\$ (827)		(698)		(644)		(1,074)	

(1) Includes MHFS of \$140 million, \$145 million, \$149 million, and \$150 million at June 30 and March 31, 2017, and December 31 and September 30, 2016, respectively.

(2) Excludes PCI loans because they continue to earn interest income from accretable yield, independent of performance in accordance with their contractual terms.

(3) Real estate 1-4 family mortgage loans predominantly insured by the FHA or guaranteed by the VA and student loans largely guaranteed by agencies on behalf of the U.S. Department of Education under the FFELP are not placed on nonaccrual status because they are insured or guaranteed. All remaining student loans guaranteed under the FFELP were sold as of March 31, 2017.

(4) See Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for further information on impaired loans.

(5) Consistent with regulatory reporting requirements, foreclosed real estate resulting from government insured/guaranteed loans are classified as nonperforming. However, both principal and interest related to these foreclosed real estate assets are collectible because the loans were predominantly insured by the FHA or guaranteed by the VA. Foreclosure of certain government guaranteed residential real estate mortgage loans that meet criteria specified by Accounting Standards Update (ASU) 2014-14,

Classification of Certain Government-Guaranteed Mortgage Loans Upon Foreclosure, effective as of January 1, 2014 are excluded from this table and included in Accounts Receivable in Other Assets. For more information on the changes in foreclosures for government guaranteed residential real estate mortgage loans, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K.

Table 23 provides an analysis of the changes in nonaccrual loans.

Table 23: Analysis of Changes in Nonaccrual Loans

(in millions)	Quarter ended				
	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
Commercial nonaccrual loans					
Balance, beginning of period	\$ 3,706	4,059	4,262	4,507	3,969
Inflows	704	945	951	1,180	1,936
Outflows:					
Returned to accruing	(61)	(133)	(59)	(80)	(32)
Foreclosures	(15)	(1)	(15)	(1)	(6)
Charge-offs	(116)	(202)	(292)	(290)	(420)
Payments, sales and other	(833)	(962)	(788)	(1,054)	(940)
Total outflows	(1,025)	(1,298)	(1,154)	(1,425)	(1,398)
Balance, end of period	3,385	3,706	4,059	4,262	4,507
Consumer nonaccrual loans					
Balance, beginning of period	6,053	6,325	6,724	7,456	8,265
Inflows	676	814	863	868	829
Outflows:					
Returned to accruing	(425)	(428)	(410)	(597)	(546)
Foreclosures	(72)	(81)	(59)	(85)	(85)
Charge-offs	(117)	(151)	(158)	(192)	(167)
Payments, sales and other	(444)	(426)	(635)	(726)	(840)
Total outflows	(1,058)	(1,086)	(1,262)	(1,600)	(1,638)
Balance, end of period	5,671	6,053	6,325	6,724	7,456
Total nonaccrual loans	\$ 9,056	9,759	10,384	10,986	11,963

Typically, changes to nonaccrual loans period-over-period represent inflows for loans that are placed on nonaccrual status in accordance with our policy, offset by reductions for loans that are paid down, charged off, sold, foreclosed, or are no longer classified as nonaccrual as a result of continued performance and an improvement in the borrower's financial condition and loan repayment capabilities. Also, reductions can come from borrower repayments even if the loan remains on nonaccrual.

While nonaccrual loans are not free of loss content, we believe exposure to loss is significantly mitigated by the following factors at June 30, 2017:

- 96% of total commercial nonaccrual loans and 99% of total consumer nonaccrual loans are secured. Of the consumer nonaccrual loans, 97% are secured by real estate and 81% have a combined LTV (CLTV) ratio of 80% or less.
- losses of \$448 million and \$2.0 billion have already been recognized on 14% of commercial nonaccrual loans and 46% of consumer nonaccrual loans, respectively. Generally, when a consumer real estate loan is 120 days past due (except when required earlier by guidance issued by bank regulatory agencies), we transfer it to nonaccrual status. When the loan reaches 180 days past due, or is discharged in bankruptcy, it is our policy to write these loans down to net realizable value (fair value of collateral less estimated costs to sell), except for modifications in their trial period that are not written down as long as trial payments are made on time. Thereafter, we reevaluate each loan regularly and record additional write-downs if needed.

- 90% of commercial nonaccrual loans were current on interest, but were on nonaccrual status because the full or timely collection of interest or principal had become uncertain.
- the remaining risk of loss of all nonaccrual loans has been considered and we believe is adequately covered by the allowance for loan losses.
- \$1.5 billion of consumer loans discharged in bankruptcy and classified as nonaccrual were 60 days or less past due, of which \$1.4 billion were current.

We continue to work with our customers experiencing financial difficulty to determine if they can qualify for a loan modification so that they can stay in their homes. Under both our proprietary modification programs and the Making Home Affordable (MHA) programs, customers may be required to provide updated documentation, and some programs require completion of payment during trial periods to demonstrate sustained performance before the loan can be removed from nonaccrual status.

Risk Management - Credit Risk Management (continued)

Table 24 provides a summary of foreclosed assets and an analysis of changes in foreclosed assets.

Table 24: Foreclosed Assets

(in millions)	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
Summary by loan segment					
Government insured/guaranteed	\$ 149	179	197	282	321
PCI loans:					
Commercial	79	84	91	98	124
Consumer	67	80	75	88	91
Total PCI loans	146	164	166	186	215
All other loans:					
Commercial	259	275	287	298	313
Consumer	227	287	328	254	268
Total all other loans	486	562	615	552	581
Total foreclosed assets	\$ 781	905	978	1,020	1,117
Analysis of changes in foreclosed assets (1)					
Balance, beginning of period	\$ 905	978	1,020	1,117	1,279
Net change in government insured/guaranteed (2)	(30)	(18)	(85)	(39)	(65)
Additions to foreclosed assets (3)	233	288	405	261	281
Reductions:					
Sales	(330)	(307)	(296)	(421)	(405)
Write-downs and gains (losses) on sales	3	(36)	(66)	102	27
Total reductions	(327)	(343)	(362)	(319)	(378)
Balance, end of period	\$ 781	905	978	1,020	1,117

- (1) During fourth quarter 2016, we evaluated a population of foreclosed properties that were previously security for FHA insured loans, and made the decision to retain some of the properties as foreclosed real estate, thereby foregoing the FHA insurance claim. Accordingly, the loans for which we decided not to file a claim are reported as additions to foreclosed assets rather than included as net change in government insured/guaranteed foreclosures.
- (2) Foreclosed government insured/guaranteed loans are temporarily transferred to and held by us as servicer, until reimbursement is received from FHA or VA. The net change in government insured/guaranteed foreclosed assets is generally made up of inflows from mortgages held for investment and MHFS, and outflows when we are reimbursed by FHA/VA.
- (3) Includes loans moved into foreclosure from nonaccrual status, PCI loans transitioned directly to foreclosed assets and repossessed automobiles.

Foreclosed assets at June 30, 2017, included \$434 million of foreclosed residential real estate, of which 34% is predominantly FHA insured or VA guaranteed and expected to have minimal or no loss content. The remaining foreclosed assets balance of \$347 million has been written down to estimated net realizable value. Of the \$781 million in foreclosed assets at June 30, 2017, 52% have been in the foreclosed assets portfolio one year or less.

TROUBLED DEBT RESTRUCTURINGS (TDRs)

Table 25: Troubled Debt Restructurings (TDRs)

(in millions)	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
Commercial:					
Commercial and industrial	\$ 2,629	2,484	2,584	2,445	1,951
Real estate mortgage	1,024	1,090	1,119	1,256	1,324
Real estate construction	62	73	91	95	106
Lease financing	21	8	6	8	5
Total commercial TDRs	3,736	3,655	3,800	3,804	3,386
Consumer:					
Real estate 1-4 family first mortgage	13,141	13,680	14,134	14,761	15,518
Real estate 1-4 family junior lien mortgage	1,975	2,027	2,074	2,144	2,214
Credit Card	316	308	300	294	291
Automobile	85	80	85	89	92
Other revolving credit and installment	118	107	101	93	86
Trial modifications	215	261	299	348	364
Total consumer TDRs (1)	15,850	16,463	16,993	17,729	18,565
Total TDRs	\$ 19,586	20,118	20,793	21,533	21,951
TDRs on nonaccrual status	\$ 5,637	5,819	6,193	6,429	6,404
TDRs on accrual status (1)	13,949	14,299	14,600	15,104	15,547
Total TDRs	\$ 19,586	20,118	20,793	21,533	21,951

(1) TDR loans include \$1.4 billion, \$1.5 billion, \$1.5 billion, \$1.6 billion, and \$1.7 billion at June 30 and March 31, 2017, and December 31, September 30 and June 30, 2016, respectively, of government insured/guaranteed loans that are predominantly insured by the FHA or guaranteed by the VA and accruing.

Table 25 provides information regarding the recorded investment of loans modified in TDRs. The allowance for loan losses for TDRs was \$1.9 billion and \$2.2 billion at June 30, 2017, and December 31, 2016, respectively. See Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for additional information regarding TDRs. In those situations where principal is forgiven, the entire amount of such forgiveness is immediately charged off to the extent not done so prior to the modification. When we delay the timing on the repayment of a portion of principal (principal forbearance), we charge off the amount of forbearance if that amount is not considered fully collectible.

For more information on our nonaccrual policies when a restructuring is involved, see the “Risk Management – Credit Risk Management – Troubled Debt Restructurings (TDRs)” section in our 2016 Form 10-K.

Table 26 provides an analysis of the changes in TDRs. Loans modified more than once are reported as TDR inflows only in the period they are first modified. Other than resolutions such as foreclosures, sales and transfers to held for sale, we may remove loans held for investment from TDR classification, but only if they have been refinanced or restructured at market terms and qualify as a new loan.

Risk Management - Credit Risk Management (continued)

Table 26: Analysis of Changes in TDRs

(in millions)	Quarter ended				
	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
Commercial:					
Balance, beginning of quarter	\$ 3,655	3,800	3,804	3,386	3,092
Inflows (1)	730	642	615	914	797
Outflows					
Charge-offs	(59)	(108)	(120)	(76)	(153)
Foreclosures	(12)	—	(13)	(2)	—
Payments, sales and other (2)	(578)	(679)	(486)	(418)	(350)
Balance, end of quarter	3,736	3,655	3,800	3,804	3,386
Consumer:					
Balance, beginning of quarter	16,463	16,993	17,729	18,565	19,413
Inflows (1)	444	517	513	542	508
Outflows					
Charge-offs	(51)	(51)	(48)	(65)	(38)
Foreclosures	(159)	(179)	(166)	(230)	(217)
Payments, sales and other (2)	(801)	(779)	(987)	(1,067)	(1,085)
Net change in trial modifications (3)	(46)	(38)	(48)	(16)	(16)
Balance, end of quarter	15,850	16,463	16,993	17,729	18,565
Total TDRs	\$ 19,586	20,118	20,793	21,533	21,951

(1) Inflows include loans that modify, even if they resolve within the period as well as advances on loans that modified in a prior period.

(2) Other outflows include normal amortization/accretion of loan basis adjustments and loans transferred to held-for-sale. It also includes \$4 million of loans refinanced or restructured at market terms and qualifying as new loans and removed from TDR classification for the quarter ended December 31, 2016, while no loans were removed from TDR classification for the quarters ended June 30 and March 31, 2017, and September 30 and June 30, 2016.

(3) Net change in trial modifications includes: inflows of new TDRs entering the trial payment period, net of outflows for modifications that either (i) successfully perform and enter into a permanent modification, or (ii) did not successfully perform according to the terms of the trial period plan and are subsequently charged-off, foreclosed upon or otherwise resolved.

LOANS 90 DAYS OR MORE PAST DUE AND STILL ACCRUING
 Loans 90 days or more past due as to interest or principal are still accruing if they are (1) well-secured and in the process of collection or (2) real estate 1-4 family mortgage loans or consumer loans exempt under regulatory rules from being classified as nonaccrual until later delinquency, usually 120 days past due. PCI loans are not included in past due and still accruing loans even when they are 90 days or more contractually past due. These PCI loans are considered to be accruing because they continue to earn interest from accretable yield, independent of performance in accordance with their contractual terms.

Excluding insured/guaranteed loans, loans 90 days or more past due and still accruing at June 30, 2017, were down \$129 million, or 13%, from December 31, 2016, due to payoffs, modifications and other loss mitigation activities and credit

stabilization. Also, fluctuations from quarter to quarter are influenced by seasonality.

Loans 90 days or more past due and still accruing whose repayments are predominantly insured by the FHA or guaranteed by the VA for mortgages were \$8.9 billion at June 30, 2017, down from \$10.9 billion at December 31, 2016, due to improving credit trends. All remaining student loans guaranteed by agencies on behalf of the U.S. Department of Education under the FFELP were sold as of March 31, 2017.

Table 27 reflects non-PCI loans 90 days or more past due and still accruing by class for loans not government insured/guaranteed. For additional information on delinquencies by loan class, see Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 27: Loans 90 Days or More Past Due and Still Accruing

(in millions)	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
Total (excluding PCI (1)):	\$ 9,716	10,525	11,858	12,068	12,385
Less: FHA insured/VA guaranteed (2)(3)	8,873	9,585	10,883	11,198	11,577
Less: Student loans guaranteed under the FFELP (4)	—	—	3	17	20
Total, not government insured/guaranteed	\$ 843	940	972	853	788
By segment and class, not government insured/guaranteed:					
Commercial:					
Commercial and industrial	\$ 42	88	28	47	36
Real estate mortgage	2	11	36	4	22
Real estate construction	10	3	—	—	—
Total commercial	54	102	64	51	58
Consumer:					
Real estate 1-4 family first mortgage (3)	145	149	175	171	169
Real estate 1-4 family junior lien mortgage (3)	44	42	56	54	52
Credit card	411	453	452	392	348
Automobile	91	79	112	81	64
Other revolving credit and installment	98	115	113	104	97
Total consumer	789	838	908	802	730
Total, not government insured/guaranteed	\$ 843	940	972	853	788

(1) PCI loans totaled \$1.5 billion, \$1.8 billion, \$2.0 billion, \$2.2 billion, and \$2.4 billion at June 30 and March 31, 2017 and December 31, September 30, and June 30, 2016, respectively.

(2) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.

(3) Includes mortgages held for sale 90 days or more past due and still accruing.

(4) Represents loans whose repayments are largely guaranteed by agencies on behalf of the U.S. Department of Education under the FFELP. All remaining student loans guaranteed under the FFELP were sold as of March 31, 2017.

Risk Management - Credit Risk Management (continued)

NET CHARGE-OFFS

Table 28: Net Charge-offs

(\$ in millions)	Quarter ended									
	Jun 30, 2017		Mar 31, 2017		Dec 31, 2016		Sep 30, 2016		Jun 30, 2016	
	Net loan charge-offs	% of avg. loans (1)	Net loan charge-offs	% of avg. loans (1)	Net loan charge-offs	% of avg. loans (1)	Net loan charge-offs	% of avg. loans (1)	Net loan charge-offs	% of avg. loans (1)
Commercial:										
Commercial and industrial	\$ 78	0.10%	\$ 171	0.21%	\$ 256	0.31%	\$ 259	0.32%	\$ 368	0.46%
Real estate mortgage	(6)	(0.02)	(25)	(0.08)	(12)	(0.04)	(28)	(0.09)	(20)	(0.06)
Real estate construction	(4)	(0.05)	(8)	(0.15)	(8)	(0.13)	(18)	(0.32)	(3)	(0.06)
Lease financing	7	0.15	5	0.11	15	0.32	2	0.04	12	0.27
Total commercial	75	0.06	143	0.11	251	0.20	215	0.17	357	0.29
Consumer:										
Real estate 1-4 family first mortgage	(16)	(0.02)	7	0.01	(3)	—	20	0.03	14	0.02
Real estate 1-4 family junior lien mortgage	(4)	(0.03)	23	0.21	44	0.38	49	0.40	62	0.49
Credit card	320	3.67	309	3.54	275	3.09	245	2.82	270	3.25
Automobile	126	0.86	167	1.10	166	1.05	137	0.87	90	0.59
Other revolving credit and installment	154	1.58	156	1.60	172	1.70	139	1.40	131	1.32
Total consumer	580	0.51	662	0.59	654	0.56	590	0.51	567	0.49
Total	\$ 655	0.27%	\$ 805	0.34%	\$ 905	0.37%	\$ 805	0.33%	\$ 924	0.39%

(1) Quarterly net charge-offs (recoveries) as a percentage of average respective loans are annualized.

Table 28 presents net charge-offs for second quarter 2017 and the previous four quarters. Net charge-offs in second quarter 2017 were \$655 million (0.27% of average total loans outstanding) compared with \$924 million (0.39%) in second quarter 2016.

The decrease in commercial and industrial net charge-offs from second quarter 2016, reflected continued improvement in our oil and gas portfolio. Our commercial real estate portfolios were in a net recovery position. Total consumer net charge-offs increased slightly from the prior year due to an increase in credit card, automobile and other revolving credit and installment losses, partially offset by a decrease in residential real estate net charge-offs.

ALLOWANCE FOR CREDIT LOSSES The allowance for credit losses, which consists of the allowance for loan losses and the allowance for unfunded credit commitments, is management's estimate of credit losses inherent in the loan portfolio and unfunded credit commitments at the balance sheet date, excluding loans carried at fair value. The detail of the changes in the allowance for credit losses by portfolio segment (including charge-offs and recoveries by loan class) is in Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

We apply a disciplined process and methodology to establish our allowance for credit losses each quarter. This process takes into consideration many factors, including historical and forecasted loss trends, loan-level credit quality ratings and loan grade-specific characteristics. The process involves subjective and complex judgments. In addition, we review a variety of credit metrics and trends. These credit metrics and trends, however, do not solely determine the amount of the allowance as we use several analytical tools. Our estimation approach for the commercial portfolio reflects the estimated probability of default in accordance with the borrower's financial strength, and the severity of loss in the event of default, considering the quality of any underlying collateral. Probability of default and severity at the time of default are statistically derived through historical observations of defaults and losses after default within each credit risk rating. Our estimation approach for the consumer portfolio uses forecasted losses that represent our best estimate of inherent loss based on historical experience, quantitative and other mathematical techniques. For additional information on our allowance for credit losses, see the "Critical Accounting Policies – Allowance for Credit Losses" section in our 2016 Form 10-K and Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 29 presents the allocation of the allowance for credit losses by loan segment and class for the most recent quarter end and last four year ends.

Table 29: Allocation of the Allowance for Credit Losses (ACL)

	Jun 30, 2017		Dec 31, 2016		Dec 31, 2015		Dec 31, 2014		Dec 31, 2013	
(in millions)	ACL	Loans as % of total loans	ACL	Loans as % of total loans	ACL	Loans as % of total loans	ACL	Loans as % of total loans	ACL	Loans as % of total loans
Commercial:										
Commercial and industrial	\$ 4,178	34%	\$ 4,560	34%	\$ 4,231	33%	\$ 3,506	32%	\$ 3,040	29%
Real estate mortgage	1,269	14	1,320	14	1,264	13	1,576	13	2,157	14
Real estate construction	1,276	3	1,294	2	1,210	3	1,097	2	775	2
Lease financing	238	2	220	2	167	1	198	1	131	1
Total commercial	6,961	53	7,394	52	6,872	50	6,377	48	6,103	46
Consumer:										
Real estate 1-4 family first mortgage	1,180	29	1,270	29	1,895	30	2,878	31	4,087	32
Real estate 1-4 family junior lien mortgage	690	4	815	5	1,223	6	1,566	7	2,534	8
Credit card	1,851	4	1,605	4	1,412	4	1,271	4	1,224	3
Automobile	786	6	817	6	529	6	516	6	475	6
Other revolving credit and installment	678	4	639	4	581	4	561	4	548	5
Total consumer	5,185	47	5,146	48	5,640	50	6,792	52	8,868	54
Total	\$12,146	100%	\$ 12,540	100%	\$ 12,512	100%	\$ 13,169	100%	\$ 14,971	100%
	Jun 30, 2017		Dec 31, 2016		Dec 31, 2015		Dec 31, 2014		Dec 31, 2013	
Components:										
Allowance for loan losses	\$ 11,073		11,419		11,545		12,319		14,502	
Allowance for unfunded credit commitments	1,073		1,121		967		850		469	
Allowance for credit losses	\$ 12,146		12,540		12,512		13,169		14,971	
Allowance for loan losses as a percentage of total loans	1.16%		1.18		1.26		1.43		1.76	
Allowance for loan losses as a percentage of total net charge-offs (1)	421		324		399		418		322	
Allowance for credit losses as a percentage of total loans	1.27		1.30		1.37		1.53		1.82	
Allowance for credit losses as a percentage of total nonaccrual loans	134		121		110		103		96	

(1) Total net charge-offs are annualized for quarter ended June 30, 2017.

In addition to the allowance for credit losses, there was \$649 million at June 30, 2017, and \$954 million at December 31, 2016, of nonaccrable difference to absorb losses for PCI loans, which totaled \$14.3 billion at June 30, 2017. The allowance for credit losses is lower than otherwise would have been required without PCI loan accounting. As a result of PCI loans, certain ratios of the Company may not be directly comparable with credit-related metrics for other financial institutions. Additionally, loans purchased at fair value, including loans from the GE Capital business acquisitions, generally reflect a lifetime credit loss adjustment and therefore do not initially require additions to the allowance as is typically associated with loan growth. For additional information on PCI loans, see the “Risk Management – Credit Risk Management – Purchased Credit-Impaired Loans” section and Note 5 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

The ratio of the allowance for credit losses to total nonaccrual loans may fluctuate significantly from period to period due to such factors as the mix of loan types in the portfolio, borrower credit strength and the value and marketability of collateral. Our nonaccrual loans consisted

primarily of real estate 1-4 family first and junior lien mortgage loans at June 30, 2017.

The allowance for credit losses decreased \$394 million, or 3%, from December 31, 2016, due to a decrease in our commercial allowance reflecting credit quality improvement, including in the oil and gas portfolio, as well as improvement in our residential real estate and automobile portfolios, partially offset by increased allowance in the credit card portfolio. Total provision for credit losses was \$555 million in second quarter 2017, compared with \$1.1 billion in second quarter 2016, reflecting the same changes mentioned above for the allowance for credit losses.

We believe the allowance for credit losses of \$12.1 billion at June 30, 2017, was appropriate to cover credit losses inherent in the loan portfolio, including unfunded credit commitments, at that date. Approximately \$959 million of the allowance at June 30, 2017, was allocated to our oil and gas portfolio, compared with \$1.3 billion at December 31, 2016. This represented 7.5% and 8.5% of total oil and gas loans outstanding at June 30, 2017, and December 31, 2016, respectively. However, the entire allowance is available to absorb credit losses inherent

in the total loan portfolio. The allowance for credit losses is subject to change and reflects existing factors as of the date of determination, including economic or market conditions and ongoing internal and external examination processes. Due to the sensitivity of the allowance for credit losses to changes in the economic and business environment, it is possible that we will incur incremental credit losses not anticipated as of the balance sheet date. Future allowance levels will be based on a variety of factors, including loan growth, portfolio performance and general economic conditions. Our process for determining the allowance for credit losses is discussed in the "Critical Accounting Policies – Allowance for Credit Losses" section and Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K.

LIABILITY FOR MORTGAGE LOAN REPURCHASE LOSSES

In connection with our sales and securitization of residential mortgage loans to various parties, we have established a mortgage repurchase liability, initially at fair value, related to various representations and warranties that reflect management's estimate of losses for loans for which we could have a repurchase obligation, whether or not we currently service those loans, based on a combination of factors. Our mortgage repurchase liability estimation process also incorporates a forecast of repurchase demands associated with mortgage insurance rescission activity.

Because we typically retain the servicing for the mortgage loans we sell or securitize, we believe the quality of our residential mortgage loan servicing portfolio provides helpful information in evaluating our repurchase liability. Of the \$1.5 trillion in the residential mortgage loan servicing portfolio at June 30, 2017, 96% was current and less than 1% was subprime at origination. Our combined delinquency and foreclosure rate on this portfolio was 4.14% at June 30, 2017, compared with 4.83% at December 31, 2016. Two percent of this portfolio is private label securitizations for which we originated the loans and, therefore have some repurchase risk.

The overall level of unresolved repurchase demands and mortgage insurance rescissions outstanding at June 30, 2017, was \$121 million, representing 562 loans, up from a year ago both in number of outstanding loans and in total dollar balances. The increase was predominantly due to private investor demands we expect to resolve with minimal repurchase risk.

Our liability for mortgage repurchases, included in "Accrued expenses and other liabilities" in our consolidated balance sheet, represents our best estimate of the probable loss that we expect to incur for various representations and warranties in the contractual provisions of our sales of mortgage loans. The liability was \$178 million at June 30, 2017, and \$229 million at December 31, 2016. In second quarter 2017, we released \$39 million, which increased net gains on mortgage loan origination/sales activities, compared with a release of \$81 million in second quarter 2016. The release in second quarter 2017 was due to a re-estimation of our liability based on recently observed trends. We incurred net losses on repurchased loans and investor reimbursements totaling \$5 million in second quarter 2017, compared with \$19 million in second quarter 2016.

Because of the uncertainty in the various estimates underlying the mortgage repurchase liability, there is a range of losses in excess of the recorded mortgage repurchase liability that are reasonably possible. The estimate of the range of possible loss for representations and warranties does not represent a probable loss, and is based on currently available information, significant judgment, and a number of assumptions that are subject to change. The high end of this range of reasonably possible losses exceeded our recorded liability by \$167 million at June 30, 2017, and was determined based upon modifying the assumptions (particularly to assume significant changes in investor repurchase demand practices) used in our best estimate of probable loss to reflect what we believe to be the high end of reasonably possible adverse assumptions.

For additional information on our repurchase liability, see the "Risk Management – Credit Risk Management – Liability For Mortgage Loan Repurchase Losses" section in our 2016 Form 10-K and Note 8 (Mortgage Banking Activities) to Financial Statements in this Report.

RISKS RELATING TO SERVICING ACTIVITIES In addition to servicing loans in our portfolio, we act as servicer and/or master servicer of residential mortgage loans included in GSE-guaranteed mortgage securitizations, GNMA-guaranteed mortgage securitizations of FHA-insured/VA-guaranteed mortgages and private label mortgage securitizations, as well as for unsecuritized loans owned by institutional investors. In connection with our servicing activities, we have entered into various settlements with federal and state regulators to resolve certain alleged servicing issues and practices. In general, these settlements required us to provide customers with loan modification relief, refinancing relief, and foreclosure prevention and assistance, as well as imposed certain monetary penalties on us.

For additional information about the risks and various settlements related to our servicing activities, see the "Risk Management – Credit Risk Management – Risks Relating to Servicing Activities" section in our 2016 Form 10-K.

Asset/Liability Management

Asset/liability management involves evaluating, monitoring and managing interest rate risk, market risk, liquidity and funding. Primary oversight of interest rate risk and market risk resides with the Finance Committee of our Board of Directors (Board), which oversees the administration and effectiveness of financial risk management policies and processes used to assess and manage these risks. Primary oversight of liquidity and funding resides with the Risk Committee of the Board. At the management level we utilize a Corporate Asset/Liability Management Committee (Corporate ALCO), which consists of senior financial, risk, and business executives, to oversee these risks and report on them periodically to the Board's Finance Committee and Risk Committee as appropriate. As discussed in more detail for trading activities below, we employ separate management level oversight specific to market risk.

INTEREST RATE RISK Interest rate risk, which potentially can have a significant earnings impact, is an integral part of being a financial intermediary. We are subject to interest rate risk because:

- assets and liabilities may mature or reprice at different times (for example, if assets reprice faster than liabilities and interest rates are generally falling, earnings will initially decline);
- assets and liabilities may reprice at the same time but by different amounts (for example, when the general level of interest rates is falling, we may reduce rates paid on checking and savings deposit accounts by an amount that is less than the general decline in market interest rates);
- short-term and long-term market interest rates may change by different amounts (for example, the shape of the yield curve may affect new loan yields and funding costs differently);
- the remaining maturity of various assets or liabilities may shorten or lengthen as interest rates change (for example, if long-term mortgage interest rates decline sharply, MBS held in the investment securities portfolio may prepay significantly earlier than anticipated, which could reduce portfolio income); or
- interest rates may also have a direct or indirect effect on loan demand, collateral values, credit losses, mortgage origination volume, the fair value of MSRs and other financial instruments, the value of the pension liability and other items affecting earnings.

We assess interest rate risk by comparing outcomes under various net interest income simulations using many interest rate scenarios that differ in the direction of interest rate changes, the degree of change over time, the speed of change and the projected shape of the yield curve. These simulations require assumptions regarding drivers of earnings and balance sheet composition such as loan originations, prepayment speeds on loans and investment securities, deposit flows and mix, as well as pricing strategies.

Currently, our profile is such that we project net interest income will benefit modestly from higher interest rates as our assets would reprice faster and to a greater degree than our liabilities, while in the case of lower interest rates, our assets would reprice downward and to a greater degree than our liabilities.

As of June 30, 2017, our most recent simulations estimate net interest income sensitivity over the next two years under a range of both lower and higher interest rates. Measured impacts from standardized ramps (gradual changes) and shocks

(instantaneous changes) are summarized in Table 30, indicating net interest income sensitivity relative to the Company's base net interest income plan. Ramp scenarios assume interest rates move gradually in parallel across the yield curve relative to the base scenario in year one, and the full amount of the ramp is held as a constant differential to the base scenario in year two. The following describes the simulation assumptions for the scenarios presented in Table 30:

- Simulations are dynamic and reflect anticipated growth across assets and liabilities.
- Other macroeconomic variables that could be correlated with the changes in interest rates are held constant.
- Mortgage prepayment and origination assumptions vary across scenarios and reflect only the impact of the higher or lower interest rates.
- Our base scenario deposit forecast incorporates mix changes consistent with the base interest rate trajectory. Deposit mix is modeled to be the same as in the base scenario across the alternative scenarios. In higher rate scenarios, customer activity that shifts balances into higher-yielding products could reduce expected net interest income.
- We hold the size of the projected investment securities portfolio constant across scenarios.

Table 30: Net Interest Income Sensitivity Over Next Two-Year Horizon Relative to Base Expectation

(\$ in billions)	Base	Lower Rates		Higher Rates	
		100 bps Ramp Parallel Decrease	100 bps Instantaneous Parallel Increase	200 bps Ramp Parallel Increase	
First Year of Forecasting Horizon					
Net Interest Income Sensitivity to Base Scenario		\$(0.9) - (0.4)	1.1 - 1.6	0.9 - 1.4	
Key Rates at Horizon End					
Fed Funds Target	1.89%	0.89	2.89	3.89	
10-year CMT (1)	3.04	2.04	4.04	5.04	
Second Year of Forecasting Horizon					
Net Interest Income Sensitivity to Base Scenario		\$(1.5) - (1.0)	1.4 - 1.9	1.8 - 2.3	
Key Rates at Horizon End					
Fed Funds Target	2.50%	1.50	3.50	4.50	
10-year CMT (1)	3.55	2.55	4.55	5.55	

(1) U.S. Constant Maturity Treasury Rate

The sensitivity results above do not capture interest rate sensitive noninterest income and expense impacts. Our interest rate sensitive noninterest income and expense is primarily driven by mortgage activity, and may move in the opposite direction of our net interest income. Typically, in response to higher interest rates, mortgage activity, primarily refinancing activity, generally declines. And in response to lower interest rates, mortgage activity generally increases. Mortgage results are also impacted by the valuation of MSRs and related hedge positions. See the "Risk Management – Asset/Liability Management – Mortgage Banking Interest Rate and Market Risk" section in this Report for more information.

We use the investment securities portfolio and exchange-traded and over-the-counter (OTC) interest rate derivatives to hedge our interest rate exposures. See the "Balance Sheet Analysis – Investment Securities" section in this Report for more information on the use of the available-for-sale and held-to-

Asset/Liability Management (continued)

maturity securities portfolios. The notional or contractual amount, credit risk amount and fair value of the derivatives used to hedge our interest rate risk exposures as of June 30, 2017, and December 31, 2016, are presented in Note 12 (Derivatives) to Financial Statements in this Report. We use derivatives for asset/liability management in two main ways:

- to convert the cash flows from selected asset and/or liability instruments/portfolios including investments, commercial loans and long-term debt, from fixed-rate payments to floating-rate payments, or vice versa; and
- to economically hedge our mortgage origination pipeline, funded mortgage loans and MSRs using interest rate swaps, swaptions, futures, forwards and options.

MORTGAGE BANKING INTEREST RATE AND MARKET RISK

We originate, fund and service mortgage loans, which subjects us to various risks, including credit, liquidity and interest rate risks. For more information on mortgage banking interest rate and market risk, see the “Risk Management – Asset/Liability Management – Mortgage Banking Interest Rate and Market Risk” section in our 2016 Form 10-K.

While our hedging activities are designed to balance our mortgage banking interest rate risks, the financial instruments we use may not perfectly correlate with the values and income being hedged. For example, the change in the value of ARM production held for sale from changes in mortgage interest rates may or may not be fully offset by LIBOR index-based financial instruments used as economic hedges for such ARMs. Additionally, hedge-carry income on our economic hedges for the MSRs may not continue at recent levels if the spread between short-term and long-term rates decreases or there are other changes in the market for mortgage forwards that affect the implied carry.

The total carrying value of our residential and commercial MSRs was \$14.2 billion at June 30, 2017, and \$14.4 billion at December 31, 2016. The weighted-average note rate on our portfolio of loans serviced for others was 4.23% at June 30, 2017, and 4.26% at December 31, 2016. The carrying value of our total MSRs represented 0.85% of mortgage loans serviced for others at both June 30, 2017 and December 31, 2016.

MARKET RISK – TRADING ACTIVITIES The Finance Committee of our Board of Directors reviews the acceptable market risk appetite for our trading activities. We engage in trading activities to accommodate the investment and risk management activities of our customers (which generally comprises a subset of the transactions recorded as trading and derivative assets and liabilities on our balance sheet), and to execute economic hedging to manage certain balance sheet risks. These activities primarily occur within our Wholesale Banking businesses and to a lesser extent other divisions of the Company. All of our trading assets, and derivative assets and liabilities, (including securities, foreign exchange transactions, and commodity transactions) are carried at fair value. Income earned related to these trading activities include net interest income and changes in fair value related to trading assets and derivative assets and liabilities. Net interest income earned from trading activity is reflected in the interest income and interest expense components of our income statement. Changes in fair value related to trading assets, and derivative assets and liabilities are reflected in net gains on trading activities, a component of noninterest income in our income statement.

Table 31 presents total revenue from trading activities.

Table 31: Net Gains (Losses) from Trading Activities

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Interest income (1)	\$ 710	572	\$1,353	1,168
Less: Interest expense (2)	108	83	200	172
Net interest income	602	489	1,153	996
Noninterest income:				
Net gains (losses) from trading activities (3):				
Customer accommodation	187	380	532	599
Economic hedges and other (4)	50	(52)	144	(71)
Total net gains from trading activities	237	328	676	528
Total trading-related net interest and noninterest income	\$ 839	817	\$1,829	1,524

(1) Represents interest and dividend income earned on trading securities.

(2) Represents interest and dividend expense incurred on trading securities we have sold but have not yet purchased.

(3) Represents realized gains (losses) from our trading activity and unrealized gains (losses) due to changes in fair value of our trading positions, attributable to the type of business activity.

(4) Excludes economic hedging of mortgage banking and asset/liability management activities, for which hedge results (realized and unrealized) are reported with the respective hedged activities.

Customer accommodation Customer accommodation activities are conducted to help customers manage their investment and risk management needs. We engage in market-making activities or act as an intermediary to purchase or sell financial instruments in anticipation of or in response to customer needs. This category also includes positions we use to manage our exposure to customer transactions.

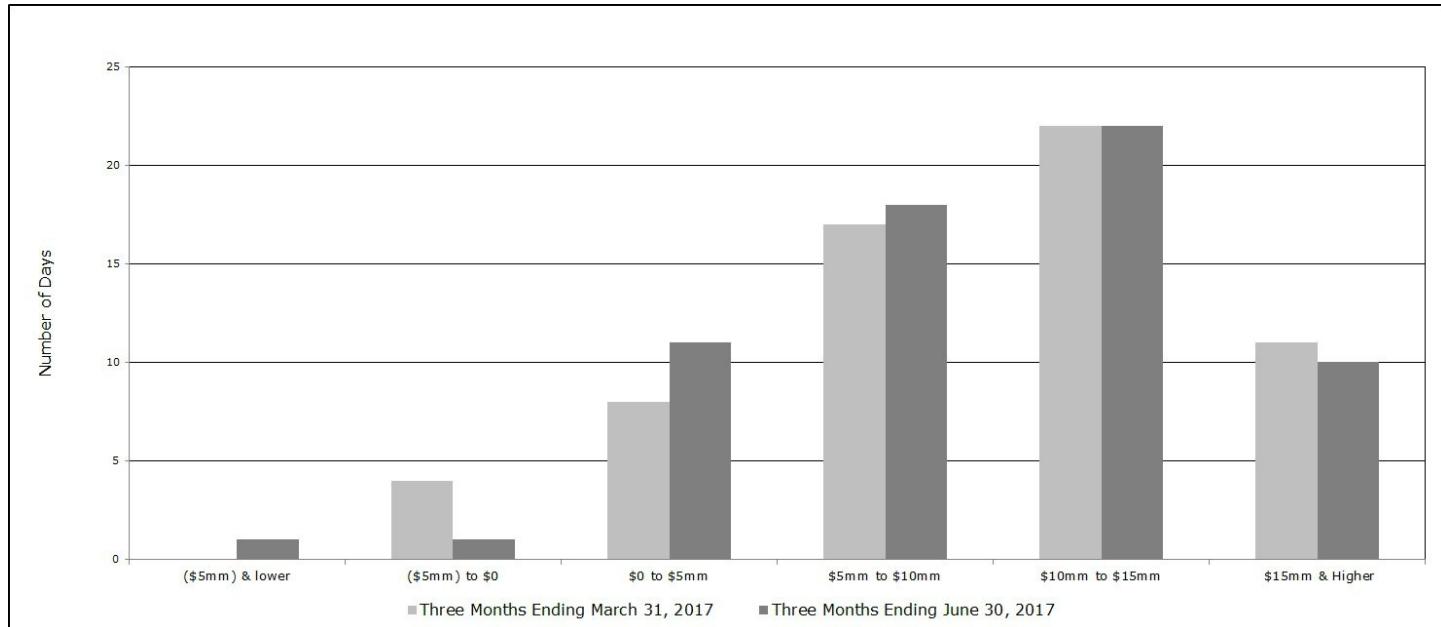
In our customer accommodation trading, we serve as intermediary between buyer and seller. For example, we may purchase or sell a derivative to a customer who wants to manage interest rate risk exposure. We typically enter into offsetting derivative or security positions with a separate counterparty or exchange to manage our exposure to the derivative with our customer. We earn income on this activity based on the transaction price difference between the customer and offsetting derivative or security positions, which is reflected in the fair value changes of the positions recorded in net gains on trading activities.

Customer accommodation trading also includes net gains related to market-making activities in which we take positions to facilitate customer order flow. For example, we may own securities recorded as trading assets (long positions) or sold securities we have not yet purchased, recorded as trading liabilities (short positions), typically on a short-term basis, to facilitate support of buying and selling demand from our customers. As a market maker in these securities, we earn income due to: (1) the difference between the price paid or received for the purchase and sale of the security (bid-ask spread), (2) the net interest income, and (3) the change in fair value of the long or short positions during the short-term period held on our balance sheet. Additionally, we may enter into separate derivative or security positions to manage our exposure related to our long or short security positions. Income earned on this type of market-making activity is reflected in the fair value changes of these positions recorded in net gains on trading activities.

Economic hedges and other Economic hedges in trading activities are not designated in a hedge accounting relationship and exclude economic hedging related to our asset/liability risk management and mortgage banking risk management activities. Economic hedging activities include the use of trading securities to economically hedge risk exposures related to non-trading activities or derivatives to hedge risk exposures related to trading assets or trading liabilities. Economic hedges are unrelated to our customer accommodation activities. Other activities include financial assets held for investment purposes that we elected to carry at fair value with changes in fair value recorded to earnings in order to mitigate accounting measurement mismatches or avoid embedded derivative accounting complexities.

Daily Trading-Related Revenue Table 32 provides information on the distribution of daily trading-related revenues for the Company's trading portfolio. This trading-related revenue is defined as the change in value of the trading assets and trading liabilities, trading-related net interest income, and trading-related intra-day gains and losses. Net trading-related revenue does not include activity related to long-term positions held for economic hedging purposes, period-end adjustments, and other activity not representative of daily price changes driven by market factors.

Table 32: Distribution of Daily Trading-Related Revenues



Market Risk Market risk is the risk of possible economic loss from adverse changes in market risk factors such as interest rates, credit spreads, foreign exchange rates, equity, commodity prices, mortgage rates, and market liquidity. Market risk is intrinsic to the Company's sales and trading, market making, investing, and risk management activities.

The Company uses value-at-risk (VaR) metrics complemented with sensitivity analysis and stress testing in measuring and monitoring market risk. VaR is a statistical risk measure used to estimate the potential loss from adverse moves in the financial markets. For more information on VaR, see the "Risk Management – Asset/Liability Management – Market Risk – Trading Activities" section in our 2016 Form 10-K.

Trading VaR is the measure used to provide insight into the market risk exhibited by the Company's trading positions. The Company calculates Trading VaR for risk management purposes to establish line of business and Company-wide risk limits. Trading VaR is calculated based on all trading positions classified as trading assets or other liabilities, derivative assets or derivative liabilities on our balance sheet.

Asset/Liability Management (continued)

Table 33 shows the Company's Trading General VaR by risk category. As presented in the table, average Company Trading General VaR was \$29 million for the quarter ended June 30, 2017, compared with \$26 million for the quarter ended March 31,

2017. The increase was primarily driven by changes in portfolio composition.

Table 33: Trading 1-Day 99% General VaR by Risk Category

(in millions)	June 30, 2017				Quarter ended			
	Period end	Average	Low	High	March 31, 2017			
					Period end	Average	Low	High
Company Trading General VaR Risk Categories								
Credit	\$ 23	29	23	36	27	25	19	30
Interest rate	10	20	10	27	22	18	13	23
Equity	10	11	9	14	10	12	9	17
Commodity	1	1	1	2	1	1	1	2
Foreign exchange	1	1	0	1	1	1	0	1
Diversification benefit (1)	(29)	(33)			(35)	(31)		
Company Trading General VaR	\$ 16	29			26	26		

(1) The period-end VaR was less than the sum of the VaR components described above, which is due to portfolio diversification. The diversification effect arises because the risks are not perfectly correlated causing a portfolio of positions to usually be less risky than the sum of the risks of the positions alone. The diversification benefit is not meaningful for low and high metrics since they may occur on different days.

Regulatory Market Risk Capital reflects U.S. regulatory agency risk-based capital regulations that are based on the Basel Committee Capital Accord of the Basel Committee on Banking Supervision. The Company must calculate regulatory capital under the Basel III market risk capital rule, which requires banking organizations with significant trading activities to adjust their capital requirements to reflect the market risks of those activities based on comprehensive and risk sensitive methods and models. The market risk capital rule is intended to cover the risk of loss in value of covered positions due to changes in market conditions.

Composition of Material Portfolio of Covered Positions The positions that are "covered" by the market risk capital rule are generally a subset of our trading assets, and derivative assets and liabilities, specifically those held by the Company for the purpose of short-term resale or with the intent of benefiting from actual or expected short-term price movements, or to lock in arbitrage profits. Positions excluded from market risk regulatory capital treatment are subject to the credit risk capital rules applicable to the "non-covered" trading positions.

The material portfolio of the Company's "covered" positions is mostly concentrated in the trading assets, and derivative assets and liabilities within Wholesale Banking where the substantial portion of market risk capital resides. Wholesale Banking engages in the fixed income, traded credit, foreign exchange, equities, and commodities markets businesses. Other business segments hold smaller trading positions covered under the market risk capital rule.

Regulatory Market Risk Capital Components The capital required for market risk on the Company's "covered" positions is determined by internally developed models or standardized specific risk charges. The market risk regulatory capital models are subject to internal model risk management and validation. The models are continuously monitored and enhanced in response to changes in market conditions, improvements in system capabilities, and changes in the Company's market risk exposure. The Company is required to obtain and has received prior written approval from its regulators before using its internally developed models to calculate the market risk capital charge.

Basel III prescribes various VaR measures in the determination of regulatory capital and RWAs. The Company uses the same VaR models for both market risk management purposes as well as regulatory capital calculations. For regulatory purposes, we use the following metrics to determine the Company's market risk capital requirements:

General VaR measures the risk of broad market movements such as changes in the level of credit spreads, interest rates, equity prices, commodity prices, and foreign exchange rates. General VaR uses historical simulation analysis based on 99% confidence level and a 10-day holding period.

Table 34 shows the General VaR measure categorized by major risk categories. Average 10-day Company Regulatory General VaR was \$30 million for the quarter ended June 30, 2017, compared with \$26 million for the quarter ended March 31,

2017. The increase was primarily driven by changes in portfolio composition.

Table 34: Regulatory 10-Day 99% General VaR by Risk Category

(in millions)	June 30, 2017						Quarter ended March 31, 2017		
	Period end	Average	June 30, 2017		Period end	Average	March 31, 2017		
			Low	High			Low	High	
Wholesale Regulatory General VaR Risk Categories									
Credit	\$ 60	72	57	93	69	67	52	81	
Interest rate	17	39	17	71	47	38	25	50	
Equity (1)	6	4	2	7	4	4	1	7	
Commodity	11	4	3	11	3	4	2	6	
Foreign exchange	8	6	3	29	7	6	4	10	
Diversification benefit (2)	(71)	(96)			(103)	(94)			
Wholesale Regulatory General VaR	\$ 31	29	24	37	27	25	16	37	
Company Regulatory General VaR	35	30	25	40	27	26	17	38	

(1) The period-end VaR was less than the sum of the VaR components described above, which is due to portfolio diversification. The diversification benefit arises because the risks are not perfectly correlated causing a portfolio of positions to usually be less risky than the sum of the risks of the positions alone. The diversification benefit is not meaningful for low and high metrics since they may occur on different days.

Specific Risk measures the risk of loss that could result from factors other than broad market movements, or name-specific market risk. Specific Risk uses Monte Carlo simulation analysis based on a 99% confidence level and a 10-day holding period.

Total VaR (as presented in Table 35) is composed of General VaR and Specific Risk and uses the previous 12 months of historical market data in compliance with regulatory requirements.

Total Stressed VaR (as presented in Table 35) uses a historical period of significant financial stress over a continuous 12 month period using historically available market data and is composed of Stressed General VaR and Stressed Specific Risk. Total Stressed VaR uses the same methodology and models as Total VaR.

Incremental Risk Charge (as presented in Table 35) captures losses due to both issuer default and migration risk at the 99.9% confidence level over the one-year capital horizon under the assumption of constant level of risk or a constant position assumption. The model covers non-securitized credit-sensitive trading products.

The Company calculates Incremental Risk by generating a portfolio loss distribution using Monte Carlo simulation, which assumes numerous scenarios, where an assumption is made that the portfolio's composition remains constant for a one-year time horizon. Individual issuer credit grade migration and issuer default risk is modeled through generation of the issuer's credit rating transition based upon statistical modeling. Correlation between credit grade migration and default is captured by a multifactor proprietary model which takes into account industry classifications as well as regional effects. Additionally, the impact of market and issuer specific concentrations is reflected in the modeling framework by assignment of a higher charge for portfolios that have increasing concentrations in particular issuers or sectors. Lastly, the model captures product basis risk; that is, it reflects the material disparity between a position and its hedge.

Table 35 provides information on Total VaR, Total Stressed VaR and the Incremental Risk Charge results for the quarter ended June 30, 2017. Incremental Risk Charge uses the higher of the quarterly average or the quarter end result. For second quarter 2017, the required capital for market risk equals the quarter end results.

Table 35: Market Risk Regulatory Capital Modeled Components

(in millions)	Quarter ended June 30, 2017				June 30, 2017	
	Average	Low	High	Period end	Risk-based capital (1)	Risk-weighted assets (1)
Total VaR	\$ 51	45	57	53	152	1,898
Total Stressed VaR	300	235	368	284	899	11,235
Incremental Risk Charge	26	20	40	30	30	375

(1) Results represent the risk-based capital and RWAs based on the VaR and Incremental Risk Charge models.

Securitized Products Charge Basel III requires a separate market risk capital charge for positions classified as a securitization or re-securitization. The primary criteria for classification as a securitization are whether there is a transfer of risk and whether the credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of

seniority. Covered trading securitizations positions include consumer and commercial asset-backed securities (ABS), commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS), and collateralized loan and other debt obligations (CLO/CDO) positions. The securitization capital requirements are the greater of the capital requirements

Asset/Liability Management (continued)

of the net long or short exposure, and are capped at the maximum loss that could be incurred on any given transaction.

Table 36 shows the aggregate net fair market value of securities and derivative securitization positions by exposure type that meet the regulatory definition of a covered trading securitization position at June 30, 2017, and December 31, 2016.

Table 36: Covered Securitization Positions by Exposure Type (Net Market Value)

(in millions)	ABS	CMBS	RMBS	CLO/CDO
June 30, 2017				
Securitization exposure:				
Securities	\$ 961	306	630	782
Derivatives	3	(2)	1	(3)
Total	\$ 964	304	631	779
December 31, 2016				
Securitization exposure:				
Securities	801	397	911	791
Derivatives	3	4	1	(8)
Total	\$ 804	401	912	783

Securitization Due Diligence and Risk Monitoring The market risk capital rule requires that the Company conduct due diligence on the risk of each securitization position within three days of its purchase. The Company's due diligence seeks to provide an understanding of the features that would materially affect the performance of a securitization or re-securitization. The due diligence analysis is re-performed on a quarterly basis for each

securitization and re-securitization position. The Company uses an automated solution to track the due diligence associated with securitization activity. The Company aims to manage the risks associated with securitization and re-securitization positions through the use of offsetting positions and portfolio diversification.

Standardized Specific Risk Charge For debt and equity positions that are not evaluated by the approved internal specific risk models, a regulatory prescribed standard specific risk charge is applied. The standard specific risk add-on for sovereign entities, public sector entities, and depository institutions is based on the Organization for Economic Co-operation and Development (OECD) country risk classifications (CRC) and the remaining contractual maturity of the position. These risk add-ons for debt positions range from 0.25% to 12%. The add-on for corporate debt is based on creditworthiness and the remaining contractual maturity of the position. All other types of debt positions are subject to an 8% add-on. The standard specific risk add-on for equity positions is generally 8%.

Comprehensive Risk Charge / Correlation Trading The market risk capital rule requires capital for correlation trading positions. The Company's remaining correlation trading exposure covered under the market risk capital rule matured in fourth quarter 2014.

Table 37 summarizes the market risk-based capital requirements charge and market RWAs in accordance with the Basel III market risk capital rule as of June 30, 2017, and December 31, 2016. The market RWAs are calculated as the sum of the components in the table below.

Table 37: Market Risk Regulatory Capital and RWAs

(in millions)	June 30, 2017		December 31, 2016	
	Risk-based capital	Risk-weighted assets	Risk-based capital	Risk-weighted assets
Total VaR	\$ 152	1,898	247	3,091
Total Stressed VaR	899	11,235	1,135	14,183
Incremental Risk Charge	30	375	217	2,710
Securitized Products Charge	622	7,779	561	7,007
Standardized Specific Risk Charge	1,315	16,437	1,357	16,962
De minimis Charges (positions not included in models)	8	103	11	147
Total	\$ 3,026	37,827	3,528	44,100

RWA Rollforward Table 38 depicts the changes in the market risk regulatory capital and RWAs under Basel III for the first half and second quarter of 2017.

Table 38: Analysis of Changes in Market Risk Regulatory Capital and RWAs

(in millions)	Risk-based capital	Risk-weighted assets
Balance, December 31, 2016	\$ 3,528	44,100
Total VaR	(95)	(1,192)
Total Stressed VaR	(236)	(2,948)
Incremental Risk Charge	(187)	(2,335)
Securitized Products Charge	62	772
Standardized Specific Risk Charge	(42)	(525)
De minimis Charges	(4)	(45)
Balance, June 30, 2017	\$ 3,026	37,827
Balance, March 31, 2017	\$ 3,421	42,759
Total VaR	(63)	(782)
Total Stressed VaR	(159)	(1,989)
Incremental Risk Charge	(147)	(1,837)
Securitized Products Charge	53	663
Standardized Specific Risk Charge	(14)	(178)
De minimis Charges	(65)	(809)
Balance, June 30, 2017	\$ 3,026	37,827

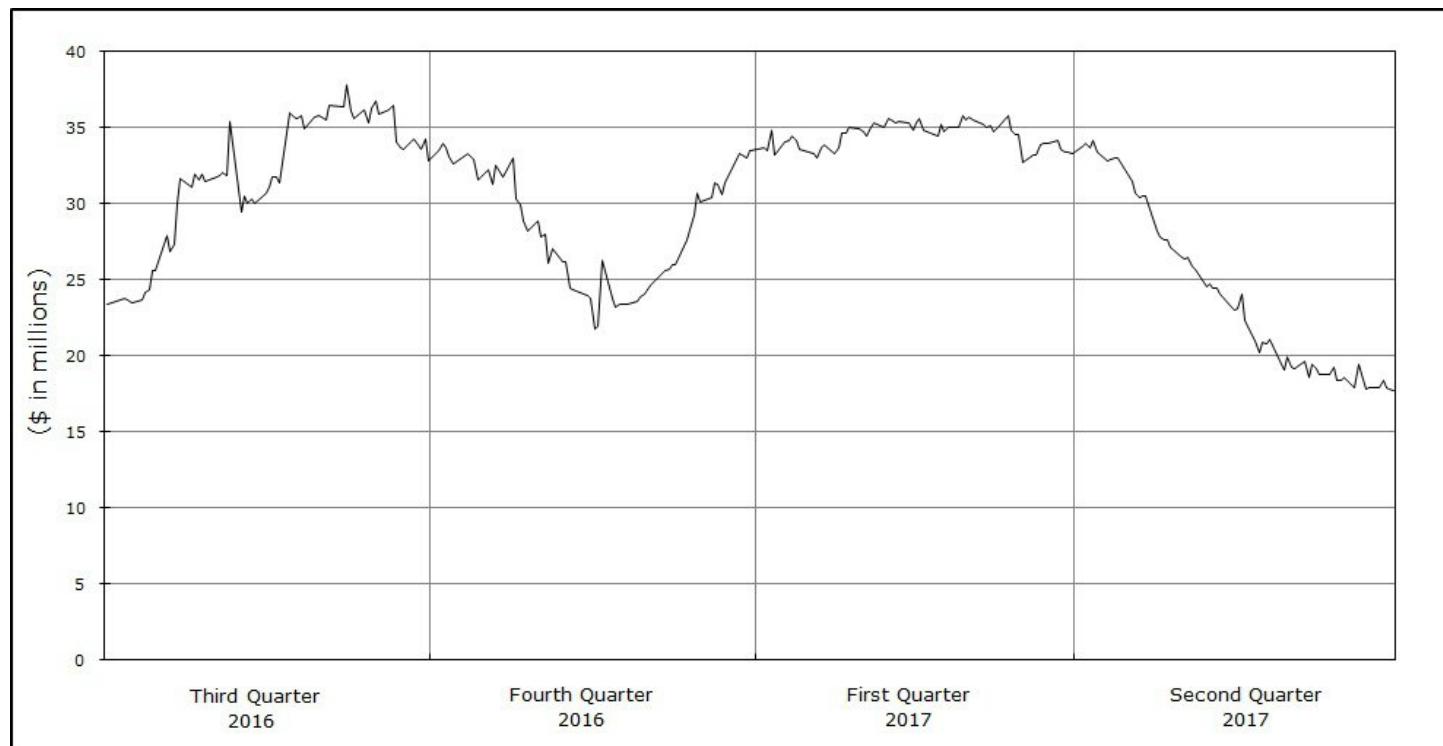
The largest contributor to the changes to market risk regulatory capital and RWAs in the first half of 2017 was associated with changes in positions due to normal trading activity.

VaR Backtesting The market risk capital rule requires backtesting as one form of validation of the VaR model. Backtesting is a comparison of the daily VaR estimate with the actual clean profit and loss (clean P&L) as defined by the market risk capital rule. Clean P&L is the change in the value of the Company's covered trading positions that would have occurred had previous end-of-day covered trading positions remained unchanged (therefore, excluding fees, commissions, net interest income, and intraday trading gains and losses). The backtesting analysis compares the daily Total VaR for each of the trading days in the preceding 12 months with the net clean P&L. Clean P&L does not include credit adjustments and other activity not representative of daily price changes driven by market risk factors. The clean P&L measure of revenue is used to evaluate the performance of the Total VaR and is not comparable to our actual daily trading net revenues, as reported elsewhere in this Report.

Any observed clean P&L loss in excess of the Total VaR is considered a market risk regulatory capital backtesting exception. The actual number of exceptions (that is, the number of business days for which the clean P&L losses exceed the corresponding 1-day, 99% Total VaR measure) over the preceding 12 months is used to determine the capital multiplier for the capital calculation. The number of actual backtesting exceptions is dependent on current market performance relative to historic market volatility in addition to model performance and assumptions. This capital multiplier increases from a minimum of three to a maximum of four, depending on the number of exceptions. No backtesting exceptions occurred over the preceding 12 months. Backtesting is also performed at line of business levels within the Company.

Table 39 shows daily Total VaR (1-day, 99%) used for regulatory market risk capital backtesting for the 12 months ended June 30, 2017. The Company's average Total VaR for second quarter 2017 was \$24 million with a low of \$18 million and a high of \$34 million. The decrease in Total 1-day VaR in second quarter 2017 was attributable to a decline in modeled Specific Risk.

Table 39: Daily Total 1-Day 99% VaR Measure (Rolling 12 Months)



Market Risk Governance, Measurement, Monitoring and Model Risk Management We employ a well-defined and structured market risk governance process and market risk measurement process, which incorporates value-at-risk (VaR) measurements combined with sensitivity analysis and stress testing to help us monitor our market risk. These monitoring measurements require the use of market risk models, which we govern by our Corporate Model Risk policies and procedures. For more information on our governance, measurement, monitoring, and model risk management practices, see the “Risk Management – Asset/Liability Management – Market Risk – Trading Activities” section in our 2016 Form 10-K.

MARKET RISK – EQUITY INVESTMENTS We are directly and indirectly affected by changes in the equity markets. We make and manage direct equity investments in start-up businesses, emerging growth companies, management buy-outs, acquisitions and corporate recapitalizations. We also invest in non-affiliated funds that make similar private equity investments. These private equity investments are made within capital allocations approved by management and the Board. The Board’s policy is to review business developments, key risks and historical returns for the private equity investment portfolio at least annually. Management reviews these investments at least quarterly and assesses them for possible OTTI. For nonmarketable investments, the analysis is based on facts and circumstances of each individual investment and the expectations for that investment’s cash flows and capital needs, the viability of its business model and our exit strategy. Nonmarketable investments include private equity investments accounted for under the cost method, equity method and fair value option.

In conjunction with the March 2008 initial public offering (IPO) of Visa, Inc. (Visa), we received approximately 20.7 million shares of Visa Class B common stock, the class which was apportioned to member banks of Visa at the time of the IPO. To manage our exposure to Visa and realize the value of the appreciated Visa shares, we incrementally sold these shares

through a series of sales over the past few years, thereby eliminating this position as of September 30, 2015. As part of these sales, we agreed to compensate the buyer for any additional contributions to a litigation settlement fund for the litigation matters associated with the Class B shares we sold. Our exposure to this retained litigation risk has been updated quarterly and is reflected on our balance sheet. For additional information about the associated litigation matters, see the “Interchange Litigation” section in Note 11 (Legal Actions) to Financial Statements in this Report.

As part of our business to support our customers, we trade public equities, listed/OTC equity derivatives and convertible bonds. We have parameters that govern these activities. We also have marketable equity securities in the available-for-sale securities portfolio, including securities relating to our venture capital activities. We manage these investments within capital risk limits approved by management and the Board and monitored by Corporate ALCO and the Corporate Market Risk Committee. Gains and losses on these securities are recognized in net income when realized and periodically include OTTI charges.

Changes in equity market prices may also indirectly affect our net income by (1) the value of third party assets under management and, hence, fee income, (2) borrowers whose ability to repay principal and/or interest may be affected by the stock market, or (3) brokerage activity, related commission income and other business activities. Each business line monitors and manages these indirect risks.

Table 40 provides information regarding our marketable and nonmarketable equity investments as of June 30, 2017, and December 31, 2016.

Table 40: Nonmarketable and Marketable Equity Investments

(in millions)	Jun 30, 2017	Dec 31, 2016
Nonmarketable equity investments:		
Cost method:		
Federal bank stock	\$ 5,820	6,407
Private equity	1,367	1,465
Auction rate securities	420	525
Total cost method	7,607	8,397
Equity method:		
LIHTC (1)	9,828	9,714
Private equity	3,740	3,635
Tax-advantaged renewable energy	1,960	2,054
New market tax credit and other	295	305
Total equity method	15,823	15,708
Fair value (2)	3,986	3,275
Total nonmarketable equity investments (3)	\$ 27,416	27,380
Marketable equity securities:		
Cost	\$ 614	706
Net unrealized gains	414	505
Total marketable equity securities (4)	\$ 1,028	1,211

(1) Represents low income housing tax credit investments.
 (2) Represents nonmarketable equity investments for which we have elected the fair value option. See Note 6 (Other Assets) and Note 13 (Fair Values of Assets and Liabilities) to Financial Statements in this Report for additional information.
 (3) Included in other assets on the balance sheet. See Note 6 (Other Assets) to Financial Statements in this Report for additional information.
 (4) Included in available-for-sale securities. See Note 4 (Investment Securities) to Financial Statements in this Report for additional information.

LIQUIDITY AND FUNDING The objective of effective liquidity management is to ensure that we can meet customer loan requests, customer deposit maturities/withdrawals and other cash commitments efficiently under both normal operating conditions and under periods of Wells Fargo-specific and/or market stress. To achieve this objective, the Board of Directors establishes liquidity guidelines that require sufficient asset-based liquidity to cover potential funding requirements and to avoid over-dependence on volatile, less reliable funding markets. These guidelines are monitored on a monthly basis by the Corporate ALCO and on a quarterly basis by the Board of Directors. These guidelines are established and monitored for both the consolidated company and for the Parent on a stand-alone basis to ensure that the Parent is a source of strength for its regulated, deposit-taking banking subsidiaries.

Liquidity Standards On September 3, 2014, the FRB, OCC and FDIC issued a final rule that implements a quantitative liquidity requirement consistent with the liquidity coverage ratio (LCR) established by the Basel Committee on Banking Supervision (BCBS). The rule requires banking institutions, such as Wells Fargo, to hold high-quality liquid assets (HQLA), such as central bank reserves and government and corporate debt that can be converted easily and quickly into cash, in an amount equal to or greater than its projected net cash outflows during a 30-day stress period. The rule is applicable to the Company on a consolidated basis and to our insured depository institutions with total assets greater than \$10 billion. In addition, the FRB finalized rules imposing enhanced liquidity management standards on large bank holding companies (BHC) such as Wells Fargo, and finalized a rule that requires large bank holding companies to publicly disclose on a quarterly basis beginning

April 1, 2017, certain quantitative and qualitative information regarding their LCR calculations.

The FRB, OCC and FDIC have proposed a rule that would implement a stable funding requirement, the net stable funding ratio (NSFR), which would require large banking organizations, such as Wells Fargo, to maintain a sufficient amount of stable funding in relation to their assets, derivative exposures and commitments over a one-year horizon period. As proposed, the rule would become effective on January 1, 2018.

Liquidity Coverage Ratio As of June 30, 2017, the consolidated Company and Wells Fargo Bank, N.A. were above the minimum LCR requirement of 100%, which is calculated as HQLA divided by projected net cash outflows, as each is defined under the LCR rule. Table 41 presents the Company's quarterly average values for the daily-calculated LCR and its components calculated pursuant to the LCR rule requirements.

Table 41: Liquidity Coverage Ratio

(in billions)	Average for Quarter ended June 30, 2017
HQLA (1)(2)	389
Projected net cash outflows	314
LCR	124%
HQLA in excess of projected net cash outflows	75

(1) Excludes excess HQLA at Wells Fargo Bank, N.A.

(2) Net of applicable haircuts required under the LCR rule.

Liquidity Sources We maintain liquidity in the form of cash, cash equivalents and unencumbered high-quality, liquid securities. These assets make up our primary sources of liquidity which are presented in Table 42. Our primary sources of liquidity are substantially the same in composition as HQLA under the LCR rule; however, our primary sources of liquidity will generally exceed HQLA calculated under the LCR rule due to the applicable haircuts to HQLA and the exclusion of excess HQLA at our subsidiary insured depository institutions required under the LCR rule.

Our cash is predominantly on deposit with the Federal Reserve. Securities included as part of our primary sources of liquidity are comprised of U.S. Treasury and federal agency debt, and mortgage-backed securities issued by federal agencies within our investment securities portfolio. We believe these securities provide quick sources of liquidity through sales or by pledging to obtain financing, regardless of market conditions. Some of these securities are within the held-to-maturity portion of our investment securities portfolio and as such are not intended for sale but may be pledged to obtain financing. Some of the legal entities within our consolidated group of companies are subject to various regulatory, tax, legal and other restrictions that can limit the transferability of their funds. We believe we maintain adequate liquidity for these entities in consideration of such funds transfer restrictions.

Asset/Liability Management (continued)

Table 42: Primary Sources of Liquidity

(in millions)	June 30, 2017			December 31, 2016		
	Total	Encumbered	Unencumbered	Total	Encumbered	Unencumbered
Interest-earning deposits	\$ 195,700	—	195,700	\$ 200,671	—	200,671
Securities of U.S. Treasury and federal agencies	63,231	1,182	62,049	70,898	1,160	69,738
Mortgage-backed securities of federal agencies (1)	222,643	53,146	169,497	205,655	52,672	152,983
Total	\$ 481,574	54,328	427,246	\$ 477,224	53,832	423,392

(1) Included in encumbered securities at June 30, 2017, were securities with a fair value of \$6.2 billion which were purchased in June 2017, but settled in July 2017.

In addition to our primary sources of liquidity shown in Table 42, liquidity is also available through the sale or financing of other securities including trading and/or available-for-sale securities, as well as through the sale, securitization or financing of loans, to the extent such securities and loans are not encumbered. In addition, other securities in our held-to-maturity portfolio, to the extent not encumbered, may be pledged to obtain financing.

Deposits have historically provided a sizable source of relatively low-cost funds. Deposits were 136% of total loans at June 30, 2017 and 135% at December 31, 2016. Additional funding is provided by long-term debt and short-term borrowings.

Table 43 shows selected information for short-term borrowings, which generally mature in less than 30 days.

Table 43: Short-Term Borrowings

(in millions)	Quarter ended				
	Jun 30, 2017	Mar 31, 2017	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016
Balance, period end					
Federal funds purchased and securities sold under agreements to repurchase	\$ 78,683	76,366	78,124	108,468	104,812
Commercial paper	11	10	120	123	154
Other short-term borrowings	16,662	18,495	18,537	16,077	15,292
Total	\$ 95,356	94,871	96,781	124,668	120,258
Average daily balance for period					
Federal funds purchased and securities sold under agreements to repurchase	\$ 79,826	79,942	107,271	101,252	97,702
Commercial paper	10	51	121	137	326
Other short-term borrowings	15,927	18,556	17,306	14,839	13,820
Total	\$ 95,763	98,549	124,698	116,228	111,848
Maximum month-end balance for period					
Federal funds purchased and securities sold under agreements to repurchase (1)	\$ 78,683	81,284	109,645	108,468	104,812
Commercial paper (2)	11	78	121	138	451
Other short-term borrowings (3)	18,281	19,439	18,537	16,077	15,292

(1) Highest month-end balance in each of the last five quarters was in June, February 2017, October, September and June 2016.

(2) Highest month-end balance in each of the last five quarters was in June, January 2017, November, July and April 2016.

(3) Highest month-end balance in each of the last five quarters was in April, February 2017, December, September and June 2016.

We access domestic and international capital markets for long-term funding (generally greater than one year) through issuances of registered debt securities, private placements and asset-backed secured funding.

Long-Term Debt We issue long-term debt in a variety of maturities and currencies to achieve cost-efficient funding and to maintain an appropriate maturity profile. Long-term debt of \$238.9 billion at June 30, 2017, decreased \$16.2 billion from December 31, 2016. We issued \$14.8 billion and \$28.0 billion of long-term debt in the second quarter and first half of 2017, respectively. Table 44 provides the aggregate carrying value of long-term debt maturities (based on contractual payment dates) for the remainder of 2017 and the following years thereafter, as of June 30, 2017.

Table 44: Maturity of Long-Term Debt

(in millions)	June 30, 2017						
	Remaining 2017	2018	2019	2020	2021	Thereafter	Total
Wells Fargo & Company (Parent Only)							
Senior notes	\$ 5,305	8,006	6,717	13,214	17,865	65,461	116,568
Subordinated notes	—	591	—	—	—	26,338	26,929
Junior subordinated notes	—	—	—	—	—	1,657	1,657
Total long-term debt - Parent	\$ 5,305	8,597	6,717	13,214	17,865	93,456	145,154
Wells Fargo Bank, N.A. and other bank entities (Bank)							
Senior notes	\$ 8,203	28,153	21,388	5,510	10,236	218	73,708
Subordinated notes	1,029	—	—	—	—	5,387	6,416
Junior subordinated notes	—	—	—	—	—	337	337
Securitizations and other bank debt	3,744	1,715	679	614	144	2,965	9,861
Total long-term debt - Bank	\$ 12,976	29,868	22,067	6,124	10,380	8,907	90,322
Other consolidated subsidiaries							
Senior notes	\$ —	778	1,160	—	988	394	3,320
Junior subordinated notes	—	—	—	—	—	—	—
Securitizations and other bank debt	—	73	—	—	—	—	73
Total long-term debt - Other consolidated subsidiaries	\$ —	851	1,160	—	988	394	3,393
Total long-term debt	\$ 18,281	39,316	29,944	19,338	29,233	102,757	238,869

Parent Under SEC rules, our Parent is classified as a “well-known seasoned issuer,” which allows it to file a registration statement that does not have a limit on issuance capacity. In February 2017, the Parent filed a registration statement with the SEC for the issuance of senior and subordinated notes, preferred stock and other securities. The Parent’s ability to issue debt and other securities under this registration statement is limited by the debt issuance authority granted by the Board. As of June 30, 2017, the Parent was authorized by the Board to issue up to \$50 billion in outstanding short-term debt and \$180 billion in outstanding long-term debt. The Parent’s short-term debt issuance authority granted by the Board is limited to debt issued to affiliates, while the Parent’s long-term debt issuance authority granted by the Board includes debt issued to affiliates and others. At June 30, 2017, the Parent had available \$49.5 billion in short-term debt issuance authority and \$26.5 billion in long-term debt issuance authority. During the first half of 2017, the Parent issued \$16.9 billion of senior notes, of which \$12.1 billion were registered with the SEC. Additionally, in July 2017, the Parent issued \$4.6 billion of senior notes, of which \$3.8 billion were registered with the SEC.

The Parent’s proceeds from securities issued were used for general corporate purposes, and, unless otherwise specified in the applicable prospectus or prospectus supplement, we expect the proceeds from securities issued in the future will be used for the same purposes. Depending on market conditions, we may purchase our outstanding debt securities from time to time in privately negotiated or open market transactions, by tender offer, or otherwise.

Wells Fargo Bank, N.A. As of June 30, 2017, Wells Fargo Bank, N.A. was authorized by its board of directors to issue \$100 billion in outstanding short-term debt and \$175 billion in outstanding long-term debt and had available \$95.8 billion in short-term debt issuance authority and \$95.0 billion in long-term debt issuance authority. In April 2015, Wells Fargo Bank, N.A. established a \$100 billion bank note program under which, subject to any other debt outstanding under the limits described above, it may issue \$50 billion in outstanding short-term senior

notes and \$50 billion in outstanding long-term senior or subordinated notes. At June 30, 2017, Wells Fargo Bank, N.A. had remaining issuance capacity under the bank note program of \$50.0 billion in short-term senior notes and \$36.0 billion in long-term senior or subordinated notes. During the first half of 2017, Wells Fargo Bank, N.A. issued \$585 million of unregistered senior notes, none of which were issued under the bank note program. In addition, during the first half of 2017, Wells Fargo Bank, N.A. executed advances of \$14.4 billion with the Federal Home Loan Bank of Des Moines, and as of June 30, 2017, Wells Fargo Bank, N.A. had outstanding advances of \$62.6 billion across the Federal Home Loan Bank System. In addition, in July 2017, Wells Fargo Bank, N.A. executed \$2.0 billion of Federal Home Loan Bank advances.

Credit Ratings Investors in the long-term capital markets, as well as other market participants, generally will consider, among other factors, a company’s debt rating in making investment decisions. Rating agencies base their ratings on many quantitative and qualitative factors, including capital adequacy, liquidity, asset quality, business mix, the level and quality of earnings, and rating agency assumptions regarding the probability and extent of federal financial assistance or support for certain large financial institutions. Adverse changes in these factors could result in a reduction of our credit rating; however, our debt securities do not contain credit rating covenants.

On May 24, 2017, Moody’s Investors Service affirmed all of the Company’s ratings. There were no other significant actions undertaken by the rating agencies with regard to our ratings during second quarter 2017. Both the Parent and Wells Fargo Bank, N.A. remain among the top-rated financial firms in the U.S.

See the “Risk Factors” section in our 2016 Form 10-K for additional information regarding our credit ratings and the potential impact a credit rating downgrade would have on our liquidity and operations, as well as Note 12 (Derivatives) to Financial Statements in this Report for information regarding additional collateral and funding obligations required for certain

Asset/Liability Management (continued)

derivative instruments in the event our credit ratings were to fall below investment grade.

The credit ratings of the Parent and Wells Fargo Bank, N.A. as of June 30, 2017, are presented in Table 45.

Table 45: Credit Ratings as of June 30, 2017

	Wells Fargo & Company		Wells Fargo Bank, N.A.	
	Senior debt	Short-term borrowings	Long-term deposits	Short-term borrowings
Moody's	A2	P-1	Aa1	P-1
S&P	A	A-1	AA-	A-1+
Fitch Ratings, Inc.	AA-	F1+	AA+	F1+
DBRS	AA	R-1*	AA**	R-1**

* middle ** high

FEDERAL HOME LOAN BANK MEMBERSHIP The Federal Home Loan Banks (the FHLBs) are a group of cooperatives that lending institutions use to finance housing and economic development in local communities. We are a member of the FHLBs based in Dallas, Des Moines and San Francisco. Each member of the FHLBs is required to maintain a minimum investment in capital stock of the applicable FHLB. The board of directors of each FHLB can increase the minimum investment requirements in the event it has concluded that additional capital is required to allow it to meet its own regulatory capital requirements. Any increase in the minimum investment requirements outside of specified ranges requires the approval of the Federal Housing Finance Board. Because the extent of any obligation to increase our investment in any of the FHLBs depends entirely upon the occurrence of a future event, potential future payments to the FHLBs are not determinable.

Capital Management

We have an active program for managing capital through a comprehensive process for assessing the Company's overall capital adequacy. Our objective is to maintain capital at an amount commensurate with our risk profile and risk tolerance objectives, and to meet both regulatory and market expectations. We primarily fund our capital needs through the retention of earnings net of both dividends and share repurchases, as well as through the issuance of preferred stock and long and short-term debt. Retained earnings increased \$6.4 billion from December 31, 2016, predominantly from Wells Fargo net income of \$11.3 billion, less common and preferred stock dividends of \$4.6 billion. During second quarter 2017, we issued 13.0 million shares of common stock. We also issued 27.6 million Depositary Shares, each representing a 1/1,000th interest in a share of the Company's newly issued Non-Cumulative Perpetual Class A Preferred Stock, Series Y, for an aggregate public offering price of \$690 million. During second quarter 2017, we repurchased 43.0 million shares of common stock in open market transactions, private transactions and from employee benefit plans, at a cost of \$2.3 billion. We also entered into a \$1 billion forward repurchase contract with an unrelated third party in July 2017 that is expected to settle in fourth quarter 2017 for approximately 19 million shares. For additional information about our forward repurchase agreements, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report.

Regulatory Capital Guidelines

The Company and each of our insured depository institutions are subject to various regulatory capital adequacy requirements administered by the FRB and the OCC. Risk-based capital (RBC) guidelines establish a risk-adjusted ratio relating capital to different categories of assets and off-balance sheet exposures as discussed below.

RISK-BASED CAPITAL AND RISK-WEIGHTED ASSETS The Company is subject to final and interim final rules issued by federal banking regulators to implement Basel III capital requirements for U.S. banking organizations. These rules are based on international guidelines for determining regulatory capital issued by the Basel Committee on Banking Supervision (BCBS). The federal banking regulators' capital rules, among other things, require on a fully phased-in basis:

- a minimum Common Equity Tier 1 (CET1) ratio of 9.0%, comprised of a 4.5% minimum requirement plus a capital conservation buffer of 2.5% and for us, as a global systemically important bank (G-SIB), a capital surcharge to be calculated annually, which is 2.0% based on our year-end 2015 data;
- a minimum tier 1 capital ratio of 10.5%, comprised of a 6.0% minimum requirement plus the capital conservation buffer of 2.5% and the G-SIB capital surcharge of 2.0%;
- a minimum total capital ratio of 12.5%, comprised of a 8.0% minimum requirement plus the capital conservation buffer of 2.5% and the G-SIB capital surcharge of 2.0%;
- a potential countercyclical buffer of up to 2.5% to be added to the minimum capital ratios, which is currently not in effect but could be imposed by regulators at their discretion if it is determined that a period of excessive credit growth is contributing to an increase in systemic risk;

- a minimum tier 1 leverage ratio of 4.0%; and
- a minimum supplementary leverage ratio (SLR) of 5.0% (comprised of a 3.0% minimum requirement plus a supplementary leverage buffer of 2.0%) for large and internationally active bank holding companies (BHCs).

We were required to comply with the final Basel III capital rules beginning January 2014, with certain provisions subject to phase-in periods. The Basel III capital rules are scheduled to be fully phased in by the end of 2021. The Basel III capital rules contain two frameworks for calculating capital requirements, a Standardized Approach, which replaced Basel I, and an Advanced Approach applicable to certain institutions, including Wells Fargo. Accordingly, in the assessment of our capital adequacy, we must report the lower of our CET1, tier 1 and total capital ratios calculated under the Standardized Approach and under the Advanced Approach.

Because the Company has been designated as a G-SIB, we will also be subject to the FRB's rule implementing the additional capital surcharge of between 1.0-4.5% on G-SIBs. Under the rule, we must annually calculate our surcharge under two methods and use the higher of the two surcharges. The first method (method one) will consider our size, interconnectedness, cross-jurisdictional activity, substitutability, and complexity, consistent with a methodology developed by the BCBS and the Financial Stability Board (FSB). The second (method two) will use similar inputs, but will replace substitutability with use of short-term wholesale funding and will generally result in higher surcharges than the BCBS methodology. The phase-in period for the G-SIB surcharge began on January 1, 2016 and will become fully effective on January 1, 2019. Based on year-end 2015 data, our 2017 G-SIB surcharge under method two is 2.0% of the Company's RWAs, which is the higher of method one and method two. Because the G-SIB surcharge is calculated annually based on data that can differ over time, the amount of the surcharge is subject to change in future years. Under the Standardized Approach (fully phased-in), our CET1 ratio of 11.59% exceeded the minimum of 9.0% by 259 basis points at June 30, 2017.

The tables that follow provide information about our risk-based capital and related ratios as calculated under Basel III capital guidelines. For banking industry regulatory reporting purposes, we report our capital in accordance with Transition Requirements but are managing our capital based on a fully phased-in calculation. For information about our capital requirements calculated in accordance with Transition Requirements, see Note 19 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

Capital Management (continued)

Table 46 summarizes our CET1, tier 1 capital, total capital, risk-weighted assets and capital ratios on a fully phased-in basis at June 30, 2017 and December 31, 2016. As of June 30, 2017, our CET1 and tier 1 capital ratios were lower using RWAs calculated under the Standardized Approach.

Table 46: Capital Components and Ratios (Fully Phased-In) (1)

(in millions)	June 30, 2017		December 31, 2016	
	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Common Equity Tier 1 (A)	\$ 151,854	151,854	146,424	146,424
Tier 1 Capital (B)	175,258	175,258	169,063	169,063
Total Capital (C)	206,454	216,318	200,344	210,796
Risk-Weighted Assets (D)	1,257,523	1,310,483	1,298,688	1,358,933
Common Equity Tier 1 Capital Ratio (A)/(D)	12.08%	11.59 *	11.27	10.77 *
Tier 1 Capital Ratio (B)/(D)	13.94	13.37 *	13.02	12.44 *
Total Capital Ratio (C)/(D)	16.42 *	16.51	15.43 *	15.51

*Denotes the lowest capital ratio as determined under the Advanced and Standardized Approaches.

(1) Fully phased-in regulatory capital amounts, ratios and RWAs are considered non-GAAP financial measures that are used by management, bank regulatory agencies, investors and analysts to assess and monitor the Company's capital position. See Table 47 for information regarding the calculation and components of CET1, tier 1 capital, total capital and RWAs, as well as the corresponding reconciliation of our regulatory capital amounts to GAAP financial measures.

Table 47 provides information regarding the calculation and composition of our risk-based capital under the Advanced and Standardized Approaches at June 30, 2017 and December 31, 2016.

Table 47: Risk-Based Capital Calculation and Components

(in millions)	June 30, 2017		December 31, 2016	
	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Total equity	\$ 206,145	206,145	200,497	200,497
Adjustments:				
Preferred stock	(25,785)	(25,785)	(24,551)	(24,551)
Additional paid-in capital on ESOP preferred stock	(136)	(136)	(126)	(126)
Unearned ESOP shares	2,119	2,119	1,565	1,565
Noncontrolling interests	(915)	(915)	(916)	(916)
Total common stockholders' equity	181,428	181,428	176,469	176,469
Adjustments:				
Goodwill	(26,573)	(26,573)	(26,693)	(26,693)
Certain identifiable intangible assets (other than MSRs)	(2,147)	(2,147)	(2,723)	(2,723)
Other assets (1)	(2,268)	(2,268)	(2,088)	(2,088)
Applicable deferred taxes (2)	1,624	1,624	1,772	1,772
Investment in certain subsidiaries and other	(210)	(210)	(313)	(313)
Common Equity Tier 1 (Fully Phased-In)	151,854	151,854	146,424	146,424
Effect of Transition Requirements	888	888	2,361	2,361
Common Equity Tier 1 (Transition Requirements)	\$ 152,742	152,742	148,785	148,785
Common Equity Tier 1 (Fully Phased-In)	\$ 151,854	151,854	146,424	146,424
Preferred stock	25,785	25,785	24,551	24,551
Additional paid-in capital on ESOP preferred stock	136	136	126	126
Unearned ESOP shares	(2,119)	(2,119)	(1,565)	(1,565)
Other	(398)	(398)	(473)	(473)
Total Tier 1 capital (Fully Phased-In)	(A) 175,258	175,258	169,063	169,063
Effect of Transition Requirements	876	876	2,301	2,301
Total Tier 1 capital (Transition Requirements)	\$ 176,134	176,134	171,364	171,364
Total Tier 1 capital (Fully Phased-In)	\$ 175,258	175,258	169,063	169,063
Long-term debt and other instruments qualifying as Tier 2	29,223	29,223	29,465	29,465
Qualifying allowance for credit losses (3)	2,282	12,146	2,088	12,540
Other	(309)	(309)	(272)	(272)
Total Tier 2 capital (Fully Phased-In)	(B) 31,196	41,060	31,281	41,733
Effect of Transition Requirements	1,205	1,205	1,780	1,780
Total Tier 2 capital (Transition Requirements)	\$ 32,401	42,265	33,061	43,513
Total qualifying capital (Fully Phased-In)	(A)+(B) \$ 206,454	216,318	200,344	210,796
Total Effect of Transition Requirements	2,081	2,081	4,081	4,081
Total qualifying capital (Transition Requirements)	\$ 208,535	218,399	204,425	214,877
Risk-Weighted Assets (RWAs) (4)(5):				
Credit risk	\$ 920,271	1,272,656	960,763	1,314,833
Market risk	37,827	37,827	44,100	44,100
Operational risk	299,425	N/A	293,825	N/A
Total RWAs (Fully Phased-In)	\$ 1,257,523	1,310,483	1,298,688	1,358,933
Credit risk	\$ 895,726	1,249,500	936,664	1,292,098
Market risk	37,827	37,827	44,100	44,100
Operational risk	299,424	N/A	293,825	N/A
Total RWAs (Transition Requirements)	\$ 1,232,977	1,287,327	1,274,589	1,336,198

(1) Represents goodwill and other intangibles on nonmarketable equity investments and on held-for-sale assets, which are included in other assets.

(2) Applicable deferred taxes relate to goodwill and other intangible assets. They were determined by applying the combined federal statutory rate and composite state income tax rates to the difference between book and tax basis of the respective goodwill and intangible assets at period end.

(3) Under the Advanced Approach the allowance for credit losses that exceeds expected credit losses is eligible for inclusion in Tier 2 Capital, to the extent the excess allowance does not exceed 0.6% of Advanced credit RWAs, and under the Standardized Approach, the allowance for credit losses is includable in Tier 2 Capital up to 1.25% of Standardized credit RWAs, with any excess allowance for credit losses being deducted from total RWAs.

(4) RWAs calculated under the Advanced Approach utilize a risk-sensitive methodology, which relies upon the use of internal credit models based upon our experience with internal rating grades. Advanced Approach also includes an operational risk component, which reflects the risk of operating loss resulting from inadequate or failed internal processes or systems.

(5) Under the regulatory guidelines for risk-based capital, on-balance sheet assets and credit equivalent amounts of derivatives and off-balance sheet items are assigned to one of several broad risk categories according to the obligor, or, if relevant, the guarantor or the nature of any collateral. The aggregate dollar amount in each risk category is then multiplied by the risk weight associated with that category. The resulting weighted values from each of the risk categories are aggregated for determining total RWAs.

Capital Management (continued)

Table 48 presents the changes in Common Equity Tier 1 under the Advanced Approach for the six months ended June 30, 2017.

Table 48: Analysis of Changes in Common Equity Tier 1

(in millions)		
Common Equity Tier 1 (Fully Phased-In) at December 31, 2016	\$	146,424
Net income		10,460
Common stock dividends		(3,802)
Common stock issued, repurchased, and stock compensation-related items		(2,716)
Goodwill		120
Certain identifiable intangible assets (other than MSRs)		576
Other assets (1)		(181)
Applicable deferred taxes (2)		(148)
Investment in certain subsidiaries and other		1,121
Change in Common Equity Tier 1		5,430
Common Equity Tier 1 (Fully Phased-In) at June 30, 2017	\$	151,854

(1) Represents goodwill and other intangibles on nonmarketable equity investments and on held-for-sale assets, which are included in other assets.

(2) Applicable deferred taxes relate to goodwill and other intangible assets. They were determined by applying the combined federal statutory rate and composite state income tax rates to the difference between book and tax basis of the respective goodwill and intangible assets at period end.

Table 49 presents net changes in the components of RWAs under the Advanced and Standardized Approaches for the six months ended June 30, 2017.

Table 49: Analysis of Changes in RWAs

(in millions)	Advanced Approach	Standardized Approach
RWAs (Fully Phased-In) at December 31, 2016	\$ 1,298,688	1,358,933
Net change in credit risk RWAs	(40,492)	(42,177)
Net change in market risk RWAs	(6,273)	(6,273)
Net change in operational risk RWAs	5,600	N/A
Total change in RWAs	(41,165)	(48,450)
RWAs (Fully Phased-In) at June 30, 2017	1,257,523	1,310,483
Effect of Transition Requirements	(24,546)	(23,156)
RWAs (Transition Requirements) at June 30, 2017	\$ 1,232,977	1,287,327

TANGIBLE COMMON EQUITY We also evaluate our business based on certain ratios that utilize tangible common equity. Tangible common equity is a non-GAAP financial measure and represents total equity less preferred equity, noncontrolling interests, and goodwill and certain identifiable intangible assets (including goodwill and intangible assets associated with certain of our nonmarketable equity investments but excluding mortgage servicing rights), net of applicable deferred taxes. These tangible common equity ratios are as follows:

- Tangible book value per common share, which represents tangible common equity divided by common shares outstanding.

- Return on average tangible common equity (ROTCE), which represents our annualized earnings contribution as a percentage of tangible common equity.

The methodology of determining tangible common equity may differ among companies. Management believes that tangible book value per common share and return on average tangible common equity, which utilize tangible common equity, are useful financial measures because they enable investors and others to assess the Company's use of equity.

Table 50 provides a reconciliation of these non-GAAP financial measures to GAAP financial measures.

Table 50: Tangible Common Equity

(in millions, except ratios)	Balance at period end			Average balance				Six months ended			
	Quarter ended			Quarter ended							
	Jun 30, 2017	Mar 31, 2017	Jun 30, 2016	Jun 30, 2017	Mar 31, 2017	Jun 30, 2016					
Total equity	\$ 206,145	202,489	202,661	205,968	201,767	201,003	203,879	198,795			
Adjustments:											
Preferred stock	(25,785)	(25,501)	(24,830)	(25,849)	(25,163)	(24,091)	(25,508)	(24,027)			
Additional paid-in capital on ESOP preferred stock	(136)	(157)	(150)	(144)	(146)	(168)	(145)	(184)			
Unearned ESOP shares	2,119	2,546	1,868	2,366	2,198	2,094	2,282	2,302			
Noncontrolling interests	(915)	(989)	(916)	(910)	(957)	(984)	(934)	(944)			
Total common stockholders' equity	(A)	181,428	178,388	178,633	181,431	177,699	177,854	179,574	175,942		
Adjustments:											
Goodwill	(26,573)	(26,666)	(26,963)	(26,664)	(26,673)	(27,037)	(26,668)	(26,553)			
Certain identifiable intangible assets (other than MSRs)	(2,147)	(2,449)	(3,356)	(2,303)	(2,588)	(3,600)	(2,445)	(3,503)			
Other assets (1)	(2,268)	(2,121)	(2,110)	(2,160)	(2,095)	(2,096)	(2,128)	(2,081)			
Applicable deferred taxes (2)	1,624	1,698	1,906	1,648	1,722	1,934	1,685	1,974			
Tangible common equity	(B)	\$ 152,064	148,850	148,110	151,952	148,065	147,055	150,018	145,779		
Common shares outstanding	(C)	4,966.8	4,996.7	5,048.5	N/A	N/A	N/A	N/A	N/A		
Net income applicable to common stock (3)	(D)	N/A	N/A	N/A	\$ 5,404	5,056	5,173	10,460	10,258		
Book value per common share	(A)/(C)	\$ 36.53	35.70	35.38	N/A	N/A	N/A	N/A	N/A		
Tangible book value per common share	(B)/(C)	30.62	29.79	29.34	N/A	N/A	N/A	N/A	N/A		
Return on average common stockholders' equity (ROE)	(D)/(A)	N/A	N/A	N/A	11.95 %	11.54	11.70	11.75	11.72		
Return on average tangible common equity (ROTCE)	(D)/(B)	N/A	N/A	N/A	14.26	13.85	14.15	14.06	14.15		

(1) Represents goodwill and other intangibles on nonmarketable equity investments and on held-for-sale assets, which are included in other assets.

(2) Applicable deferred taxes relate to goodwill and other intangible assets. They were determined by applying the combined federal statutory rate and composite state income tax rates to the difference between book and tax basis of the respective goodwill and intangible assets at period end.

(3) Quarter ended net income applicable to common stock is annualized for the respective ROE and ROTCE ratios.

Capital Management (continued)

SUPPLEMENTARY LEVERAGE RATIO In April 2014, federal banking regulators finalized a rule that enhances the SLR requirements for BHCs, like Wells Fargo, and their insured depository institutions. The SLR consists of Tier 1 capital divided by the Company's total leverage exposure. Total leverage exposure consists of the total average on-balance sheet assets, plus off-balance sheet exposures, such as undrawn commitments and derivative exposures, less amounts permitted to be deducted from Tier 1 capital. The rule, which becomes effective on January 1, 2018, will require a covered BHC to maintain a SLR of at least 5.0% (comprised of the 3.0% minimum requirement plus a supplementary leverage buffer of 2.0%) to avoid restrictions on capital distributions and discretionary bonus payments. The rule will also require that all of our insured depository institutions maintain a SLR of 6.0% under applicable regulatory capital adequacy guidelines. In September 2014, federal banking regulators finalized additional changes to the SLR requirements to implement revisions to the Basel III leverage framework finalized by the BCBS in January 2014. These additional changes, among other things, modify the methodology for including off-balance sheet items, including credit derivatives, repo-style transactions and lines of credit, in the denominator of the SLR, and will become effective on January 1, 2018. At June 30, 2017, our SLR for the Company was 7.9% assuming full phase-in of the Advanced Approach capital framework. Based on our review, our current leverage levels would exceed the applicable requirements for each of our insured depository institutions as well. The fully phased-in SLR is considered a non-GAAP financial measure that is used by management, bank regulatory agencies, investors and analysts to assess and monitor the Company's leverage exposure. See Table 51 for information regarding the calculation and components of the SLR.

Table 51: Fully Phased-In SLR

(in millions, except ratio)	June 30, 2017
Tier 1 capital	\$ 175,258
Total average assets	1,927,079
Less: deductions from Tier 1 capital	29,983
Total adjusted average assets	1,897,096
Adjustments:	
Derivative exposures	70,086
Repo-style transactions	3,022
Other off-balance sheet exposures	247,845
Total adjustments	320,953
Total leverage exposure	\$ 2,218,049
Supplementary leverage ratio	7.9%

OTHER REGULATORY CAPITAL MATTERS In December 2016, the FRB finalized rules to address the amount of equity and unsecured long-term debt a U.S. G-SIB must hold to improve its resolvability and resiliency, often referred to as Total Loss Absorbing Capacity (TLAC). Under the rules, which become effective on January 1, 2019, U.S. G-SIBs will be required to have a minimum TLAC amount (consisting of CET1 capital and additional tier 1 capital issued directly by the top-tier or covered BHC plus eligible external long-term debt) equal to the greater of (i) 18% of RWAs and (ii) 7.5% of total leverage exposure (the denominator of the SLR calculation). Additionally, U.S. G-SIBs will be required to maintain (i) a TLAC buffer equal to 2.5% of RWAs plus the firm's applicable G-SIB capital surcharge calculated under method one plus any applicable countercyclical buffer that will be added to the 18% minimum and (ii) an external

TLAC leverage buffer equal to 2.0% of total leverage exposure that will be added to the 7.5% minimum, in order to avoid restrictions on capital distributions and discretionary bonus payments. The rules will also require U.S. G-SIBs to have a minimum amount of eligible unsecured long-term debt equal to the greater of (i) 6.0% of RWAs plus the firm's applicable G-SIB capital surcharge calculated under method two and (ii) 4.5% of the total leverage exposure. In addition, the rules will impose certain restrictions on the operations and liabilities of the top-tier or covered BHC in order to further facilitate an orderly resolution, including prohibitions on the issuance of short-term debt to external investors and on entering into derivatives and certain other types of financial contracts with external counterparties. While the rules permit permanent grandfathering of a significant portion of otherwise ineligible long-term debt that was issued prior to December 31, 2016, long-term debt issued after that date must be fully compliant with the eligibility requirements of the rules in order to count toward the minimum TLAC amount. As a result of the rules, we will be required to issue additional long-term debt.

In addition, as discussed in the "Risk Management – Asset/Liability Management – Liquidity and Funding – Liquidity Standards" section in this Report, federal banking regulators have issued a final rule regarding the U.S. implementation of the Basel III LCR and a proposed rule regarding the NSFR.

Capital Planning and Stress Testing

Our planned long-term capital structure is designed to meet regulatory and market expectations. We believe that our long-term targeted capital structure enables us to invest in and grow our business, satisfy our customers' financial needs in varying environments, access markets, and maintain flexibility to return capital to our shareholders. Our long-term targeted capital structure also considers capital levels sufficient to exceed capital requirements including the G-SIB surcharge. Accordingly, based on the final Basel III capital rules under the lower of the Standardized or Advanced Approaches CET1 capital ratios, we currently target a long-term CET1 capital ratio at or in excess of 10%, which includes a 2% G-SIB surcharge. Our capital targets are subject to change based on various factors, including changes to the regulatory capital framework and expectations for large banks promulgated by bank regulatory agencies, planned capital actions, changes in our risk profile and other factors.

Under the FRB's capital plan rule, large BHCs are required to submit capital plans annually for review to determine if the FRB has any objections before making any capital distributions. The rule requires updates to capital plans in the event of material changes in a BHC's risk profile, including as a result of any significant acquisitions. The FRB assesses the overall financial condition, risk profile, and capital adequacy of BHCs while considering both quantitative and qualitative factors when evaluating capital plans.

Our 2017 capital plan, which was submitted on April 4, 2017, as part of CCAR, included a comprehensive capital outlook supported by an assessment of expected sources and uses of capital over a given planning horizon under a range of expected and stress scenarios. As part of the 2017 CCAR, the FRB also generated a supervisory stress test, which assumed a sharp decline in the economy and significant decline in asset pricing using the information provided by the Company to estimate performance. The FRB reviewed the supervisory stress results both as required under the Dodd-Frank Act using a common set of capital actions for all large BHCs and by taking into account the Company's proposed capital actions. The FRB published its supervisory stress test results as required under the Dodd-Frank

Act on June 22, 2017. On June 28, 2017, the FRB notified us that it did not object to our capital plan included in the 2017 CCAR. On July 25, 2017, the Company increased its quarterly common stock dividend to \$0.39 per share, as approved by the Board.

Federal banking regulators require stress tests to evaluate whether an institution has sufficient capital to continue to operate during periods of adverse economic and financial conditions. These stress testing requirements set forth the timing and type of stress test activities large BHCs and banks must undertake as well as rules governing stress testing controls, oversight and disclosure requirements. The rules also limit a large BHC's ability to make capital distributions to the extent its actual capital issuances were less than amounts indicated in its capital plan. As required under the FRB's stress testing rule, we must submit a mid-cycle stress test based on second quarter data and scenarios developed by the Company.

Securities Repurchases

From time to time the Board authorizes the Company to repurchase shares of our common stock. Although we announce when the Board authorizes share repurchases, we typically do not give any public notice before we repurchase our shares. Future stock repurchases may be private or open-market repurchases, including block transactions, accelerated or delayed block transactions, forward transactions, and similar transactions. Additionally, we may enter into plans to purchase stock that satisfy the conditions of Rule 10b5-1 of the Securities Exchange Act of 1934. Various factors determine the amount and timing of our share repurchases, including our capital requirements, the number of shares we expect to issue for employee benefit plans and acquisitions, market conditions (including the trading price of our stock), and regulatory and legal considerations, including the FRB's response to our capital plan and to changes in our risk profile.

In January 2016, the Board authorized the repurchase of 350 million shares of our common stock. At June 30, 2017, we had remaining authority to repurchase approximately 171 million shares, subject to regulatory and legal conditions. For more information about share repurchases during second quarter 2017, see Part II, Item 2 in this Report.

Historically, our policy has been to repurchase shares under the "safe harbor" conditions of Rule 10b-18 of the Securities Exchange Act of 1934 including a limitation on the daily volume of repurchases. Rule 10b-18 imposes an additional daily volume limitation on share repurchases during a pending merger or acquisition in which shares of our stock will constitute some or all of the consideration. Our management may determine that during a pending stock merger or acquisition when the safe harbor would otherwise be available, it is in our best interest to repurchase shares in excess of this additional daily volume limitation. In such cases, we intend to repurchase shares in compliance with the other conditions of the safe harbor, including the standing daily volume limitation that applies whether or not there is a pending stock merger or acquisition.

In connection with our participation in the Capital Purchase Program (CPP), a part of the Troubled Asset Relief Program (TARP), we issued to the U.S. Treasury Department warrants to purchase 110,261,688 shares of our common stock with an original exercise price of \$34.01 per share expiring on October 28, 2018. The terms of the warrants require the exercise price to be adjusted under certain circumstances when the Company's quarterly common stock dividend exceeds \$0.34 per share, which began occurring in second quarter 2014. Accordingly, with each quarterly common stock dividend above \$0.34 per share, we must calculate whether an adjustment to the exercise price is required by the terms of the warrants, including whether certain minimum thresholds have been met to trigger an adjustment, and notify the holders of any such change. The Board authorized the repurchase by the Company of up to \$1 billion of the warrants. At June 30, 2017, there were 27,997,283 warrants outstanding, exercisable at \$33.762 per share, and \$452 million of unused warrant repurchase authority. Depending on market conditions, we may purchase from time to time additional warrants in privately negotiated or open market transactions, by tender offer or otherwise.

Regulatory Matters

Since the enactment of the Dodd-Frank Act in 2010, the U.S. financial services industry has been subject to a significant increase in regulation and regulatory oversight initiatives. This increased regulation and oversight has substantially changed how most U.S. financial services companies conduct business and has increased their regulatory compliance costs.

The following supplements our discussion of the significant regulations and regulatory oversight initiatives that have affected or may affect our business contained in the “Regulatory Matters” and “Risk Factors” sections in our 2016 Form 10-K and the “Regulatory Matters” section in our 2017 First Quarter Report on Form 10-Q.

REGULATION OF CONSUMER FINANCIAL PRODUCTS The Dodd-Frank Act established the Consumer Financial Protection Bureau (CFPB) to ensure consumers receive clear and accurate disclosures regarding financial products and to protect them from hidden fees and unfair or abusive practices. With respect to residential mortgage lending, the CFPB issued a number of final rules implementing new origination, notification, disclosure and other requirements, as well as additional limitations on the fees and charges that may be increased from the estimates provided by lenders. In October 2015, the CFPB finalized amendments to the rule implementing the Home Mortgage Disclosure Act, resulting in a significant expansion of the data points lenders will be required to collect beginning January 1, 2018 and report to the CFPB beginning January 1, 2019. The CFPB also expanded the transactions covered by the rule and increased the reporting frequency from annual to quarterly for large volume lenders, such as Wells Fargo, beginning January 1, 2020. With respect to other financial products, in October 2016, the CFPB finalized rules, most of which become effective on April 1, 2018, to make prepaid cards subject to similar consumer protections as those provided by more traditional debit and credit cards such as fraud protection and expanded access to account information. In July 2017, the CFPB finalized a rule, which becomes effective on September 18, 2017, prohibiting covered providers of certain consumer financial products and services, such as Wells Fargo, from using arbitration agreements that prevent consumers from filing or participating in class action litigation.

In addition to these rulemaking activities, the CFPB is continuing its on-going supervisory examination activities of the financial services industry with respect to a number of consumer businesses and products, including mortgage lending and servicing, fair lending requirements, student lending activities, and automobile finance. At this time, the Company cannot predict the full impact of the CFPB’s rulemaking and supervisory authority on our business practices or financial results.

“LIVING WILL” REQUIREMENTS AND RELATED MATTERS Rules adopted by the FRB and the FDIC under the Dodd-Frank Act require large financial institutions, including Wells Fargo, to prepare and periodically revise resolution plans, so-called “living-wills”, that would facilitate their resolution in the event of material distress or failure. Under the rules, resolution plans are required to provide strategies for resolution under the Bankruptcy Code and other applicable insolvency regimes that can be accomplished in a reasonable period of time and in a manner that mitigates the risk that failure would have serious adverse effects on the financial stability of the United States. We submitted our 2017 resolution plan to the FRB and FDIC on June 30, 2017, but have not yet received regulatory feedback on the

plan. If the FRB and FDIC determine that our 2017 resolution plan has deficiencies, they may impose more stringent capital, leverage or liquidity requirements on us or restrict our growth, activities or operations until we adequately remedy the deficiencies. If the FRB and FDIC ultimately determine that we have been unable to remedy any deficiencies, they could require us to divest certain assets or operations.

We must also prepare and submit to the FRB on an annual basis a recovery plan that identifies a range of options that we may consider during times of idiosyncratic or systemic economic stress to remedy any financial weaknesses and restore market confidence without extraordinary government support. Recovery options include the possible sale, transfer or disposal of assets, securities, loan portfolios or businesses. Our insured national bank subsidiary, Wells Fargo Bank, N.A. (the “Bank”), must also prepare and submit to the OCC a recovery plan that sets forth the bank’s plan to remain a going concern when the bank is experiencing considerable financial or operational stress, but has not yet deteriorated to the point where liquidation or resolution is imminent. If either the FRB or the OCC determine that our recovery plan is deficient, they may impose fines, restrictions on our business or ultimately require us to divest assets.

If Wells Fargo were to fail, it may be resolved in a bankruptcy proceeding or, if certain conditions are met, under the resolution regime created by the Dodd-Frank Act known as the “orderly liquidation authority.” The orderly liquidation authority allows for the appointment of the FDIC as receiver for a systemically important financial institution that is in default or in danger of default if, among other things, the resolution of the institution under the U.S. Bankruptcy Code would have serious adverse effects on financial stability in the United States. If the FDIC is appointed as receiver for Wells Fargo & Company (the “Parent”), then the orderly liquidation authority, rather than the U.S. Bankruptcy Code, would determine the powers of the receiver and the rights and obligations of our security holders. The FDIC’s orderly liquidation authority requires that security holders of a company in receivership bear all losses before U.S. taxpayers are exposed to any losses, and allows the FDIC to disregard the strict priority of creditor claims under the U.S. Bankruptcy Code in certain circumstances.

Whether under the U.S. Bankruptcy Code or by the FDIC under the orderly liquidation authority, Wells Fargo could be resolved using a “multiple point of entry” strategy, in which the Parent and one or more of its subsidiaries would each undergo separate resolution proceedings, or a “single point of entry” strategy, in which the Parent would likely be the only material legal entity to enter resolution proceedings. The FDIC has announced that a single point of entry strategy may be a desirable strategy under its implementation of the orderly liquidation authority, but not all aspects of how the FDIC might exercise this authority are known and additional rulemaking is possible.

To facilitate the orderly resolution of systemically important financial institutions in case of material distress or failure, federal banking regulations require that institutions, such as Wells Fargo, maintain a minimum amount of equity and unsecured debt to absorb losses and recapitalize operating subsidiaries. Federal banking regulators have also required measures to facilitate the continued operation of operating subsidiaries notwithstanding the failure of their parent companies, such as limitations on parent guarantees, and have issued guidance encouraging institutions to take legally binding measures to provide capital and liquidity resources to certain subsidiaries in

order to facilitate an orderly resolution. In response to the regulators' guidance and to facilitate the implementation of the Company's preferred "multiple point of entry" resolution strategy, on June 28, 2017, the Parent entered into a support agreement (the "Support Agreement") with WFC Holdings, LLC, an intermediate holding company and subsidiary of the Parent (the "IHC"), and the Bank, Wells Fargo Securities, LLC ("WFS"), and Wells Fargo Clearing Services, LLC ("WFCS"), each an indirect subsidiary of the Parent. Pursuant to the Support Agreement, the Parent transferred a significant amount of its assets, including the majority of its cash, deposits, liquid securities and intercompany loans (but excluding its equity interests in its subsidiaries and certain other assets), to the IHC and will continue to transfer those types of assets to the IHC from time to time. In the event of our material financial distress or failure, the IHC will be obligated to use the transferred assets to provide capital and/or liquidity to the Bank pursuant to the Support Agreement and to WFS and WFCS through repurchase facilities entered into in connection with the Support Agreement. Under the Support Agreement, the IHC will also provide funding and liquidity to the Parent through subordinated notes and a committed line of credit, which, together with the issuance of dividends, is expected to provide the Parent, during business as usual operating conditions, with the same access to cash necessary to service its debts, pay dividends, repurchase its shares, and perform its other obligations as it would have had if it had not entered into these arrangements and transferred any assets. If certain liquidity and/or capital metrics fall below defined triggers, the subordinated notes would be forgiven and the committed line of credit would terminate, which could materially and adversely impact the Parent's liquidity and its ability to satisfy its debts and other obligations, and could result in the commencement of bankruptcy proceedings by the Parent at an earlier time than might have otherwise occurred if the Support Agreement were not implemented. The Parent's and the IHC's respective obligations under the Support Agreement are secured pursuant to a related security agreement.

DEPARTMENT OF LABOR ERISA FIDUCIARY STANDARD In April 2016, the U.S. Department of Labor adopted a rule under the Employee Retirement Income Security Act of 1974 (ERISA) that, among other changes and subject to certain exceptions, as of the applicability date of June 9, 2017, makes anyone, including broker-dealers, providing investment advice to retirement investors a fiduciary who must act in the best interest of clients when providing investment advice for direct or indirect compensation to a retirement plan, to a plan fiduciary, participant or beneficiary, or to an investment retirement account (IRA) or IRA holder. The rule impacts the manner in which business is conducted with retirement investors and affects product offerings with respect to retirement plans and IRAs.

Critical Accounting Policies

Our significant accounting policies (see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K) are fundamental to understanding our results of operations and financial condition because they require that we use estimates and assumptions that may affect the value of our assets or liabilities and financial results. Six of these policies are critical because they require management to make difficult, subjective and complex judgments about matters that are inherently uncertain and because it is likely that materially different amounts would be reported under different conditions or using different assumptions. These policies govern:

- the allowance for credit losses;
- PCI loans;
- the valuation of residential MSRs;
- the fair value of financial instruments;
- income taxes; and
- liability for contingent litigation losses.

Starting second quarter 2017, the liability for contingent litigation losses has been designated as one of our critical accounting policies. The remaining five of these policies are described further in the “Financial Review – Critical Accounting Policies” section and Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K.

Liability for Contingent Litigation Losses

The Company is involved in a number of judicial, regulatory, arbitration and other proceedings concerning matters arising from the conduct of its business activities, and many of those proceedings expose the Company to potential financial loss. We establish accruals for these legal actions when potential losses associated with the actions become probable and the costs can be reasonably estimated. For such accruals, we record the amount we consider to be the best estimate within a range of potential losses that are both probable and estimable; however, if we cannot determine a best estimate, then we record the low end of the range of those potential losses. The actual costs of resolving legal actions may be substantially higher or lower than the amounts accrued for those actions.

We apply judgment when establishing an accrual for potential losses associated with legal actions and in establishing the range of reasonably possible losses in excess of the accrual. Our judgment in establishing accruals and the range of reasonably possible losses in excess of the Company's accrual for probable and estimable losses is influenced by our understanding of information currently available related to the legal evaluation and potential outcome of actions, including input and advice on these matters from our internal counsel, external counsel and senior management. These matters may be in various stages of investigation, discovery or proceedings. They may also involve a wide variety of claims across our businesses, legal entities and jurisdictions. The eventual outcome may be a scenario that was not considered or was considered remote in anticipated occurrence. Accordingly, our estimate of potential losses will change over time and the actual losses may vary significantly.

The outcomes of legal actions are unpredictable and subject to significant uncertainties, and it is inherently difficult to determine whether any loss is probable or even possible. It is also inherently difficult to estimate the amount of any loss and there may be matters for which a loss is probable or reasonably possible but not currently estimable. Accordingly, actual losses may be in excess of the established accrual or the range of reasonably possible loss.

See Note 11 (Legal Actions) to Financial Statements in this Report for further information.

Management and the Board's Audit and Examination Committee have reviewed and approved these critical accounting policies.

Current Accounting Developments

Table 52 provides accounting pronouncements applicable to us that have been issued by the FASB but are not yet effective.

Table 52: Current Accounting Developments – Issued Standards

Standard	Description	Effective date and financial statement impact
Accounting Standards Update (ASU or Update) 2017-08 – Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): <i>Premium Amortization on Purchased Callable Debt Securities</i>	The Update changes the accounting for certain purchased callable debt securities held at a premium to shorten the amortization period for the premium to the earliest call date rather than to the maturity date. Accounting for purchased callable debt securities held at a discount does not change. The discount would continue to amortize to the maturity date.	We expect to adopt the guidance in first quarter 2019 using the modified retrospective method with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. Our investment securities portfolio includes holdings of callable debt securities. We are evaluating the impact of the Update on our consolidated financial statements, which will be affected by our investments in callable debt securities carried at a premium at the time of adoption.
ASU 2016-13 – Financial Instruments – Credit Losses (Topic 326): <i>Measurement of Credit Losses on Financial Instruments</i>	The Update changes the accounting for credit losses on loans and debt securities. For loans and held-to-maturity debt securities, the Update requires a current expected credit loss (CECL) approach to determine the allowance for credit losses. CECL requires loss estimates for the remaining estimated life of the financial asset using historical experience, current conditions, and reasonable and supportable forecasts. Also, the Update eliminates the existing guidance for PCI loans, but requires an allowance for purchased financial assets with more than insignificant deterioration since origination. In addition, the Update modifies the other-than-temporary impairment model for available-for-sale debt securities to require an allowance for credit impairment instead of a direct write-down, which allows for reversal of credit impairments in future periods based on improvements in credit.	The guidance is effective in first quarter 2020 with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. While early adoption is permitted beginning in first quarter 2019, we do not expect to elect that option. We are evaluating the impact of the Update on our consolidated financial statements. We expect the Update will result in an increase in the allowance for credit losses given the change to estimated losses over the contractual life adjusted for expected prepayments with an anticipated material impact from longer duration portfolios, as well as the addition of an allowance for debt securities. The amount of the increase will be impacted by the portfolio composition and credit quality at the adoption date as well as economic conditions and forecasts at that time.
ASU 2016-02 – Leases (Topic 842)	The Update requires lessees to recognize leases on the balance sheet with lease liabilities and corresponding right-of-use assets based on the present value of lease payments. Lessor accounting activities are largely unchanged from existing lease accounting. The Update also eliminates leveraged lease accounting but allows existing leveraged leases to continue their current accounting until maturity, termination or modification.	We expect to adopt the guidance in first quarter 2019 using the modified retrospective method and practical expedients for transition. The practical expedients allow us to largely account for our existing leases consistent with current guidance except for the incremental balance sheet recognition for lessees. We have started our implementation of the Update which has included an initial evaluation of our leasing contracts and activities. As a lessee we are developing our methodology to estimate the right-of-use assets and lease liabilities, which is based on the present value of lease payments (the December 31, 2016 future minimum lease payments were \$6.9 billion). We do not expect a material change to the timing of expense recognition. Given the limited changes to lessor accounting, we do not expect material changes to recognition or measurement, but we are early in the implementation process and will continue to evaluate the impact. We are evaluating our existing disclosures and may need to provide additional information as a result of adoption of the Update.

Current Accounting Developments (continued)

Standard	Description	Effective date and financial statement impact
ASU 2016-01 – Financial Instruments – Overall (Subtopic 825-10): <i>Recognition and Measurement of Financial Assets and Financial Liabilities</i>	<p>The Update amends the presentation and accounting for certain financial instruments, including liabilities measured at fair value under the fair value option and equity investments. The guidance also updates fair value presentation and disclosure requirements for financial instruments measured at amortized cost.</p>	<p>We expect to adopt the guidance in first quarter 2018 with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption, except for changes related to nonmarketable equity investments, which is applied prospectively. We expect the primary accounting changes will relate to our equity investments.</p>
		<p>Our investments in marketable equity securities that are classified as available-for-sale will be accounted for at fair value with unrealized gains or losses reflected in earnings. Our investments in nonmarketable equity investments accounted for under the cost method of accounting (except for Federal bank stock) will be accounted for either at fair value with unrealized gains and losses reflected in earnings or, if we elect, using an alternative method. The alternative method is similar to the cost method of accounting, except that the carrying value is adjusted (through earnings) for subsequent observable transactions in the same or similar investment. We are currently evaluating which method will be applied to these nonmarketable equity investments.</p> <p>Additionally, for purposes of disclosing the fair value of loans carried at amortized cost, we are evaluating our valuation methods to determine the necessary changes to conform to an "exit price" notion as required by the Standard. Accordingly, the fair value amounts disclosed for such loans may change upon adoption.</p>
ASU 2014-09 – Revenue from Contracts With Customers (Topic 606) and subsequent related Updates	<p>The Update modifies the guidance used to recognize revenue from contracts with customers for transfers of goods or services and transfers of nonfinancial assets, unless those contracts are within the scope of other guidance. The Update also requires new qualitative and quantitative disclosures, including disaggregation of revenues and descriptions of performance obligations.</p>	<p>We will adopt the guidance in first quarter 2018 using the modified retrospective method with a cumulative-effect adjustment to opening retained earnings. Our revenue is the sum of net interest income and noninterest income. The scope of the guidance explicitly excludes net interest income as well as many other revenues for financial assets and liabilities including loans, leases, securities, and derivatives. Accordingly, the majority of our revenues will not be affected. We have performed an assessment of our revenue contracts as well as worked with industry participants on matters of interpretation and application. Our accounting policies will not change materially since the principles of revenue recognition from the Update are largely consistent with existing guidance and current practices applied by our businesses. We have not identified material changes to the timing or amount of revenue recognition. Based on changes to guidance applied by broker-dealers, we expect a minor change to the presentation of our broker-dealer's costs for underwriting activities which will be presented in expenses rather than the current presentation against the related revenues. We will provide qualitative disclosures of our performance obligations related to our revenue recognition and we continue to evaluate disaggregation for significant categories of revenue in the scope of the guidance.</p>

In addition to the list above, the following updates are applicable to us but, subject to completion of our assessment, are not expected to have a material impact on our consolidated financial statements:

- ASU 2017-09 – Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting
- ASU 2017-04 – Goodwill and Other (Topic 350): *Simplifying the Test for Goodwill Impairment*
- ASU 2017-03 – Accounting Changes and Error Corrections (Topic 250) and Investments-Equity Method and Joint Ventures (Topic 323): *Amendments to SEC Paragraphs Pursuant to Staff Announcements at the September 22, 2016 and November 17, 2016 EITF Meetings (SEC Update)*
- ASU 2017-01 – Business Combinations (Topic 805): *Clarifying the Definition of a Business*
- ASU 2016-18 – Statement of Cash Flows (Topic 230): *Restricted Cash*

- ASU 2016-16 – Income Taxes (Topic 740): *Intra-Entity Transfers of Assets Other Than Inventory*
- ASU 2016-15 – Statement of Cash Flows (Topic 230): *Classification of Certain Cash Receipts and Cash Payments*
- ASU 2016-04 – Liabilities – Extinguishment of Liabilities (Subtopic 405-20): *Recognition of Breakage for Certain Prepaid Stored-Value Products*

We have determined that other existing accounting updates are either not applicable to us or have completed our assessment and determined will not have a material impact on our consolidated financial statements.

Table 53 provides proposed accounting updates that could materially impact our consolidated financial statements when finalized by the FASB.

Table 53: Current Accounting Developments – Proposed Standards

Proposed Standard	Description	Expected effective date and financial statement impact
Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities	The proposed Update would make targeted changes to the hedge accounting model intended to facilitate financial reporting that more closely reflects an entity's risk management activities and to simplify application of hedge accounting. Changes include expanding the types of risk management strategies eligible for hedge accounting, easing the documentation and effectiveness assessment requirements, changing how ineffectiveness is measured and changing the presentation and disclosure requirements for hedge accounting activities.	<p>The guidance is expected to be issued third quarter 2017 and will be effective beginning January 1, 2019. It will include the option to early adopt in any interim or annual period upon issuance of the final Update, under a modified retrospective approach. When adopted, the proposed amendments are expected to minimize the amount of hedge ineffectiveness related to our fair value hedges of long-term debt.</p> <p>We are in the process of evaluating our ability to adopt the standard in either the third or fourth quarter of 2017, which would result in the retrospective recognition of the related cumulative effect adjustment to retained earnings as of January 1, 2017.</p>

Forward-Looking Statements

This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, we may make forward-looking statements in our other documents filed or furnished with the SEC, and our management may make forward-looking statements orally to analysts, investors, representatives of the media and others. Forward-looking statements can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects,” “target,” “projects,” “outlook,” “forecast,” “will,” “may,” “could,” “should,” “can” and similar references to future periods. In particular, forward-looking statements include, but are not limited to, statements we make about: (i) the future operating or financial performance of the Company, including our outlook for future growth; (ii) our noninterest expense and efficiency ratio; (iii) future credit quality and performance, including our expectations regarding future loan losses and allowance levels; (iv) the appropriateness of the allowance for credit losses; (v) our expectations regarding net interest income and net interest margin; (vi) loan growth or the reduction or mitigation of risk in our loan portfolios; (vii) future capital or liquidity levels or targets and our estimated Common Equity Tier 1 ratio under Basel III capital standards; (viii) the performance of our mortgage business and any related exposures; (ix) the expected outcome and impact of legal, regulatory and legislative developments, as well as our expectations regarding compliance therewith; (x) future common stock dividends, common share repurchases and other uses of capital; (xi) our targeted range for return on assets and return on equity; (xii) the outcome of contingencies, such as legal proceedings; and (xiii) the Company’s plans, objectives and strategies.

Forward-looking statements are not based on historical facts but instead represent our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements. We caution you, therefore, against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. While there is no assurance that any list of risks and uncertainties or risk factors is complete, important factors that could cause actual results to differ materially from those in the forward-looking statements include the following, without limitation:

- current and future economic and market conditions, including the effects of declines in housing prices, high unemployment rates, U.S. fiscal debt, budget and tax matters, geopolitical matters, and the overall slowdown in global economic growth;
- our capital and liquidity requirements (including under regulatory capital standards, such as the Basel III capital standards) and our ability to generate capital internally or raise capital on favorable terms;
- financial services reform and other current, pending or future legislation or regulation that could have a negative effect on our revenue and businesses, including the Dodd-Frank Act and other legislation and regulation relating to bank products and services;
- the extent of our success in our loan modification efforts, as well as the effects of regulatory requirements or guidance regarding loan modifications;

- the amount of mortgage loan repurchase demands that we receive and our ability to satisfy any such demands without having to repurchase loans related thereto or otherwise indemnify or reimburse third parties, and the credit quality of or losses on such repurchased mortgage loans;
- negative effects relating to our mortgage servicing and foreclosure practices, as well as changes in industry standards or practices, regulatory or judicial requirements, penalties or fines, increased servicing and other costs or obligations, including loan modification requirements, or delays or moratoriums on foreclosures;
- our ability to realize our efficiency ratio target as part of our expense management initiatives, including as a result of business and economic cyclical, seasonality, changes in our business composition and operating environment, growth in our businesses and/or acquisitions, and unexpected expenses relating to, among other things, litigation and regulatory matters;
- the effect of the current low interest rate environment or changes in interest rates on our net interest income, net interest margin and our mortgage originations, mortgage servicing rights and mortgages held for sale;
- significant turbulence or a disruption in the capital or financial markets, which could result in, among other things, reduced investor demand for mortgage loans, a reduction in the availability of funding or increased funding costs, and declines in asset values and/or recognition of other-than-temporary impairment on securities held in our investment securities portfolio;
- the effect of a fall in stock market prices on our investment banking business and our fee income from our brokerage, asset and wealth management businesses;
- negative effects from the retail banking sales practices matter, including on our legal, operational and compliance costs, our ability to engage in certain business activities or offer certain products or services, our ability to keep and attract customers, our ability to attract and retain qualified team members, and our reputation;
- reputational damage from negative publicity, protests, fines, penalties and other negative consequences from regulatory violations and legal actions;
- a failure in or breach of our operational or security systems or infrastructure, or those of our third party vendors or other service providers, including as a result of cyber attacks;
- the effect of changes in the level of checking or savings account deposits on our funding costs and net interest margin;
- fiscal and monetary policies of the Federal Reserve Board; and
- the other risk factors and uncertainties described under “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2016.

In addition to the above factors, we also caution that the amount and timing of any future common stock dividends or repurchases will depend on the earnings, cash requirements and financial condition of the Company, market conditions, capital requirements (including under Basel capital standards), common stock issuance requirements, applicable law and regulations (including federal securities laws and federal banking regulations), and other factors deemed relevant by the Company’s

Board of Directors, and may be subject to regulatory approval or conditions.

For more information about factors that could cause actual results to differ materially from our expectations, refer to our reports filed with the Securities and Exchange Commission, including the discussion under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission and available on its website at www.sec.gov.

Any forward-looking statement made by us speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

Risk Factors

An investment in the Company involves risk, including the possibility that the value of the investment could fall substantially and that dividends or other distributions on the investment could be reduced or eliminated. For a discussion of risk factors that could adversely affect our financial results and condition, and the value of, and return on, an investment in the Company, we refer you to the "Risk Factors" section in our 2016 Form 10-K.

Controls and Procedures

Disclosure Controls and Procedures

The Company's management evaluated the effectiveness, as of June 30, 2017, of the Company's disclosure controls and procedures. The Company's chief executive officer and chief financial officer participated in the evaluation. Based on this evaluation, the Company's chief executive officer and chief financial officer concluded that the Company's disclosure controls and procedures were effective as of June 30, 2017.

Internal Control Over Financial Reporting

Internal control over financial reporting is defined in Rule 13a-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's Board, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles (GAAP) and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- 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. 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. No change occurred during second quarter 2017 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Wells Fargo & Company and Subsidiaries
Consolidated Statement of Income (Unaudited)

(in millions, except per share amounts)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Interest income				
Trading assets	\$ 710	572	\$ 1,353	1,168
Investment securities	2,698	2,176	5,373	4,438
Mortgages held for sale	195	181	379	342
Loans held for sale	4	3	5	5
Loans	10,358	9,822	20,499	19,399
Other interest income	750	392	1,332	766
Total interest income	14,715	13,146	28,941	26,118
Interest expense				
Deposits	683	332	1,220	639
Short-term borrowings	163	77	277	144
Long-term debt	1,278	921	2,461	1,763
Other interest expense	108	83	200	172
Total interest expense	2,232	1,413	4,158	2,718
Net interest income	12,483	11,733	24,783	23,400
Provision for credit losses	555	1,074	1,160	2,160
Net interest income after provision for credit losses	11,928	10,659	23,623	21,240
Noninterest income				
Service charges on deposit accounts	1,276	1,336	2,589	2,645
Trust and investment fees	3,629	3,547	7,199	6,932
Card fees	1,019	997	1,964	1,938
Other fees	902	906	1,767	1,839
Mortgage banking	1,148	1,414	2,376	3,012
Insurance	280	286	557	713
Net gains from trading activities	237	328	676	528
Net gains on debt securities (1)	120	447	156	691
Net gains from equity investments (2)	188	189	591	433
Lease income	493	497	974	870
Other	394	482	539	1,356
Total noninterest income	9,686	10,429	19,388	20,957
Noninterest expense				
Salaries	4,343	4,099	8,604	8,135
Commission and incentive compensation	2,499	2,604	5,224	5,249
Employee benefits	1,308	1,244	2,994	2,770
Equipment	529	493	1,106	1,021
Net occupancy	706	716	1,418	1,427
Core deposit and other intangibles	287	299	576	592
FDIC and other deposit assessments	328	255	661	505
Other	3,541	3,156	6,750	6,195
Total noninterest expense	13,541	12,866	27,333	25,894
Income before income tax expense	8,073	8,222	15,678	16,303
Income tax expense	2,225	2,649	4,282	5,216
Net income before noncontrolling interests	5,848	5,573	11,396	11,087
Less: Net income from noncontrolling interests	38	15	129	67
Wells Fargo net income	\$ 5,810	5,558	\$ 11,267	11,020
Less: Preferred stock dividends and other	406	385	807	762
Wells Fargo net income applicable to common stock	\$ 5,404	5,173	\$ 10,460	10,258
Per share information				
Earnings per common share	\$ 1.08	1.02	\$ 2.09	2.02
Diluted earnings per common share	1.07	1.01	2.07	2.00
Dividends declared per common share	0.380	0.380	0.760	0.755
Average common shares outstanding	4,989.9	5,066.9	4,999.2	5,071.3
Diluted average common shares outstanding	5,037.7	5,118.1	5,054.8	5,129.8

(1) Total other-than-temporary impairment (OTTI) losses were \$6 million and \$11 million for second quarter 2017 and 2016, respectively. Of total OTTI, losses of \$48 million and \$26 million were recognized in earnings, and losses (reversal of losses) of \$(42) million and \$(15) million were recognized as non-credit-related OTTI in other comprehensive income for second quarter 2017 and 2016, respectively. Total OTTI losses were \$49 million and \$87 million for the first half of 2017 and 2016, respectively. Of total OTTI, losses of \$100 million and \$91 million were recognized in earnings, and reversal of losses of \$(51) million and \$(4) million were recognized as non-credit-related OTTI in other comprehensive income for the first half of 2017 and 2016, respectively.

(2) Includes OTTI losses of \$25 million and \$104 million for second quarter 2017 and 2016, respectively, and \$102 million and \$237 million for the first half of 2017 and 2016, respectively.

The accompanying notes are an integral part of these statements.

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Comprehensive Income (Unaudited)

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Wells Fargo net income	\$ 5,810	5,558	11,267	11,020
Other comprehensive income (loss), before tax:				
Investment securities:				
Net unrealized gains arising during the period	1,565	1,571	1,934	2,366
Reclassification of net gains to net income	(177)	(504)	(322)	(808)
Derivatives and hedging activities:				
Net unrealized gains arising during the period	376	1,057	243	3,056
Reclassification of net gains on cash flow hedges to net income	(153)	(265)	(355)	(521)
Defined benefit plans adjustments:				
Net actuarial and prior service losses arising during the period	—	(19)	(7)	(27)
Amortization of net actuarial loss, settlements and other to net income	41	39	79	76
Foreign currency translation adjustments:				
Net unrealized gains (losses) arising during the period	31	(6)	47	37
Other comprehensive income , before tax	1,683	1,873	1,619	4,179
Income tax expense related to other comprehensive income	(624)	(714)	(587)	(1,571)
Other comprehensive income, net of tax	1,059	1,159	1,032	2,608
Less: Other comprehensive income (loss) from noncontrolling interests	(9)	(15)	5	(43)
Wells Fargo other comprehensive income, net of tax	1,068	1,174	1,027	2,651
Wells Fargo comprehensive income	6,878	6,732	12,294	13,671
Comprehensive income from noncontrolling interests	29	—	134	24
Total comprehensive income	\$ 6,907	6,732	12,428	13,695

The accompanying notes are an integral part of these statements.

Wells Fargo & Company and Subsidiaries
Consolidated Balance Sheet

(in millions, except shares)	Jun 30, 2017	Dec 31, 2016
Assets		(Unaudited)
Cash and due from banks	\$ 20,248	20,729
Federal funds sold, securities purchased under resale agreements and other short-term investments	264,706	266,038
Trading assets	83,607	74,397
Investment securities:		
Available-for-sale, at fair value	269,202	308,364
Held-to-maturity, at cost (fair value \$140,390 and \$99,155)	140,392	99,583
Mortgages held for sale (includes \$19,543 and \$22,042 carried at fair value) (1)	24,807	26,309
Loans held for sale	156	80
Loans (includes \$443 and \$758 carried at fair value) (1)	957,423	967,604
Allowance for loan losses	(11,073)	(11,419)
Net loans	946,350	956,185
Mortgage servicing rights:		
Measured at fair value	12,789	12,959
Amortized	1,399	1,406
Premises and equipment, net	8,403	8,333
Goodwill	26,573	26,693
Derivative assets	13,273	14,498
Other assets (includes \$3,986 and \$3,275 carried at fair value) (1)	118,966	114,541
Total assets (2)	\$ 1,930,871	1,930,115
Liabilities		
Noninterest-bearing deposits	\$ 372,766	375,967
Interest-bearing deposits	933,064	930,112
Total deposits	1,305,830	1,306,079
Short-term borrowings	95,356	96,781
Derivative liabilities	11,636	14,492
Accrued expenses and other liabilities	73,035	57,189
Long-term debt	238,869	255,077
Total liabilities (3)	1,724,726	1,729,618
Equity		
Wells Fargo stockholders' equity:		
Preferred stock	25,785	24,551
Common stock – \$1-2/3 par value, authorized 9,000,000,000 shares; issued 5,481,811,474 shares	9,136	9,136
Additional paid-in capital	60,689	60,234
Retained earnings	139,524	133,075
Cumulative other comprehensive income (loss)	(2,110)	(3,137)
Treasury stock – 515,041,424 shares and 465,702,148 shares	(25,675)	(22,713)
Unearned ESOP shares	(2,119)	(1,565)
Total Wells Fargo stockholders' equity	205,230	199,581
Noncontrolling interests	915	916
Total equity	206,145	200,497
Total liabilities and equity	\$ 1,930,871	1,930,115

(1) Parenthetical amounts represent assets and liabilities for which we have elected the fair value option.
(2) Our consolidated assets at June 30, 2017, and December 31, 2016, include the following assets of certain variable interest entities (VIEs) that can only be used to settle the liabilities of those VIEs: Cash and due from banks, \$112 million and \$168 million; Federal funds sold, securities purchased under resale agreements and other short-term investments, \$424 million and \$74 million; Trading assets, \$50 million and \$130 million; Investment securities, \$0 million at both period ends; Net loans, \$12.1 billion and \$12.6 billion; Derivative assets, \$0 million and \$1 million; Other assets, \$339 million and \$452 million; and Total assets, \$13.0 billion and \$13.4 billion, respectively.
(3) Our consolidated liabilities at June 30, 2017, and December 31, 2016, include the following VIE liabilities for which the VIE creditors do not have recourse to Wells Fargo: Derivative liabilities, \$28 million and \$33 million; Accrued expenses and other liabilities, \$96 million and \$107 million; Long-term debt, \$2.8 billion and \$3.7 billion; and Total liabilities, \$3.0 billion and \$3.8 billion, respectively.

The accompanying notes are an integral part of these statements.

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Changes in Equity (Unaudited)

(in millions, except shares)	Preferred stock		Common stock	
	Shares	Amount	Shares	Amount
Balance December 31, 2015	11,259,917	\$ 22,214	5,092,128,810	\$ 9,136
Cumulative effect from change in consolidation accounting (1)				
Balance January 1, 2016	11,259,917	\$ 22,214	5,092,128,810	\$ 9,136
Net income				
Other comprehensive income (loss), net of tax				
Noncontrolling interests				
Common stock issued			38,655,156	
Common stock repurchased			(96,479,740)	
Preferred stock issued to ESOP	1,150,000	1,150		
Preferred stock released by ESOP				
Preferred stock converted to common shares	(684,244)	(684)	14,189,729	
Common stock warrants repurchased/exercised				
Preferred stock issued	86,000	2,150		
Common stock dividends				
Preferred stock dividends				
Tax benefit from stock incentive compensation				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	551,756	2,616	(43,634,855)	—
Balance June 30, 2016	11,811,673	\$ 24,830	5,048,493,955	\$ 9,136
Balance January 1, 2017	11,532,712	\$ 24,551	5,016,109,326	\$ 9,136
Net income				
Other comprehensive income, net of tax				
Noncontrolling interests				
Common stock issued			39,392,446	
Common stock repurchased			(96,121,157)	
Preferred stock issued to ESOP	950,000	950		
Preferred stock released by ESOP				
Preferred stock converted to common shares	(406,185)	(406)	7,389,435	
Common stock warrants repurchased/exercised				
Preferred stock issued	27,600	690		
Common stock dividends				
Preferred stock dividends				
Tax benefit from stock incentive compensation (2)				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	571,415	1,234	(49,339,276)	—
Balance June 30, 2017	12,104,127	\$ 25,785	4,966,770,050	\$ 9,136

(1) Effective January 1, 2016, we adopted changes in consolidation accounting pursuant to ASU 2015-02 (*Amendments to the Consolidation Analysis*). Accordingly, we recorded a \$121 million increase to beginning noncontrolling interests as a cumulative-effect adjustment.

(2) Effective January 1, 2017, we adopted Accounting Standards Update 2016-09 (*Improvements to Employee Share-Based Payment Accounting*). Accordingly, tax benefit from stock incentive compensation is reported in income tax expense in the consolidated statement of income.

The accompanying notes are an integral part of these statements.

Wells Fargo stockholders' equity							
Additional paid-in capital	Retained earnings	Cumulative other comprehensive income	Treasury stock	Unearned ESOP shares	Total Wells Fargo stockholders' equity	Noncontrolling interests	Total equity
60,714	120,866	297	(18,867)	(1,362)	192,998	893	193,891
					121	121	
60,714	120,866	297	(18,867)	(1,362)	192,998	1,014	194,012
	11,020				11,020	67	11,087
		2,651			2,651	(43)	2,608
1					1	(122)	(121)
(184)	(185)		1,845		1,476		1,476
500			(4,743)		(4,243)		(4,243)
99				(1,249)	—		—
(59)				743	684		684
—			684		—		—
—					—		—
(49)					2,101		2,101
27	(3,861)				(3,834)		(3,834)
	(764)				(764)		(764)
172					172		172
508					508		508
(1,038)			13		(1,025)		(1,025)
(23)	6,210	2,651	(2,201)	(506)	8,747	(98)	8,649
60,691	127,076	2,948	(21,068)	(1,868)	201,745	916	202,661
60,234	133,075	(3,137)	(22,713)	(1,565)	199,581	916	200,497
	11,267				11,267	129	11,396
		1,027			1,027	5	1,032
1					1	(135)	(134)
(26)	(184)		1,868		1,658		1,658
750			(5,212)		(4,462)		(4,462)
31				(981)	—		—
(21)				427	406		406
41		365			—		—
(68)					(68)		(68)
(13)					677		677
25	(3,827)				(3,802)		(3,802)
	(807)				(807)		(807)
—					—		—
534					534		534
(799)			17		(782)		(782)
455	6,449	1,027	(2,962)	(554)	5,649	(1)	5,648
60,689	139,524	(2,110)	(25,675)	(2,119)	205,230	915	206,145

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Cash Flows (Unaudited)

	Six months ended June 30,	
(in millions)	2017	2016
Cash flows from operating activities:		
Net income before noncontrolling interests	\$ 11,396	11,087
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	1,160	2,160
Changes in fair value of MSRs, MHFS and LHFS carried at fair value	567	1,664
Depreciation, amortization and accretion	2,478	2,233
Other net losses	317	1,107
Stock-based compensation	1,186	1,176
Originations and purchases of MHFS and LHFS (1)	(86,008)	(85,821)
Proceeds from sales of and paydowns on mortgages originated for sale and LHFS (1)	53,404	59,824
Net change in:		
Trading assets (1)	24,477	16,506
Deferred income taxes	1,281	(2,286)
Derivative assets and liabilities (1)	(2,133)	(10)
Other assets (1)	1,485	(8,667)
Other accrued expenses and liabilities (1)	(652)	(394)
Net cash provided (used) by operating activities	8,958	(1,421)
Cash flows from investing activities:		
Net change in:		
Federal funds sold, securities purchased under resale agreements and other short-term investments	(5,489)	(25,492)
Available-for-sale securities:		
Sales proceeds	23,004	22,631
Prepayments and maturities	24,359	15,182
Purchases	(45,649)	(19,602)
Held-to-maturity securities:		
Paydowns and maturities	4,606	2,951
Purchases	—	(19,217)
Nonmarketable equity investments:		
Sales proceeds	2,146	1,060
Purchases	(1,225)	(1,998)
Loans:		
Loans originated by banking subsidiaries, net of principal collected	2,317	(21,537)
Proceeds from sales (including participations) of loans held for investment	6,739	4,736
Purchases (including participations) of loans	(1,976)	(3,146)
Principal collected on nonbank entities' loans	6,803	5,885
Loans originated by nonbank entities	(5,390)	(5,875)
Net cash paid for acquisitions	(3)	(28,987)
Proceeds from sales of foreclosed assets and short sales	2,974	3,704
Other, net (1)	(616)	201
Net cash provided (used) by investing activities	12,600	(69,504)
Cash flows from financing activities:		
Net change in:		
Deposits	(249)	22,161
Short-term borrowings	6,114	22,730
Long-term debt:		
Proceeds from issuance	27,990	47,971
Repayment	(47,815)	(14,138)
Preferred stock:		
Proceeds from issuance	677	2,101
Cash dividends paid	(807)	(764)
Common stock:		
Proceeds from issuance	722	795
Stock tendered for payment of withholding taxes (1)	(368)	(473)
Repurchased	(4,462)	(4,243)
Cash dividends paid	(3,715)	(3,739)
Net change in noncontrolling interests	(66)	(135)
Other, net	(60)	(45)
Net cash provided (used) by financing activities	(22,039)	72,221
Net change in cash and due from banks		
Cash and due from banks at beginning of period	(481)	1,296
Cash and due from banks at end of period	\$ 20,248	20,407
Supplemental cash flow disclosures:		
Cash paid for interest	\$ 3,954	2,357
Cash paid for income taxes	2,794	4,255

(1) Prior periods have been revised to conform to the current period presentation.

The accompanying notes are an integral part of these statements. See Note 1 (Summary of Significant Accounting Policies) for noncash activities.

Note 1: Summary of Significant Accounting Policies

Wells Fargo & Company is a diversified financial services company. We provide banking, insurance, trust and investments, mortgage banking, investment banking, retail banking, brokerage, and consumer and commercial finance through branches, the internet and other distribution channels to consumers, businesses and institutions in all 50 states, the District of Columbia, and in foreign countries. When we refer to "Wells Fargo," "the Company," "we," "our" or "us," we mean Wells Fargo & Company and Subsidiaries (consolidated). Wells Fargo & Company (the Parent) is a financial holding company and a bank holding company. We also hold a majority interest in a real estate investment trust, which has publicly traded preferred stock outstanding.

Our accounting and reporting policies conform with U.S. generally accepted accounting principles (GAAP) and practices in the financial services industry. For discussion of our significant accounting policies, see Note 1 (Summary of Significant Accounting Policies) in our Annual Report on Form 10-K for the year ended December 31, 2016 (2016 Form 10-K). To prepare the financial statements in conformity with GAAP, management must make estimates based on assumptions about future economic and market conditions (for example, unemployment, market liquidity, real estate prices, etc.) that affect the reported amounts of assets and liabilities at the date of the financial statements, income and expenses during the reporting period and the related disclosures. Although our estimates contemplate current conditions and how we expect them to change in the future, it is reasonably possible that actual conditions could be significantly different than anticipated in those estimates, which could materially affect our results of operations and financial condition. Management has made significant estimates in several areas, including:

- allowance for credit losses and purchased credit-impaired (PCI) loans (Note 5 (Loans and Allowance for Credit Losses));
- valuations of residential mortgage servicing rights (MSRs) (Note 7 (Securitizations and Variable Interest Entities) and Note 8 (Mortgage Banking Activities)) and financial instruments (Note 13 (Fair Values of Assets and Liabilities));
- income taxes; and
- liabilities for contingent litigation losses (Note 11 (Legal Actions)).

Actual results could differ from those estimates.

These unaudited interim financial statements reflect all adjustments that are, in the opinion of management, necessary for a fair statement of the results for the periods presented. These adjustments are of a normal recurring nature, unless otherwise disclosed in this Form 10-Q. The results of operations in the interim financial statements do not necessarily indicate the results that may be expected for the full year. The interim financial information should be read in conjunction with our 2016 Form 10-K.

Accounting Standards Adopted in 2017

In first quarter 2017, we adopted the following new accounting guidance:

- Accounting Standards Update (ASU or Update) 2016-09 – *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*;
- ASU 2016-07 - *Investments - Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting*;
- ASU 2016-06 - *Derivatives and Hedging (Topic 815): Contingent Put and Call Options in Debt Instruments; and*
- ASU 2016-05 - *Derivatives and Hedging (Topic 815): Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships*.

ASU 2016-09 Simplifies the accounting for share-based payment awards issued to employees. We have income tax effects based on changes in our stock price from the grant date to the vesting date of the employee stock compensation. The Update requires these income tax effects to be recognized in the statement of income within income tax expense instead of within additional paid-in capital. In addition, the Update requires changes to the Statement of Cash Flows including the classification between the operating and financing section for tax activity related to employee stock compensation, which we adopted retrospectively. We recorded excess tax benefits and tax deficiencies within income tax expense in the statement of income in first quarter 2017, on a prospective basis.

ASU 2016-07 eliminates the requirement for companies to retroactively apply the equity method of accounting for investments when increases in ownership interests or degree of influence result in the adoption of the equity method. Under the guidance, the equity method should be applied prospectively in the period in which the ownership changes occur. We adopted this change in first quarter 2017. The Update did not impact our consolidated financial statements, as the standard is applied on a prospective basis.

ASU 2016-06 clarifies the criteria entities should use when evaluating whether embedded contingent put and call options in debt instruments should be separated from the debt instrument and accounted for separately as derivatives. The Update clarifies that companies should not consider whether the event that triggers the ability to exercise put or call options is related to interest rates or credit risk. We adopted this change in first quarter 2017. The Update did not have a material impact on our consolidated financial statements.

Note 1: Summary of Significant Accounting Policies (continued)

ASU 2016-05 clarifies that a change in the counterparty to a derivative instrument that has been designated as an accounting hedge does not require the hedging relationship to be redesignated as long as all other hedge accounting criteria continue to be met. We adopted the guidance in first quarter 2017. The Update did not have a material impact on our consolidated financial statements.

Accounting Standards with Retrospective Application

The following accounting pronouncement has been issued by the FASB but is not yet effective:

- ASU 2016-15 – *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments.*

ASU 2016-15 addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice for reporting in the Statement of Cash Flows. The Update is effective for us in first quarter 2018 with retrospective application. Subject to completion of our assessment, we are not expecting this Update to have a material impact on our financial statements.

Private Share Repurchases

From time to time we enter into private forward repurchase transactions with unrelated third parties to complement our

open-market common stock repurchase strategies, to allow us to manage our share repurchases in a manner consistent with our capital plans submitted annually under the Comprehensive Capital Analysis and Review (CCAR) and to provide an economic benefit to the Company.

Our payments to the counterparties for these contracts are recorded in permanent equity in the quarter paid and are not subject to re-measurement. The classification of the up-front payments as permanent equity assures that we have appropriate repurchase timing consistent with our capital plans, which contemplate a fixed dollar amount available per quarter for share repurchases pursuant to Federal Reserve Board (FRB) supervisory guidance. In return, the counterparty agrees to deliver a variable number of shares based on a per share discount to the volume-weighted average stock price over the contract period. There are no scenarios where the contracts would not either physically settle in shares or allow us to choose the settlement method. Our total number of outstanding shares of common stock is not reduced until settlement of the private share repurchase contract.

We had no unsettled private share repurchase contracts at both June 30, 2017 and June 30, 2016.

Supplemental Cash Flow Information

Significant noncash activities are presented below.

Table 1.1: Supplemental Cash Flow Information

(in millions)	Six months ended June 30,	
	2017	2016
Trading assets retained from securitization of MHFS	\$ 34,317	23,403
Transfers from loans to MHFS	3,215	3,309
Transfers from available-for-sale to held-to-maturity securities	45,408	—

Subsequent Events

We have evaluated the effects of events that have occurred subsequent to June 30, 2017, and there have been no material events that would require recognition in our second quarter 2017 consolidated financial statements or disclosure in the Notes to the consolidated financial statements.

Note 2: Business Combinations

We regularly explore opportunities to acquire financial services companies and businesses. Generally, we do not make a public announcement about an acquisition opportunity until a definitive agreement has been signed. For information on additional contingent consideration related to acquisitions, which is considered to be a guarantee, see Note 10 (Guarantees, Pledged Assets and Collateral).

We completed no new acquisitions during the first half of 2017, but did finalize the related purchase accounting for our

2016 acquisition of GE Capital's Commercial Distribution Finance and Vendor Finance businesses. As of June 30, 2017, we had one pending step acquisition involving an investment management firm with approximately \$10 billion of assets under management, which we closed on July 1, 2017. We had previously been the majority owner.

Note 3: Federal Funds Sold, Securities Purchased under Resale Agreements and Other Short-Term Investments

Table 3.1 provides the detail of federal funds sold, securities purchased under short-term resale agreements (generally less than one year) and other short-term investments. Substantially all of the interest-earning deposits at June 30, 2017, and December 31, 2016, were held at Federal Reserve Banks.

Table 3.1: Fed Funds Sold and Other Short-Term Investments

(in millions)	Jun 30, 2017	Dec 31, 2016
Federal funds sold and securities purchased under resale agreements	\$ 67,687	58,215
Interest-earning deposits	195,700	200,671
Other short-term investments	1,319	7,152
Total	\$ 264,706	266,038

As part of maintaining our memberships in certain clearing organizations, we are required to stand ready to provide liquidity meant to sustain market clearing activity in the event unforeseen events occur or are deemed likely to occur. This includes commitments we have entered into to purchase securities under resale agreements from a central clearing organization that, at its option, require us to provide funding under such agreements. We do not have any outstanding amounts funded, and the amount of our unfunded contractual commitment was \$1.6 billion and \$2.9 billion as of June 30, 2017, and December 31, 2016, respectively.

We have classified securities purchased under long-term resale agreements (generally one year or more), which totaled \$20.7 billion and \$21.3 billion at June 30, 2017, and December 31, 2016, respectively, in loans. For additional information on the collateral we receive from other entities under resale agreements and securities borrowings, see the "Offsetting of Resale and Repurchase Agreements and Securities Borrowing and Lending Agreements" section in Note 10 (Guarantees, Pledged Assets and Collateral).

Note 4: Investment Securities

Table 4.1 provides the amortized cost and fair value by major categories of available-for-sale securities, which are carried at fair value, and held-to-maturity debt securities, which are carried at

amortized cost. The net unrealized gains (losses) for available-for-sale securities are reported on an after-tax basis as a component of cumulative OCI.

Table 4.1: Amortized Cost and Fair Value

(in millions)	Amortized Cost	Gross unrealized gains	Gross unrealized losses	Fair value
June 30, 2017				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	\$ 17,950	11	(65)	17,896
Securities of U.S. states and political subdivisions	52,237	751	(975)	52,013
Mortgage-backed securities:				
Federal agencies	136,336	1,009	(1,407)	135,938
Residential	6,829	532	(2)	7,359
Commercial	5,347	82	(16)	5,413
Total mortgage-backed securities	148,512	1,623	(1,425)	148,710
Corporate debt securities	9,261	424	(83)	9,602
Collateralized loan and other debt obligations (1)	33,168	298	(11)	33,455
Other (2)	6,348	164	(14)	6,498
Total debt securities	267,476	3,271	(2,573)	268,174
Marketable equity securities:				
Perpetual preferred securities	446	23	(4)	465
Other marketable equity securities	168	398	(3)	563
Total marketable equity securities	614	421	(7)	1,028
Total available-for-sale securities	268,090	3,692	(2,580)	269,202
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	44,704	666	(35)	45,335
Securities of U.S. states and political subdivisions	6,325	60	(55)	6,330
Federal agency and other mortgage-backed securities (3)	87,525	162	(806)	86,881
Collateralized loan obligations	993	5	—	998
Other (2)	845	1	—	846
Total held-to-maturity securities	140,392	894	(896)	140,390
Total	\$ 408,482	4,586	(3,476)	409,592
December 31, 2016				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	\$ 25,874	54	(109)	25,819
Securities of U.S. states and political subdivisions	52,121	551	(1,571)	51,101
Mortgage-backed securities:				
Federal agencies	163,513	1,175	(3,458)	161,230
Residential	7,375	449	(8)	7,816
Commercial	8,475	101	(74)	8,502
Total mortgage-backed securities	179,363	1,725	(3,540)	177,548
Corporate debt securities	11,186	381	(110)	11,457
Collateralized loan and other debt obligations (1)	34,764	287	(31)	35,020
Other (2)	6,139	104	(35)	6,208
Total debt securities	309,447	3,102	(5,396)	307,153
Marketable equity securities:				
Perpetual preferred securities	445	35	(11)	469
Other marketable equity securities	261	481	—	742
Total marketable equity securities	706	516	(11)	1,211
Total available-for-sale securities	310,153	3,618	(5,407)	308,364
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	44,690	466	(77)	45,079
Securities of U.S. states and political subdivisions	6,336	17	(144)	6,209
Federal agency and other mortgage-backed securities (3)	45,161	100	(804)	44,457
Collateralized loan obligations	1,065	6	(1)	1,070
Other (2)	2,331	10	(1)	2,340
Total held-to-maturity securities	99,583	599	(1,027)	99,155
Total	\$ 409,736	4,217	(6,434)	407,519

(1) The available-for-sale portfolio includes collateralized debt obligations (CDOs) with a cost basis and fair value of \$923 million and \$998 million, respectively, at June 30, 2017, and \$819 million and \$847 million, respectively, at December 31, 2016.

(2) The "Other" category of available-for-sale securities largely includes asset-backed securities collateralized by student loans. Included in the "Other" category of held-to-maturity securities are asset-backed securities collateralized by automobile leases or loans and cash with a cost basis and fair value of \$345 million each at June 30, 2017, and \$1.3 billion each at December 31, 2016. Also included in the "Other" category of held-to-maturity securities are asset-backed securities collateralized by dealer floorplan loans with a cost basis and fair value of \$500 million and \$501 million, respectively at June 30, 2017, and \$1.1 billion each at December 31, 2016.

(3) Predominantly consists of federal agency mortgage-backed securities at both June 30, 2017 and December 31, 2016.

Note 4: Investment Securities (continued)

Gross Unrealized Losses and Fair Value

Table 4.2 shows the gross unrealized losses and fair value of securities in the investment securities portfolio by length of time that individual securities in each category have been in a continuous loss position. Debt securities on which we have taken credit-related OTTI write-downs are categorized as being “less

than 12 months” or “12 months or more” in a continuous loss position based on the point in time that the fair value declined to below the cost basis and not the period of time since the credit-related OTTI write-down.

Table 4.2: Gross Unrealized Losses and Fair Value

(in millions)	Less than 12 months		12 months or more		Total	
	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value
June 30, 2017						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	\$ (65)	11,486	—	—	(65)	11,486
Securities of U.S. states and political subdivisions	(38)	8,048	(937)	19,964	(975)	28,012
Mortgage-backed securities:						
Federal agencies	(1,271)	78,114	(136)	5,900	(1,407)	84,014
Residential	(1)	90	(1)	78	(2)	168
Commercial	(2)	369	(14)	670	(16)	1,039
Total mortgage-backed securities	(1,274)	78,573	(151)	6,648	(1,425)	85,221
Corporate debt securities	(9)	655	(74)	665	(83)	1,320
Collateralized loan and other debt obligations	(1)	3,327	(10)	682	(11)	4,009
Other	(3)	443	(11)	978	(14)	1,421
Total debt securities	(1,390)	102,532	(1,183)	28,937	(2,573)	131,469
Marketable equity securities:						
Perpetual preferred securities	(1)	32	(3)	50	(4)	82
Other marketable equity securities	(3)	10	—	—	(3)	10
Total marketable equity securities	(4)	42	(3)	50	(7)	92
Total available-for-sale securities	(1,394)	102,574	(1,186)	28,987	(2,580)	131,561
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	(35)	3,347	—	—	(35)	3,347
Securities of U.S. states and political subdivisions	(55)	3,624	—	—	(55)	3,624
Federal agency and other mortgage-backed securities	(806)	63,110	—	—	(806)	63,110
Collateralized loan obligations	—	—	—	—	—	—
Other	—	—	—	—	—	—
Total held-to-maturity securities	(896)	70,081	—	—	(896)	70,081
Total	\$ (2,290)	172,655	(1,186)	28,987	(3,476)	201,642
December 31, 2016						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	\$ (109)	10,816	—	—	(109)	10,816
Securities of U.S. states and political subdivisions	(341)	17,412	(1,230)	16,213	(1,571)	33,625
Mortgage-backed securities:						
Federal agencies	(3,338)	120,735	(120)	3,481	(3,458)	124,216
Residential	(4)	527	(4)	245	(8)	772
Commercial	(43)	1,459	(31)	1,690	(74)	3,149
Total mortgage-backed securities	(3,385)	122,721	(155)	5,416	(3,540)	128,137
Corporate debt securities	(11)	946	(99)	1,229	(110)	2,175
Collateralized loan and other debt obligations	(2)	1,899	(29)	3,197	(31)	5,096
Other	(9)	971	(26)	1,262	(35)	2,233
Total debt securities	(3,857)	154,765	(1,539)	27,317	(5,396)	182,082
Marketable equity securities:						
Perpetual preferred securities	(3)	41	(8)	45	(11)	86
Other marketable equity securities	—	—	—	—	—	—
Total marketable equity securities	(3)	41	(8)	45	(11)	86
Total available-for-sale securities	(3,860)	154,806	(1,547)	27,362	(5,407)	182,168
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	(77)	6,351	—	—	(77)	6,351
Securities of U.S. states and political subdivisions	(144)	4,871	—	—	(144)	4,871
Federal agency and other mortgage-backed securities	(804)	40,095	—	—	(804)	40,095
Collateralized loan obligations	—	—	(1)	266	(1)	266
Other	—	—	(1)	633	(1)	633
Total held-to-maturity securities	(1,025)	51,317	(2)	899	(1,027)	52,216
Total	\$ (4,885)	206,123	(1,549)	28,261	(6,434)	234,384

We have assessed each security with gross unrealized losses included in the previous table for credit impairment. As part of that assessment we evaluated and concluded that we do not intend to sell any of the securities and that it is more likely than not that we will not be required to sell prior to recovery of the amortized cost basis. For debt securities, we evaluate, where necessary, whether credit impairment exists by comparing the present value of the expected cash flows to the securities' amortized cost basis. For equity securities, we consider numerous factors in determining whether impairment exists, including our intent and ability to hold the securities for a period of time sufficient to recover the cost basis of the securities.

For descriptions of the factors we consider when analyzing securities for impairment, see Note 1 (Summary of Significant Accounting Policies) and Note 5 (Investment Securities) to Financial Statements in our 2016 Form 10-K. There were no material changes to our methodologies for assessing impairment in the first half of 2017.

Table 4.3 shows the gross unrealized losses and fair value of debt and perpetual preferred investment securities by those rated investment grade and those rated less than investment grade,

according to their lowest credit rating by Standard & Poor's Rating Services (S&P) or Moody's Investors Service (Moody's). Credit ratings express opinions about the credit quality of a security. Securities rated investment grade, that is those rated BBB- or higher by S&P or Baa3 or higher by Moody's, are generally considered by the rating agencies and market participants to be low credit risk. Conversely, securities rated below investment grade, labeled as "speculative grade" by the rating agencies, are considered to be distinctively higher credit risk than investment grade securities. We have also included securities not rated by S&P or Moody's in the table below based on our internal credit grade of the securities (used for credit risk management purposes) equivalent to the credit rating assigned by major credit agencies. The unrealized losses and fair value of unrated securities categorized as investment grade based on internal credit grades were \$32 million and \$6.6 billion, respectively, at June 30, 2017, and \$54 million and \$7.0 billion, respectively, at December 31, 2016. If an internal credit grade was not assigned, we categorized the security as non-investment grade.

Table 4.3: Gross Unrealized Losses and Fair Value by Investment Grade

(in millions)	Investment grade		Non-investment grade	
	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value
June 30, 2017				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	\$ (65)	11,486	—	—
Securities of U.S. states and political subdivisions	(932)	27,640	(43)	372
Mortgage-backed securities:				
Federal agencies	(1,407)	84,014	—	—
Residential	(1)	54	(1)	114
Commercial	(3)	728	(13)	311
Total mortgage-backed securities	(1,411)	84,796	(14)	425
Corporate debt securities	(14)	630	(69)	690
Collateralized loan and other debt obligations	(11)	4,009	—	—
Other	(10)	997	(4)	424
Total debt securities	(2,443)	129,558	(130)	1,911
Perpetual preferred securities	(3)	63	(1)	19
Total available-for-sale securities	(2,446)	129,621	(131)	1,930
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	(35)	3,347	—	—
Securities of U.S. states and political subdivisions	(55)	3,624	—	—
Federal agency and other mortgage-backed securities	(805)	63,075	(1)	35
Collateralized loan obligations	—	—	—	—
Other	—	—	—	—
Total held-to-maturity securities	(895)	70,046	(1)	35
Total	\$ (3,341)	199,667	(132)	1,965
December 31, 2016				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	\$ (109)	10,816	—	—
Securities of U.S. states and political subdivisions	(1,517)	33,271	(54)	354
Mortgage-backed securities:				
Federal agencies	(3,458)	124,216	—	—
Residential	(1)	176	(7)	596
Commercial	(15)	2,585	(59)	564
Total mortgage-backed securities	(3,474)	126,977	(66)	1,160
Corporate debt securities	(31)	1,238	(79)	937
Collateralized loan and other debt obligations	(31)	5,096	—	—
Other	(30)	1,842	(5)	391
Total debt securities	(5,192)	179,240	(204)	2,842
Perpetual preferred securities	(10)	68	(1)	18
Total available-for-sale securities	(5,202)	179,308	(205)	2,860
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	(77)	6,351	—	—
Securities of U.S. states and political subdivisions	(144)	4,871	—	—
Federal agency and other mortgage-backed securities	(803)	40,078	(1)	17
Collateralized loan obligations	(1)	266	—	—
Other	(1)	633	—	—
Total held-to-maturity securities	(1,026)	52,199	(1)	17
Total	\$ (6,228)	231,507	(206)	2,877

Note 4: Investment Securities (continued)

Contractual Maturities

Table 4.4 shows the remaining contractual maturities and contractual weighted-average yields (taxable-equivalent basis) of available-for-sale debt securities. The remaining contractual principal maturities for MBS do not consider

prepayments. Remaining expected maturities will differ from contractual maturities because borrowers may have the right to prepay obligations before the underlying mortgages mature.

Table 4.4: Contractual Maturities

(in millions)	Total	Remaining contractual maturity										
		Within one year		After one year through five years		After five years through ten years		After ten years				
		amount	Yield	amount	Yield	amount	Yield	amount	Yield	amount	Yield	
June 30, 2017												
Available-for-sale debt securities (1):												
Fair value:												
Securities of U.S. Treasury and federal agencies	\$ 17,896	1.25%	\$ 10,987	1.04%	\$ 5,883	1.55%	\$ 1,026	1.80%	\$ —	—	—%	
Securities of U.S. states and political subdivisions	52,013	5.77	1,251	2.25	10,536	2.86	2,511	4.59	37,715	6.78		
Mortgage-backed securities:												
Federal agencies	135,938	3.18	1	4.93	127	3.01	5,845	2.93	129,965	3.19		
Residential	7,359	3.90	—	—	25	5.55	19	3.76	7,315	3.89		
Commercial	5,413	4.18	—	—	—	—	45	2.90	5,368	4.19		
Total mortgage-backed securities	148,710	3.25	1	4.93	152	3.42	5,909	2.93	142,648	3.27		
Corporate debt securities	9,602	4.95	1,050	4.13	2,945	5.69	4,638	4.62	969	5.23		
Collateralized loan and other debt obligations	33,455	2.89	—	—	146	2.10	17,739	2.82	15,570	2.99		
Other	6,498	2.32	40	3.24	779	2.54	1,632	1.91	4,047	2.43		
Total available-for-sale debt securities at fair value	\$ 268,174	3.60%	\$ 13,329	1.40%	\$ 20,441	2.88%	\$ 33,455	3.15%	\$ 200,949	3.90%		
December 31, 2016												
Available-for-sale debt securities (1):												
Fair value:												
Securities of U.S. Treasury and federal agencies	\$ 25,819	1.44 %	\$ 1,328	0.92 %	\$ 23,477	1.45 %	\$ 1,014	1.80 %	\$ —	—	— %	
Securities of U.S. states and political subdivisions	51,101	5.65	2,990	1.69	9,299	2.74	2,391	4.71	36,421	6.78		
Mortgage-backed securities:												
Federal agencies	161,230	3.09	—	—	128	2.98	5,363	3.16	155,739	3.09		
Residential	7,816	3.84	—	—	25	5.21	35	4.34	7,756	3.83		
Commercial	8,502	4.58	—	—	—	—	30	3.13	8,472	4.59		
Total mortgage-backed securities	177,548	3.19	—	—	153	3.34	5,428	3.16	171,967	3.19		
Corporate debt securities	11,457	4.81	2,043	2.90	3,374	5.89	4,741	4.71	1,299	5.38		
Collateralized loan and other debt obligations	35,020	2.70	—	—	168	1.34	16,482	2.66	18,370	2.74		
Other	6,208	2.18	57	3.06	971	2.35	1,146	2.04	4,034	2.17		
Total available-for-sale debt securities at fair value	\$ 307,153	3.44 %	\$ 6,418	1.93 %	\$ 37,442	2.20 %	\$ 31,202	3.17 %	\$ 232,091	3.72 %		

(1) Weighted-average yields displayed by maturity bucket are weighted based on fair value and predominantly represent contractual coupon rates without effect for any related hedging derivatives.

Table 4.5 shows the amortized cost and weighted-average yields of held-to-maturity debt securities by contractual maturity.

Table 4.5: Amortized Cost by Contractual Maturity

(in millions)	Total amount	Yield	Remaining contractual maturity													
			Within one year		After one year through five years		After five years through ten years		After ten years							
			Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield		
June 30, 2017																
Held-to-maturity securities (1):																
Amortized cost:																
Securities of U.S. Treasury and federal agencies	\$ 44,704	2.12%	\$ —	—%	\$ 32,317	2.04%	\$ 12,387	2.32%	\$ —	—%						
Securities of U.S. states and political subdivisions	6,325	6.04	—	—	24	8.20	553	6.61	5,748	5.98						
Federal agency and other mortgage-backed securities	87,525	3.11	—	—	—	—	—	—	87,525	3.11						
Collateralized loan obligations	993	2.72	—	—	—	—	993	2.72	—	—						
Other	845	2.03	—	—	845	2.03	—	—	—	—						
Total held-to-maturity debt securities at amortized cost	\$ 140,392	2.92%	\$ —	—%	\$ 33,186	2.04%	\$ 13,933	2.52%	\$ 93,273	3.29%						
December 31, 2016																
Held-to-maturity securities (1):																
Amortized cost:																
Securities of U.S. Treasury and federal agencies	\$ 44,690	2.12 %	\$ —	— %	\$ 31,956	2.05 %	\$ 12,734	2.30 %	\$ —	— %						
Securities of U.S. states and political subdivisions	6,336	6.04	—	—	24	8.20	436	6.76	5,876	5.98						
Federal agency and other mortgage-backed securities	45,161	3.23	—	—	—	—	—	—	45,161	3.23						
Collateralized loan obligations	1,065	2.58	—	—	—	—	1,065	2.58	—	—						
Other	2,331	1.83	—	—	1,683	1.81	648	1.89	—	—						
Total held-to-maturity debt securities at amortized cost	\$ 99,583	2.87 %	\$ —	— %	\$ 33,663	2.04 %	\$ 14,883	2.43 %	\$ 51,037	3.55 %						

(1) Weighted-average yields displayed by maturity bucket are weighted based on amortized cost and predominantly represent contractual coupon rates.

Table 4.6 shows the fair value of held-to-maturity debt securities by contractual maturity.

Table 4.6: Fair Value by Contractual Maturity

(in millions)	Total amount	Remaining contractual maturity												
		Within one year		After one year through five years		After five years through ten years		After ten years						
		Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	
June 30, 2017														
Held-to-maturity securities:														
Fair value:														
Securities of U.S. Treasury and federal agencies	\$ 45,335	—	—	32,774	—	12,561	—							
Securities of U.S. states and political subdivisions	6,330	—	—	24	—	559	—	5,747	—					
Federal agency and other mortgage-backed securities	86,881	—	—	—	—	—	—	—	86,881	—				
Collateralized loan obligations	998	—	—	—	—	998	—	—	—					
Other	846	—	—	846	—	—	—	—	—					
Total held-to-maturity debt securities at fair value	\$ 140,390	—	—	33,644	—	14,118	—	92,628	—					
December 31, 2016														
Held-to-maturity securities:														
Fair value:														
Securities of U.S. Treasury and federal agencies	\$ 45,079	—	—	32,313	—	12,766	—							
Securities of U.S. states and political subdivisions	6,209	—	—	24	—	430	—	5,755	—					
Federal agency and other mortgage-backed securities	44,457	—	—	—	—	—	—	—	44,457	—				
Collateralized loan obligations	1,070	—	—	—	—	1,070	—	—	—					
Other	2,340	—	—	1,688	—	652	—	—	—					
Total held-to-maturity debt securities at fair value	\$ 99,155	—	—	34,025	—	14,918	—	50,212	—					

Note 4: Investment Securities (continued)

Realized Gains and Losses

Table 4.7 shows the gross realized gains and losses on sales and OTTI write-downs related to the available-for-sale securities

portfolio, which includes marketable equity securities, as well as net realized gains and losses on nonmarketable equity investments (see Note 6 (Other Assets)).

Table 4.7: Realized Gains and Losses

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Gross realized gains	\$ 320	564	\$ 561	949
Gross realized losses	(48)	(31)	(84)	(44)
OTTI write-downs	(51)	(26)	(104)	(95)
Net realized gains from available-for-sale securities	221	507	373	810
Net realized gains from nonmarketable equity investments	87	129	374	314
Net realized gains from debt securities and equity investments	\$ 308	636	\$ 747	1,124

Other-Than-Temporary Impairment

Table 4.8 shows the detail of total OTTI write-downs included in earnings for available-for-sale debt securities, marketable equity

securities and nonmarketable equity investments. There were no OTTI write-downs on held-to-maturity securities during the first half of 2017 and 2016.

Table 4.8: OTTI Write-downs

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
OTTI write-downs included in earnings				
Debt securities:				
Securities of U.S. states and political subdivisions	\$ —	6	\$ 8	10
Mortgage-backed securities:				
Residential	3	12	6	24
Commercial	41	—	66	1
Corporate debt securities	4	5	20	50
Other debt securities	—	3	—	6
Total debt securities	48	26	100	91
Equity securities:				
Marketable equity securities:				
Other marketable equity securities	3	—	4	4
Total marketable equity securities	3	—	4	4
Total investment securities (1)	51	26	104	95
Nonmarketable equity investments (1)	22	104	98	233
Total OTTI write-downs included in earnings (1)	\$ 73	130	\$ 202	328

(1) The quarters ended June 30, 2017 and 2016, include \$19 million and \$29 million, respectively, in OTTI write-downs of oil and gas investments, of which \$7 million and \$5 million, respectively, related to investment securities and \$12 million and \$24 million, respectively, related to nonmarketable equity investments. Oil and gas related OTTI for the first half of 2017 and 2016, totaled \$58 million and \$153 million, respectively, of which \$22 million and \$51 million, respectively, related to investment securities and \$36 million and \$102 million, respectively, related to nonmarketable equity investments.

Other-Than-Temporarily Impaired Debt Securities

Table 4.9 shows the detail of OTTI write-downs on available-for-sale debt securities included in earnings and the related changes in OCI for the same securities.

Table 4.9: OTTI Write-downs Included in Earnings

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
OTTI on debt securities				
Recorded as part of gross realized losses:				
Credit-related OTTI	\$ 47	20	\$ 99	81
Intent-to-sell OTTI	1	6	1	10
Total recorded as part of gross realized losses	48	26	100	91
Changes to OCI for losses (reversal of losses) in non-credit-related OTTI (1):				
Securities of U.S. states and political subdivisions	—	—	(5)	—
Residential mortgage-backed securities	(3)	(5)	—	5
Commercial mortgage-backed securities	(40)	(1)	(47)	2
Corporate debt securities	1	(9)	1	(13)
Other debt securities	—	—	—	2
Total changes to OCI for non-credit-related OTTI	(42)	(15)	(51)	(4)
Total OTTI losses recorded on debt securities	\$ 6	11	\$ 49	87

(1) Represents amounts recorded to OCI for impairment, due to factors other than credit, on debt securities that have also had credit-related OTTI write-downs during the period. Increases represent initial or subsequent non-credit-related OTTI on debt securities. Decreases represent partial to full reversal of impairment due to recoveries in the fair value of securities due to non-credit factors.

Table 4.10 presents a rollforward of the OTTI credit loss that has been recognized in earnings as a write-down of available-for-sale debt securities we still own (referred to as “credit-impaired” debt securities) and do not intend to sell. Recognized credit loss

represents the difference between the present value of expected future cash flows discounted using the security’s current effective interest rate and the amortized cost basis of the security prior to considering credit loss.

Table 4.10: Rollforward of OTTI Credit Loss

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Credit loss recognized, beginning of period				
	\$ 1,086	1,145	\$ 1,043	1,092
Additions:				
For securities with initial credit impairments	2	—	8	38
For securities with previous credit impairments	45	20	91	43
Total additions	47	20	99	81
Reductions:				
For securities sold, matured, or intended/required to be sold	(11)	(83)	(18)	(89)
For recoveries of previous credit impairments (1)	(2)	(2)	(4)	(4)
Total reductions	(13)	(85)	(22)	(93)
Credit loss recognized, end of period	\$ 1,120	1,080	\$ 1,120	1,080

(1) Recoveries of previous credit impairments result from increases in expected cash flows subsequent to credit loss recognition. Such recoveries are reflected prospectively as interest yield adjustments using the effective interest method.

Note 5: Loans and Allowance for Credit Losses

Table 5.1 presents total loans outstanding by portfolio segment and class of financing receivable. Outstanding balances include a total net reduction of \$3.9 billion and \$4.4 billion at June 30, 2017, and December 31, 2016, respectively, for unearned income,

net deferred loan fees, and unamortized discounts and premiums.

Table 5.1: Loans Outstanding

(in millions)	Jun 30, 2017	Dec 31, 2016
Commercial:		
Commercial and industrial	\$ 331,113	330,840
Real estate mortgage	130,277	132,491
Real estate construction	25,337	23,916
Lease financing	19,174	19,289
Total commercial	505,901	506,536
Consumer:		
Real estate 1-4 family first mortgage	276,566	275,579
Real estate 1-4 family junior lien mortgage	42,747	46,237
Credit card	35,305	36,700
Automobile	57,958	62,286
Other revolving credit and installment	38,946	40,266
Total consumer	451,522	461,068
Total loans	\$ 957,423	967,604

Our foreign loans are reported by respective class of financing receivable in the table above. Substantially all of our foreign loan portfolio is commercial loans. Loans are classified as foreign primarily based on whether the borrower's primary

address is outside of the United States. Table 5.2 presents total commercial foreign loans outstanding by class of financing receivable.

Table 5.2: Commercial Foreign Loans Outstanding

(in millions)	Jun 30, 2017	Dec 31, 2016
Commercial foreign loans:		
Commercial and industrial	\$ 57,825	55,396
Real estate mortgage	8,359	8,541
Real estate construction	585	375
Lease financing	1,092	972
Total commercial foreign loans	\$ 67,861	65,284

Loan Purchases, Sales, and Transfers

Table 5.3 summarizes the proceeds paid or received for purchases and sales of loans and transfers from loans held for investment to mortgages/loans held for sale at lower of cost or fair value. This loan activity also includes participating interests, whereby we

receive or transfer a portion of a loan. The table excludes PCI loans and loans for which we have elected the fair value option, including loans originated for sale because their loan activity normally does not impact the allowance for credit losses.

Table 5.3: Loan Purchases, Sales, and Transfers

(in millions)	2017			2016		
	Commercial	Consumer (1)	Total	Commercial (2)	Consumer (1)	Total
Quarter ended June 30,						
Purchases	\$ 810	—	810	2,607	—	2,607
Sales	(1,052)	(84)	(1,136)	(385)	(407)	(792)
Transfers to MHFS/LHFS	(179)	(1)	(180)	(69)	(1)	(70)
Six months ended June 30,						
Purchases	\$ 1,969	2	1,971	27,253	—	27,253
Sales	(1,339)	(146)	(1,485)	(608)	(679)	(1,287)
Transfers to MHFS/LHFS	(658)	(1)	(659)	(101)	(4)	(105)

(1) Excludes activity in government insured/guaranteed real estate 1-4 family first mortgage loans. As servicer, we are able to buy delinquent insured/guaranteed loans out of the Government National Mortgage Association (GNMA) pools, and manage and/or resell them in accordance with applicable requirements. These loans are predominantly insured by the Federal Housing Administration (FHA) or guaranteed by the Department of Veterans Affairs (VA). Accordingly, these loans have limited impact on the allowance for loan losses.

(2) Purchases include loans and capital leases from the 2016 GE Capital business acquisitions.

Commitments to Lend

A commitment to lend is a legally binding agreement to lend funds to a customer, usually at a stated interest rate, if funded, and for specific purposes and time periods. We generally require a fee to extend such commitments. Certain commitments are subject to loan agreements with covenants regarding the financial performance of the customer or borrowing base formulas on an ongoing basis that must be met before we are required to fund the commitment. We may reduce or cancel consumer commitments, including home equity lines and credit card lines, in accordance with the contracts and applicable law.

We may, as a representative for other lenders, advance funds or provide for the issuance of letters of credit under syndicated loan or letter of credit agreements. Any advances are generally repaid in less than a week and would normally require default of both the customer and another lender to expose us to loss. These temporary advance arrangements totaled approximately \$76 billion and \$77 billion at June 30, 2017 and December 31, 2016, respectively.

We issue commercial letters of credit to assist customers in purchasing goods or services, typically for international trade. At June 30, 2017, and December 31, 2016, we had \$1.3 billion and \$1.1 billion, respectively, of outstanding issued commercial letters of credit. We also originate multipurpose lending commitments under which borrowers have the option to draw on the facility for different purposes in one of several forms, including a standby letter of credit. See Note 10 (Guarantees, Pledged Assets and Collateral) for additional information on standby letters of credit.

When we make commitments, we are exposed to credit risk. The maximum credit risk for these commitments will generally be lower than the contractual amount because a significant portion of these commitments is expected to expire without being used by the customer. In addition, we manage the potential risk in commitments to lend by limiting the total amount of commitments, both by individual customer and in total, by monitoring the size and maturity structure of these commitments and by applying the same credit standards for these commitments as for all of our credit activities.

For loans and commitments to lend, we generally require collateral or a guarantee. We may require various types of collateral, including commercial and consumer real estate, automobiles, other short-term liquid assets such as accounts receivable or inventory and long-lived assets, such as equipment and other business assets. Collateral requirements for each loan or commitment may vary based on the loan product and our assessment of a customer's credit risk according to the specific credit underwriting, including credit terms and structure.

The contractual amount of our unfunded credit commitments, including unissued standby and commercial letters of credit, is summarized by portfolio segment and class of financing receivable in Table 5.4. The table excludes the issued standby and commercial letters of credit and temporary advance arrangements described above.

Table 5.4: Unfunded Credit Commitments

(in millions)	Jun 30, 2017	Dec 31, 2016
Commercial:		
Commercial and industrial	\$ 319,058	319,662
Real estate mortgage	7,601	7,833
Real estate construction	16,728	18,840
Lease financing	11	16
Total commercial	343,398	346,351
Consumer:		
Real estate 1-4 family first mortgage	35,685	33,498
Real estate 1-4 family junior lien mortgage	40,044	41,431
Credit card	106,329	101,895
Other revolving credit and installment	27,541	28,349
Total consumer	209,599	205,173
Total unfunded credit commitments	\$ 552,997	551,524

Note 5: Loans and Allowance for Credit Losses (continued)

Allowance for Credit Losses

Table 5.5 presents the allowance for credit losses, which consists of the allowance for loan losses and the allowance for unfunded credit commitments.

Table 5.5: Allowance for Credit Losses

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Balance, beginning of period	\$ 12,287	12,668	12,540	12,512
Provision for credit losses	555	1,074	1,160	2,160
Interest income on certain impaired loans (1)	(46)	(51)	(94)	(99)
Loan charge-offs:				
Commercial:				
Commercial and industrial	(161)	(437)	(414)	(786)
Real estate mortgage	(8)	(3)	(13)	(6)
Real estate construction	—	(1)	—	(1)
Lease financing	(13)	(17)	(20)	(21)
Total commercial	(182)	(458)	(447)	(814)
Consumer:				
Real estate 1-4 family first mortgage	(55)	(123)	(124)	(260)
Real estate 1-4 family junior lien mortgage	(62)	(133)	(155)	(266)
Credit card	(379)	(320)	(746)	(634)
Automobile	(212)	(176)	(467)	(387)
Other revolving credit and installment	(185)	(163)	(374)	(338)
Total consumer	(893)	(915)	(1,866)	(1,885)
Total loan charge-offs	(1,075)	(1,373)	(2,313)	(2,699)
Loan recoveries:				
Commercial:				
Commercial and industrial	83	69	165	145
Real estate mortgage	14	23	44	55
Real estate construction	4	4	12	12
Lease financing	6	5	8	8
Total commercial	107	101	229	220
Consumer:				
Real estate 1-4 family first mortgage	71	109	133	198
Real estate 1-4 family junior lien mortgage	66	71	136	130
Credit card	59	50	117	102
Automobile	86	86	174	170
Other revolving credit and installment	31	32	64	69
Total consumer	313	348	624	669
Total loan recoveries	420	449	853	889
Net loan charge-offs	(655)	(924)	(1,460)	(1,810)
Other	5	(18)	—	(14)
Balance, end of period	\$ 12,146	12,749	12,146	12,749
Components:				
Allowance for loan losses	\$ 11,073	11,664	11,073	11,664
Allowance for unfunded credit commitments	1,073	1,085	1,073	1,085
Allowance for credit losses	\$ 12,146	12,749	12,146	12,749
Net loan charge-offs (annualized) as a percentage of average total loans	0.27%	0.39	0.31	0.39
Allowance for loan losses as a percentage of total loans	1.16	1.22	1.16	1.22
Allowance for credit losses as a percentage of total loans	1.27	1.33	1.27	1.33

(1) Certain impaired loans with an allowance calculated by discounting expected cash flows using the loan's effective interest rate over the remaining life of the loan recognize changes in allowance attributable to the passage of time as interest income.

Table 5.6 summarizes the activity in the allowance for credit losses by our commercial and consumer portfolio segments.

Table 5.6: Allowance Activity by Portfolio Segment

(in millions)	2017			2016		
	Commercial	Consumer	Total	Commercial	Consumer	Total
Quarter ended June 30,						
Balance, beginning of period	\$ 7,142	5,145	12,287	7,348	5,320	12,668
Provision (reversal of provision) for credit losses	(97)	652	555	478	596	1,074
Interest income on certain impaired loans	(14)	(32)	(46)	(10)	(41)	(51)
Loan charge-offs	(182)	(893)	(1,075)	(458)	(915)	(1,373)
Loan recoveries	107	313	420	101	348	449
Net loan charge-offs	(75)	(580)	(655)	(357)	(567)	(924)
Other	5	—	5	(18)	—	(18)
Balance, end of period	\$ 6,961	5,185	12,146	7,441	5,308	12,749
Six months ended June 30,						
Balance, beginning of period	\$ 7,394	5,146	12,540	6,872	5,640	12,512
Provision (reversal of provision) for credit losses	(186)	1,346	1,160	1,192	968	2,160
Interest income on certain impaired loans	(29)	(65)	(94)	(15)	(84)	(99)
Loan charge-offs	(447)	(1,866)	(2,313)	(814)	(1,885)	(2,699)
Loan recoveries	229	624	853	220	669	889
Net loan charge-offs	(218)	(1,242)	(1,460)	(594)	(1,216)	(1,810)
Other	—	—	—	(14)	—	(14)
Balance, end of period	\$ 6,961	5,185	12,146	7,441	5,308	12,749

Table 5.7 disaggregates our allowance for credit losses and recorded investment in loans by impairment methodology.

Table 5.7: Allowance by Impairment Methodology

(in millions)	Allowance for credit losses			Recorded investment in loans		
	Commercial	Consumer	Total	Commercial	Consumer	Total
June 30, 2017						
Collectively evaluated (1)	\$ 6,131	3,844	9,975	500,942	421,646	922,588
Individually evaluated (2)	830	1,341	2,171	4,696	15,866	20,562
PCI (3)	—	—	—	263	14,010	14,273
Total	\$ 6,961	5,185	12,146	505,901	451,522	957,423
December 31, 2016						
Collectively evaluated (1)	\$ 6,392	3,553	9,945	500,487	428,009	928,496
Individually evaluated (2)	1,000	1,593	2,593	5,372	17,005	22,377
PCI (3)	2	—	2	677	16,054	16,731
Total	\$ 7,394	5,146	12,540	506,536	461,068	967,604

(1) Represents loans collectively evaluated for impairment in accordance with Accounting Standards Codification (ASC) 450-20, *Loss Contingencies* (formerly FAS 5), and pursuant to amendments by ASU 2010-20 regarding allowance for non-impaired loans.
 (2) Represents loans individually evaluated for impairment in accordance with ASC 310-10, *Receivables* (formerly FAS 114), and pursuant to amendments by ASU 2010-20 regarding allowance for impaired loans.
 (3) Represents the allowance and related loan carrying value determined in accordance with ASC 310-30, *Receivables – Loans and Debt Securities Acquired with Deteriorated Credit Quality* (formerly SOP 03-3) and pursuant to amendments by ASU 2010-20 regarding allowance for PCI loans.

Credit Quality

We monitor credit quality by evaluating various attributes and utilize such information in our evaluation of the appropriateness of the allowance for credit losses. The following sections provide the credit quality indicators we most closely monitor. The credit quality indicators are generally based on information as of our financial statement date, with the exception of updated Fair Isaac Corporation (FICO) scores and updated loan-to-value (LTV)/

combined LTV (CLTV). We obtain FICO scores at loan origination and the scores are generally updated at least quarterly, except in limited circumstances, including compliance with the Fair Credit Reporting Act (FCRA). Generally, the LTV and CLTV indicators are updated in the second month of each quarter, with updates no older than March 31, 2017. See the “Purchased Credit-Impaired Loans” section in this Note for credit quality information on our PCI portfolio.

Note 5: Loans and Allowance for Credit Losses (continued)

COMMERCIAL CREDIT QUALITY INDICATORS In addition to monitoring commercial loan concentration risk, we manage a consistent process for assessing commercial loan credit quality. Generally, commercial loans are subject to individual risk assessment using our internal borrower and collateral quality ratings. Our ratings are aligned to Pass and Criticized categories. The Criticized category includes Special Mention, Substandard, and Doubtful categories which are defined by bank regulatory

agencies.

Table 5.8 provides a breakdown of outstanding commercial loans by risk category. Of the \$19.0 billion in criticized commercial and industrial loans and \$5.2 billion in criticized commercial real estate (CRE) loans at June 30, 2017, \$2.6 billion and \$664 million, respectively, have been placed on nonaccrual status and written down to net realizable collateral value.

Table 5.8: Commercial Loans by Risk Category

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Lease financing	Total
June 30, 2017					
By risk category:					
Pass	\$ 311,963	125,283	25,013	17,970	480,229
Criticized	19,019	4,875	311	1,204	25,409
Total commercial loans (excluding PCI)	330,982	130,158	25,324	19,174	505,638
Total commercial PCI loans (carrying value)	131	119	13	—	263
Total commercial loans	\$ 331,113	130,277	25,337	19,174	505,901
December 31, 2016					
By risk category:					
Pass	\$ 308,166	126,793	23,408	17,899	476,266
Criticized	22,437	5,315	451	1,390	29,593
Total commercial loans (excluding PCI)	330,603	132,108	23,859	19,289	505,859
Total commercial PCI loans (carrying value)	237	383	57	—	677
Total commercial loans	\$ 330,840	132,491	23,916	19,289	506,536

Table 5.9 provides past due information for commercial loans, which we monitor as part of our credit risk management practices.

Table 5.9: Commercial Loans by Delinquency Status

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Lease financing	Total
June 30, 2017					
By delinquency status:					
Current-29 days past due (DPD) and still accruing	\$ 327,614	129,360	25,148	18,970	501,092
30-89 DPD and still accruing	694	166	132	115	1,107
90+ DPD and still accruing	42	2	10	—	54
Nonaccrual loans	2,632	630	34	89	3,385
Total commercial loans (excluding PCI)	330,982	130,158	25,324	19,174	505,638
Total commercial PCI loans (carrying value)	131	119	13	—	263
Total commercial loans	\$ 331,113	130,277	25,337	19,174	505,901
December 31, 2016					
By delinquency status:					
Current-29 DPD and still accruing	\$ 326,765	131,165	23,776	19,042	500,748
30-89 DPD and still accruing	594	222	40	132	988
90+ DPD and still accruing	28	36	—	—	64
Nonaccrual loans	3,216	685	43	115	4,059
Total commercial loans (excluding PCI)	330,603	132,108	23,859	19,289	505,859
Total commercial PCI loans (carrying value)	237	383	57	—	677
Total commercial loans	\$ 330,840	132,491	23,916	19,289	506,536

CONSUMER CREDIT QUALITY INDICATORS We have various classes of consumer loans that present unique risks. Loan delinquency, FICO credit scores and LTV for loan types are common credit quality indicators that we monitor and utilize in our evaluation of the appropriateness of the allowance for credit losses for the consumer portfolio segment.

Many of our loss estimation techniques used for the allowance for credit losses rely on delinquency-based models; therefore, delinquency is an important indicator of credit quality and the establishment of our allowance for credit losses. Table 5.10 provides the outstanding balances of our consumer portfolio by delinquency status.

Table 5.10: Consumer Loans by Delinquency Status

(in millions)	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Credit card	Automobile	Other revolving credit and installment	Total
June 30, 2017						
By delinquency status:						
Current-29 DPD \$ 244,862						
30-59 DPD	1,607	273	254	1,085	130	3,349
60-89 DPD	637	151	185	298	88	1,359
90-119 DPD	269	81	142	100	79	671
120-179 DPD	245	90	268	5	30	638
180+ DPD	1,378	255	1	—	28	1,662
Government insured/guaranteed loans (1)	13,589	—	—	—	—	13,589
Total consumer loans (excluding PCI)	262,587	42,716	35,305	57,958	38,946	437,512
Total consumer PCI loans (carrying value)	13,979	31	—	—	—	14,010
Total consumer loans	\$ 276,566	42,747	35,305	57,958	38,946	451,522
December 31, 2016						
By delinquency status:						
Current-29 DPD \$ 239,061						
30-59 DPD	1,904	296	275	1,262	177	3,914
60-89 DPD	700	160	200	330	111	1,501
90-119 DPD	307	102	169	116	93	787
120-179 DPD	323	108	279	5	30	745
180+ DPD	1,661	297	4	1	22	1,985
Government insured/guaranteed loans (1)	15,605	—	—	—	—	15,605
Total consumer loans (excluding PCI)	259,561	46,201	36,700	62,286	40,266	445,014
Total consumer PCI loans (carrying value)	16,018	36	—	—	—	16,054
Total consumer loans	\$ 275,579	46,237	36,700	62,286	40,266	461,068

(1) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA. Loans insured/guaranteed by the FHA/VA and 90+ DPD totaled \$8.5 billion at June 30, 2017, compared with \$10.1 billion at December 31, 2016.

Of the \$3.0 billion of consumer loans not government insured/guaranteed that are 90 days or more past due at June 30, 2017, \$789 million was accruing, compared with \$3.5 billion past due and \$908 million accruing at December 31, 2016.

Real estate 1-4 family first mortgage loans 180 days or more past due totaled \$1.4 billion, or 0.5% of total first mortgages (excluding PCI), at June 30, 2017, compared with \$1.7 billion, or 0.6%, at December 31, 2016.

Note 5: Loans and Allowance for Credit Losses (continued)

Table 5.11 provides a breakdown of our consumer portfolio by FICO. The June 30, 2017 FICO scores for real estate 1-4 family first and junior lien mortgages reflect a new FICO score version we adopted in first quarter 2017 to monitor and manage those portfolios. In general the impact for us is a shift to higher scores, particularly to the 800+ level, as the new FICO score version utilizes a more refined approach that better distinguishes borrower credit risk. Most of the scored consumer portfolio has

an updated FICO of 680 and above, reflecting a strong current borrower credit profile. FICO is not available for certain loan types, or may not be required if we deem it unnecessary due to strong collateral and other borrower attributes. Substantially all loans not requiring a FICO score are securities-based loans originated through retail brokerage, and totaled \$8.2 billion at June 30, 2017, and \$8.0 billion at December 31, 2016.

Table 5.11: Consumer Loans by FICO

(in millions)	Real estate 1-4 family first mortgage (1)	Real estate 1-4 family junior lien mortgage (1)	Credit card	Automobile	Other revolving credit and installment (1)	Total
June 30, 2017						
By FICO:						
< 600						
600-639	\$ 3,917	1,422	2,932	6,468	945	15,684
640-679	7,322	2,689	5,399	8,741	2,068	26,219
680-719	15,579	5,269	7,195	9,676	3,743	41,462
720-759	28,480	6,756	7,544	8,282	5,307	56,369
760-799	54,249	7,792	6,018	6,739	6,481	81,279
800+	127,929	16,015	2,889	8,098	8,744	163,675
No FICO available	5,755	824	46	238	2,608	9,471
FICO not required	—	—	—	—	8,158	8,158
Government insured/guaranteed loans (2)	13,589	—	—	—	—	13,589
Total consumer loans (excluding PCI)	262,587	42,716	35,305	57,958	38,946	437,512
Total consumer PCI loans (carrying value)	13,979	31	—	—	—	14,010
Total consumer loans	\$ 276,566	42,747	35,305	57,958	38,946	451,522
December 31, 2016						
By FICO:						
< 600						
600-639	5,400	1,917	3,109	6,705	1,056	18,187
640-679	10,975	3,747	5,678	10,204	2,333	32,937
680-719	23,300	6,432	7,382	11,233	4,302	52,649
720-759	38,832	9,413	7,632	8,769	5,869	70,515
760-799	103,608	14,929	6,191	8,164	8,348	141,240
800+	49,508	6,391	2,868	6,856	6,434	72,057
No FICO available	5,613	781	365	421	2,906	10,086
FICO not required	—	—	—	—	8,042	8,042
Government insured/guaranteed loans (2)	15,605	—	—	—	—	15,605
Total consumer loans (excluding PCI)	259,561	46,201	36,700	62,286	40,266	445,014
Total consumer PCI loans (carrying value)	16,018	36	—	—	—	16,054
Total consumer loans	\$ 275,579	46,237	36,700	62,286	40,266	461,068

(1) The June 30, 2017, amounts reflect updated FICO score version implemented in first quarter 2017.

(2) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.

LTV refers to the ratio comparing the loan's unpaid principal balance to the property's collateral value. CLTV refers to the combination of first mortgage and junior lien mortgage (including unused line amounts for credit line products) ratios. LTVs and CLTVs are updated quarterly using a cascade approach which first uses values provided by automated valuation models (AVMs) for the property. If an AVM is not available, then the value is estimated using the original appraised value adjusted by the change in Home Price Index (HPI) for the property location. If an HPI is not available, the original appraised value is used. The HPI value is normally the only method considered for high value properties, generally with an original value of \$1 million or more, as the AVM values have proven less accurate for these properties.

Table 5.12 shows the most updated LTV and CLTV distribution of the real estate 1-4 family first and junior lien mortgage loan portfolios. We consider the trends in residential real estate markets as we monitor credit risk and establish our allowance for credit losses. In the event of a default, any loss should be limited to the portion of the loan amount in excess of the net realizable value of the underlying real estate collateral value. Certain loans do not have an LTV or CLTV due to industry data availability and portfolios acquired from or serviced by other institutions.

Table 5.12: Consumer Loans by LTV/CLTV

(in millions)	June 30, 2017			December 31, 2016		
	Real estate 1-4 family first mortgage by LTV	Real estate 1-4 family junior lien mortgage by CLTV	Total	Real estate 1-4 family first mortgage by LTV	Real estate 1-4 family junior lien mortgage by CLTV	Total
By LTV/CLTV:						
0-60%	\$ 124,277	15,923	140,200	121,430	16,464	137,894
60.01-80%	104,027	13,974	118,001	101,726	15,262	116,988
80.01-100%	16,229	7,827	24,056	15,795	8,765	24,560
100.01-120% (1)	2,334	3,158	5,492	2,644	3,589	6,233
> 120% (1)	981	1,359	2,340	1,066	1,613	2,679
No LTV/CLTV available	1,150	475	1,625	1,295	508	1,803
Government insured/guaranteed loans (2)	13,589	—	13,589	15,605	—	15,605
Total consumer loans (excluding PCI)	262,587	42,716	305,303	259,561	46,201	305,762
Total consumer PCI loans (carrying value)	13,979	31	14,010	16,018	36	16,054
Total consumer loans	\$ 276,566	42,747	319,313	275,579	46,237	321,816

(1) Reflects total loan balances with LTV/CLTV amounts in excess of 100%. In the event of default, the loss content would generally be limited to only the amount in excess of 100% LTV/CLTV.

(2) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.

NONACCRUAL LOANS Table 5.13 provides loans on nonaccrual status. PCI loans are excluded from this table because they continue to earn interest from accretable yield, independent of performance in accordance with their contractual terms.

Table 5.13: Nonaccrual Loans

(in millions)	Jun 30, 2017	Dec 31/ 2016
Commercial:		
Commercial and industrial	\$ 2,632	3,216
Real estate mortgage	630	685
Real estate construction	34	43
Lease financing	89	115
Total commercial	3,385	4,059
Consumer:		
Real estate 1-4 family first mortgage (1)	4,413	4,962
Real estate 1-4 family junior lien mortgage	1,095	1,206
Automobile	104	106
Other revolving credit and installment	59	51
Total consumer	5,671	6,325
Total nonaccrual loans (excluding PCI)	\$ 9,056	10,384

(1) Includes MHFS of \$140 million and \$149 million at June 30, 2017, and December 31, 2016, respectively.

LOANS IN PROCESS OF FORECLOSURE Our recorded investment in consumer mortgage loans collateralized by residential real estate property that are in process of foreclosure was \$7.0 billion and \$8.1 billion at June 30, 2017 and December 31, 2016, respectively, which included \$4.1 billion and \$4.8 billion, respectively, of loans that are government insured/guaranteed. We commence the foreclosure process on consumer real estate loans when a borrower becomes 120 days delinquent in accordance with Consumer Finance Protection Bureau Guidelines. Foreclosure procedures and timelines vary depending on whether the property address resides in a judicial or non-judicial state. Judicial states require the foreclosure to be processed through the state's courts while non-judicial states are processed without court intervention. Foreclosure timelines vary according to state law.

Note 5: Loans and Allowance for Credit Losses (continued)

LOANS 90 DAYS OR MORE PAST DUE AND STILL ACCRUING
 Certain loans 90 days or more past due as to interest or principal are still accruing, because they are (1) well-secured and in the process of collection or (2) real estate 1-4 family mortgage loans or consumer loans exempt under regulatory rules from being classified as nonaccrual until later delinquency, usually 120 days past due. PCI loans of \$1.5 billion at June 30, 2017, and \$2.0 billion at December 31, 2016, are not included in these past due and still accruing loans even when they are 90 days or more contractually past due. These PCI loans are considered to be accruing because they continue to earn interest from accretable yield, independent of performance in accordance with their contractual terms.

Table 5.14 shows non-PCI loans 90 days or more past due and still accruing by class for loans not government insured/guaranteed.

Table 5.14: Loans 90 Days or More Past Due and Still Accruing

(in millions)	Jun 30, 2017	Dec 31, 2016
Total (excluding PCI):	\$ 9,716	11,858
Less: FHA insured/guaranteed by the VA (1)(2)	8,873	10,883
Less: Student loans guaranteed under the Federal Family Education Loan Program (FFELP) (3)	—	3
Total, not government insured/ guaranteed	\$ 843	972
By segment and class, not government insured/guaranteed:		
Commercial:		
Commercial and industrial	\$ 42	28
Real estate mortgage	2	36
Real estate construction	10	—
Total commercial	54	64
Consumer:		
Real estate 1-4 family first mortgage (2)	145	175
Real estate 1-4 family junior lien mortgage (2)	44	56
Credit card	411	452
Automobile	91	112
Other revolving credit and installment	98	113
Total consumer	789	908
Total, not government insured/ guaranteed	\$ 843	972

(1) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.

(2) Includes mortgages held for sale 90 days or more past due and still accruing.

(3) Represents loans whose repayments are largely guaranteed by agencies on behalf of the U.S. Department of Education under the FFELP. All remaining student loans guaranteed under the FFELP were sold as of March 31, 2017.

IMPAIRED LOANS Table 5.15 summarizes key information for impaired loans. Our impaired loans predominantly include loans on nonaccrual status in the commercial portfolio segment and loans modified in a TDR, whether on accrual or nonaccrual status. These impaired loans generally have estimated losses which are included in the allowance for credit losses. We have impaired loans with no allowance for credit losses when loss content has been previously recognized through charge-offs and we do not anticipate additional charge-offs or losses, or certain

loans are currently performing in accordance with their terms and for which no loss has been estimated. Impaired loans exclude PCI loans. Table 5.15 includes trial modifications that totaled \$215 million at June 30, 2017, and \$299 million at December 31, 2016.

For additional information on our impaired loans and allowance for credit losses, see Note 1 (Summary of Significant Accounting Policies) in our 2016 Form 10-K.

Table 5.15: Impaired Loans Summary

(in millions)	Unpaid principal balance (1)	Recorded investment			Related allowance for credit losses		
		Impaired loans	Impaired loans with related allowance for credit losses				
June 30, 2017							
Commercial:							
Commercial and industrial	\$ 4,401	3,205	2,901	558			
Real estate mortgage	1,654	1,337	1,325	238			
Real estate construction	105	62	62	11			
Lease financing	126	92	92	23			
Total commercial	6,286	4,696	4,380	830			
Consumer:							
Real estate 1-4 family first mortgage	15,256	13,299	8,677	905			
Real estate 1-4 family junior lien mortgage	2,273	2,043	1,557	295			
Credit card	317	316	316	113			
Automobile	152	85	31	4			
Other revolving credit and installment	129	123	113	24			
Total consumer (2)	18,127	15,866	10,694	1,341			
Total impaired loans (excluding PCI)	\$ 24,413	20,562	15,074	2,171			
December 31, 2016							
Commercial:							
Commercial and industrial	\$ 5,058	3,742	3,418	675			
Real estate mortgage	1,777	1,418	1,396	280			
Real estate construction	167	93	93	22			
Lease financing	146	119	119	23			
Total commercial	7,148	5,372	5,026	1,000			
Consumer:							
Real estate 1-4 family first mortgage	16,438	14,362	9,475	1,117			
Real estate 1-4 family junior lien mortgage	2,399	2,156	1,681	350			
Credit card	300	300	300	104			
Automobile	153	85	31	5			
Other revolving credit and installment	109	102	91	17			
Total consumer (2)	19,399	17,005	11,578	1,593			
Total impaired loans (excluding PCI)	\$ 26,547	22,377	16,604	2,593			

(1) Excludes the unpaid principal balance for loans that have been fully charged off or otherwise have zero recorded investment.

(2) Includes the recorded investment of \$1.4 billion and \$1.5 billion at June 30, 2017 and December 31, 2016, respectively, of government insured/guaranteed loans that are predominantly insured by the FHA or guaranteed by the VA and generally do not have an allowance. Impaired loans may also have limited, if any, allowance when the recorded investment of the loan approximates estimated net realizable value as a result of charge-offs prior to a TDR modification.

Note 5: Loans and Allowance for Credit Losses (continued)

Commitments to lend additional funds on loans whose terms have been modified in a TDR amounted to \$747 million and \$403 million at June 30, 2017 and December 31, 2016, respectively.

Table 5.16 provides the average recorded investment in impaired loans and the amount of interest income recognized on impaired loans by portfolio segment and class.

Table 5.16: Average Recorded Investment in Impaired Loans

(in millions)	Quarter ended June 30,				Six months ended June 30,			
	2017		2016		2017		2016	
	Average recorded investment	Recognized interest income						
Commercial:								
Commercial and industrial	\$ 3,390	36	3,803	21	3,457	69	3,146	40
Real estate mortgage	1,371	24	1,695	34	1,397	51	1,730	66
Real estate construction	66	2	116	3	75	3	122	5
Lease financing	98	—	93	—	110	—	79	—
Total commercial	4,925	62	5,707	58	5,039	123	5,077	111
Consumer:								
Real estate 1-4 family first mortgage	13,602	185	16,278	211	13,866	375	16,595	432
Real estate 1-4 family junior lien mortgage	2,075	31	2,325	33	2,103	62	2,354	67
Credit card	313	9	293	8	308	17	295	17
Automobile	83	3	94	3	83	6	98	6
Other revolving credit and installment	114	2	84	2	110	4	80	3
Total consumer	16,187	230	19,074	257	16,470	464	19,422	525
Total impaired loans (excluding PCI)	\$ 21,112	292	24,781	315	21,509	587	24,499	636
Interest income:								
Cash basis of accounting	\$ 77			92		155		187
Other (1)	215			223		432		449
Total interest income	\$ 292			315		587		636

(1) Includes interest recognized on accruing TDRs, interest recognized related to certain impaired loans which have an allowance calculated using discounting, and amortization of purchase accounting adjustments related to certain impaired loans.

TROUBLED DEBT RESTRUCTURINGS (TDRs) When, for economic or legal reasons related to a borrower's financial difficulties, we grant a concession for other than an insignificant period of time to a borrower that we would not otherwise consider, the related loan is classified as a TDR, the balance of which totaled \$19.6 billion and \$20.8 billion at June 30, 2017 and December 31, 2016, respectively. We do not consider loan resolutions such as foreclosure or short sale to be a TDR.

We may require some consumer borrowers experiencing financial difficulty to make trial payments generally for a period of three to four months, according to the terms of a planned permanent modification, to determine if they can perform according to those terms. These arrangements represent trial modifications, which we classify and account for as TDRs. While loans are in trial payment programs, their original terms are not considered modified and they continue to advance through delinquency status and accrue interest according to their original terms.

Table 5.17 summarizes our TDR modifications for the periods presented by primary modification type and includes the financial effects of these modifications. For those loans that modify more than once, the table reflects each modification that occurred during the period. Loans that both modify and pay off

within the period, as well as changes in recorded investment during the period for loans modified in prior periods, are not included in the table.

Table 5.17: TDR Modifications

(in millions)	Primary modification type (1)				Financial effects of modifications		
	Principal (2)	Interest rate reduction	Other concessions (3)	Total	Charge-offs (4)	Weighted average interest rate reduction	Recorded investment related to interest rate reduction (5)
Quarter ended June 30, 2017							
Commercial:							
Commercial and industrial	\$ 17	13	914	944	29	0.88%	\$ 13
Real estate mortgage	4	25	137	166	13	1.36	25
Real estate construction	—	1	20	21	—	0.61	1
Lease financing	—	—	11	11	—	—	—
Total commercial	21	39	1,082	1,142	42	1.19	39
Consumer:							
Real estate 1-4 family first mortgage	74	45	234	353	3	2.55	83
Real estate 1-4 family junior lien mortgage	7	26	21	54	3	2.88	30
Credit card	—	57	—	57	—	12.48	57
Automobile	—	4	20	24	11	5.90	4
Other revolving credit and installment	—	16	1	17	1	7.27	15
Trial modifications (6)	—	—	(27)	(27)	—	—	—
Total consumer	81	148	249	478	18	6.07	189
Total	\$ 102	187	1,331	1,620	60	5.24%	\$ 228
Quarter ended June 30, 2016							
Commercial:							
Commercial and industrial	\$ —	35	697	732	137	2.29 %	\$ 35
Real estate mortgage	—	29	135	164	—	1.30	28
Real estate construction	—	14	18	32	—	1.05	14
Lease financing	—	—	—	—	—	—	—
Total commercial	—	78	850	928	137	1.70	77
Consumer:							
Real estate 1-4 family first mortgage	92	78	314	484	12	2.63	138
Real estate 1-4 family junior lien mortgage	6	27	33	66	11	3.11	33
Credit card	—	41	—	41	—	11.98	41
Automobile	1	3	14	18	8	6.40	3
Other revolving credit and installment	—	8	2	10	—	6.99	8
Trial modifications (6)	—	—	17	17	—	—	—
Total consumer	99	157	380	636	31	4.64	223
Total	\$ 99	235	1,230	1,564	168	3.88 %	\$ 300

Note 5: Loans and Allowance for Credit Losses (continued)

(in millions)	Primary modification type (1)				Financial effects of modifications		
	Principal (2)	Interest rate reduction	Other concessions (3)	Total	Charge-offs (4)	Weighted average interest rate reduction	Recorded investment related to interest rate reduction (5)
Six months ended June 30, 2017							
Commercial:							
Commercial and industrial	\$ 17	19	1,842	1,878	94	0.86%	\$ 19
Real estate mortgage	4	39	318	361	13	1.23	39
Real estate construction	—	1	23	24	—	0.69	1
Lease financing	—	—	14	14	—	—	—
Total commercial	21	59	2,197	2,277	107	1.10	59
Consumer:							
Real estate 1-4 family first mortgage	148	117	525	790	12	2.58	186
Real estate 1-4 family junior lien mortgage	20	47	44	111	9	2.91	54
Credit card	—	114	—	114	—	12.35	114
Automobile	1	7	32	40	18	6.14	7
Other revolving credit and installment	—	27	4	31	1	7.28	26
Trial modifications (6)	—	—	(44)	(44)	—	—	—
Total consumer	169	312	561	1,042	40	5.89	387
Total	\$ 190	371	2,758	3,319	147	5.25%	\$ 446
Six months ended June 30, 2016							
Commercial:							
Commercial and industrial	\$ 42	113	1,329	1,484	243	2.02 %	\$ 113
Real estate mortgage	—	53	294	347	—	1.22	52
Real estate construction	—	14	62	76	—	1.05	14
Lease financing	—	—	4	4	—	—	—
Total commercial	42	180	1,689	1,911	243	1.71	179
Consumer:							
Real estate 1-4 family first mortgage	188	143	764	1,095	25	2.72	257
Real estate 1-4 family junior lien mortgage	12	56	60	128	21	3.01	67
Credit card	—	85	—	85	—	11.96	85
Automobile	1	7	29	37	16	6.47	7
Other revolving credit and installment	—	16	5	21	1	6.53	16
Trial modifications (6)	—	—	32	32	—	—	—
Total consumer	201	307	890	1,398	63	4.79	432
Total	\$ 243	487	2,579	3,309	306	3.88 %	\$ 611

- (1) Amounts represent the recorded investment in loans after recognizing the effects of the TDR, if any. TDRs may have multiple types of concessions, but are presented only once in the first modification type based on the order presented in the table above. The reported amounts include loans remodified of \$602 million and \$301 million for the quarters ended June 30, 2017 and 2016, and \$1.3 billion and \$649 million, for the first half of 2017 and 2016, respectively.
- (2) Principal modifications include principal forgiveness at the time of the modification, contingent principal forgiveness granted over the life of the loan based on borrower performance, and principal that has been legally separated and deferred to the end of the loan, with a zero percent contractual interest rate.
- (3) Other concessions include loans discharged in bankruptcy, loan renewals, term extensions and other interest and noninterest adjustments, but exclude modifications that also forgive principal and/or reduce the contractual interest rate.
- (4) Charge-offs include write-downs of the investment in the loan in the period it is contractually modified. The amount of charge-off will differ from the modification terms if the loan has been charged down prior to the modification based on our policies. In addition, there may be cases where we have a charge-off/down with no legal principal modification. Modifications resulted in legally forgiving principal (actual, contingent or deferred) of \$10 million and \$19 million for the quarters ended June 30, 2017 and 2016, and \$19 million and \$38 million for the first half of 2017 and 2016, respectively.
- (5) Reflects the effect of reduced interest rates on loans with an interest rate concession as one of their concession types, which includes loans reported as a principal modification type that also have an interest rate concession.
- (6) Trial modifications are granted a delay in payments due under the original terms during the trial payment period. However, these loans continue to advance through delinquency status and accrue interest according to their original terms. Any subsequent permanent modification generally includes interest rate related concessions; however, the exact concession type and resulting financial effect are usually not known until the loan is permanently modified. Trial modifications for the period are presented net of previously reported trial modifications that became permanent in the current period.

Table 5.18 summarizes permanent modification TDRs that have defaulted in the current period within 12 months of their permanent modification date. We are reporting these defaulted TDRs based on a payment default definition of 90 days past due for the commercial portfolio segment and 60 days past due for the consumer portfolio segment.

Table 5.18: Defaulted TDRs

(in millions)	Recorded investment of defaults			
	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Commercial:				
Commercial and industrial	\$ 30	20	92	45
Real estate mortgage	10	31	31	51
Real estate construction	—	1	—	3
Total commercial	40	52	123	99
Consumer:				
Real estate 1-4 family first mortgage	26	30	51	61
Real estate 1-4 family junior lien mortgage	5	4	9	9
Credit card	17	13	32	26
Automobile	4	3	7	6
Other revolving credit and installment	1	1	2	2
Total consumer	53	51	101	104
Total	\$ 93	103	224	203

Purchased Credit-Impaired Loans

Substantially all of our PCI loans were acquired from Wachovia on December 31, 2008, at which time we acquired commercial and consumer loans with a carrying value of \$18.7 billion and \$40.1 billion, respectively. The unpaid principal balance on December 31, 2008 was \$98.2 billion for the total of commercial and consumer PCI loans. Table 5.19 presents PCI loans net of any remaining purchase accounting adjustments. Real estate 1-4 family first mortgage PCI loans are predominantly Pick-a-Pay loans.

Table 5.19: PCI Loans

(in millions)	Jun 30, 2017	Dec 31, 2016
Commercial:		
Commercial and industrial	\$ 131	237
Real estate mortgage	119	383
Real estate construction	13	57
Total commercial	263	677
Consumer:		
Real estate 1-4 family first mortgage	13,979	16,018
Real estate 1-4 family junior lien mortgage	31	36
Total consumer	14,010	16,054
Total PCI loans (carrying value)	\$ 14,273	16,731
Total PCI loans (unpaid principal balance)	\$ 20,928	24,136

Note 5: Loans and Allowance for Credit Losses (continued)

ACCRETABLE YIELD The excess of cash flows expected to be collected over the carrying value of PCI loans is referred to as the accretable yield and is recognized in interest income using an effective yield method over the remaining life of the loan, or pools of loans. The accretable yield is affected by:

- changes in interest rate indices for variable rate PCI loans – expected future cash flows are based on the variable rates in effect at the time of the regular evaluations of cash flows expected to be collected;
- changes in prepayment assumptions – prepayments affect the estimated life of PCI loans which may change the amount of interest income, and possibly principal, expected to be collected; and
- changes in the expected principal and interest payments over the estimated weighted-average life – updates to expected

cash flows are driven by the credit outlook and actions taken with borrowers. Changes in expected future cash flows from loan modifications are included in the regular evaluations of cash flows expected to be collected.

The change in the accretable yield related to PCI loans since the merger with Wachovia is presented in Table 5.20. Changes during the first half of 2017 reflect an expectation, as a result of our quarterly evaluation of PCI cash flows, that prepayment of modified Pick-a-Pay loans will increase over their estimated weighted-average life and that expected loss has decreased as a result of reduced loan to value ratios and sustained higher housing prices. Second quarter 2017 reflects a \$309 million gain on the sale of \$569 million Pick-a-Pay PCI loans.

Table 5.20: Change in Accretable Yield

(in millions)	Quarter ended June 30, 2017	Six months ended June 30, 2017	2009-2016
Balance, beginning of period	\$ 10,315	11,216	10,447
Change in accretable yield due to acquisitions	—	2	159
Accretion into interest income (1)	(374)	(731)	(15,577)
Accretion into noninterest income due to sales (2)	(309)	(334)	(467)
Reclassification from nonaccretable difference for loans with improving credit-related cash flows	—	406	10,955
Changes in expected cash flows that do not affect nonaccretable difference (3)	(263)	(1,190)	5,699
Balance, end of period	\$ 9,369	9,369	11,216

(1) Includes accretable yield released as a result of settlements with borrowers, which is included in interest income.

(2) Includes accretable yield released as a result of sales to third parties, which is included in noninterest income.

(3) Represents changes in cash flows expected to be collected due to the impact of modifications, changes in prepayment assumptions, changes in interest rates on variable rate PCI loans and sales to third parties.

COMMERCIAL PCI CREDIT QUALITY INDICATORS Table 5.21 provides a breakdown of commercial PCI loans by risk category.

Table 5.21: Commercial PCI Loans by Risk Category

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Total
June 30, 2017				
By risk category:				
Pass	\$ 7	84	4	95
Criticized	124	35	9	168
Total commercial PCI loans	\$ 131	119	13	263
December 31, 2016				
By risk category:				
Pass	\$ 92	263	47	402
Criticized	145	120	10	275
Total commercial PCI loans	\$ 237	383	57	677

Table 5.22 provides past due information for commercial PCI loans.

Table 5.22: Commercial PCI Loans by Delinquency Status

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Total
June 30, 2017				
By delinquency status:				
Current-29 DPD and still accruing	\$ 129	108	13	250
30-89 DPD and still accruing	2	—	—	2
90+ DPD and still accruing	—	11	—	11
Total commercial PCI loans	\$ 131	119	13	263
December 31, 2016				
By delinquency status:				
Current-29 DPD and still accruing	\$ 235	353	48	636
30-89 DPD and still accruing	2	10	—	12
90+ DPD and still accruing	—	20	9	29
Total commercial PCI loans	\$ 237	383	57	677

CONSUMER PCI CREDIT QUALITY INDICATORS Our consumer PCI loans were aggregated into several pools of loans at acquisition. Below, we have provided credit quality indicators based on the unpaid principal balance (adjusted for write-downs) of the individual loans included in the pool, but we have not

allocated the remaining purchase accounting adjustments, which were established at a pool level. Table 5.23 provides the delinquency status of consumer PCI loans.

Table 5.23: Consumer PCI Loans by Delinquency Status

(in millions)	June 30, 2017			December 31, 2016		
	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total
By delinquency status:						
Current-29 DPD and still accruing	\$ 14,524	158	14,682	16,095	171	16,266
30-59 DPD and still accruing	1,229	5	1,234	1,488	7	1,495
60-89 DPD and still accruing	574	3	577	668	2	670
90-119 DPD and still accruing	224	1	225	233	2	235
120-179 DPD and still accruing	155	2	157	238	2	240
180+ DPD and still accruing	1,606	6	1,612	2,081	8	2,089
Total consumer PCI loans (adjusted unpaid principal balance)	\$ 18,312	175	18,487	20,803	192	20,995
Total consumer PCI loans (carrying value)	\$ 13,979	31	14,010	16,018	36	16,054

Note 5: Loans and Allowance for Credit Losses (continued)

Table 5.24 provides FICO scores for consumer PCI loans.

Table 5.24: Consumer PCI Loans by FICO

(in millions)	June 30, 2017 (1)			December 31, 2016		
	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total
By FICO:						
< 600	\$ 4,450	42	4,492	4,292	46	4,338
600-639	2,342	22	2,364	3,001	26	3,027
640-679	2,599	30	2,629	3,972	35	4,007
680-719	2,438	32	2,470	3,170	37	3,207
720-759	1,845	25	1,870	1,767	24	1,791
760-799	930	12	942	962	15	977
800+	446	6	452	254	4	258
No FICO available	3,262	6	3,268	3,385	5	3,390
Total consumer PCI loans (adjusted unpaid principal balance)	\$ 18,312	175	18,487	20,803	192	20,995
Total consumer PCI loans (carrying value)	\$ 13,979	31	14,010	16,018	36	16,054

(1) June 30, 2017 amounts reflect updated FICO score version implemented in first quarter 2017.

Table 5.25 shows the distribution of consumer PCI loans by LTV for real estate 1-4 family first mortgages and by CLTV for real estate 1-4 family junior lien mortgages.

Table 5.25: Consumer PCI Loans by LTV/CLTV

(in millions)	June 30, 2017			December 31, 2016		
	Real estate 1-4 family first mortgage by LTV	Real estate 1-4 family junior lien mortgage by CLTV	Total	Real estate 1-4 family first mortgage by LTV	Real estate 1-4 family junior lien mortgage by CLTV	Total
By LTV/CLTV:						
0-60%	\$ 7,316	40	7,356	7,513	38	7,551
60.01-80%	7,604	70	7,674	9,000	76	9,076
80.01-100%	2,750	45	2,795	3,458	54	3,512
100.01-120% (1)	517	14	531	669	18	687
> 120% (1)	124	5	129	161	5	166
No LTV/CLTV available	1	1	2	2	1	3
Total consumer PCI loans (adjusted unpaid principal balance)	\$ 18,312	175	18,487	20,803	192	20,995
Total consumer PCI loans (carrying value)	\$ 13,979	31	14,010	16,018	36	16,054

(1) Reflects total loan balances with LTV/CLTV amounts in excess of 100%. In the event of default, the loss content would generally be limited to only the amount in excess of 100% LTV/CLTV.

Note 6: Other Assets

Table 6.1 presents the components of other assets.

Table 6.1: Other Assets

(in millions)	Jun 30, 2017	Dec 31, 2016
Nonmarketable equity investments:		
Cost method:		
Federal bank stock	\$ 5,820	6,407
Private equity	1,367	1,465
Auction rate securities	420	525
Total cost method	7,607	8,397
Equity method:		
LIHTC (1)	9,828	9,714
Private equity	3,740	3,635
Tax-advantaged renewable energy	1,960	2,054
New market tax credit and other	295	305
Total equity method	15,823	15,708
Fair value (2)	3,986	3,275
Total nonmarketable equity investments	27,416	27,380
Corporate/bank-owned life insurance	19,430	19,325
Accounts receivable (3)	41,853	31,056
Interest receivable	5,401	5,339
Core deposit intangibles	1,193	1,620
Customer relationship and other amortized intangibles	940	1,089
Foreclosed assets:		
Residential real estate:		
Government insured/guaranteed (3)	149	197
Non-government insured/guaranteed	285	378
Non-residential real estate	347	403
Operating lease assets	9,713	10,089
Due from customers on acceptances	192	196
Other	12,047	17,469
Total other assets	\$ 118,966	114,541

(1) Represents low income housing tax credit investments.

(2) Represents nonmarketable equity investments for which we have elected the fair value option. See Note 13 (Fair Values of Assets and Liabilities) for additional information.

(3) Certain government-guaranteed residential real estate mortgage loans upon foreclosure are included in Accounts receivable. Both principal and interest related to these foreclosed real estate assets are collectible because the loans were predominantly insured by the FHA or guaranteed by the VA. For more information on the classification of certain government-guaranteed mortgage loans upon foreclosure, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 10-K.

Table 6.2 presents income (expense) related to nonmarketable equity investments.

Table 6.2: Nonmarketable Equity Investments

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Net realized gains from nonmarketable equity investments	\$ 87	129	\$ 374	314
All other	(195)	(135)	(240)	(321)
Total	\$ (108)	(6)	\$ 134	(7)

Low Income Housing Tax Credit Investments We invest in affordable housing projects that qualify for the low income housing tax credit (LIHTC), which is designed to promote private development of low income housing. These investments generate a return mostly through realization of federal tax credits.

Total LIHTC investments were \$9.8 billion and \$9.7 billion at June 30, 2017 and December 31, 2016, respectively. In second quarter and first half of 2017, we recognized pre-tax losses of \$227 million and \$457 million, respectively, related to our LIHTC investments, compared with \$199 million and \$401 million, respectively, for the same periods a year ago. We also recognized total tax benefits of \$347 million and \$694 million in second quarter and first half of 2017, which included tax credits recorded in income taxes of \$260 million and \$521 million for the same periods, respectively. In the second quarter and first half of 2016, total tax benefits were \$304 million and \$611 million, respectively, which included tax credits of \$230 million and \$460 million for the same periods, respectively. We are periodically required to provide additional financial support during the investment period. Our liability for these unfunded commitments was \$3.3 billion at June 30, 2017 and \$3.6 billion at December 31, 2016. Predominantly all of this liability is expected to be paid over the next three years. This liability is included in long-term debt.

Note 7: Securizations and Variable Interest Entities

Involvement with SPEs

In the normal course of business, we enter into various types of on- and off-balance sheet transactions with SPEs, which are corporations, trusts, limited liability companies or partnerships that are established for a limited purpose. Generally, SPEs are formed in connection with securitization transactions and are considered variable interest entities (VIEs). For further description of our involvement with SPEs, see Note 8 (Securizations and Variable Interest Entities) to Financial Statements in our 2016 Form 10-K.

We have segregated our involvement with VIEs between those VIEs which we consolidate, those which we do not consolidate and those for which we account for the transfers of financial assets as secured borrowings. Secured borrowings are transactions involving transfers of our financial assets to third parties that are accounted for as financings with the assets pledged as collateral. Accordingly, the transferred assets remain recognized on our balance sheet. Subsequent tables within this Note further segregate these transactions by structure type.

Table 7.1 provides the classifications of assets and liabilities in our balance sheet for our transactions with VIEs.

Table 7.1: Balance Sheet Transactions with VIEs

(in millions)	VIEs that we do not consolidate	VIEs that we consolidate	Transfers that we account for as secured borrowings	Total
June 30, 2017				
Cash	\$ —	112	—	112
Federal funds sold, securities purchased under resale agreements and other short-term investments	—	424	—	424
Trading assets	1,431	50	201	1,682
Investment securities (1)	5,145	—	381	5,526
Loans	5,456	12,096	121	17,673
Mortgage servicing rights	13,337	—	—	13,337
Derivative assets	77	—	—	77
Other assets	10,321	339	6	10,666
Total assets	35,767	13,021	709	49,497
Short-term borrowings	—	—	539	539
Derivative liabilities	92	28 (2)	—	120
Accrued expenses and other liabilities	235	96 (2)	1	332
Long-term debt	3,282	2,835 (2)	122	6,239
Total liabilities	3,609	2,959	662	7,230
Noncontrolling interests	—	86	—	86
Net assets	\$ 32,158	9,976	47	42,181
December 31, 2016				
Cash	\$ —	168	—	168
Federal funds sold, securities purchased under resale agreements and other short-term investments	—	74	—	74
Trading assets	2,034	130	201	2,365
Investment securities (1)	8,530	—	786	9,316
Loans	6,698	12,589	138	19,425
Mortgage servicing rights	13,386	—	—	13,386
Derivative assets	91	1	—	92
Other assets	10,281	452	11	10,744
Total assets	41,020	13,414	1,136	55,570
Short-term borrowings	—	—	905	905
Derivative liabilities	59	33 (2)	—	92
Accrued expenses and other liabilities	306	107 (2)	2	415
Long-term debt	3,598	3,694 (2)	136	7,428
Total liabilities	3,963	3,834	1,043	8,840
Noncontrolling interests	—	138	—	138
Net assets	\$ 37,057	9,442	93	46,592

(1) Excludes certain debt securities related to loans serviced for the Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC) and GNMA.

(2) There were no VIE liabilities with recourse to the general credit of Wells Fargo for the periods presented.

Transactions with Unconsolidated VIEs

Our transactions with unconsolidated VIEs include securitizations of residential mortgage loans, CRE loans, student loans, automobile loans and leases, certain dealer floorplan loans; investment and financing activities involving collateralized debt obligations (CDOs) backed by asset-backed and CRE securities, tax credit structures, collateralized loan obligations (CLOs) backed by corporate loans, and other types of structured financing. We have various forms of involvement with VIEs, including servicing, holding senior or subordinated interests, entering into liquidity arrangements, credit default swaps and other derivative contracts. Involvements with these unconsolidated VIEs are recorded on our balance sheet in trading assets, investment securities, loans, MSRs, derivative assets and liabilities, other assets, other liabilities, and long-term debt, as appropriate.

Table 7.2 provides a summary of unconsolidated VIEs with which we have significant continuing involvement, but we are not the primary beneficiary. We do not consider our continuing involvement in an unconsolidated VIE to be significant when it relates to third-party sponsored VIEs for which we were not the transferor (unless we are servicer and have other significant forms of involvement) or if we were the sponsor only or sponsor

and servicer but do not have any other forms of significant involvement.

Significant continuing involvement includes transactions where we were the sponsor or transferor and have other significant forms of involvement. Sponsorship includes transactions with unconsolidated VIEs where we solely or materially participated in the initial design or structuring of the entity or marketing of the transaction to investors. When we transfer assets to a VIE and account for the transfer as a sale, we are considered the transferor. We consider investments in securities (other than those held temporarily in trading), loans, guarantees, liquidity agreements, written options and servicing of collateral to be other forms of involvement that may be significant. We have excluded certain transactions with unconsolidated VIEs from the balances presented in the following table where we have determined that our continuing involvement is not significant due to the temporary nature and size of our variable interests, because we were not the transferor or because we were not involved in the design of the unconsolidated VIEs. We also exclude from the table secured borrowing transactions with unconsolidated VIEs (for information on these transactions, see the Transactions with Consolidated VIEs and Secured Borrowings section in this Note).

Table 7.2: Unconsolidated VIEs

(in millions)	Total VIE assets	Carrying value – asset (liability)				
		Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Net assets
June 30, 2017						
Residential mortgage loan securitizations:						
Conforming (2)	\$ 1,171,325	2,299	12,394	—	(180)	14,513
Other/nonconforming	16,198	801	90	—	(2)	889
Commercial mortgage securitizations	144,257	2,556	853	75	(33)	3,451
Collateralized debt obligations:						
Debt securities	1,157	—	—	—	(20)	(20)
Loans (3)	1,511	1,473	—	—	—	1,473
Asset-based finance structures	4,862	3,755	—	—	—	3,755
Tax credit structures	29,774	10,811	—	—	(3,282)	7,529
Collateralized loan obligations	29	8	—	—	—	8
Investment funds	214	54	—	—	—	54
Other (4)	2,611	596	—	(90)	—	506
Total	\$ 1,371,938	22,353	13,337	(15)	(3,517)	32,158
Maximum exposure to loss						
		Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Total exposure
Residential mortgage loan securitizations:						
Conforming	\$ 2,299	12,394	—	875	15,568	
Other/nonconforming	801	90	—	2	893	
Commercial mortgage securitizations	2,556	853	79	9,767	13,255	
Collateralized debt obligations:						
Debt securities	—	—	—	20	20	
Loans (3)	1,473	—	—	—	1,473	
Asset-based finance structures	3,755	—	—	71	3,826	
Tax credit structures	10,811	—	—	1,024	11,835	
Collateralized loan obligations	8	—	—	—	8	
Investment funds	54	—	—	—	54	
Other (4)	596	—	107	158	861	
Total	\$ 22,353	13,337	186	11,917	47,793	

(continued on following page)

Note 7: Securizations and Variable Interest Entities (continued)

(continued from previous page)

(in millions)	Total VIE assets	Carrying value – asset (liability)				
		Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Net assets
December 31, 2016						
Residential mortgage loan securizations:						
Conforming (2)	\$ 1,166,296	3,026	12,434	—	(232)	15,228
Other/nonconforming	18,805	873	109	—	(2)	980
Commercial mortgage securizations	166,596	4,258	843	87	(35)	5,153
Collateralized debt obligations:						
Debt securities	1,472	—	—	—	(25)	(25)
Loans (3)	1,545	1,507	—	—	—	1,507
Asset-based finance structures	9,152	6,522	—	—	—	6,522
Tax credit structures	29,713	10,669	—	—	(3,609)	7,060
Collateralized loan obligations	78	10	—	—	—	10
Investment funds	214	48	—	—	—	48
Other (4)	1,733	630	—	(56)	—	574
Total	\$ 1,395,604	27,543	13,386	31	(3,903)	37,057
Maximum exposure to loss						
Residential mortgage loan securizations:						
Conforming	\$ 3,026	12,434	—	979	16,439	
Other/nonconforming	873	109	—	2	984	
Commercial mortgage securizations	4,258	843	94	9,566	14,761	
Collateralized debt obligations:						
Debt securities	—	—	—	25	25	
Loans (3)	1,507	—	—	—	—	1,507
Asset-based finance structures	6,522	—	—	72	6,594	
Tax credit structures	10,669	—	—	1,104	11,773	
Collateralized loan obligations	10	—	—	—	—	10
Investment funds	48	—	—	—	—	48
Other (4)	630	—	93	—	—	723
Total	\$ 27,543	13,386	187	11,748	52,864	

(1) Includes total equity interests of \$10.3 billion at both June 30, 2017, and December 31, 2016. Also includes debt interests in the form of both loans and securities. Excludes certain debt securities held related to loans serviced for FNMA, FHLMC and GNMA.

(2) Excludes assets and related liabilities with a recorded carrying value on our balance sheet of \$1.1 billion and \$1.2 billion at June 30, 2017, and December 31, 2016, respectively, for certain delinquent loans that are eligible for repurchase from GNMA loan securizations. The recorded carrying value represents the amount that would be payable if the Company was to exercise the repurchase option. The carrying amounts are excluded from the table because the loans eligible for repurchase do not represent interests in the VIEs.

(3) Represents senior loans to trusts that are collateralized by asset-backed securities. The trusts invest in senior tranches from a diversified pool of U.S. asset securizations, of which all are current and 100% were rated as investment grade by the primary rating agencies at both June 30, 2017, and December 31, 2016. These senior loans are accounted for at amortized cost and are subject to the Company's allowance and credit charge-off policies.

(4) Includes structured financing and credit-linked note structures. Also contains investments in auction rate securities (ARS) issued by VIEs that we do not sponsor and, accordingly, are unable to obtain the total assets of the entity.

In Table 7.2, “Total VIE assets” represents the remaining principal balance of assets held by unconsolidated VIEs using the most current information available. For VIEs that obtain exposure to assets synthetically through derivative instruments, the remaining notional amount of the derivative is included in the asset balance. “Carrying value” is the amount in our consolidated balance sheet related to our involvement with the unconsolidated VIEs. “Maximum exposure to loss” from our involvement with off-balance sheet entities, which is a required disclosure under GAAP, is determined as the carrying value of our involvement with off-balance sheet (unconsolidated) VIEs plus the remaining undrawn liquidity and lending commitments, the notional amount of net written derivative contracts, and generally the notional amount of, or stressed loss estimate for, other commitments and guarantees. It represents estimated loss that would be incurred under severe, hypothetical circumstances, for which we believe the possibility is extremely remote, such as where the value of our interests and any associated collateral declines to zero, without any consideration of recovery or offset from any economic hedges. Accordingly, this required disclosure is not an indication of expected loss.

For complete descriptions of our types of transactions with unconsolidated VIEs with which we have a significant continuing involvement, but we are not the primary beneficiary, see Note 8

(Securizations and Variable Interest Entities) to Financial Statements in our 2016 Form 10-K.

INVESTMENT FUNDS Subsequent to adopting ASU 2015-02 (*Amendments to the Consolidation Analysis*) in first quarter 2016, we do not consolidate these investment funds because we do not hold variable interests that are considered significant to the funds.

We voluntarily waived a portion of our management fees for certain money market funds that are exempt from the consolidation analysis to ensure the funds maintained a minimum level of daily net investment income. The amount of fees waived in the second quarter and first half of 2017 was \$13 million and \$27 million, respectively, compared with \$26 million and \$56 million, respectively, in the same periods of 2016.

OTHER TRANSACTIONS WITH VIEs Other VIEs include certain entities that issue auction rate securities (ARS) which are debt instruments with long-term maturities, that re-price more frequently, and preferred equities with no maturity. At June 30, 2017, we held \$420 million of ARS issued by VIEs compared with \$453 million at December 31, 2016. We acquired the ARS pursuant to agreements entered into in 2008 and 2009.

We do not consolidate the VIEs that issued the ARS because we do not have power over the activities of the VIEs.

TRUST PREFERRED SECURITIES VIEs that we wholly own issue debt securities or preferred equity to third party investors. All of the proceeds of the issuance are invested in debt securities or preferred equity that we issue to the VIEs. The VIEs' operations and cash flows relate only to the issuance, administration and repayment of the securities held by third parties. We do not consolidate these VIEs because the sole assets of the VIEs are receivables from us, even though we own all of the voting equity shares of the VIEs, have fully guaranteed the obligations of the VIEs and may have the right to redeem the third party securities under certain circumstances. In our consolidated balance sheet at June 30, 2017, and December 31, 2016, we reported the debt securities issued to the VIEs as long-term junior subordinated debt with a carrying value of \$2.0 billion and \$2.1 billion, respectively, and the preferred equity securities issued to the VIEs as preferred stock with a carrying value of \$2.5 billion at both dates. These amounts are in addition to the involvements in these VIEs included in the preceding table.

Table 7.3: Cash Flows From Sales and Securitization Activity

(in millions)	2017		2016	
	Mortgage loans	Other financial assets	Mortgage loans	Other financial assets
Quarter ended June 30,				
Proceeds from securitizations and whole loan sales	\$ 52,824	4	66,455	83
Fees from servicing rights retained	840	—	864	—
Cash flows from other interests held (1)	641	—	627	—
Repurchases of assets/loss reimbursements (2):				
Non-agency securitizations and whole loan transactions	5	—	15	—
Agency securitizations (3)	23	—	35	—
Servicing advances, net of repayments	(20)	—	(39)	—
Six months ended June 30,				
Proceeds from securitizations and whole loan sales	\$ 111,081	25	111,471	133
Fees from servicing rights retained	1,694	—	1,745	—
Cash flows from other interests held (1)	1,475	—	1,034	1
Repurchases of assets/loss reimbursements (2):				
Non-agency securitizations and whole loan transactions	7	—	18	—
Agency securitizations (3)	46	—	82	—
Servicing advances, net of repayments	(162)	—	(107)	—

(1) Cash flows from other interests held include principal and interest payments received on retained bonds and excess cash flows received on interest-only strips.

(2) Consists of cash paid to repurchase loans from investors and cash paid to investors to reimburse them for losses on individual loans that are already liquidated.

(3) Represent loans repurchased from GNMA, FNMA, and FHLMC under representation and warranty provisions included in our loan sales contracts. Second quarter and first half of 2017 exclude \$1.6 billion and \$3.9 billion, respectively in delinquent insured/guaranteed loans that we service and have exercised our option to purchase out of GNMA pools, compared with \$2.0 billion and \$4.9 billion, respectively, in the same periods of 2016. These loans are predominantly insured by the FHA or guaranteed by the VA.

In the second quarter and first half of 2017, we recognized net gains of \$393 million and \$525 million, respectively, from transfers accounted for as sales of financial assets, compared with \$100 million and \$295 million, respectively, in the same periods of 2016. These net gains primarily relate to commercial mortgage securitizations and residential mortgage securitizations where the loans were not already carried at fair value.

Sales with continuing involvement during the second quarter and first half of 2017 and 2016 largely related to securitizations of residential mortgages that are sold to the government-sponsored entities (GSEs), including FNMA, FHLMC and GNMA (conforming residential mortgage securitizations). During the second quarter and first half of 2017, we transferred \$49.7 billion

In the first half of 2017, we redeemed \$150 million of trust preferred securities which were partially included in Tier 2 capital (50% credit in 2017) in the transitional framework and were not included under the fully-phased framework under the Basel III standards.

Loan Sales and Securitization Activity

We periodically transfer consumer and CRE loans and other types of financial assets in securitization and whole loan sale transactions. We typically retain the servicing rights from these sales and may continue to hold other beneficial interests in the transferred financial assets. We may also provide liquidity to investors in the beneficial interests and credit enhancements in the form of standby letters of credit. Through these transfers we may be exposed to liability under limited amounts of recourse as well as standard representations and warranties we make to purchasers and issuers. Table 7.3 presents the cash flows for our transfers accounted for as sales.

and \$105.2 billion, respectively, in fair value of residential mortgages to unconsolidated VIEs and third-party investors and recorded the transfers as sales, compared with \$65.0 billion and \$102.3 billion, respectively, in the same periods of 2016. Substantially all of these transfers did not result in a gain or loss because the loans were already carried at fair value. In connection with all of these transfers, in the first half of 2017, we recorded a \$957 million servicing asset, measured at fair value using a Level 3 measurement technique, securities of \$3.5 billion, classified as Level 2, and a \$14 million liability for repurchase losses which reflects management's estimate of probable losses related to various representations and warranties for the loans transferred, initially measured at fair value. In the first half of

Note 7: Securizations and Variable Interest Entities (continued)

2016, we recorded a \$764 million servicing asset, securities of \$3.2 billion, and a \$15 million liability.

Table 7.4 presents the key weighted-average assumptions we used to measure residential mortgage servicing rights at the date of securitization.

Table 7.4: Residential Mortgage Servicing Rights

	Residential mortgage servicing rights	
	2017	2016
Quarter ended June 30,		
Prepayment speed (1)	12.8%	12.1
Discount rate	6.9	6.7
Cost to service (\$ per loan) (2)	\$ 152	141
Six months ended June 30,		
Prepayment speed (1)	11.5%	12.5
Discount rate	6.8	6.8
Cost to service (\$ per loan) (2)	\$ 142	143

(1) The prepayment speed assumption for residential mortgage servicing rights includes a blend of prepayment speeds and default rates. Prepayment speed assumptions are influenced by mortgage interest rate inputs as well as our estimation of drivers of borrower behavior.

(2) Includes costs to service and unreimbursed foreclosure costs, which can vary period to period depending on the mix of modified government-guaranteed loans sold to GNMA.

During the second quarter and first half of 2017, we transferred \$3.3 billion and \$6.6 billion, respectively, in carrying value of commercial mortgages to unconsolidated VIEs and third-party investors and recorded the transfers as sales, compared with \$1.8 billion and \$9.9 billion, respectively, in the same periods of 2016. These transfers resulted in gains of \$80 million and \$176 million in the second quarter and first half of 2017, respectively, because the loans were carried at lower of cost or market value (LOCOM), compared with gains of \$58 million and \$193 million, respectively, in the same periods of 2016. In connection with these transfers, in the first half of 2017, we recorded a servicing asset of \$82 million, initially measured at fair value using a Level 3 measurement technique, and securities of \$65 million, classified as Level 2. In the first half of 2016, we recorded a servicing asset of \$135 million and securities of \$86 million.

Retained Interests from Unconsolidated VIEs

Table 7.5 provides key economic assumptions and the sensitivity of the current fair value of residential mortgage servicing rights and other interests held to immediate adverse changes in those assumptions. “Other interests held” relate to residential and commercial mortgage loan securitizations. Residential mortgage-backed securities retained in securitizations issued through GSEs, such as FNMA, FHLMC and GNMA, are excluded from the table because these securities have a remote risk of credit loss due to

the GSE guarantee. These securities also have economic characteristics similar to GSE mortgage-backed securities that we purchase, which are not included in the table. Subordinated interests include only those bonds whose credit rating was below AAA by a major rating agency at issuance. Senior interests include only those bonds whose credit rating was AAA by a major rating agency at issuance. The information presented excludes trading positions held in inventory.

Table 7.5: Retained Interests from Unconsolidated VIEs

(\$ in millions, except cost to service amounts)	Residential mortgage servicing rights (1)	Other interests held			
		Consumer		Commercial (2)	
		Interest- only strips	Subordinated bonds	Subordinated bonds	Senior bonds
Fair value of interests held at June 30, 2017	\$ 12,789	24	—	487	538
Expected weighted-average life (in years)	6.2	3.8	0.0	5.5	5.3
Key economic assumptions:					
Prepayment speed assumption (3)	10.5%	17.3	—		
Decrease in fair value from:					
10% adverse change	\$ 560	1	—		
25% adverse change	1,326	2	—		
Discount rate assumption	6.8%	13.4	—	4.0	2.8
Decrease in fair value from:					
100 basis point increase	\$ 632	—	—	21	24
200 basis point increase	1,206	1	—	40	46
Cost to service assumption (\$ per loan)	149				
Decrease in fair value from:					
10% adverse change	484				
25% adverse change	1,210				
Credit loss assumption				—%	2.4
Decrease in fair value from:					
10% higher losses			\$	—	—
25% higher losses			—	—	—
Fair value of interests held at December 31, 2016	\$ 12,959	28	1	249	552
Expected weighted-average life (in years)	6.3	3.9	8.3	3.1	5.1
Key economic assumptions:					
Prepayment speed assumption (3)	10.3 %	17.4	13.5		
Decrease in fair value from:					
10% adverse change	\$ 583	1	—		
25% adverse change	1,385	2	—		
Discount rate assumption	6.8 %	13.3	10.7	5.2	2.7
Decrease in fair value from:					
100 basis point increase	\$ 649	1	—	7	23
200 basis point increase	1,239	1	—	12	45
Cost to service assumption (\$ per loan)	155				
Decrease in fair value from:					
10% adverse change	515				
25% adverse change	1,282				
Credit loss assumption				3.0 %	4.7
Decrease in fair value from:					
10% higher losses			\$	—	—
25% higher losses			—	—	—

(1) See narrative following this table for a discussion of commercial mortgage servicing rights.

(2) Prepayment speed assumptions do not significantly impact the value of commercial mortgage securitization bonds as the underlying commercial mortgage loans experience significantly lower prepayments due to certain contractual restrictions, impacting the borrower's ability to prepay the mortgage.

(3) The prepayment speed assumption for residential mortgage servicing rights includes a blend of prepayment speeds and default rates. Prepayment speed assumptions are influenced by mortgage interest rate inputs as well as our estimation of drivers of borrower behavior.

Note 7: Securizations and Variable Interest Entities (continued)

In addition to residential mortgage servicing rights (MSRs) included in the previous table, we have a small portfolio of commercial MSRs with a fair value of \$2.0 billion at both June 30, 2017, and December 31, 2016. The nature of our commercial MSRs, which are carried at LOCOM, is different from our residential MSRs. Prepayment activity on serviced loans does not significantly impact the value of commercial MSRs because, unlike residential mortgages, commercial mortgages experience significantly lower prepayments due to certain contractual restrictions, impacting the borrower's ability to prepay the mortgage. Additionally, for our commercial MSR portfolio, we are typically master/primary servicer, but not the special servicer, who is separately responsible for the servicing and workout of delinquent and foreclosed loans. It is the special servicer, similar to our role as servicer of residential mortgage loans, who is affected by higher servicing and foreclosure costs due to an increase in delinquent and foreclosed loans. Accordingly, prepayment speeds and costs to service are not key assumptions for commercial MSRs as they do not significantly impact the valuation. The primary economic driver impacting the fair value of our commercial MSRs is forward interest rates, which are derived from market observable yield curves used to price capital markets instruments. Market interest rates significantly affect interest earned on custodial deposit balances. The sensitivity of the current fair value to an immediate adverse 25% change in the assumption about interest earned on deposit balances at June 30, 2017, and December 31, 2016, results in a decrease in fair value of \$225 million and \$259 million, respectively. See Note 8 (Mortgage Banking Activities) for further information on our commercial MSRs.

We also have a loan to an unconsolidated third party VIE that we extended in fourth quarter 2014 in conjunction with our sale of government guaranteed student loans. The loan is carried at amortized cost and approximates fair value at June 30, 2017, and December 31, 2016. The carrying amount of the loan at June 30, 2017, and December 31, 2016, was \$2.1 billion and \$3.2 billion, respectively. The estimated fair value of the loan is considered a Level 3 measurement that is determined using

discounted cash flows that are based on changes in the discount rate due to changes in the risk premium component (credit spreads). The primary economic assumption impacting the fair value of our loan is the discount rate. Changes in the credit loss assumption are not expected to affect the estimated fair value of the loan due to the government guarantee of the underlying collateral. The sensitivity of the current fair value to an immediate adverse increase of 200 basis points in the risk premium component of the discount rate assumption is a decrease in fair value of \$45 million and \$154 million at June 30, 2017, and December 31, 2016, respectively.

The sensitivities in the preceding paragraphs and table are hypothetical and caution should be exercised when relying on this data. Changes in value based on variations in assumptions generally cannot be extrapolated because the relationship of the change in the assumption to the change in value may not be linear. Also, the effect of a variation in a particular assumption on the value of the other interests held is calculated independently without changing any other assumptions. In reality, changes in one factor may result in changes in others (for example, changes in prepayment speed estimates could result in changes in the credit losses), which might magnify or counteract the sensitivities.

Off-Balance Sheet Loans

Table 7.6 presents information about the principal balances of off-balance sheet loans that were sold or securitized, including residential mortgage loans sold to FNMA, FHLMC, GNMA and other investors, for which we have some form of continuing involvement (including servicer). Delinquent loans include loans 90 days or more past due and loans in bankruptcy, regardless of delinquency status. For loans sold or securitized where servicing is our only form of continuing involvement, we would only experience a loss if we were required to repurchase a delinquent loan or foreclosed asset due to a breach in representations and warranties associated with our loan sale or servicing contracts.

Table 7.6: Off-Balance Sheet Loans Sold or Securitized

(in millions)	Jun 30, 2017	Dec 31, 2016	Delinquent loans and foreclosed assets (1)	Net charge-offs	
				2017	2016
Commercial:					
Real estate mortgage	\$ 98,330	106,745	3,507	3,325	382
Total commercial	98,330	106,745	3,507	3,325	382
Consumer:					
Real estate 1-4 family first mortgage	1,149,427	1,160,191	14,287	16,453	395
Total consumer	1,149,427	1,160,191	14,287	16,453	395
Total off-balance sheet sold or securitized loans (2)	\$ 1,247,757	1,266,936	17,794	19,778	777

(1) Includes \$1.6 billion and \$1.7 billion of commercial foreclosed assets and \$1.4 billion and \$1.8 billion of consumer foreclosed assets at June 30, 2017, and December 31, 2016, respectively.

(2) At June 30, 2017, and December 31, 2016, the table includes total loans of \$1.2 trillion at both dates, delinquent loans of \$9.1 billion and \$9.8 billion, and foreclosed assets of \$978 million and \$1.3 billion, respectively, for FNMA, FHLMC and GNMA. Net charge-offs exclude loans sold to FNMA, FHLMC and GNMA as we do not service or manage the underlying real estate upon foreclosure and, as such, do not have access to net charge-off information.

Transactions with Consolidated VIEs and Secured Borrowings

Table 7.7 presents a summary of financial assets and liabilities for asset transfers accounted for as secured borrowings and involvements with consolidated VIEs. “Assets” are presented using GAAP measurement methods, which may include fair value, credit impairment or other adjustments, and therefore in

some instances will differ from “Total VIE assets.” For VIEs that obtain exposure synthetically through derivative instruments, the remaining notional amount of the derivative is included in “Total VIE assets.” On the consolidated balance sheet, we separately disclose the consolidated assets of certain VIEs that can only be used to settle the liabilities of those VIEs.

Table 7.7: Transactions with Consolidated VIEs and Secured Borrowings

(in millions)	Total VIE assets	Carrying value				
		Assets	Liabilities	Noncontrolling interests	Net assets	
June 30, 2017						
Secured borrowings:						
Municipal tender option bond securitizations	\$ 677	588	(540)	—	48	
Residential mortgage securitizations	124	121	(122)	—	(1)	
Total secured borrowings	801	709	(662)	—	47	
Consolidated VIEs:						
Commercial and industrial loans and leases	8,698	8,279	(2,055)	(13)	6,211	
Nonconforming residential mortgage loan securitizations	3,006	2,637	(895)	—	1,742	
Commercial real estate loans	1,922	1,922	—	—	1,922	
Structured asset finance	16	10	(7)	—	3	
Investment funds	52	52	(1)	(32)	19	
Other	140	121	(1)	(41)	79	
Total consolidated VIEs	13,834	13,021	(2,959)	(86)	9,976	
Total secured borrowings and consolidated VIEs	\$ 14,635	13,730	(3,621)	(86)	10,023	
December 31, 2016						
Secured borrowings:						
Municipal tender option bond securitizations	\$ 1,473	998	(907)	—	91	
Residential mortgage securitizations	139	138	(136)	—	2	
Total secured borrowings	1,612	1,136	(1,043)	—	93	
Consolidated VIEs:						
Commercial and industrial loans and leases	8,821	8,623	(2,819)	(14)	5,790	
Nonconforming residential mortgage loan securitizations	3,349	2,974	(1,003)	—	1,971	
Commercial real estate loans	1,516	1,516	—	—	1,516	
Structured asset finance	23	13	(9)	—	4	
Investment funds	142	142	(2)	(67)	73	
Other	166	146	(1)	(57)	88	
Total consolidated VIEs	14,017	13,414	(3,834)	(138)	9,442	
Total secured borrowings and consolidated VIEs	\$ 15,629	14,550	(4,877)	(138)	9,535	

INVESTMENT FUNDS Subsequent to adopting ASU 2015-02 (*Amendments to the Consolidation Analysis*) in first quarter 2016, we consolidate certain investment funds because we have both the power to manage fund assets and hold variable interests that are considered significant.

OTHER CONSOLIDATED VIE STRUCTURES In addition to the structure types included in the previous table, at December 31, 2016, we had approximately \$6.0 billion of private placement debt financing issued through a consolidated VIE. The issuance was classified as long-term debt in our consolidated financial statements. At December 31, 2016, we pledged approximately \$434 million in loans (principal and interest eligible to be capitalized) and \$6.1 billion in available-for-sale securities to collateralize the VIE’s borrowings. These assets were not transferred to the VIE, and accordingly we excluded the VIE from the previous table. During second quarter 2017, the private placement debt financing was repaid, and the entity was no

longer considered a VIE. The repayment was financed by a new \$1.0 billion loan that is classified as long-term debt in our consolidated financial statements at June 30, 2017, with the remainder paid in cash.

For complete descriptions of our accounting for transfers accounted for as secured borrowings and involvements with consolidated VIEs, see Note 8 (Securitizations and Variable Interest Entities) to Financial Statements in our 2016 Form 10-K.

Note 8: Mortgage Banking Activities

Mortgage banking activities, included in the Community Banking and Wholesale Banking operating segments, consist of residential and commercial mortgage originations, sale activity and servicing.

We apply the amortization method to commercial MSRs and apply the fair value method to residential MSRs. Table 8.1 presents the changes in MSRs measured using the fair value method.

Table 8.1: Analysis of Changes in Fair Value MSRs

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Fair value, beginning of period	\$ 13,208	11,333	\$ 12,959	12,415
Servicing from securitizations or asset transfers (1)	436	477	1,019	843
Sales and other (2)	(8)	(22)	(55)	(22)
Net additions	428	455	964	821
Changes in fair value:				
Due to changes in valuation model inputs or assumptions:				
Mortgage interest rates (3)	(305)	(779)	(153)	(1,863)
Servicing and foreclosure costs (4)	(14)	(4)	13	23
Prepayment estimates and other (5)	(41)	(41)	(46)	59
Net changes in valuation model inputs or assumptions	(360)	(824)	(186)	(1,781)
Changes due to collection/realization of expected cash flows over time	(487)	(568)	(948)	(1,059)
Total changes in fair value	(847)	(1,392)	(1,134)	(2,840)
Fair value, end of period	\$ 12,789	10,396	\$ 12,789	10,396

(1) Includes impacts associated with exercising our right to repurchase delinquent loans from GNMA loan securitization pools.
 (2) Includes sales and transfers of MSRs, which can result in an increase of total reported MSRs if the sales or transfers are related to nonperforming loan portfolios.
 (3) Includes prepayment speed changes as well as other valuation changes due to changes in mortgage interest rates (such as changes in estimated interest earned on custodial deposit balances).
 (4) Includes costs to service and unreimbursed foreclosure costs.
 (5) Represents changes driven by other valuation model inputs or assumptions including prepayment speed estimation changes and other assumption updates. Prepayment speed estimation changes are influenced by observed changes in borrower behavior and other external factors that occur independent of interest rate changes.

Table 8.2 presents the changes in amortized MSRs.

Table 8.2: Analysis of Changes in Amortized MSRs

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Balance, beginning of period	\$ 1,402	1,359	\$ 1,406	1,308
Purchases	26	24	44	45
Servicing from securitizations or asset transfers	37	38	82	135
Amortization	(66)	(68)	(133)	(135)
Balance, end of period (1)	\$ 1,399	1,353	\$ 1,399	1,353
Fair value of amortized MSRs:				
Beginning of period	\$ 2,051	1,725	\$ 1,956	1,680
End of period	1,989	1,620	1,989	1,620

(1) Commercial amortized MSRs are evaluated for impairment purposes by the following risk strata: agency (GSEs) for multi-family properties and non-agency. There was no valuation allowance recorded for the periods presented on the commercial amortized MSRs.

We present the components of our managed servicing portfolio in Table 8.3 at unpaid principal balance for loans serviced and subserviced for others and at book value for owned loans serviced.

Table 8.3: Managed Servicing Portfolio

(in billions)	Jun 30, 2017	Dec 31, 2016
Residential mortgage servicing:		
Serviced for others	\$ 1,189	1,205
Owned loans serviced	343	347
Subserviced for others	4	8
Total residential servicing	1,536	1,560
Commercial mortgage servicing:		
Serviced for others	475	479
Owned loans serviced	130	132
Subserviced for others	8	8
Total commercial servicing	613	619
Total managed servicing portfolio	\$ 2,149	2,179
Total serviced for others	\$ 1,664	1,684
Ratio of MSRs to related loans serviced for others	0.85%	0.85

Table 8.4 presents the components of mortgage banking noninterest income.

Table 8.4: Mortgage Banking Noninterest Income

(in millions)	2017	2016	2017	2016
Servicing income, net:				
Servicing fees:				
Contractually specified servicing fees	\$ 900	949	\$ 1,807	1,903
Late charges	44	42	92	90
Ancillary fees	59	54	109	115
Unreimbursed direct servicing costs (1)	(121)	(203)	(244)	(356)
Net servicing fees	882	842	1,764	1,752
Changes in fair value of MSRs carried at fair value:				
Due to changes in valuation model inputs or assumptions (2) (A)	(360)	(824)	(186)	(1,781)
Changes due to collection/realization of expected cash flows over time	(487)	(568)	(948)	(1,059)
Total changes in fair value of MSRs carried at fair value	(847)	(1,392)	(1,134)	(2,840)
Amortization	(66)	(68)	(133)	(135)
Net derivative gains from economic hedges (3) (B)	431	978	359	2,433
Total servicing income, net	400	360	856	1,210
Net gains on mortgage loan origination/sales activities	748	1,054	1,520	1,802
Total mortgage banking noninterest income	\$ 1,148	1,414	\$ 2,376	3,012
Market-related valuation changes to MSRs, net of hedge results (2)(3) (A)+(B)	\$ 71	154	\$ 173	652

(1) Includes costs associated with foreclosures, unreimbursed interest advances to investors, and other interest costs.

(2) Refer to the analysis of changes in fair value MSRs presented in Table 8.1 in this Note for more detail.

(3) Represents results from economic hedges used to hedge the risk of changes in fair value of MSRs. See Note 12 (Derivatives Not Designated as Hedging Instruments) for additional discussion and detail.

Note 8: Mortgage Banking Activities (continued)

Table 8.5 summarizes the changes in our liability for mortgage loan repurchase losses. This liability is in “Accrued expenses and other liabilities” in our consolidated balance sheet and adjustments to the repurchase liability are recorded in net gains on mortgage loan origination/sales activities in “Mortgage banking” in our consolidated income statement.

Because of the uncertainty in the various estimates underlying the mortgage repurchase liability, there is a range of losses in excess of the recorded mortgage repurchase liability that is reasonably possible. The estimate of the range of possible loss for representations and warranties does not represent a probable

loss, and is based on currently available information, significant judgment, and a number of assumptions that are subject to change. The high end of this range of reasonably possible losses exceeded our recorded liability by \$167 million at June 30, 2017, and was determined based upon modifying the assumptions (particularly to assume significant changes in investor repurchase demand practices) used in our best estimate of probable loss to reflect what we believe to be the high end of reasonably possible adverse assumptions.

Table 8.5: Analysis of Changes in Liability for Mortgage Loan Repurchase Losses

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Balance, beginning of period	\$ 222	355	\$ 229	378
Provision for repurchase losses:				
Loan sales	6	8	14	15
Change in estimate (1)	(45)	(89)	(53)	(108)
Net reductions	(39)	(81)	(39)	(93)
Losses	(5)	(19)	(12)	(30)
Balance, end of period	\$ 178	255	\$ 178	255

(1) Results from changes in investor demand and mortgage insurer practices, credit deterioration and changes in the financial stability of correspondent lenders.

Note 9: Intangible Assets

Table 9.1 presents the gross carrying value of intangible assets and accumulated amortization.

Table 9.1: Intangible Assets

(in millions)	June 30, 2017			December 31, 2016		
	Gross carrying value	Accumulated amortization	Net carrying value	Gross carrying value	Accumulated amortization	Net carrying value
Amortized intangible assets (1):						
MSRs (2)	\$ 3,721	(2,322)	1,399	3,595	(2,189)	1,406
Core deposit intangibles	12,834	(11,641)	1,193	12,834	(11,214)	1,620
Customer relationship and other intangibles	3,934	(2,994)	940	3,928	(2,839)	1,089
Total amortized intangible assets	\$ 20,489	(16,957)	3,532	20,357	(16,242)	4,115
Unamortized intangible assets:						
MSRs (carried at fair value) (2)	\$ 12,789			12,959		
Goodwill	26,573			26,693		
Trademark	14			14		

(1) Excludes fully amortized intangible assets.

(2) See Note 8 (Mortgage Banking Activities) for additional information on MSRs.

Table 9.2 provides the current year and estimated future amortization expense for amortized intangible assets. We based our projections of amortization expense shown below on existing

asset balances at June 30, 2017. Future amortization expense may vary from these projections.

Table 9.2: Amortization Expense for Intangible Assets

(in millions)	Amortized MSRs	Core deposit intangibles	Customer relationship and other intangibles (1)	Total
Six months ended June 30, 2017 (actual)	\$ 133	427	156	716
Estimate for the remainder of 2017	\$ 127	424	149	700
Estimate for year ended December 31,				
2018	227	769	293	1,289
2019	201		108	309
2020	184		89	273
2021	159		76	235
2022	140		63	203

(1) The six months ended June 30, 2017 balance includes \$7 million for lease intangible amortization.

Table 9.3 shows the allocation of goodwill to our reportable operating segments.

Table 9.3: Goodwill

(in millions)	Community Banking	Wholesale Banking	Wealth and Investment Management	Consolidated Company
December 31, 2015	\$ 16,849	7,475	1,205	25,529
Reduction in goodwill related to divested businesses and other	—	(84)	—	(84)
Goodwill from business combinations	—	1,518	—	1,518
June 30, 2016	\$ 16,849	8,909	1,205	26,963
December 31, 2016	\$ 16,849	8,585	1,259	26,693
Reclassification of goodwill held for sale to Other Assets (1)	—	(96)	—	(96)
Reduction in goodwill related to divested businesses and other	—	(24)	—	(24)
June 30, 2017 (1)	\$ 16,849	8,465	1,259	26,573

(1) Goodwill classified as held-for-sale in other assets of \$96 million as of June 30, 2017 relates to the sales agreement for Wells Fargo Insurance Services USA (and related businesses). No goodwill was classified as held-for-sale in other assets at December 31, 2016 and 2015.

We assess goodwill for impairment at a reporting unit level, which is one level below the operating segments. See Note 18 (Operating Segments) for further information on management reporting.

Note 10: Guarantees, Pledged Assets and Collateral

Guarantees are contracts that contingently require us to make payments to a guaranteed party based on an event or a change in an underlying asset, liability, rate or index. Guarantees are generally in the form of standby letters of credit, securities lending and other indemnifications, written put options, recourse obligations, and other types of arrangements. For complete

descriptions of our guarantees, see Note 14 (Guarantees, Pledged Assets and Collateral) to Financial Statements in our 2016 Form 10-K. Table 10.1 shows carrying value, maximum exposure to loss on our guarantees and the related non-investment grade amounts.

Table 10.1: Guarantees – Carrying Value and Maximum Exposure to Loss

(in millions)	Carrying value of obligation (asset)	Expires in one year or less	Expires after one year through three years	Expires after three years through five years	Expires after five years	Maximum exposure to loss	
			one year through three years	three years through five years	five years	Total	Non-investment grade
June 30, 2017							
Standby letters of credit (1)	\$ 38	14,725	8,420	3,451	685	27,281	8,915
Securities lending and other indemnifications (2)	—	1	—	1	600	602	2
Written put options (3)	(334)	14,781	10,702	4,263	1,244	30,990	17,899
Loans and MHFS sold with recourse (4)	51	191	547	928	8,865	10,531	7,751
Factoring guarantees (5)	—	621	—	—	—	621	557
Other guarantees	1	—	6	2	4,228	4,236	4
Total guarantees	\$ (244)	30,319	19,675	8,645	15,622	74,261	35,128
December 31, 2016							
Standby letters of credit (1)	\$ 38	16,050	8,727	3,194	658	28,629	9,898
Securities lending and other indemnifications (2)	—	—	—	1	1,166	1,167	2
Written put options (3)	37	10,427	10,805	4,573	1,216	27,021	15,915
Loans and MHFS sold with recourse (4)	55	84	637	947	8,592	10,260	7,228
Factoring guarantees (5)	—	1,109	—	—	—	1,109	1,109
Other guarantees	6	19	21	17	3,580	3,637	15
Total guarantees	\$ 136	27,689	20,190	8,732	15,212	71,823	34,167

(1) Total maximum exposure to loss includes direct pay letters of credit (DPLCs) of \$9.1 billion and \$9.2 billion at June 30, 2017, and December 31, 2016, respectively. We issue DPLCs to provide credit enhancements for certain bond issuances. Beneficiaries (bond trustees) may draw upon these instruments to make scheduled principal and interest payments, redeem all outstanding bonds because a default event has occurred, or for other reasons as permitted by the agreement. We also originate multipurpose lending commitments under which borrowers have the option to draw on the facility in one of several forms, including as a standby letter of credit. Total maximum exposure to loss includes the portion of these facilities for which we have issued standby letters of credit under the commitments.

(2) Includes indemnifications provided to certain third-party clearing agents. Outstanding customer obligations under these arrangements were \$67 million and \$175 million with related collateral of \$533 million and \$991 million at June 30, 2017, and December 31, 2016, respectively. Estimated maximum exposure to loss was \$600 million at June 30, 2017 and \$1.2 billion at December 31, 2016.

(3) Written put options, which are in the form of derivatives, are also included in the derivative disclosures in Note 12 (Derivatives).

(4) Represent recourse provided, predominantly to the GSEs, on loans sold under various programs and arrangements. Under these arrangements, we repurchased \$1 million and \$2 million respectively, of loans associated with these agreements in the second quarter and first half of 2017, and \$1 million and \$2 million in the same periods of 2016, respectively.

(5) Consists of guarantees made under certain factoring arrangements to purchase trade receivables from third parties, generally upon their request, if receivable debtors default on their payment obligations.

“Maximum exposure to loss” and “Non-investment grade” are required disclosures under GAAP. Non-investment grade represents those guarantees on which we have a higher risk of being required to perform under the terms of the guarantee. If the underlying assets under the guarantee are non-investment grade (that is, an external rating that is below investment grade or an internal credit default grade that is equivalent to a below investment grade external rating), we consider the risk of performance to be high. Internal credit default grades are determined based upon the same credit policies that we use to evaluate the risk of payment or performance when making loans and other extensions of credit. Credit quality indicators we usually consider in evaluating risk of payments or performance are described in Note 5 (Loans and Allowance for Credit Losses).

Maximum exposure to loss represents the estimated loss that would be incurred under an assumed hypothetical circumstance, despite what we believe is a remote possibility, where the value of our interests and any associated collateral declines to zero. Maximum exposure to loss estimates in Table 10.1 do not reflect economic hedges or collateral we could use to offset or recover losses we may incur under our guarantee agreements. Accordingly, this required disclosure is not an indication of expected loss. We believe the carrying value, which is either fair value for derivative-related products or the allowance for lending-related commitments, is more representative of our exposure to loss than maximum exposure to loss.

Note 10: Guarantees, Pledged Assets and Collateral (continued)

Pledged Assets

As part of our liquidity management strategy, we pledge various assets to secure trust and public deposits, borrowings and letters of credit from the FHLB and FRB, securities sold under agreements to repurchase (repurchase agreements), securities lending arrangements, and for other purposes as required or permitted by law or insurance statutory requirements. The types of collateral we pledge include securities issued by federal agencies, GSEs, domestic and foreign companies and various commercial and consumer loans. Table 10.2 provides the total carrying amount of pledged assets by asset type and pledged off-

balance sheet securities for securities financings. The table excludes pledged consolidated VIE assets of \$13.0 billion and \$13.4 billion at June 30, 2017, and December 31, 2016, respectively, which can only be used to settle the liabilities of those entities. The table also excludes \$709 million and \$1.1 billion in assets pledged in transactions with VIE's accounted for as secured borrowings at June 30, 2017, and December 31, 2016, respectively. See Note 7 (Securitizations and Variable Interest Entities) for additional information on consolidated VIE assets and secured borrowings.

Table 10.2: Pledged Assets

(in millions)	Jun 30, 2017	Dec 31, 2016
Trading assets and other (1)	\$ 107,374	84,603
Investment securities (2)	75,174	90,946
Mortgages held for sale and loans (3)	496,164	516,112
Total pledged assets	\$ 678,712	691,661

- (1) Consists of trading assets of \$36.4 billion and \$33.2 billion at June 30, 2017, and December 31, 2016, respectively and off-balance sheet securities of \$71.0 billion and \$51.4 billion as of the same dates, respectively, that are pledged as collateral for repurchase agreements and other securities financings. Total trading assets and other includes \$107.3 billion and \$84.2 billion at June 30, 2017, and December 31, 2016, respectively that permit the secured parties to sell or repledge the collateral.
- (2) Includes carrying value of \$4.6 billion and \$6.2 billion (fair value of \$4.6 billion and \$6.2 billion) in collateral for repurchase agreements at June 30, 2017, and December 31, 2016, respectively, which are pledged under agreements that do not permit the secured parties to sell or repledge the collateral. Also includes \$87 million and \$617 million in collateral pledged under repurchase agreements at June 30, 2017, and December 31, 2016, respectively, that permit the secured parties to sell or repledge the collateral. All other pledged securities are pursuant to agreements that do not permit the secured party to sell or repledge the collateral.
- (3) Includes mortgages held for sale of \$4.5 billion and \$15.8 billion at June 30, 2017, and December 31, 2016, respectively. Substantially all of the total mortgages held for sale and loans are pledged under agreements that do not permit the secured parties to sell or repledge the collateral. Amounts exclude \$1.1 billion and \$1.2 billion at June 30, 2017, and December 31, 2016, respectively, of pledged loans recorded on our balance sheet representing certain delinquent loans that are eligible for repurchase from GNMA loan securitizations.

Securities Financing Activities

We enter into resale and repurchase agreements and securities borrowing and lending agreements (collectively, “securities financing activities”) typically to finance trading positions (including securities and derivatives), acquire securities to cover short trading positions, accommodate customers’ financing needs, and settle other securities obligations. These activities are conducted through our broker dealer subsidiaries and to a lesser extent through other bank entities. Most of our securities financing activities involve high quality, liquid securities such as U.S. Treasury securities and government agency securities, and to a lesser extent, less liquid securities, including equity securities, corporate bonds and asset-backed securities. We account for these transactions as collateralized financings in which we typically receive or pledge securities as collateral. We believe these financing transactions generally do not have material credit risk given the collateral provided and the related monitoring processes.

OFFSETTING OF RESALE AND REPURCHASE AGREEMENTS AND SECURITIES BORROWING AND LENDING

AGREEMENTS Table 10.3 presents resale and repurchase agreements subject to master repurchase agreements (MRA) and securities borrowing and lending agreements subject to master securities lending agreements (MSLA). We account for

transactions subject to these agreements as collateralized financings, and those with a single counterparty are presented net on our balance sheet, provided certain criteria are met that permit balance sheet netting. Most transactions subject to these agreements do not meet those criteria and thus are not eligible for balance sheet netting.

Collateral we pledged consists of non-cash instruments, such as securities or loans, and is not netted on the balance sheet against the related liability. Collateral we received includes securities or loans and is not recognized on our balance sheet. Collateral pledged or received may be increased or decreased over time to maintain certain contractual thresholds as the assets underlying each arrangement fluctuate in value. Generally, these agreements require collateral to exceed the asset or liability recognized on the balance sheet. The following table includes the amount of collateral pledged or received related to exposures subject to enforceable MRAs or MSLAs. While these agreements are typically over-collateralized, U.S. GAAP requires disclosure in this table to limit the reported amount of such collateral to the amount of the related recognized asset or liability for each counterparty.

In addition to the amounts included in Table 10.3, we also have balance sheet netting related to derivatives that is disclosed in Note 12 (Derivatives).

Table 10.3: Offsetting – Resale and Repurchase Agreements

(in millions)	Jun 30, 2017	Dec 31, 2016
Assets:		
Resale and securities borrowing agreements		
Gross amounts recognized	\$ 119,721	91,123
Gross amounts offset in consolidated balance sheet (1)	(31,383)	(11,680)
Net amounts in consolidated balance sheet (2)	88,338	79,443
Collateral not recognized in consolidated balance sheet (3)	(88,141)	(78,837)
Net amount (4)	\$ 197	606
Liabilities:		
Repurchase and securities lending agreements		
Gross amounts recognized (5)	\$ 109,536	89,111
Gross amounts offset in consolidated balance sheet (1)	(31,383)	(11,680)
Net amounts in consolidated balance sheet (6)	78,153	77,431
Collateral pledged but not netted in consolidated balance sheet (7)	(77,796)	(77,184)
Net amount (8)	\$ 357	247

(1) Represents recognized amount of resale and repurchase agreements with counterparties subject to enforceable MRAs that have been offset in the consolidated balance sheet.

(2) At June 30, 2017, and December 31, 2016, includes \$67.6 billion and \$58.1 billion, respectively, classified on our consolidated balance sheet in federal funds sold, securities purchased under resale agreements and other short-term investments and \$20.7 billion and \$21.3 billion, respectively, in loans.

(3) Represents the fair value of collateral we have received under enforceable MRAs or MSLAs, limited for table presentation purposes to the amount of the recognized asset due from each counterparty. At June 30, 2017, and December 31, 2016, we have received total collateral with a fair value of \$130.7 billion and \$102.3 billion, respectively, all of which, we have the right to sell or repledge. These amounts include securities we have sold or repledged to others with a fair value of \$69.8 billion at June 30, 2017, and \$50.0 billion at December 31, 2016.

(4) Represents the amount of our exposure that is not collateralized and/or is not subject to an enforceable MRA or MSLA.

(5) For additional information on underlying collateral and contractual maturities, see the “Repurchase and Securities Lending Agreements” section in this Note.

(6) Amount is classified in short-term borrowings on our consolidated balance sheet.

(7) Represents the fair value of collateral we have pledged, related to enforceable MRAs or MSLAs, limited for table presentation purposes to the amount of the recognized liability owed to each counterparty. At June 30, 2017, and December 31, 2016, we have pledged total collateral with a fair value of \$111.4 billion and \$91.4 billion, respectively, of which, the counterparty does not have the right to sell or repledge \$4.7 billion as of June 30, 2017 and \$6.6 billion as of December 31, 2016.

(8) Represents the amount of our obligation that is not covered by pledged collateral and/or is not subject to an enforceable MRA or MSLA.

Note 10: Guarantees, Pledged Assets and Collateral (continued)

REPURCHASE AND SECURITIES LENDING AGREEMENTS

Securities sold under repurchase agreements and securities lending arrangements are effectively short-term collateralized borrowings. In these transactions, we receive cash in exchange for transferring securities as collateral and recognize an obligation to reacquire the securities for cash at the transaction's maturity. These types of transactions create risks, including (1) the counterparty may fail to return the securities at maturity, (2) the fair value of the securities transferred may decline below the amount of our obligation to reacquire the securities, and therefore create an obligation for us to pledge additional amounts, and (3) the counterparty may accelerate the maturity

on demand, requiring us to reacquire the security prior to contractual maturity. We attempt to mitigate these risks by the fact that most of our securities financing activities involve highly liquid securities, we underwrite and monitor the financial strength of our counterparties, we monitor the fair value of collateral pledged relative to contractually required repurchase amounts, and we monitor that our collateral is properly returned through the clearing and settlement process in advance of our cash repayment. Table 10.4 provides the underlying collateral types of our gross obligations under repurchase and securities lending agreements.

Table 10.4: Underlying Collateral Types of Gross Obligations

(in millions)	Jun 30, 2017	Dec 31, 2016
Repurchase agreements:		
Securities of U.S. Treasury and federal agencies	\$ 52,225	34,335
Securities of U.S. States and political subdivisions	131	81
Federal agency mortgage-backed securities	32,079	32,669
Non-agency mortgage-backed securities	1,679	2,167
Corporate debt securities	8,109	6,829
Asset-backed securities	2,352	3,010
Equity securities	937	1,309
Other	1,088	1,704
Total repurchases	98,600	82,104
Securities lending:		
Securities of U.S. Treasury and federal agencies	108	152
Federal agency mortgage-backed securities	174	104
Non-agency mortgage-backed securities	—	1
Corporate debt securities	611	653
Equity securities (1)	10,043	6,097
Total securities lending	10,936	7,007
Total repurchases and securities lending	\$ 109,536	89,111

(1) Equity securities are generally exchange traded and either re-hypothecated under margin lending agreements or obtained through contemporaneous securities borrowing transactions with other counterparties.

Table 10.5 provides the contractual maturities of our gross obligations under repurchase and securities lending agreements.

Table 10.5: Contractual Maturities of Gross Obligations

(in millions)	Overnight/ continuous	Up to 30 days	30-90 days	>90 days	Total gross obligation
June 30, 2017					
Repurchase agreements	\$ 80,504	9,792	3,790	4,514	98,600
Securities lending	8,802	518	1,616	—	10,936
Total repurchases and securities lending (1)	\$ 89,306	10,310	5,406	4,514	109,536
December 31, 2016					
Repurchase agreements	\$ 60,516	9,598	6,762	5,228	82,104
Securities lending	5,565	167	1,275	—	7,007
Total repurchases and securities lending (1)	\$ 66,081	9,765	8,037	5,228	89,111

(1) Securities lending is executed under agreements that allow either party to terminate the transaction without notice, while repurchase agreements have a term structure to them that technically matures at a point in time. The overnight/continuous repurchase agreements require election of both parties to roll the trade rather than the election to terminate the arrangement as in securities lending.

Note 11: Legal Actions

Wells Fargo and certain of our subsidiaries are involved in a number of judicial, regulatory, arbitration and other proceedings concerning matters arising from the conduct of our business activities, and many of those proceedings expose Wells Fargo to potential financial loss. These proceedings include actions brought against Wells Fargo and/or our subsidiaries with respect to corporate related matters and transactions in which Wells Fargo and/or our subsidiaries were involved. In addition, Wells Fargo and our subsidiaries may be requested to provide information or otherwise cooperate with government authorities in the conduct of investigations of other persons or industry groups.

Although there can be no assurance as to the ultimate outcome, Wells Fargo and/or our subsidiaries have generally denied, or believe we have a meritorious defense and will deny, liability in all significant legal actions pending against us, including the matters described below, and we intend to defend vigorously each case, other than matters we describe as having settled. We establish accruals for legal actions when potential losses associated with the actions become probable and the costs can be reasonably estimated. For such accruals, we record the amount we consider to be the best estimate within a range of potential losses that are both probable and estimable; however, if we cannot determine a best estimate, then we record the low end of the range of those potential losses. The actual costs of resolving legal actions may be substantially higher or lower than the amounts accrued for those actions.

ATM ACCESS FEE LITIGATION In October 2011, plaintiffs filed a putative class action, *Mackmin, et. al. v. Visa, Inc. et. al.*, against Wells Fargo & Company, Wells Fargo Bank, N.A., Visa, MasterCard, and several other banks in the United States District Court for the District of Columbia. Plaintiffs allege that the Visa and MasterCard requirement that if an ATM operator charges an access fee on Visa and MasterCard transactions, then that fee cannot be greater than the access fee charged for transactions on other networks violates antitrust rules. Plaintiffs seek treble damages, restitution, injunctive relief and attorneys' fees where available under federal and state law. Two other antitrust cases which make similar allegations were filed in the same court, but these cases did not name Wells Fargo as a defendant. On February 13, 2013, the district court granted defendants' motions to dismiss and dismissed the three actions. Plaintiffs appealed the dismissals and, on August 4, 2015, the United States Court of Appeals for the District of Columbia Circuit vacated the district court's decisions and remanded the three cases to the district court for further proceedings. On June 28, 2016, the United States Supreme Court granted defendants' petitions for writ of certiorari to review the decisions of the United States Court of Appeals for the District of Columbia. On November 17, 2016, the United States Supreme Court dismissed the petitions as improvidently granted, and the three cases returned to the district court for further proceedings.

AUTO LENDING MATTERS As the Company centralizes operations in its dealer services business and tightens controls and oversight of third-party risk management, the Company anticipates it will identify and remediate issues related to historical practices concerning the origination, servicing, and/or collection of indirect consumer auto loans, including related insurance products. For example, in July 2017, the Company announced a plan to remediate customers who may have been

financially harmed due to issues related to automobile collateral protection insurance (CPI) policies purchased through a third-party vendor on their behalf (based on an understanding by the vendor that the borrowers' insurance had lapsed). The Company determined that certain external vendor processes and operational controls were inadequate, and, as a result, customers may have been charged premiums for CPI even if they were paying for their own vehicle insurance, as required, and in some cases the CPI premiums may have contributed to a default that led to their vehicle's repossession. The Company discontinued the CPI program in September 2016. Multiple putative class action cases alleging, among other things, unfair and deceptive practices relating to these CPI policies, have been filed against the Company in United States federal courts, including in the United States District Courts for the Northern District of California and Southern District of New York. In addition, the Company has identified certain issues related to the unused portion of guaranteed auto protection waiver or insurance agreements between the dealer and, by assignment, the lender, which may result in refunds to customers in certain states. These and other issues related to the origination, servicing and/or collection of indirect consumer auto loans, including related insurance products, may subject the Company to formal or informal inquiries, investigations or examinations from federal, state and/or local government agencies, and may also subject the Company to litigation.

CONSUMER DEPOSIT ACCOUNT RELATED REGULATORY INVESTIGATION The Consumer Financial Protection Bureau (CFPB) has commenced an investigation into whether customers were unduly harmed by the Company's procedures regarding the freezing (and, in many cases, closing) of consumer deposit accounts after the Company detected suspected fraudulent activity (by third-parties or account holders) that affected those accounts.

INADVERTENT CLIENT INFORMATION DISCLOSURE In July 2017, the Company inadvertently provided certain client information in response to a third-party subpoena issued in a civil litigation. The Company obtained temporary restraining orders in New Jersey and New York state courts requiring the electronic data and all copies to be delivered to the New Jersey state court for safekeeping. The Company has made voluntary self-disclosure to various regulatory agencies.

INTERCHANGE LITIGATION Plaintiffs representing a putative class of merchants have filed putative class actions, and individual merchants have filed individual actions, against Wells Fargo Bank, N.A., Wells Fargo & Company, Wachovia Bank, N.A. and Wachovia Corporation regarding the interchange fees associated with Visa and MasterCard payment card transactions. Visa, MasterCard and several other banks and bank holding companies are also named as defendants in these actions. These actions have been consolidated in the United States District Court for the Eastern District of New York. The amended and consolidated complaint asserts claims against defendants based on alleged violations of federal and state antitrust laws and seeks damages, as well as injunctive relief. Plaintiff merchants allege that Visa, MasterCard and payment card issuing banks unlawfully colluded to set interchange rates. Plaintiffs also allege that enforcement of certain Visa and MasterCard rules and alleged tying and bundling of services offered to merchants are anticompetitive. Wells Fargo and Wachovia, along with other

Note 11: Legal Actions (continued)

defendants and entities, are parties to Loss and Judgment Sharing Agreements, which provide that they, along with other entities, will share, based on a formula, in any losses from the Interchange Litigation. On July 13, 2012, Visa, MasterCard and the financial institution defendants, including Wells Fargo, signed a memorandum of understanding with plaintiff merchants to resolve the consolidated class action and reached a separate settlement in principle of the consolidated individual actions. The settlement payments to be made by all defendants in the consolidated class and individual actions totaled approximately \$6.6 billion before reductions applicable to certain merchants opting out of the settlement. The class settlement also provided for the distribution to class merchants of 10 basis points of default interchange across all credit rate categories for a period of eight consecutive months. The District Court granted final approval of the settlement, which was appealed to the Second Circuit Court of Appeals by settlement objector merchants. Other merchants opted out of the settlement and are pursuing several individual actions. On June 30, 2016, the Second Circuit Court of Appeals vacated the settlement agreement and reversed and remanded the consolidated action to the United States District Court for the Eastern District of New York for further proceedings. On November 23, 2016, prior class counsel filed a petition to the United States Supreme Court, seeking review of the reversal of the settlement by the Second Circuit, and the Supreme Court denied the petition on March 27, 2017. On November 30, 2016, the District Court appointed lead class counsel for a damages class and an equitable relief class. Several of the opt-out litigations were settled during the pendency of the Second Circuit appeal while others remain pending. Discovery is proceeding in the opt-out litigations and the remanded class cases.

MORTGAGE INTEREST RATE LOCK RELATED REGULATORY INVESTIGATION The CFPB has commenced an investigation into the Company's policies and procedures regarding the circumstances in which the Company required customers to pay fees for the extension of interest rate lock periods for residential mortgages.

MORTGAGE RELATED REGULATORY INVESTIGATIONS Federal and state government agencies, including the United States Department of Justice (the "Department of Justice"), continue investigations or examinations of certain mortgage related activities of Wells Fargo and predecessor institutions. Wells Fargo, for itself and for predecessor institutions, has responded, and continues to respond, to requests from these agencies seeking information regarding the origination, underwriting and securitization of residential mortgages, including sub-prime mortgages. These agencies have advanced theories of purported liability with respect to certain of these activities. The Department of Justice and Wells Fargo continue to discuss the matter, including potential settlement of the Department of Justice's concerns; however, litigation with these agencies, including with the Department of Justice, remains a possibility. Other financial institutions have entered into similar settlements with these agencies, the nature of which related to the specific activities of those financial institutions, including the imposition of significant financial penalties and remedial actions.

OFAC RELATED INVESTIGATION The Company has self-identified an issue whereby certain foreign banks utilized a Wells Fargo software-based solution to conduct import/export trade-related financing transactions with countries and entities prohibited by the Office of Foreign Assets Control ("OFAC") of the United States Department of the Treasury.

We do not believe any funds related to these transactions flowed through accounts at Wells Fargo as a result of the aforementioned conduct. The Company has made a voluntary self-disclosure to OFAC and is cooperating with an inquiry from the Department of Justice.

ORDER OF POSTING LITIGATION Plaintiffs filed a series of putative class actions against Wachovia Bank, N.A. and Wells Fargo Bank, N.A., as well as many other banks, challenging the "high to low" order in which the banks post debit card transactions to consumer deposit accounts. Most of these actions were consolidated in multi-district litigation proceedings (the "MDL proceedings") in the United States District Court for the Southern District of Florida. The court in the MDL proceedings has certified a class of putative plaintiffs, and Wells Fargo moved to compel arbitration of the claims of unnamed class members. The court denied the motions to compel arbitration on October 17, 2016. Wells Fargo has appealed this decision to the Eleventh Circuit Court of Appeals.

RMBS TRUSTEE LITIGATION In November 2014, a group of institutional investors (the "Institutional Investor Plaintiffs") filed a putative class action in the United States District Court for the Southern District of New York against Wells Fargo Bank, N.A., alleging claims against the bank in its capacity as trustee for a number of residential mortgage-backed securities ("RMBS") trusts (the "Federal Court Complaint"). Similar complaints have been filed against other trustees in various courts, including in the Southern District of New York, in New York state court and in other states, by RMBS investors. The Federal Court Complaint alleges that Wells Fargo Bank, N.A., as trustee, caused losses to investors and asserts causes of action based upon, among other things, the trustee's alleged failure to notify and enforce repurchase obligations of mortgage loan sellers for purported breaches of representations and warranties, notify investors of alleged events of default, and abide by appropriate standards of care following alleged events of default. Plaintiffs seek money damages in an unspecified amount, reimbursement of expenses, and equitable relief. In December 2014 and December 2015, certain other investors filed four complaints alleging similar claims against Wells Fargo Bank, N.A. in the Southern District of New York, and the various cases pending against Wells Fargo are proceeding before the same judge. On January 19, 2016, an order was entered in connection with the Federal Court Complaint in which the District Court dismissed claims related to certain of the trusts at issue (the "Dismissed Trusts"). The Company's motion to dismiss the Federal Court Complaint was granted in part and denied in part in March 2017. In May 2017, the Company filed third-party complaints against certain investment advisors affiliated with the Institutional Investor Plaintiffs seeking contribution with respect to claims alleged in the Federal Court Complaint.

A complaint raising similar allegations to the Federal Court Complaint was filed in May 2016 in New York state court by a different plaintiff investor. In addition, the Institutional Investor Plaintiffs subsequently filed a complaint relating to the Dismissed Trusts and certain additional trusts in California state court (the "California Action"). The California Action was subsequently dismissed in September 2016. In December 2016, the Institutional Investor Plaintiffs filed a new putative class action complaint in New York state court in respect of 261 RMBS trusts, including the Dismissed Trusts, for which Wells Fargo Bank, N.A. serves or served as trustee (the "State Court Action"). The Company has moved to dismiss the complaint.

In July 2017, certain of the plaintiffs from the State Court Action filed a civil complaint relating to Wells Fargo Bank, N.A.'s setting aside reserves for legal fees and expenses in connection with the liquidation of eleven RMBS trusts at issue in the State Court Action. The complaint seeks, among other relief, declarations that Wells Fargo Bank, N.A. is not entitled to indemnification, the advancement of funds or the taking of reserves from trust funds for legal fees and expenses it incurs in defending the claims in the State Court Action.

SALES PRACTICES MATTERS Federal, state and local government agencies, including the Department of Justice, the United States Securities and Exchange Commission and the United States Department of Labor, and state attorneys general and prosecutors' offices, as well as Congressional committees, have undertaken formal or informal inquiries, investigations or examinations arising out of certain sales practices of the Company that were the subject of settlements with the Consumer Financial Protection Bureau, the Office of the Comptroller of the Currency and the Office of the Los Angeles City Attorney announced by the Company on September 8, 2016. The Company has responded, and continues to respond, to requests from a number of the foregoing seeking information regarding these sales practices and the circumstances of the settlements and related matters.

In addition, a number of lawsuits have also been filed by non-governmental parties seeking damages or other remedies related to these sales practices. First, various class plaintiffs purporting to represent consumers who allege that they received products or services without their authorization or consent have brought separate putative class actions against the Company in the United States District Court for the Northern District of California and various other jurisdictions. In April 2017, the Company entered into a settlement agreement in the first-filed action, *Jabbari v. Wells Fargo Bank, N.A.*, to resolve claims regarding certain products or services provided without authorization or consent for the time period May 1, 2002 to April 20, 2017. Pursuant to the settlement, we will pay \$142 million for remediation, attorneys' fees, and settlement fund claims administration. In the unlikely event that the \$142 million settlement total is not enough to provide remediation, pay attorneys' fees, pay settlement fund claims administration costs, and have at least \$25 million left over to distribute to all class members, the Company will contribute additional funds to the settlement. The court granted preliminary approval of the settlement in July 2017. A final approval hearing has been scheduled for the first quarter of 2018. Second, Wells Fargo shareholders are pursuing a consolidated securities fraud class action in the United States District Court for the Northern District of California alleging certain misstatements and omissions in the Company's disclosures related to sales practices matters. Third, Wells Fargo shareholders have brought numerous shareholder derivative lawsuits asserting breach of fiduciary duty claims, among others, against current and former directors and officers for their alleged failure to detect and prevent sales practices issues, which lawsuits are consolidated into two separate actions in the United States District Court for the Northern District of California and California state court, as well as two separate actions in Delaware state court. Fourth, a range of employment litigation has been brought against Wells Fargo, including an Employee Retirement Income Security Act class action in the United States District Court for the District of Minnesota brought on behalf of 401(k) plan participants; class actions pending in the United States District Courts for the Northern District of California and Eastern District of New York

on behalf of employees who allege that they protested sales practice misconduct and/or were terminated for not meeting sales goals; various wage and hour class actions brought in federal and state court in California, New Jersey, and Pennsylvania on behalf of non-exempt branch based employees alleging sales pressure resulted in uncompensated overtime; and multiple single plaintiff Sarbanes-Oxley Act complaints and state law whistleblower actions filed with the Department of Labor or in various state courts alleging adverse employment actions for raising sales practice misconduct issues.

VA LOAN GUARANTY PROGRAM QUI TAM Wells Fargo Bank, N.A. is named as a defendant in a *qui tam* lawsuit, *United States ex rel. Bibby & Donnelly v. Wells Fargo, et al.*, brought in the United States District Court for the Northern District of Georgia by two individuals on behalf of the United States under the federal False Claims Act. The lawsuit was originally filed on March 8, 2006, and then unsealed on October 3, 2011. The United States elected not to intervene in the action. The plaintiffs allege that Wells Fargo charged certain impermissible closing or origination fees to borrowers under a U.S. Department of Veteran Affairs' (VA) loan guaranty program and then made false statements to the VA concerning such fees in violation of the civil False Claims Act. On their behalf and on behalf of the United States, the plaintiffs seek, among other things, damages equal to three times the amount paid by the VA in connection with any loan guaranty as to which the borrower paid certain impermissible fees or charges less the net amount received by the VA upon any re-sale of collateral, statutory civil penalties of between \$5,500 and \$11,000 per False Claims Act violation, and attorneys' fees. The parties have engaged in extensive discovery, and both have moved for judgment in their favor as a matter of law. In August 2017, the parties reached a settlement in which the Company will pay \$108 million. The settlement amount does not include plaintiffs' attorneys fees, which are subject to court approval.

OUTLOOK As described above, the Company establishes accruals for legal actions when potential losses associated with the actions become probable and the costs can be reasonably estimated. The high end of the range of reasonably possible potential losses in excess of the Company's accrual for probable and estimable losses was approximately \$3.3 billion as of June 30, 2017. The increase in the high end of the range from March 31, 2017 was due to a variety of matters, including the Company's existing mortgage related regulatory investigations. The outcomes of legal actions are unpredictable and subject to significant uncertainties, and it is inherently difficult to determine whether any loss is probable or even possible. It is also inherently difficult to estimate the amount of any loss and there may be matters for which a loss is probable or reasonably possible but not currently estimable. Accordingly, actual losses may be in excess of the established accrual or the range of reasonably possible loss. Wells Fargo is unable to determine whether the ultimate resolution of either the mortgage related regulatory investigations or the sales practices matters will have a material adverse effect on its consolidated financial condition. Based on information currently available, advice of counsel, available insurance coverage and established reserves, Wells Fargo believes that the eventual outcome of other actions against Wells Fargo and/or its subsidiaries will not, individually or in the aggregate, have a material adverse effect on Wells Fargo's consolidated financial condition. However, it is possible that the ultimate resolution of a matter, if unfavorable, may be material to Wells Fargo's results of operations for any particular period.

Note 12: Derivatives

We use derivatives to manage exposure to market risk, including interest rate risk, credit risk and foreign currency risk, and to assist customers with their risk management objectives. We designate certain derivatives as hedging instruments in a qualifying hedge accounting relationship (fair value or cash flow hedge). Our remaining derivatives consist of economic hedges that do not qualify for hedge accounting and derivatives held for customer accommodation trading, or other purposes. For more information on our derivative activities, see Note 16 (Derivatives) to Financial Statements in our 2016 Form 10-K.

Table 12.1 presents the total notional or contractual amounts and fair values for our derivatives. Derivative transactions can be measured in terms of the notional amount, but this amount is not recorded on the balance sheet and is not, when viewed in isolation, a meaningful measure of the risk profile of the instruments. The notional amount is generally not exchanged but is used only as the basis on which interest and other payments are determined.

Table 12.1: Notional or Contractual Amounts and Fair Values of Derivatives

(in millions)	June 30, 2017			December 31, 2016		
	Notional or contractual amount	Fair value		Notional or contractual amount	Fair value	
		Derivative assets	Derivative liabilities		Derivative assets	Derivative liabilities
Derivatives designated as hedging instruments						
Interest rate contracts (1)	\$ 242,711	2,657	1,205	235,222	6,587	2,710
Foreign exchange contracts (1)	32,640	581	1,445	25,861	673	2,779
Total derivatives designated as qualifying hedging instruments		3,238	2,650		7,260	5,489
Derivatives not designated as hedging instruments						
Economic hedges:						
Interest rate contracts (2)	235,234	350	307	228,051	1,098	1,441
Equity contracts	9,641	672	54	7,964	545	83
Foreign exchange contracts	17,007	32	429	20,435	626	165
Credit contracts – protection purchased	436	71	–	482	102	–
Subtotal		1,125	790		2,371	1,689
Customer accommodation trading and other derivatives:						
Interest rate contracts	6,790,132	16,211	14,741	6,018,370	57,583	61,058
Commodity contracts	66,260	1,534	1,666	65,532	3,057	2,551
Equity contracts	171,899	5,671	6,966	151,675	4,813	6,029
Foreign exchange contracts	345,994	7,673	7,381	318,999	9,595	9,798
Credit contracts – protection sold	10,845	169	266	10,483	85	389
Credit contracts – protection purchased	21,493	264	235	19,964	365	138
Other contracts	966	–	34	961	–	47
Subtotal		31,522	31,289		75,498	80,010
Total derivatives not designated as hedging instruments		32,647	32,079		77,869	81,699
Total derivatives before netting		35,885	34,729		85,129	87,188
Netting (3)		(22,612)	(23,093)		(70,631)	(72,696)
Total	\$ 13,273	11,636			14,498	14,492

(1) Notional amounts presented exclude \$500 million and \$1.9 billion of interest rate contracts at June 30, 2017, and December 31, 2016, respectively, for certain derivatives that are combined for designation as a hedge on a single instrument. The notional amount for foreign exchange contracts at June 30, 2017, and December 31, 2016, excludes \$12.9 billion and \$9.6 billion, respectively, for certain derivatives that are combined for designation as a hedge on a single instrument.

(2) Includes economic hedge derivatives used to hedge the risk of changes in the fair value of residential MSRs, MHFS, loans, derivative loan commitments and other interests held.

(3) Represents balance sheet netting of derivative asset and liability balances, related cash collateral and portfolio level counterparty valuation adjustments. See Table 12.2 for further information.

Table 12.2 provides information on the gross fair values of derivative assets and liabilities, the balance sheet netting adjustments and the resulting net fair value amount recorded on our balance sheet, as well as the non-cash collateral associated with such arrangements. We execute substantially all of our derivative transactions under master netting arrangements and reflect all derivative balances and related cash collateral subject to enforceable master netting arrangements on a net basis within the balance sheet. The “Gross amounts recognized” column in the following table includes \$26.6 billion and \$28.9 billion of gross derivative assets and liabilities, respectively, at June 30, 2017, and \$74.4 billion and \$78.4 billion, respectively, at December 31, 2016, with counterparties subject to enforceable master netting arrangements that are carried on the balance sheet net of offsetting amounts. The remaining gross derivative assets and liabilities of \$9.3 billion and \$5.8 billion, respectively, at June 30, 2017, and \$10.7 billion and \$8.7 billion, respectively, at December 31, 2016, include those with counterparties subject to master netting arrangements for which we have not assessed the enforceability because they are with counterparties where we do not currently have positions to offset, those subject to master netting arrangements where we have not been able to confirm the enforceability and those not subject to master netting arrangements. As such, we do not net derivative balances or collateral within the balance sheet for these counterparties.

We determine the balance sheet netting adjustments based on the terms specified within each master netting arrangement. We disclose the balance sheet netting amounts within the column titled “Gross amounts offset in consolidated balance sheet.” Balance sheet netting adjustments are determined at the counterparty level for which there may be multiple contract types. For disclosure purposes, we allocate these netting adjustments to the contract type for each counterparty proportionally based upon the “Gross amounts recognized” by counterparty. As a result, the net amounts disclosed by contract type may not represent the actual exposure upon settlement of the contracts.

We do not net non-cash collateral that we receive and pledge on the balance sheet. For disclosure purposes, we present the fair value of this non-cash collateral in the column titled “Gross amounts not offset in consolidated balance sheet (Disclosure-only netting)” within the table. We determine and allocate the Disclosure-only netting amounts in the same manner as balance sheet netting amounts.

The “Net amounts” column within Table 12.2 represents the aggregate of our net exposure to each counterparty after considering the balance sheet and Disclosure-only netting adjustments. We manage derivative exposure by monitoring the credit risk associated with each counterparty using counterparty specific credit risk limits, using master netting arrangements and obtaining collateral. Derivative contracts executed in over-the-counter markets include bilateral contractual arrangements that are not cleared through a central clearing organization but are typically subject to master netting arrangements. The percentage of our bilateral derivative transactions outstanding at period end in such markets, based on gross fair value, is provided within the following table. Other derivative contracts executed in over-the-counter or exchange-traded markets are settled through a central clearing organization and are excluded from this percentage. In addition to the netting amounts included in the table, we also have balance sheet netting related to resale and repurchase agreements that are disclosed within Note 10 (Guarantees, Pledged Assets and Collateral).

Note 12: Derivatives (continued)

Table 12.2: Gross Fair Values of Derivative Assets and Liabilities

(in millions)	Gross amounts recognized (1)	Gross amounts offset in consolidated balance sheet (1)(2)	Net amounts in consolidated balance sheet	Gross amounts not offset in consolidated balance sheet (Disclosure-only netting) (3)	Net amounts	Percent exchanged in over-the-counter market (1)(4)
June 30, 2017						
Derivative assets						
Interest rate contracts						
Interest rate contracts	\$ 19,218	(12,424)	6,794	(360)	6,434	98%
Commodity contracts	1,534	(683)	851	(6)	845	80
Equity contracts	6,343	(3,319)	3,024	(452)	2,572	76
Foreign exchange contracts	8,286	(5,905)	2,381	(63)	2,318	100
Credit contracts – protection sold	169	(35)	134	–	134	10
Credit contracts – protection purchased	335	(246)	89	(4)	85	96
Total derivative assets	\$ 35,885	(22,612)	13,273	(885)	12,388	
Derivative liabilities						
Interest rate contracts						
Interest rate contracts	\$ 16,253	(12,396)	3,857	(1,899)	1,958	98%
Commodity contracts	1,666	(321)	1,345	(22)	1,323	88
Equity contracts	7,020	(3,223)	3,797	(394)	3,403	84
Foreign exchange contracts	9,255	(6,921)	2,334	(659)	1,675	100
Credit contracts – protection sold	266	(227)	39	(33)	6	93
Credit contracts – protection purchased	235	(5)	230	(1)	229	8
Other contracts	34	–	34	–	34	100
Total derivative liabilities	\$ 34,729	(23,093)	11,636	(3,008)	8,628	
December 31, 2016						
Derivative assets						
Interest rate contracts						
Interest rate contracts	\$ 65,268	(59,880)	5,388	(987)	4,401	34 %
Commodity contracts	3,057	(707)	2,350	(30)	2,320	74
Equity contracts	5,358	(3,018)	2,340	(365)	1,975	75
Foreign exchange contracts	10,894	(6,663)	4,231	(362)	3,869	97
Credit contracts – protection sold	85	(48)	37	–	37	61
Credit contracts – protection purchased	467	(315)	152	(1)	151	98
Total derivative assets	\$ 85,129	(70,631)	14,498	(1,745)	12,753	
Derivative liabilities						
Interest rate contracts						
Interest rate contracts	\$ 65,209	(58,956)	6,253	(3,129)	3,124	30 %
Commodity contracts	2,551	(402)	2,149	(37)	2,112	38
Equity contracts	6,112	(2,433)	3,679	(331)	3,348	85
Foreign exchange contracts	12,742	(10,572)	2,170	(251)	1,919	100
Credit contracts – protection sold	389	(295)	94	(44)	50	98
Credit contracts – protection purchased	138	(38)	100	(2)	98	50
Other contracts	47	–	47	–	47	100
Total derivative liabilities	\$ 87,188	(72,696)	14,492	(3,794)	10,698	

- (1) In second quarter, 2017, we adopted Settlement to Market treatment for the cash collateralizing our interest rate derivative contracts with certain centrally cleared counterparties. As a result of this adoption, the "gross amounts recognized" and "gross amounts offset in the consolidated balance sheet" columns do not include exposure with certain centrally cleared counterparties because the contracts are considered settled by the collateral. Likewise, what remains in these gross amount columns consists primarily of over-the-counter (OTC) market contracts for most of the contract types as reflected by the high percentage of OTC contracts in the "percent exchanged in over-the counter market" column as of June 30, 2017.
- (2) Represents amounts with counterparties subject to enforceable master netting arrangements that have been offset in the consolidated balance sheet, including related cash collateral and portfolio level counterparty valuation adjustments. Counterparty valuation adjustments were \$289 million and \$348 million related to derivative assets and \$83 million and \$114 million related to derivative liabilities at June 30, 2017, and December 31, 2016, respectively. Cash collateral totaled \$3.6 billion and \$4.3 billion, netted against derivative assets and liabilities, respectively, at June 30, 2017, and \$4.8 billion and \$7.1 billion, respectively, at December 31, 2016.
- (3) Represents non-cash collateral pledged and received against derivative assets and liabilities with the same counterparty that are subject to enforceable master netting arrangements. U.S. GAAP does not permit netting of such non-cash collateral balances in the consolidated balance sheet but requires disclosure of these amounts.
- (4) Represents derivatives executed in over-the-counter markets that are not settled through a central clearing organization. Over-the-counter percentages are calculated based on gross amounts recognized as of the respective balance sheet date. The remaining percentage represents derivatives settled through a central clearing organization, which are executed in either over-the-counter or exchange-traded markets.

Fair Value Hedges

We use derivatives to hedge against changes in fair value of certain financial instruments, including available-for-sale debt securities, mortgages held for sale, and long-term debt. For more information on fair value hedges, see Note 1 (Summary of Significant Accounting Policies) and Note 16 (Derivatives) to Financial Statements in our 2016 Form 10-K.

Table 12.3 shows the net gains (losses) recognized in the income statement related to derivatives in fair value hedging relationships.

Table 12.3: Derivatives in Fair Value Hedging Relationships

(in millions)	Interest rate contracts hedging:			Foreign exchange contracts hedging:		Total net gains (losses) on fair value hedges
	Available-for-sale securities	Mortgages held for sale	Long-term debt	Available-for-sale securities	Long-term debt	
Quarter ended June 30, 2017						
Net interest income (expense) recognized on derivatives	\$ (122)	(2)	372	2	(49)	201
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(287)	(10)	431	(87)	1,426	1,473
Recognized on hedged item	268	6	(399)	86	(1,365)	(1,404)
Net recognized on fair value hedges (ineffective portion) (1)	\$ (19)	(4)	32	(1)	61	69
Quarter ended June 30, 2016						
Net interest income (expense) recognized on derivatives	\$ (170)	(2)	483	2	15	328
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(1,012)	(5)	1,983	134	(455)	645
Recognized on hedged item	1,018	6	(1,762)	(133)	394	(477)
Net recognized on fair value hedges (ineffective portion) (1)	\$ 6	1	221	1	(61)	168
Six months ended June 30, 2017						
Net interest income (expense) recognized on derivatives (1)	\$ (253)	(4)	799	6	(82)	466
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(161)	(11)	(133)	(129)	1,583	1,149
Recognized on hedged item	127	6	141	130	(1,676)	(1,272)
Net recognized on fair value hedges (ineffective portion)	\$ (34)	(5)	8	1	(93)	(123)
Six months ended June 30, 2016						
Net interest income (expense) recognized on derivatives (1)	\$ (351)	(4)	965	2	31	643
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(2,695)	(42)	5,086	68	1,163	3,580
Recognized on hedged item	2,709	39	(4,569)	(74)	(1,008)	(2,903)
Net recognized on fair value hedges (ineffective portion)	\$ 14	(3)	517	(6)	155	677

(1) The second quarter and first half of 2017 included \$0 million and \$(1) million, respectively, and the second quarter and first half of 2016 included \$(3) million and \$(7) million, respectively, of the time value component recognized as net interest income (expense) on forward derivatives hedging foreign currency that were excluded from the assessment of hedge effectiveness.

Cash Flow Hedges

We use derivatives to hedge certain financial instruments against future interest rate increases and to limit the variability of cash flows on certain financial instruments due to changes in the benchmark interest rate. For more information on cash flow hedges, see Note 1 (Summary of Significant Accounting Policies) and Note 16 (Derivatives) to Financial Statements in our 2016 Form 10-K.

Based upon current interest rates, we estimate that \$309 million (pre tax) of deferred net gains on derivatives in OCI

at June 30, 2017, will be reclassified into net interest income during the next twelve months. Future changes to interest rates may significantly change actual amounts reclassified to earnings. We are hedging our exposure to the variability of future cash flows for all forecasted transactions for a maximum of 6 years.

Table 12.4 shows the net gains (losses) recognized related to derivatives in cash flow hedging relationships.

Table 12.4: Derivatives in Cash Flow Hedging Relationships

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Gains (losses) (pre tax) recognized in OCI on derivatives	\$ 376	1,057	243	3,056
Gains (pre tax) reclassified from cumulative OCI into net income (1)	153	265	355	521
Gains (losses) (pre tax) recognized in noninterest income for hedge ineffectiveness (2)	—	—	(3)	1

(1) See Note 17 (Other Comprehensive Income) for detail on components of net income.

(2) None of the change in value of the derivatives was excluded from the assessment of hedge effectiveness.

Derivatives Not Designated as Hedging Instruments

We use economic hedges primarily to hedge the risk of changes in the fair value of certain residential MHFS, residential MSRs measured at fair value, derivative loan commitments and other interests held. We also use economic hedge derivatives to mitigate the periodic earnings volatility caused by ineffectiveness recognized on our fair value accounting hedges. The resulting gain or loss on these economic hedge derivatives is reflected in mortgage banking noninterest income, net gains (losses) from equity investments and other noninterest income.

The derivatives used to hedge MSRs measured at fair value, resulted in net derivative gains (losses) of \$431 million and \$359 million in the second quarter and first half of 2017, respectively, and \$978 million and \$2.4 billion in the second quarter and first half of 2016, respectively, which are included in mortgage banking noninterest income. The aggregate fair value of these derivatives was a net asset of \$96 million at June 30, 2017, and net liability of \$617 million at December 31, 2016. The

change in fair value of these derivatives for each period end is due to changes in the underlying market indices and interest rates as well as the purchase and sale of derivative financial instruments throughout the period as part of our dynamic MSR risk management process.

Interest rate lock commitments for mortgage loans that we intend to sell are considered derivatives. The aggregate fair value of derivative loan commitments on the balance sheet was a net asset of \$12 million and net liability of \$6 million at June 30, 2017, and December 31, 2016, respectively, and is included in the caption "Interest rate contracts" under "Customer accommodation trading and other derivatives" in Table 12.1 in this Note.

For more information on economic hedges and other derivatives, see Note 16 (Derivatives) to Financial Statements in our 2016 Form 10-K. Table 12.5 shows the net gains recognized in the income statement related to derivatives not designated as hedging instruments.

Table 12.5: Derivatives Not Designated as Hedging Instruments

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Net gains (losses) recognized on economic hedges derivatives:				
Interest rate contracts				
Recognized in noninterest income:				
Mortgage banking (1)	\$ 351	566	342	1,431
Other (2)	(51)	(117)	(45)	(252)
Equity contracts (3)	(205)	205	(686)	288
Foreign exchange contracts (2)	(441)	495	(534)	329
Credit contracts (2)	10	—	14	—
Subtotal (4)	(336)	1,149	(909)	1,796
Net gains (losses) recognized on customer accommodation trading and other derivatives:				
Interest rate contracts				
Recognized in noninterest income:				
Mortgage banking (5)	254	510	447	975
Other (6)	18	(280)	63	(730)
Commodity contracts (6)	15	64	75	117
Equity contracts (6)	(565)	(315)	(1,674)	(295)
Foreign exchange contracts (6)	16	276	201	498
Credit contracts (6)	(13)	(25)	(28)	(41)
Other (2)	2	(9)	14	(30)
Subtotal	(273)	221	(902)	494
Net gains (losses) recognized related to derivatives not designated as hedging instruments	\$ (609)	1,370	(1,811)	2,290

(1) Reflected in mortgage banking noninterest income including gains (losses) on the derivatives used as economic hedges of MSRs measured at fair value, interest rate lock commitments and mortgages held for sale.

(2) Included in other noninterest income.

(3) Included in net gains (losses) from equity investments and other noninterest income.

(4) Includes hedging gains (losses) of \$(48) million and \$(46) million for the second quarter and first half of 2017, respectively, and \$(113) million and \$(244) million for the second quarter and first half of 2016, respectively, which partially offset hedge accounting ineffectiveness.

(5) Reflected in mortgage banking noninterest income including gains (losses) on interest rate lock commitments and net gains from trading activities in noninterest income.

(6) Included in net gains from trading activities in noninterest income.

Credit Derivatives

Credit derivative contracts are arrangements whose value is derived from the transfer of credit risk of a reference asset or entity from one party (the purchaser of credit protection) to another party (the seller of credit protection). We use credit derivatives to assist customers with their risk management objectives. We may also use credit derivatives in structured product transactions or liquidity agreements written to special purpose vehicles. The maximum exposure of sold credit derivatives is managed through posted collateral, purchased credit derivatives and similar products in order to achieve our desired credit risk profile. This credit risk management provides an ability to recover a significant portion of any amounts that would be paid under the sold credit derivatives. We would be

required to perform under sold credit derivatives in the event of default by the referenced obligors. Events of default include events such as bankruptcy, capital restructuring or lack of principal and/or interest payment. In certain cases, other triggers may exist, such as the credit downgrade of the referenced obligors or the inability of the special purpose vehicle for which we have provided liquidity to obtain funding.

Table 12.6 provides details of sold and purchased credit derivatives.

Table 12.6: Sold and Purchased Credit Derivatives

(in millions)	Fair value liability	Protection sold (A)	Notional amount						
			Protection sold – non-investment grade	Protection purchased with identical underlyings (B)	Net protection sold (A) – (B)	Other protection purchased	Range of maturities		
June 30, 2017									
Credit default swaps on:									
Corporate bonds	\$ 21	1,860	470	1,288	572	1,197	2017 - 2027		
Structured products	111	250	244	221	29	153	2020 - 2047		
Credit protection on:									
Default swap index	—	4,638	761	494	4,144	6,803	2017 - 2027		
Commercial mortgage-backed securities index	116	476	—	435	41	157	2047 - 2058		
Asset-backed securities index	17	43	—	39	4	5	2045 - 2046		
Other	1	3,578	3,579	—	3,578	11,137	2017 - 2028		
Total credit derivatives	\$ 266	10,845	5,054	2,477	8,368	19,452			
December 31, 2016									
Credit default swaps on:									
Corporate bonds	\$ 22	4,324	1,704	3,060	1,264	1,804	2017 - 2026		
Structured products	193	405	333	295	110	79	2020 - 2047		
Credit protection on:									
Default swap index	—	1,515	257	139	1,376	3,668	2017 - 2021		
Commercial mortgage-backed securities index	156	627	—	584	43	71	2047 - 2058		
Asset-backed securities index	17	45	—	40	5	187	2045 - 2046		
Other	1	3,567	3,568	—	3,567	10,519	2017 - 2047		
Total credit derivatives	\$ 389	10,483	5,862	4,118	6,365	16,328			

Protection sold represents the estimated maximum exposure to loss that would be incurred under an assumed hypothetical circumstance, where the value of our interests and any associated collateral declines to zero, without any consideration of recovery or offset from any economic hedges. We believe this hypothetical circumstance to be a remote possibility and accordingly, this required disclosure is not an indication of expected loss. The amounts under non-investment grade represent the notional amounts of those credit derivatives on which we have a higher risk of being required to perform under the terms of the credit derivative and are a function of the underlying assets.

We consider the risk of performance to be high if the underlying assets under the credit derivative have an external rating that is below investment grade or an internal credit default grade that is equivalent thereto. We believe the net protection sold, which is representative of the net notional amount of protection sold and purchased with identical underlyings, in combination with other protection purchased, is more representative of our exposure to loss than either non-investment grade or protection sold. Other protection purchased represents additional protection, which may offset the exposure to loss for protection sold, that was not purchased with an identical underlying of the protection sold.

Credit-Risk Contingent Features

Certain of our derivative contracts contain provisions whereby if the credit rating of our debt were to be downgraded by certain major credit rating agencies, the counterparty could demand additional collateral or require termination or replacement of derivative instruments in a net liability position. The aggregate fair value of all derivative instruments with such credit-risk-related contingent features that are in a net liability position was \$10.4 billion at June 30, 2017, and \$12.8 billion at December 31, 2016, for which we posted \$8.1 billion and \$8.9 billion, respectively, in collateral in the normal course of business. A credit rating below investment grade is the credit-risk-related contingent feature that if triggered requires the maximum amount of collateral to be posted. If the credit rating of our debt had been downgraded below investment grade, on June 30, 2017, or December 31, 2016, we would have been required to post additional collateral of \$2.4 billion or \$4.0 billion, respectively, or potentially settle the contract in an amount equal to its fair value. Some contracts require that we provide more collateral than the fair value of derivatives that are in a net liability position if a downgrade occurs.

Counterparty Credit Risk

By using derivatives, we are exposed to counterparty credit risk if counterparties to the derivative contracts do not perform as expected. If a counterparty fails to perform, our counterparty credit risk is equal to the amount reported as a derivative asset on our balance sheet. The amounts reported as a derivative asset are derivative contracts in a gain position, and to the extent subject to legally enforceable master netting arrangements, net of derivatives in a loss position with the same counterparty and cash collateral received. We minimize counterparty credit risk through credit approvals, limits, monitoring procedures, executing master netting arrangements and obtaining collateral, where appropriate. To the extent the master netting arrangements and other criteria meet the applicable requirements, including determining the legal enforceability of the arrangement, it is our policy to present derivative balances and related cash collateral amounts net on the balance sheet. We incorporate credit valuation adjustments (CVA) to reflect counterparty credit risk in determining the fair value of our derivatives. Such adjustments, which consider the effects of enforceable master netting agreements and collateral arrangements, reflect market-based views of the credit quality of each counterparty. Our CVA calculation is determined based on observed credit spreads in the credit default swap market and indices indicative of the credit quality of the counterparties to our derivatives.

Note 13: Fair Values of Assets and Liabilities

We use fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Assets and liabilities recorded at fair value on a recurring basis are presented in Table 13.2 in this Note. From time to time, we may be required to record fair value adjustments on a nonrecurring basis. These nonrecurring fair value adjustments typically involve application of LOCOM accounting or write-downs of individual assets. Assets recorded on a nonrecurring basis are presented in Table 13.14 in this Note.

See Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2016 Form 10-K for discussion of how we determine fair value. For descriptions of the valuation methodologies we use for assets and liabilities recorded at fair value on a recurring or nonrecurring basis and for estimating fair value for financial instruments that are not recorded at fair value, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in our 2016 Form 10-K.

FAIR VALUE HIERARCHY We group our assets and liabilities measured at fair value in three levels based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

- Level 1 – Valuation is based upon quoted prices for identical instruments traded in active markets.
- Level 2 – Valuation is based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.
- Level 3 – Valuation is generated from techniques that use significant assumptions that are not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

In accordance with new accounting guidance that we adopted effective January 1, 2016, we do not classify an investment in the fair value hierarchy if we use the non-published net asset value (NAV) per share (or its equivalent) that has been communicated to us as an investor as a practical expedient to measure fair value. We generally use NAV per share as the fair value measurement for certain nonmarketable equity fund investments. This guidance was required to be applied retrospectively. Accordingly, certain prior period fair value disclosures have been revised to conform with current period presentation. Marketable equity investments with published NAVs continue to be classified in the fair value hierarchy.

Fair Value Measurements from Vendors

For certain assets and liabilities, we obtain fair value measurements from vendors, which predominantly consist of third-party pricing services, and record the unadjusted fair value in our financial statements. For additional information, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in our 2016 Form 10-K. Table 13.1 presents unadjusted fair value measurements provided by brokers or third-party pricing services by fair value hierarchy level. Fair value measurements obtained from brokers or third-party pricing services that we have adjusted to determine the fair value recorded in our financial statements are excluded from Table 13.1.

Note 13: Fair Values of Assets and Liabilities (continued)

Table 13.1: Fair Value Measurements by Brokers or Third-Party Pricing Services

(in millions)	Brokers			Third-party pricing services		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
June 30, 2017						
Trading assets	\$ —	—	—	832	344	—
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	—	—	—	14,940	2,956	—
Securities of U.S. states and political subdivisions	—	—	—	—	50,456	208
Mortgage-backed securities	—	41	—	—	148,097	76
Other debt securities (1)	—	491	1,129	—	45,523	26
Total debt securities	—	532	1,129	14,940	247,032	310
Total marketable equity securities	—	—	—	—	287	—
Total available-for-sale securities	—	532	1,129	14,940	247,319	310
Derivatives assets	—	—	—	21	3	—
Derivatives liabilities	—	—	—	(18)	(7)	—
Other liabilities (2)	—	—	—	—	—	—
December 31, 2016						
Trading assets	\$ —	—	—	899	60	—
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	—	—	—	22,870	2,949	—
Securities of U.S. states and political subdivisions	—	—	—	—	49,837	208
Mortgage-backed securities	—	171	—	—	176,923	92
Other debt securities (1)	—	450	968	—	49,162	54
Total debt securities	—	621	968	22,870	278,871	354
Total marketable equity securities	—	—	—	—	358	—
Total available-for-sale securities	—	621	968	22,870	279,229	354
Derivatives assets	—	—	—	22	—	—
Derivatives liabilities	—	—	—	(109)	(1)	—
Other liabilities (2)	—	—	—	—	—	—

(1) Includes corporate debt securities, collateralized loan and other debt obligations, asset-backed securities, and other debt securities.

(2) Includes short sale liabilities and other liabilities.

Assets and Liabilities Recorded at Fair Value on a Recurring Basis

Table 13.2 presents the balances of assets and liabilities recorded at fair value on a recurring basis.

Table 13.2: Fair Value on a Recurring Basis

(in millions)	Level 1	Level 2	Level 3	Netting	Total
June 30, 2017					
Trading assets					
Securities of U.S. Treasury and federal agencies	\$ 13,484	3,061	—	—	16,545
Securities of U.S. states and political subdivisions	—	3,070	9	—	3,079
Collateralized loan obligations	—	386	403	—	789
Corporate debt securities	—	10,229	26	—	10,255
Mortgage-backed securities	—	22,480	—	—	22,480
Asset-backed securities	—	1,160	—	—	1,160
Equity securities	27,286	240	—	—	27,526
Total trading securities (1)	40,770	40,626	438	—	81,834
Other trading assets	—	1,734	39	—	1,773
Total trading assets	40,770	42,360	477	—	83,607
Securities of U.S. Treasury and federal agencies	14,940	2,956	—	—	17,896
Securities of U.S. states and political subdivisions	—	50,456	1,557 (2)	—	52,013
Mortgage-backed securities:					
Federal agencies	—	135,938	—	—	135,938
Residential	—	7,358	1	—	7,359
Commercial	—	5,338	75	—	5,413
Total mortgage-backed securities	—	148,634	76	—	148,710
Corporate debt securities	54	9,172	376	—	9,602
Collateralized loan and other debt obligations (3)	—	32,453	1,002 (2)	—	33,455
Asset-backed securities:					
Automobile loans and leases	—	530	—	—	530
Home equity loans	—	319	—	—	319
Other asset-backed securities	—	4,777	872 (2)	—	5,649
Total asset-backed securities	—	5,626	872	—	6,498
Other debt securities	—	—	—	—	—
Total debt securities	14,994	249,297	3,883	—	268,174
Marketable equity securities:					
Perpetual preferred securities	178	287	—	—	465
Other marketable equity securities	563	—	—	—	563
Total marketable equity securities	741	287	—	—	1,028
Total available-for-sale securities	15,735	249,584	3,883	—	269,202
Mortgages held for sale	—	18,548	995	—	19,543
Loans	—	—	443	—	443
Mortgage servicing rights (residential)	—	—	12,789	—	12,789
Derivative assets:					
Interest rate contracts	28	18,998	192	—	19,218
Commodity contracts	—	1,504	30	—	1,534
Equity contracts	1,545	3,618	1,180	—	6,343
Foreign exchange contracts	21	8,247	18	—	8,286
Credit contracts	—	320	184	—	504
Netting	—	—	—	(22,612) (4)	(22,612)
Total derivative assets	1,594	32,687	1,604	(22,612)	13,273
Other assets – excluding nonmarketable equity investments at NAV	—	26	3,960	—	3,986
Total assets included in the fair value hierarchy	\$ 58,099	343,205	24,151	(22,612)	402,843
Other assets – nonmarketable equity investments at NAV (5)					—
Total assets recorded at fair value					\$ 402,843
Derivative liabilities:					
Interest rate contracts	\$ (30)	(16,146)	(77)	—	(16,253)
Commodity contracts	—	(1,653)	(13)	—	(1,666)
Equity contracts	(1,089)	(4,280)	(1,651)	—	(7,020)
Foreign exchange contracts	(18)	(9,223)	(14)	—	(9,255)
Credit contracts	—	(389)	(112)	—	(501)
Other derivative contracts	—	—	(34)	—	(34)
Netting	—	—	—	23,093 (4)	23,093
Total derivative liabilities	(1,137)	(31,691)	(1,901)	23,093	(11,636)
Short sale liabilities:					
Securities of U.S. Treasury and federal agencies	(8,906)	(622)	—	—	(9,528)
Corporate debt securities	—	(5,180)	—	—	(5,180)
Equity securities	(2,073)	(18)	—	—	(2,091)
Other securities	—	(45)	—	—	(45)
Total short sale liabilities	(10,979)	(5,865)	—	—	(16,844)
Other liabilities	—	—	(3)	—	(3)
Total liabilities recorded at fair value	\$ (12,116)	(37,556)	(1,904)	23,093	(28,483)

(1) Net gains (losses) from trading activities recognized in the income statement for the first half of June 30, 2017 and 2016 include \$1.1 billion and \$1.1 billion in net unrealized gains (losses) on trading securities held at June 30, 2017 and 2016, respectively.
(2) Balances consist of securities that are mostly investment grade based on ratings received from the ratings agencies or internal credit grades categorized as investment grade if external ratings are not available. The securities are classified as Level 3 due to limited market activity.
(3) Includes collateralized debt obligations of \$998 million.
(4) Represents balance sheet netting of derivative asset and liability balances and related cash collateral. See Note 12 (Derivatives) for additional information.
(5) Consists of certain nonmarketable equity investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

(continued on following page)

Note 13: Fair Values of Assets and Liabilities (continued)

(continued from previous page)

(in millions)	Level 1	Level 2	Level 3	Netting	Total
December 31, 2016					
Trading assets					
Securities of U.S. Treasury and federal agencies	\$ 14,950	2,710	—	—	17,660
Securities of U.S. states and political subdivisions	—	2,910	3	—	2,913
Collateralized loan obligations	—	501	309	—	810
Corporate debt securities	—	9,481	34	—	9,515
Mortgage-backed securities	—	20,254	—	—	20,254
Asset-backed securities	—	1,128	—	—	1,128
Equity securities	20,462	290	—	—	20,752
Total trading securities (1)	35,412	37,274	346	—	73,032
Other trading assets					
Total trading assets	35,412	38,611	374	—	74,397
Securities of U.S. Treasury and federal agencies	22,870	2,949	—	—	25,819
Securities of U.S. states and political subdivisions	—	49,961	1,140 (2)	—	51,101
Mortgage-backed securities:					
Federal agencies	—	161,230	—	—	161,230
Residential	—	7,815	1	—	7,816
Commercial	—	8,411	91	—	8,502
Total mortgage-backed securities	—	177,456	92	—	177,548
Corporate debt securities	58	10,967	432	—	11,457
Collateralized loan and other debt obligations (3)	—	34,141	879 (2)	—	35,020
Asset-backed securities:					
Automobile loans and leases	—	9	—	—	9
Home equity loans	—	327	—	—	327
Other asset-backed securities	—	4,909	962 (2)	—	5,871
Total asset-backed securities	—	5,245	962	—	6,207
Other debt securities	—	1	—	—	1
Total debt securities	22,928	280,720	3,505	—	307,153
Marketable equity securities:					
Perpetual preferred securities	112	357	—	—	469
Other marketable equity securities	741	1	—	—	742
Total marketable equity securities	853	358	—	—	1,211
Total available-for-sale securities	23,781	281,078	3,505	—	308,364
Mortgages held for sale	—	21,057	985	—	22,042
Loans	—	—	758	—	758
Mortgage servicing rights (residential)	—	—	12,959	—	12,959
Derivative assets:					
Interest rate contracts	44	64,986	238	—	65,268
Commodity contracts	—	3,020	37	—	3,057
Equity contracts	1,314	2,997	1,047	—	5,358
Foreign exchange contracts	22	10,843	29	—	10,894
Credit contracts	—	280	272	—	552
Netting	—	—	—	(70,631) (4)	(70,631)
Total derivative assets	1,380	82,126	1,623	(70,631)	14,498
Other assets – excluding nonmarketable equity investments at NAV	—	16	3,259	—	3,275
Total assets included in the fair value hierarchy	\$ 60,573	422,888	23,463	(70,631)	436,293
Other assets – nonmarketable equity investments at NAV (5)					—
Total assets recorded at fair value				\$ 436,293	
Derivative liabilities:					
Interest rate contracts	\$ (45)	(65,047)	(117)	—	(65,209)
Commodity contracts	—	(2,537)	(14)	—	(2,551)
Equity contracts	(919)	(3,879)	(1,314)	—	(6,112)
Foreign exchange contracts	(109)	(12,616)	(17)	—	(12,742)
Credit contracts	—	(332)	(195)	—	(527)
Other derivative contracts	—	—	(47)	—	(47)
Netting	—	—	—	72,696 (4)	72,696
Total derivative liabilities	(1,073)	(84,411)	(1,704)	72,696	(14,492)
Short sale liabilities:					
Securities of U.S. Treasury and federal agencies	(9,722)	(701)	—	—	(10,423)
Corporate debt securities	—	(4,063)	—	—	(4,063)
Equity securities	(1,795)	—	—	—	(1,795)
Other securities	—	(98)	—	—	(98)
Total short sale liabilities	(11,517)	(4,862)	—	—	(16,379)
Other liabilities	—	—	(4)	—	(4)
Total liabilities recorded at fair value	\$ (12,590)	(89,273)	(1,708)	72,696	(30,875)

(1) Net gains (losses) from trading activities recognized in the income statement for the year ended December 31, 2016, include \$820 million in net unrealized gains (losses) on trading securities held at December 31, 2016.

(2) Balances consist of securities that are mostly investment grade based on ratings received from the ratings agencies or internal credit grades categorized as investment grade if external ratings are not available. The securities are classified as Level 3 due to limited market activity.

(3) Includes collateralized debt obligations of \$847 million.

(4) Represents balance sheet netting of derivative asset and liability balances and related cash collateral. See Note 12 (Derivatives) for additional information.

(5) Consists of certain nonmarketable equity investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

Changes in Fair Value Levels

We monitor the availability of observable market data to assess the appropriate classification of financial instruments within the fair value hierarchy and transfer between Level 1, Level 2, and Level 3 accordingly. Observable market data includes but is not limited to quoted prices and market transactions. Changes in economic conditions or market liquidity generally will drive changes in availability of observable market data. Changes in availability of observable market data, which also may result in

changing the valuation technique used, are generally the cause of transfers between Level 1, Level 2, and Level 3.

Transfers into and out of Level 1, Level 2, and Level 3 are provided within Table 13.3 for the periods presented. The amounts reported as transfers represent the fair value as of the beginning of the quarter in which the transfer occurred.

Table 13.3: Transfers Between Fair Value Levels

(in millions)	Transfers Between Fair Value Levels						
	Level 1		Level 2		Level 3 (1)		Total
	In	Out	In	Out	In	Out	
Quarter ended June 30, 2017							
Trading assets	\$ —	—	—	—	(16)	16	—
Available-for-sale securities	—	—	424	—	—	(424)	—
Mortgages held for sale	—	—	5	(19)	19	(5)	—
Other assets	—	—	—	(1)	1	—	—
Net derivative assets and liabilities (2)	—	—	80	—	—	(80)	—
Short sale liabilities	—	—	—	—	—	—	—
Total transfers	\$ —	—	509	(36)	36	(509)	—
Quarter ended June 30, 2016							
Trading assets	\$ —	(4)	4	—	—	—	—
Available-for-sale securities	—	—	16	—	—	(16)	—
Mortgages held for sale	—	—	7	(25)	25	(7)	—
Other assets	—	—	—	—	—	—	—
Net derivative assets and liabilities (2)	—	—	(12)	(3)	3	12	—
Short sale liabilities	—	—	—	—	—	—	—
Total transfers	\$ —	(4)	15	(28)	28	(11)	—
Six months ended June 30, 2017							
Trading assets	\$ —	—	1	(19)	19	(1)	—
Available-for-sale securities	—	—	496	(5)	5	(496)	—
Mortgages held for sale	—	—	6	(61)	61	(6)	—
Other assets	—	—	—	(1)	1	—	—
Net derivative assets and liabilities (2)	—	—	83	22	(22)	(83)	—
Short sale liabilities	—	—	—	—	—	—	—
Total transfers	\$ —	—	586	(64)	64	(586)	—
Six months ended June 30, 2016							
Trading assets	\$ 4	(4)	15	(4)	—	(11)	—
Available-for-sale securities	—	—	16	(80)	80	(16)	—
Mortgages held for sale	—	—	9	(54)	54	(9)	—
Other assets	—	—	—	—	—	—	—
Net derivative assets and liabilities (2)	—	—	50	(28)	28	(50)	—
Short sale liabilities	(1)	—	—	1	—	—	—
Total transfers	\$ 3	(4)	90	(165)	162	(86)	—

(1) All transfers in and out of Level 3 are disclosed within the recurring Level 3 rollforward tables in this Note.

(2) Includes transfers of net derivative assets and net derivative liabilities between levels due to changes in observable market data.

Note 13: Fair Values of Assets and Liabilities (continued)

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the quarter ended June 30, 2017, are presented in Table 13.4.

Table 13.4: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – Quarter ended June 30, 2017

(in millions)	Balance, beginning of period	Net income	Other compre- hensive income	Total net gains (losses) included in	Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end (2)								
Quarter ended June 30, 2017																	
Trading assets:																	
Securities of U.S. states and political subdivisions	\$ 3	—	—	6	—	—	—	9	—								
Collateralized loan obligations	398	(7)	—	12	—	—	—	403	7								
Corporate debt securities	37	1	—	(12)	—	—	—	26	(1)								
Mortgage-backed securities	—	—	—	—	—	—	—	—	—								
Asset-backed securities	—	—	—	—	—	—	—	—	—								
Equity securities	—	—	—	—	—	—	—	—	—								
Total trading securities	438	(6)	—	6	—	—	—	438	6								
Other trading assets	26	(1)	—	(2)	16	—	—	39	(1)								
Total trading assets	464	(7)	—	4	16	—	—	477	5 (3)								
Available-for-sale securities:																	
Securities of U.S. states and political subdivisions	1,360	1	2	618	—	(424)	1,557	—	—								
Mortgage-backed securities:																	
Residential	1	—	—	—	—	—	—	1	—								
Commercial	89	(3)	(5)	(6)	—	—	—	75	(7)								
Total mortgage-backed securities	90	(3)	(5)	(6)	—	—	—	76	(7)								
Corporate debt securities	391	—	2	(17)	—	—	—	376	—								
Collateralized loan and other debt obligations	964	5	4	29	—	—	—	1,002	—								
Asset-backed securities:																	
Automobile loans and leases	—	—	—	—	—	—	—	—	—								
Other asset-backed securities	845	—	1	26	—	—	—	872	—								
Total asset-backed securities	845	—	1	26	—	—	—	872	—								
Total debt securities	3,650	3	4	650	—	(424)	3,883	(7) (4)									
Marketable equity securities:																	
Perpetual preferred securities	—	—	—	—	—	—	—	—	—								
Other marketable equity securities	—	—	—	—	—	—	—	—	—								
Total marketable equity securities	—	—	—	—	—	—	—	— (5)									
Total available-for-sale securities	3,650	3	4	650	—	(424)	3,883	(7)									
Mortgages held for sale	957	(1)	—	25	19	(5)	995	— (6)									
Loans	505	—	—	(62)	—	—	443	(4) (6)									
Mortgage servicing rights (residential) (7)	13,208	(847)	—	428	—	—	12,789	(360) (6)									
Net derivative assets and liabilities:																	
Interest rate contracts	218	258	—	(361)	—	—	115	12									
Commodity contracts	19	—	—	—	—	(2)	17	2									
Equity contracts	(299)	(14)	—	(80)	—	(78)	(471)	(109)									
Foreign exchange contracts	3	1	—	—	—	—	4	1									
Credit contracts	87	28	—	(43)	—	—	72	(17)									
Other derivative contracts	(36)	3	—	(1)	—	—	(34)	2									
Total derivative contracts	(8)	276	—	(485)	—	(80)	(297)	(109) (8)									
Other assets	3,740	220	—	(1)	1	—	3,960	226 (5)									
Short sale liabilities	—	—	—	—	—	—	—	— (3)									
Other liabilities	(4)	1	—	—	—	—	(3)	— (6)									

(1) See Table 13.5 for detail.

(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.

(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.

(4) Included in net gains (losses) from debt securities in the income statement.

(5) Included in net gains (losses) from equity investments in the income statement.

(6) Included in mortgage banking and other noninterest income in the income statement.

(7) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

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Table 13.5 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the quarter ended June 30, 2017.

Table 13.5: Gross Purchases, Sales, Issuances and Settlements – Level 3 – Quarter ended June 30, 2017

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Quarter ended June 30, 2017					
Trading assets:					
Securities of U.S. states and political subdivisions	\$ 6	—	—	—	6
Collateralized loan obligations	87	(53)	—	(22)	12
Corporate debt securities	3	(15)	—	—	(12)
Mortgage-backed securities	—	—	—	—	—
Asset-backed securities	—	—	—	—	—
Equity securities	—	—	—	—	—
Total trading securities	96	(68)	—	(22)	6
Other trading assets	—	—	—	(2)	(2)
Total trading assets	96	(68)	—	(24)	4
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	—	—	655	(37)	618
Mortgage-backed securities:					
Residential	—	—	—	—	—
Commercial	—	—	—	(6)	(6)
Total mortgage-backed securities	—	—	—	(6)	(6)
Corporate debt securities	—	—	—	(17)	(17)
Collateralized loan and other debt obligations	57	—	—	(28)	29
Asset-backed securities:					
Automobile loans and leases	—	—	—	—	—
Other asset-backed securities	—	—	161	(135)	26
Total asset-backed securities	—	—	161	(135)	26
Total debt securities	57	—	816	(223)	650
Marketable equity securities:					
Perpetual preferred securities	—	—	—	—	—
Other marketable equity securities	—	—	—	—	—
Total marketable equity securities	—	—	—	—	—
Total available-for-sale securities	57	—	816	(223)	650
Mortgages held for sale	18	(88)	133	(38)	25
Loans	2	—	3	(67)	(62)
Mortgage servicing rights (residential) (1)	—	(8)	436	—	428
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(361)	(361)
Commodity contracts	—	—	—	—	—
Equity contracts	—	(69)	—	(11)	(80)
Foreign exchange contracts	—	—	—	—	—
Credit contracts	2	(1)	—	(44)	(43)
Other derivative contracts	—	—	—	(1)	(1)
Total derivative contracts	2	(70)	—	(417)	(485)
Other assets	—	(1)	—	—	(1)
Short sale liabilities	—	—	—	—	—
Other liabilities	—	—	—	—	—

(1) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

Note 13: Fair Values of Assets and Liabilities (continued)

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the quarter ended June 30, 2016, are presented in Table 13.6.

Table 13.6: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – Quarter ended June 30, 2016

(in millions)	Balance, beginning of period	Total net gains (losses) included in		Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end (2)						
		Net income	Other compre- hensive income											
Quarter ended June 30, 2016														
Trading assets:														
Securities of U.S. states and political subdivisions	\$ 8	—	—	(1)	—	—	7	—						
Collateralized loan obligations	268	1	—	(20)	—	—	249	(4)						
Corporate debt securities	33	(3)	—	6	—	—	36	(2)						
Mortgage-backed securities	—	—	—	—	—	—	—	—						
Asset-backed securities	—	—	—	—	—	—	—	—						
Equity securities	—	—	—	—	—	—	—	—						
Total trading securities	309	(2)	—	(15)	—	—	292	(6)						
Other trading assets	32	1	—	—	—	—	33	3						
Total trading assets	341	(1)	—	(15)	—	—	325	(3) (3)						
Available-for-sale securities:														
Securities of U.S. states and political subdivisions	1,457	3	1	348	—	(16)	1,793	—						
Mortgage-backed securities:														
Residential	1	—	—	—	—	—	1	—						
Commercial	73	—	—	21	—	—	94	—						
Total mortgage-backed securities	74	—	—	21	—	—	95	—						
Corporate debt securities	453	3	9	6	—	—	471	—						
Collateralized loan and other debt obligations	813	8	4	126	—	—	951	—						
Asset-backed securities:														
Automobile loans and leases	—	—	—	—	—	—	—	—						
Other asset-backed securities	1,240	2	(7)	(118)	—	—	1,117	(4)						
Total asset-backed securities	1,240	2	(7)	(118)	—	—	1,117	(4)						
Total debt securities	4,037	16	7	383	—	(16)	4,427	(4) (4)						
Marketable equity securities:														
Perpetual preferred securities	—	—	—	—	—	—	—	—						
Other marketable equity securities	—	—	—	—	—	—	—	—						
Total marketable equity securities	—	—	—	—	—	—	—	(5)						
Total available-for-sale securities	4,037	16	7	383	—	(16)	4,427	(4)						
Mortgages held for sale	1,071	6	—	(11)	25	(7)	1,084	6 (6)						
Loans	5,221	(3)	—	(186)	—	—	5,032	(4) (6)						
Mortgage servicing rights (residential) (7)	11,333	(1,392)	—	455	—	—	10,396	(824) (6)						
Net derivative assets and liabilities:														
Interest rate contracts	501	660	—	(471)	—	—	690	357						
Commodity contracts	11	6	—	1	3	—	21	9						
Equity contracts	(283)	9	—	10	—	12	(252)	(7)						
Foreign exchange contracts	—	—	—	—	—	—	—	—						
Credit contracts	—	(1)	—	62	—	—	61	(4)						
Other derivative contracts	(77)	(9)	—	(2)	—	—	(88)	(10)						
Total derivative contracts	152	665	—	(400)	3	12	432	345 (8)						
Other assets	3,097	(181)	—	122	—	—	3,038	(181) (5)						
Short sale liabilities	—	—	—	—	—	—	—	(3)						
Other liabilities	(5)	—	—	—	—	—	(5)	(6)						

(1) See Table 13.7 for detail.

(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.

(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.

(4) Included in net gains (losses) from debt securities in the income statement.

(5) Included in net gains (losses) from equity investments in the income statement.

(6) Included in mortgage banking and other noninterest income in the income statement.

(7) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

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Table 13.7 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the quarter ended June 30, 2016.

Table 13.7: Gross Purchases, Sales, Issuances and Settlements – Level 3 – Quarter ended June 30, 2016

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Quarter ended June 30, 2016					
Trading assets:					
Securities of U.S. states and political subdivisions	\$ 2	(2)	—	(1)	(1)
Collateralized loan obligations	134	(154)	—	—	(20)
Corporate debt securities	10	(4)	—	—	6
Mortgage-backed securities	—	—	—	—	—
Asset-backed securities	—	—	—	—	—
Equity securities	—	—	—	—	—
Total trading securities	146	(160)	—	(1)	(15)
Other trading assets	—	—	—	—	—
Total trading assets	146	(160)	—	(1)	(15)
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	—	(7)	459	(104)	348
Mortgage-backed securities:					
Residential	—	—	—	—	—
Commercial	22	—	—	(1)	21
Total mortgage-backed securities	22	—	—	(1)	21
Corporate debt securities	6	—	—	—	6
Collateralized loan and other debt obligations	188	(4)	—	(58)	126
Asset-backed securities:					
Automobile loans and leases	—	—	—	—	—
Other asset-backed securities	—	(28)	38	(128)	(118)
Total asset-backed securities	—	(28)	38	(128)	(118)
Total debt securities	216	(39)	497	(291)	383
Marketable equity securities:					
Perpetual preferred securities	—	—	—	—	—
Other marketable equity securities	—	—	—	—	—
Total marketable equity securities	—	—	—	—	—
Total available-for-sale securities	216	(39)	497	(291)	383
Mortgages held for sale	22	(152)	164	(45)	(11)
Loans	8	—	84	(278)	(186)
Mortgage servicing rights (residential) (1)	—	(22)	477	—	455
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(471)	(471)
Commodity contracts	—	—	—	1	1
Equity contracts	16	1	—	(7)	10
Foreign exchange contracts	—	—	—	—	—
Credit contracts	—	(1)	—	63	62
Other derivative contracts	—	—	—	(2)	(2)
Total derivative contracts	16	—	—	(416)	(400)
Other assets	122	—	—	—	122
Short sale liabilities	—	—	—	—	—
Other liabilities	—	—	—	—	—

(1) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

Note 13: Fair Values of Assets and Liabilities (continued)

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the first half of 2017, are presented in Table 13.8.

Table 13.8: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – Six months ended June 30, 2017

(in millions)	Balance, beginning of period	Net income	Other compre- hensive income	Total net gains (losses) included in	Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end (2)
Six months ended June 30, 2017									
Trading assets:									
Securities of U.S. states and political subdivisions									
Securities of U.S. states and political subdivisions	\$ 3	—	—	6	—	—	—	9	—
Collateralized loan obligations	309	(3)	—	97	—	—	—	403	7
Corporate debt securities	34	1	—	(11)	3	(1)	26	—	—
Mortgage-backed securities	—	—	—	—	—	—	—	—	—
Asset-backed securities	—	—	—	—	—	—	—	—	—
Equity securities	—	—	—	—	—	—	—	—	—
Total trading securities	346	(2)	—	92	3	(1)	438	7	
Other trading assets	28	(3)	—	(2)	16	—	39	(1)	
Total trading assets	374	(5)	—	90	19	(1)	477	6	(3)
Available-for-sale securities:									
Securities of U.S. states and political subdivisions									
Securities of U.S. states and political subdivisions	1,140	1	4	903	5	(496)	1,557	—	—
Mortgage-backed securities:									
Residential	1	—	—	—	—	—	—	1	—
Commercial	91	(6)	(1)	(9)	—	—	—	75	(11)
Total mortgage-backed securities	92	(6)	(1)	(9)	—	—	76	(11)	
Corporate debt securities	432	(14)	10	(52)	—	—	—	376	—
Collateralized loan and other debt obligations	879	10	45	68	—	—	—	1,002	—
Asset-backed securities:									
Automobile loans and leases	—	—	—	—	—	—	—	—	—
Other asset-backed securities	962	—	3	(93)	—	—	—	872	—
Total asset-backed securities	962	—	3	(93)	—	—	—	872	—
Total debt securities	3,505	(9)	61	817	5	(496)	3,883	(11)	(4)
Marketable equity securities:									
Perpetual preferred securities									
Perpetual preferred securities	—	—	—	—	—	—	—	—	—
Other marketable equity securities									
Other marketable equity securities	—	—	—	—	—	—	—	—	(5)
Total available-for-sale securities	3,505	(9)	61	817	5	(496)	3,883	(11)	
Mortgages held for sale	985	(10)	—	(35)	61	(6)	995	(10)	(6)
Loans	758	(6)	—	(309)	—	—	443	(8)	(6)
Mortgage servicing rights (residential) (7)	12,959	(1,134)	—	964	—	—	12,789	(186)	(6)
Net derivative assets and liabilities:									
Interest rate contracts	121	467	—	(473)	—	—	115	(7)	
Commodity contracts	23	2	—	(6)	—	(2)	17	14	
Equity contracts	(267)	(58)	—	(43)	(22)	(81)	(471)	(189)	
Foreign exchange contracts	12	(8)	—	—	—	—	4	(5)	
Credit contracts	77	35	—	(40)	—	—	72	(32)	
Other derivative contracts	(47)	14	—	(1)	—	—	(34)	14	
Total derivative contracts	(81)	452	—	(563)	(22)	(83)	(297)	(205)	(8)
Other assets	3,259	701	—	(1)	1	—	3,960	711	(5)
Short sale liabilities	—	—	—	—	—	—	—	—	(3)
Other liabilities	(4)	1	—	—	—	—	(3)	—	(6)

(1) See Table 13.9 for detail.

(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.

(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.

(4) Included in net gains (losses) from debt securities in the income statement.

(5) Included in net gains (losses) from equity investments in the income statement.

(6) Included in mortgage banking and other noninterest income in the income statement.

(7) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

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Table 13.9 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the first half of 2017.

Table 13.9: Gross Purchases, Sales, Issuances and Settlements – Level 3 – Six months ended June 30, 2017

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Six months ended June 30, 2017					
Trading assets:					
Securities of U.S. states and political subdivisions	\$ 7	(1)	–	–	6
Collateralized loan obligations	286	(129)	–	(60)	97
Corporate debt securities	9	(20)	–	–	(11)
Mortgage-backed securities	–	–	–	–	–
Asset-backed securities	–	–	–	–	–
Equity securities	–	–	–	–	–
Total trading securities	302	(150)	–	(60)	92
Other trading assets	–	–	–	(2)	(2)
Total trading assets	302	(150)	–	(62)	90
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	–	–	1,001	(98)	903
Mortgage-backed securities:					
Residential	–	–	–	–	–
Commercial	–	–	–	(9)	(9)
Total mortgage-backed securities	–	–	–	(9)	(9)
Corporate debt securities	4	–	–	(56)	(52)
Collateralized loan and other debt obligations	129	–	–	(61)	68
Asset-backed securities:					
Automobile loans and leases	–	–	–	–	–
Other asset-backed securities	–	–	182	(275)	(93)
Total asset-backed securities	–	–	182	(275)	(93)
Total debt securities	133	–	1,183	(499)	817
Marketable equity securities:					
Perpetual preferred securities	–	–	–	–	–
Other marketable equity securities	–	–	–	–	–
Total marketable equity securities	–	–	–	–	–
Total available-for-sale securities	133	–	1,183	(499)	817
Mortgages held for sale	40	(244)	239	(70)	(35)
Loans	3	(129)	9	(192)	(309)
Mortgage servicing rights (residential) (1)	–	(55)	1,019	–	964
Net derivative assets and liabilities:					
Interest rate contracts	–	–	–	(473)	(473)
Commodity contracts	–	–	–	(6)	(6)
Equity contracts	–	(69)	–	26	(43)
Foreign exchange contracts	–	–	–	–	–
Credit contracts	4	(2)	–	(42)	(40)
Other derivative contracts	–	–	–	(1)	(1)
Total derivative contracts	4	(71)	–	(496)	(563)
Other assets	–	(1)	–	–	(1)
Short sale liabilities	–	–	–	–	–
Other liabilities	–	–	–	–	–

(1) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

Note 13: Fair Values of Assets and Liabilities (continued)

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the first half of 2016, are presented in Table 13.10.

Table 13.10: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – Six months ended June 30, 2016

(in millions)	Balance, beginning of period	Net income	Total net gains (losses) included in other comprehensive income	Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end (2)
Six months ended June 30, 2016								
Trading assets:								
Securities of U.S. states and political subdivisions								
\$ 8	—	—	(1)	—	—	—	7	—
Collateralized loan obligations	343	(24)	—	(59)	—	(11)	249	(25)
Corporate debt securities	56	(8)	—	(12)	—	—	36	(6)
Mortgage-backed securities	—	—	—	—	—	—	—	—
Asset-backed securities	—	—	—	—	—	—	—	—
Equity securities	—	—	—	—	—	—	—	—
Total trading securities	407	(32)	—	(72)	—	(11)	292	(31)
Other trading assets	34	(1)	—	—	—	—	33	3
Total trading assets	441	(33)	—	(72)	—	(11)	325	(28) (3)
Available-for-sale securities:								
Securities of U.S. states and political subdivisions								
1,500	4	4	221	80	(16)	1,793	—	—
Mortgage-backed securities:								
Residential	1	—	—	—	—	—	1	—
Commercial	73	—	—	21	—	—	94	—
Total mortgage-backed securities	74	—	—	21	—	—	95	—
Corporate debt securities	405	5	28	33	—	—	471	—
Collateralized loan and other debt obligations	565	23	(20)	383	—	—	951	—
Asset-backed securities:								
Automobile loans and leases	—	—	—	—	—	—	—	—
Other asset-backed securities	1,182	2	(7)	(60)	—	—	1,117	(4)
Total asset-backed securities	1,182	2	(7)	(60)	—	—	1,117	(4)
Total debt securities	3,726	34	5	598	80	(16)	4,427	(4) (4)
Marketable equity securities:								
Perpetual preferred securities								
—	—	—	—	—	—	—	—	—
Other marketable equity securities								
—	—	—	—	—	—	—	—	—
Total marketable equity securities	—	—	—	—	—	—	—	(5)
Total available-for-sale securities	3,726	34	5	598	80	(16)	4,427	(4)
Mortgages held for sale	1,082	30	—	(73)	54	(9)	1,084	27 (6)
Loans	5,316	(4)	—	(280)	—	—	5,032	(6) (6)
Mortgage servicing rights (residential) (7)	12,415	(2,840)	—	821	—	—	10,396	(1,781) (6)
Net derivative assets and liabilities:								
Interest rate contracts	288	1,259	—	(850)	—	(7)	690	458
Commodity contracts	12	8	—	(2)	3	—	21	13
Equity contracts	(111)	7	—	(130)	25	(43)	(252)	(160)
Foreign exchange contracts	—	—	—	—	—	—	—	—
Credit contracts	(3)	8	—	56	—	—	61	4
Other derivative contracts	(58)	(30)	—	—	—	—	(88)	(30)
Total derivative contracts	128	1,252	—	(926)	28	(50)	432	285 (8)
Other assets	3,065	(238)	—	211	—	—	3,038	(239) (5)
Short sale liabilities	—	—	—	—	—	—	—	— (3)
Other liabilities	(30)	—	—	25	—	—	(5)	— (6)

(1) See Table 13.11 for detail.

(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.

(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.

(4) Included in net gains (losses) from debt securities in the income statement.

(5) Included in net gains (losses) from equity investments in the income statement.

(6) Included in mortgage banking and other noninterest income in the income statement.

(7) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

(continued on following page)

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Table 13.11 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the first half of 2016.

Table 13.11: Gross Purchases, Sales, Issuances and Settlements – Level 3 – Six months ended June 30, 2016

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Six months ended June 30, 2016					
Trading assets:					
Securities of U.S. states and political subdivisions	\$ 2	(2)	—	(1)	(1)
Collateralized loan obligations	190	(249)	—	—	(59)
Corporate debt securities	13	(25)	—	—	(12)
Mortgage-backed securities	—	—	—	—	—
Asset-backed securities	—	—	—	—	—
Equity securities	—	—	—	—	—
Total trading securities	205	(276)	—	(1)	(72)
Other trading assets	—	—	—	—	—
Total trading assets	205	(276)	—	(1)	(72)
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	28	(7)	475	(275)	221
Mortgage-backed securities:					
Residential	—	—	—	—	—
Commercial	22	—	—	(1)	21
Total mortgage-backed securities	22	—	—	(1)	21
Corporate debt securities	34	—	—	(1)	33
Collateralized loan and other debt obligations	489	(4)	—	(102)	383
Asset-backed securities:					
Automobile loans and leases	—	—	—	—	—
Other asset-backed securities	—	(28)	198	(230)	(60)
Total asset-backed securities	—	(28)	198	(230)	(60)
Total debt securities	573	(39)	673	(609)	598
Marketable equity securities:					
Perpetual preferred securities	—	—	—	—	—
Other marketable equity securities	—	—	—	—	—
Total marketable equity securities	—	—	—	—	—
Total available-for-sale securities	573	(39)	673	(609)	598
Mortgages held for sale	44	(311)	282	(88)	(73)
Loans	12	—	172	(464)	(280)
Mortgage servicing rights (residential) (1)	—	(22)	843	—	821
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(850)	(850)
Commodity contracts	—	—	—	(2)	(2)
Equity contracts	29	(146)	—	(13)	(130)
Foreign exchange contracts	—	—	—	—	—
Credit contracts	3	(1)	—	54	56
Other derivative contracts	—	—	—	—	—
Total derivative contracts	32	(147)	—	(811)	(926)
Other assets	211	—	—	—	211
Short sale liabilities	—	—	—	—	—
Other liabilities	—	—	—	25	25

(1) For more information on the changes in mortgage servicing rights, see Note 8 (Mortgage Banking Activities).

Table 13.12 and Table 13.13 provide quantitative information about the valuation techniques and significant unobservable inputs used in the valuation of substantially all of our Level 3 assets and liabilities measured at fair value on a recurring basis for which we use an internal model.

The significant unobservable inputs for Level 3 assets and liabilities that are valued using fair values obtained from third party vendors are not included in the table, as the specific inputs applied are not provided by the vendor. In addition, the table excludes the valuation techniques and significant unobservable inputs for certain classes of Level 3 assets and liabilities measured using an internal model that we consider, both individually and in the aggregate, insignificant relative to our overall Level 3 assets and liabilities. We made this determination

based upon an evaluation of each class, which considered the magnitude of the positions, nature of the unobservable inputs and potential for significant changes in fair value due to changes in those inputs. For information on how changes in significant unobservable inputs affect the fair values of Level 3 assets and liabilities, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in our 2016 Form 10-K.

Note 13: Fair Values of Assets and Liabilities (continued)

Table 13.12: Valuation Techniques – Recurring Basis – June 30, 2017

(\$ in millions, except cost to service amounts)	Fair Value Level 3	Valuation Technique(s)	Significant Unobservable Input	Range of Inputs			Weighted Average (1)			
June 30, 2017										
Trading and available-for-sale securities:										
Securities of U.S. states and political subdivisions:										
Government, healthcare and other revenue bonds	\$ 1,324	Discounted cash flow	Discount rate	1.2 -	5.0 %		2.1			
Auction rate securities and other municipal bonds	34	Discounted cash flow	Discount rate	4.2 -	4.4		4.3			
	208	Vendor priced								
Collateralized loan and other debt obligations (2)	403	Market comparable pricing	Comparability adjustment	(19.5) -	20.8		2.8			
	1,002	Vendor priced								
Asset-backed securities:										
Diversified payment rights (3)	358	Discounted cash flow	Discount rate	1.7 -	4.0		2.9			
Other commercial and consumer	488 (4)	Discounted cash flow	Discount rate	3.3 -	4.7		4.0			
			Weighted average life	0.3 -	3.7 yrs		2.2			
	26	Vendor priced								
Mortgages held for sale (residential)	969	Discounted cash flow	Default rate	0.5 -	7.0 %		1.7			
			Discount rate	1.1 -	6.9		5.2			
			Loss severity	0.0 -	45.2		27.1			
			Prepayment rate	7.1 -	18.3		10.2			
	26	Market comparable pricing	Comparability adjustment	(53.3) -	0.0		(38.5)			
Loans	443 (5)	Discounted cash flow	Discount rate	0.0 -	7.1		0.3			
			Prepayment rate	9.1 -	100.0		94.4			
Mortgage servicing rights (residential)	12,789	Discounted cash flow	Cost to service per loan (6)	\$ 79 -	566		149			
			Discount rate	6.5 -	15.2 %		6.8			
			Prepayment rate (7)	9.6 -	21.7		10.5			
Net derivative assets and (liabilities):										
Interest rate contracts	103	Discounted cash flow	Default rate	0.0 -	6.8		1.7			
			Loss severity	50.0 -	50.0		50.0			
			Prepayment rate	2.8 -	12.5		10.0			
Interest rate contracts: derivative loan commitments	12	Discounted cash flow	Fall-out factor	1.0 -	99.0		17.2			
			Initial-value servicing	(41.8) -	111.8 bps		30.8			
Equity contracts	95	Discounted cash flow	Conversion factor	(10.1) -	0.0 %		(7.9)			
			Weighted average life	0.5 -	2.5 yrs		1.6			
	(566)	Option model	Correlation factor	(77.0) -	98.5 %		37.2			
			Volatility factor	5.0 -	118.2		20.0			
Credit contracts	(4)	Market comparable pricing	Comparability adjustment	(21.1) -	36.0		(1.5)			
	76	Option model	Credit spread	0.0 -	10.1		1.0			
			Loss severity	12.0 -	60.0		48.6			
Other assets: nonmarketable equity investments	10	Discounted cash flow	Discount rate	5.0 -	10.3		9.4			
			Volatility Factor	1.2 -	1.3		1.3			
	3,950	Market comparable pricing	Comparability adjustment	(20.1) -	(4.0)		(15.1)			
Insignificant Level 3 assets, net of liabilities	501 (8)									
Total level 3 assets, net of liabilities	\$ 22,247 (9)									

(1) Weighted averages are calculated using outstanding unpaid principal balance for cash instruments, such as loans and securities, and notional amounts for derivative instruments.

(2) Includes \$998 million of collateralized debt obligations.

(3) Securities backed by specified sources of current and future receivables generated from foreign originators.

(4) A significant portion of the balance consists of investments in asset-backed securities that are revolving in nature, for which the timing of advances and repayments of principal are uncertain.

(5) Consists of reverse mortgage loans.

(6) The high end of the range of inputs is for servicing modified loans. For non-modified loans the range is \$79 - \$288.

(7) Includes a blend of prepayment speeds and expected defaults. Prepayment speeds are influenced by mortgage interest rates as well as our estimation of drivers of borrower behavior.

(8) 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 corporate debt securities, mortgage-backed securities, other trading assets, other liabilities and certain net derivative assets and liabilities, such as commodity contracts, foreign exchange contracts, and other derivative contracts.

(9) Consists of total Level 3 assets of \$24.2 billion and total Level 3 liabilities of \$1.9 billion, before netting of derivative balances.

Table 13.13: Valuation Techniques – Recurring Basis – December 31, 2016

(\$ in millions, except cost to service amounts)	Fair Value Level 3	Valuation Technique(s)	Significant Unobservable Input	Range of Inputs		Weighted Average (1)		
December 31, 2016								
Trading and available-for-sale securities:								
Securities of U.S. states and political subdivisions:								
Government, healthcare and other revenue bonds	\$ 906	Discounted cash flow	Discount rate	1.1 -	5.6 %	2.0		
Auction rate securities and other municipal bonds	29	Discounted cash flow	Discount rate	3.7 -	4.9	4.5		
			Weighted average life	3.6 -	3.6 yrs	3.6		
	208	Vendor priced						
Collateralized loan and other debt obligations (2)	309	Market comparable pricing	Comparability adjustment	(15.5) -	20.3 %	2.9		
	879	Vendor priced						
Asset-backed securities:								
Diversified payment rights (3)	443	Discounted cash flow	Discount rate	1.9 -	4.8	3.3		
Other commercial and consumer	492 (4)	Discounted cash flow	Discount rate	3.0 -	4.6	3.9		
			Weighted average life	0.8 -	4.2 yrs	2.9		
	27	Vendor priced						
Mortgages held for sale (residential)	955	Discounted cash flow	Default rate	0.5 -	7.9 %	1.9		
			Discount rate	1.1 -	6.9	5.1		
			Loss severity	0.1 -	42.5	26.9		
			Prepayment rate	6.3 -	17.1	10.0		
	30	Market comparable pricing	Comparability adjustment	(53.3) -	0.0	(37.8)		
Loans	758 (5)	Discounted cash flow	Discount rate	0.0 -	3.9	0.6		
			Prepayment rate	0.4 -	100.0	83.7		
			Utilization rate	0.0 -	0.8	0.1		
Mortgage servicing rights (residential)	12,959	Discounted cash flow	Cost to service per loan (6)	\$ 79 -	598	155		
			Discount rate	6.5 -	18.4 %	6.8		
			Prepayment rate (7)	9.4 -	20.6	10.3		
Net derivative assets and (liabilities):								
Interest rate contracts	127	Discounted cash flow	Default rate	0.1 -	6.8	2.1		
			Loss severity	50.0 -	50.0	50.0		
			Prepayment rate	2.8 -	12.5	9.6		
Interest rate contracts: derivative loan commitments	(6)	Discounted cash flow	Fall-out factor	1.0 -	99.0	15.0		
			Initial-value servicing	(23.0) -	131.2 bps	56.8		
Equity contracts	79	Discounted cash flow	Conversion factor	(10.6) -	0.0 %	(7.9)		
			Weighted average life	1.0 -	3.0 yrs	2.0		
	(346)	Option model	Correlation factor	(65.0) -	98.5 %	39.9		
			Volatility factor	6.5 -	100.0	20.7		
Credit contracts	(28)	Market comparable pricing	Comparability adjustment	(27.7) -	21.3	0.02		
	105	Option model	Credit spread	0.0 -	11.6	1.2		
			Loss severity	12.0 -	60.0	50.4		
Other assets: nonmarketable equity investments	21	Discounted cash flow	Discount rate	5.0 -	10.3	8.7		
			Volatility Factor	0.3 -	2.4	1.1		
	3,238	Market comparable pricing	Comparability adjustment	(22.1) -	(5.5)	(16.4)		
Insignificant Level 3 assets, net of liabilities	570 (8)							
Total level 3 assets, net of liabilities	\$ 21,755 (9)							

(1) Weighted averages are calculated using outstanding unpaid principal balance for cash instruments, such as loans and securities, and notional amounts for derivative instruments.

(2) Includes \$847 million of collateralized debt obligations.

(3) Securities backed by specified sources of current and future receivables generated from foreign originators.

(4) A significant portion of the balance consists of investments in asset-backed securities that are revolving in nature, for which the timing of advances and repayments of principal are uncertain.

(5) Consists of reverse mortgage loans.

(6) The high end of the range of inputs is for servicing modified loans. For non-modified loans the range is \$79 - \$293.

(7) Includes a blend of prepayment speeds and expected defaults. Prepayment speeds are influenced by mortgage interest rates as well as our estimation of drivers of borrower behavior.

(8) 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 corporate debt securities, mortgage-backed securities, other trading assets, other liabilities and certain net derivative assets and liabilities, such as commodity contracts, foreign exchange contracts, and other derivative contracts.

(9) Consists of total Level 3 assets of \$23.5 billion and total Level 3 liabilities of \$1.7 billion, before netting of derivative balances.

Note 13: Fair Values of Assets and Liabilities (continued)

The valuation techniques used for our Level 3 assets and liabilities, as presented in the previous tables, are described as follows:

- Discounted cash flow – Discounted cash flow valuation techniques generally consist of developing an estimate of future cash flows that are expected to occur over the life of an instrument and then discounting those cash flows at a rate of return that results in the fair value amount.
- Market comparable pricing – Market comparable pricing valuation techniques are used to determine the fair value of certain instruments by incorporating known inputs, such as recent transaction prices, pending transactions, or prices of other similar investments that require significant adjustment to reflect differences in instrument characteristics.
- Option model – Option model valuation techniques are generally used for instruments in which the holder has a contingent right or obligation based on the occurrence of a future event, such as the price of a referenced asset going above or below a predetermined strike price. Option models estimate the likelihood of the specified event occurring by incorporating assumptions such as volatility estimates, price of the underlying instrument and expected rate of return.
- Vendor-priced – Prices obtained from third party pricing vendors or brokers that are used to record the fair value of the asset or liability for which the related valuation technique and significant unobservable inputs are not provided.

Significant unobservable inputs presented in the previous tables are those we consider significant to the fair value of the Level 3 asset or liability. We consider unobservable inputs to be significant if by their exclusion the fair value of the Level 3 asset or liability would be impacted by a predetermined percentage change. We also consider qualitative factors, such as nature of the instrument, type of valuation technique used, and the significance of the unobservable inputs relative to other inputs used within the valuation. Following is a description of the significant unobservable inputs provided in the table.

- Comparability adjustment – is an adjustment made to observed market data, such as a transaction price in order to reflect dissimilarities in underlying collateral, issuer, rating, or other factors used within a market valuation approach, expressed as a percentage of an observed price.
- Conversion Factor – is the risk-adjusted rate in which a particular instrument may be exchanged for another instrument upon settlement, expressed as a percentage change from a specified rate.
- Correlation factor – is the likelihood of one instrument changing in price relative to another based on an established relationship expressed as a percentage of relative change in price over a period over time.

- Cost to service – is the expected cost per loan of servicing a portfolio of loans, which includes estimates for unreimbursed expenses (including delinquency and foreclosure costs) that may occur as a result of servicing such loan portfolios.
- Credit spread – is the portion of the interest rate in excess of a benchmark interest rate, such as Overnight Index Swap (OIS), LIBOR or U.S. Treasury rates, that when applied to an investment captures changes in the obligor's creditworthiness.
- Default rate – is an estimate of the likelihood of not collecting contractual amounts owed expressed as a constant default rate (CDR).
- Discount rate – is a rate of return used to calculate the present value of the future expected cash flow to arrive at the fair value of an instrument. The discount rate consists of a benchmark rate component and a risk premium component. The benchmark rate component, for example, OIS, LIBOR or U.S. Treasury rates, is generally observable within the market and is necessary to appropriately reflect the time value of money. The risk premium component reflects the amount of compensation market participants require due to the uncertainty inherent in the instruments' cash flows resulting from risks such as credit and liquidity.
- Fall-out factor – is the expected percentage of loans associated with our interest rate lock commitment portfolio that are likely of not funding.
- Initial-value servicing – is the estimated value of the underlying loan, including the value attributable to the embedded servicing right, expressed in basis points of outstanding unpaid principal balance.
- Loss severity – is the estimated percentage of contractual cash flows lost in the event of a default.
- Prepayment rate – is the estimated rate at which forecasted prepayments of principal of the related loan or debt instrument are expected to occur, expressed as a constant prepayment rate (CPR).
- Utilization rate – is the estimated rate in which incremental portions of existing reverse mortgage credit lines are expected to be drawn by borrowers, expressed as an annualized rate.
- Volatility factor – is the extent of change in price an item is estimated to fluctuate over a specified period of time expressed as a percentage of relative change in price over a period over time.
- Weighted average life – is the weighted average number of years an investment is expected to remain outstanding based on its expected cash flows reflecting the estimated date the issuer will call or extend the maturity of the instrument or otherwise reflecting an estimate of the timing of an instrument's cash flows whose timing is not contractually fixed.

Assets and Liabilities Recorded at Fair Value on a Nonrecurring Basis

We may be required, from time to time, to measure certain assets at fair value on a nonrecurring basis in accordance with GAAP. These adjustments to fair value usually result from application of

LOCOM accounting or write-downs of individual assets. Table 13.14 provides the fair value hierarchy and carrying amount of all assets that were still held as of June 30, 2017, and December 31, 2016, and for which a nonrecurring fair value adjustment was recorded during the periods presented.

Table 13.14: Fair Value on a Nonrecurring Basis

(in millions)	June 30, 2017				December 31, 2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Mortgages held for sale (LOCOM) (1)	\$ —	2,108	1,324	3,432	—	2,312	1,350	3,662
Loans held for sale	—	10	—	10	—	8	—	8
Loans:								
Commercial	—	442	—	442	—	464	—	464
Consumer	—	349	5	354	—	822	7	829
Total loans (2)	—	791	5	796	—	1,286	7	1,293
Other assets - excluding nonmarketable equity investments at NAV (3)	—	188	178	366	—	233	412	645
Total included in the fair value hierarchy	\$ —	3,097	1,507	4,604	—	3,839	1,769	5,608
Other assets - nonmarketable equity investments at NAV (4)				4				13
Total assets at fair value on a nonrecurring basis				\$ 4,608				5,621

(1) Consists of commercial mortgages and residential real estate 1-4 family first mortgage loans.

(2) Represents the carrying value of loans for which nonrecurring adjustments are based on the appraised value of the collateral.

(3) Includes the fair value of foreclosed real estate, other collateral owned, operating lease assets and nonmarketable equity investments.

(4) Consists of certain nonmarketable equity investments that are measured at fair value on a nonrecurring basis using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

Table 13.15 presents the increase (decrease) in value of certain assets held at the end of the respective reporting periods presented for which a nonrecurring fair value adjustment was recognized during the periods presented.

Table 13.15: Change in Value of Assets with Nonrecurring Fair Value Adjustment

(in millions)	Six months ended June 30,	
	2017	2016
Mortgages held for sale (LOCOM)	\$ 14	30
Loans held for sale	(1)	—
Loans:		
Commercial	(186)	(560)
Consumer	(261)	(431)
Total loans (1)	(447)	(991)
Other assets (2)	(66)	(259)
Total	\$ (500)	(1,220)

(1) Represents write-downs of loans based on the appraised value of the collateral.

(2) Includes the losses on foreclosed real estate and other collateral owned that were measured at fair value subsequent to their initial classification as foreclosed assets. Also includes impairment losses on nonmarketable equity investments.

Note 13: Fair Values of Assets and Liabilities (continued)

Table 13.16 provides quantitative information about the valuation techniques and significant unobservable inputs used in the valuation of substantially all of our Level 3 assets that are measured at fair value on a nonrecurring basis using an internal model. The table is limited to financial instruments that had nonrecurring fair value adjustments during the periods presented.

We have excluded from the table valuation techniques and significant unobservable inputs for certain classes of Level 3

assets measured using an internal model that we consider, both individually and in the aggregate, insignificant relative to our overall Level 3 nonrecurring measurements. We made this determination based upon an evaluation of each class that considered the magnitude of the positions, nature of the unobservable inputs and potential for significant changes in fair value due to changes in those inputs.

Table 13.16: Valuation Techniques – Nonrecurring Basis

(\$ in millions)	Fair Value Level 3	Valuation Technique(s) (1)	Significant Unobservable Inputs (1)	Range of inputs	Weighted Average (2)
June 30, 2017					
Residential mortgages held for sale (LOCOM)	\$ 1,324 (3)	Discounted cash flow	Default rate (4)	0.1 – 8.5%	1.7%
			Discount rate	1.5 – 8.5	3.8
			Loss severity	0.7 – 48.8	2.5
			Prepayment rate (5)	3.6 – 100.0	48.8
Other assets: nonmarketable equity investments	41	Discounted cash flow	Discount rate	5.0 – 15.0	10.0
Insignificant level 3 assets	142				
Total	\$ 1,507				
December 31, 2016					
Residential mortgages held for sale (LOCOM)	\$ 1,350 (3)	Discounted cash flow	Default rate (4)	0.2 – 4.3 %	1.9 %
			Discount rate	1.5 – 8.5	3.8
			Loss severity	0.7 – 50.1	2.4
			Prepayment rate (5)	3.0 – 100.0	50.7
Other assets: nonmarketable equity investments	220	Discounted cash flow	Discount rate	4.7 – 9.3	7.3
Insignificant level 3 assets	199				
Total	\$ 1,769				

(1) Refer to the narrative following Table 13.13 for a definition of the valuation technique(s) and significant unobservable inputs.

(2) For residential MHFS, weighted averages are calculated using the outstanding unpaid principal balance of the loans.

(3) Consists of approximately \$1.3 billion of government insured/guaranteed loans purchased from GNMA-guaranteed mortgage securitizations at both June 30, 2017, and December 31, 2016, and \$31 million and \$33 million of other mortgage loans that are not government insured/guaranteed at June 30, 2017 and December 31, 2016, respectively.

(4) Applies only to non-government insured/guaranteed loans.

(5) Includes the impact on prepayment rate of expected defaults for government insured/guaranteed loans, which impact the frequency and timing of early resolution of loans.

Alternative Investments

We hold certain nonmarketable equity investments for which we use NAV per share (or its equivalent) as a practical expedient for fair value measurements, including estimated fair values for investments accounted for under the cost method. The investments consist of private equity funds that invest in equity and debt securities issued by private and publicly-held companies. The fair values of these investments and related unfunded commitments totaled \$22 million and \$30 million, respectively, at June 30, 2017, and \$48 million and \$37 million, respectively, at December 31, 2016. The investments do not allow redemptions. We receive distributions as the underlying assets of the funds liquidate, which we expect to occur through 2025.

Fair Value Option

The fair value option is an irrevocable election, generally only permitted upon initial recognition of financial assets or liabilities, to measure eligible financial instruments at fair value with changes in fair value reflected in earnings. We may elect the fair value option to align the measurement model with how the financial assets or liabilities are managed or to reduce complexity or accounting asymmetry. For more information, including the basis for our fair value option elections, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in our 2016 Form 10-K.

Table 13.17 reflects differences between the fair value carrying amount of the assets for which we have elected the fair value option and the contractual aggregate unpaid principal amount at maturity.

Table 13.17: Fair Value Option

(in millions)	June 30, 2017			December 31, 2016		
	Fair value carrying amount	Aggregate unpaid principal	Fair value carrying amount less aggregate unpaid principal	Fair value carrying amount	Aggregate unpaid principal	Fair value carrying amount less aggregate unpaid principal
Trading assets – loans:						
Total loans	\$ 1,742	1,804	(62)	1,332	1,418	(86)
Nonaccrual loans	65	73	(8)	100	115	(15)
Mortgages held for sale:						
Total loans	19,543	19,034	509	22,042	21,961	81
Nonaccrual loans	127	168	(41)	136	182	(46)
Loans 90 days or more past due and still accruing	11	15	(4)	12	16	(4)
Loans held for sale:						
Total loans	—	6	(6)	—	6	(6)
Nonaccrual loans	—	6	(6)	—	6	(6)
Loans:						
Total loans	443	469	(26)	758	775	(17)
Nonaccrual loans	272	296	(24)	297	318	(21)
Other assets (1)	3,986	N/A	N/A	3,275	N/A	N/A

(1) Consists of nonmarketable equity investments carried at fair value. See Note 6 (Other Assets) for more information.

Note 13: Fair Values of Assets and Liabilities (continued)

The assets accounted for under the fair value option are initially measured at fair value. Gains and losses from initial measurement and subsequent changes in fair value are recognized in earnings. The changes in fair value related to initial

measurement and subsequent changes in fair value included in earnings for these assets measured at fair value are shown in Table 13.18 by income statement line item.

Table 13.18: Fair Value Option – Changes in Fair Value Included in Earnings

(in millions)	Mortgage banking noninterest income	Net gains (losses) from trading activities	2017		2016	
			Other noninterest income	Mortgage banking noninterest income	Net gains (losses) from trading activities	Other noninterest income
Quarter ended June 30,						
Trading assets - loans	\$ —	11	1	—	16	1
Mortgages held for sale	288	—	—	611	—	—
Loans	—	—	—	—	—	(3)
Other assets	—	—	221	—	—	(176)
Other interests held (1)	—	(2)	—	—	1	—
Six months ended June 30,						
Trading assets – loans	\$ —	36	1	—	26	1
Mortgages held for sale	567	—	—	1,176	—	—
Loans	—	—	—	—	—	(4)
Other assets	—	—	711	—	—	(234)
Other interests held (1)	—	(4)	—	—	(1)	—

(1) Includes retained interests in securitizations.

For performing loans, instrument-specific credit risk gains or losses were derived principally by determining the change in fair value of the loans due to changes in the observable or implied credit spread. Credit spread is the market yield on the loans less the relevant risk-free benchmark interest rate. For

nonperforming loans, we attribute all changes in fair value to instrument-specific credit risk. Table 13.19 shows the estimated gains and losses from earnings attributable to instrument-specific credit risk related to assets accounted for under the fair value option.

Table 13.19: Fair Value Option – Gains/Losses Attributable to Instrument-Specific Credit Risk

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Gains (losses) attributable to instrument-specific credit risk:				
Trading assets – loans	\$ 11	16	36	26
Mortgages held for sale	(4)	(1)	(5)	(5)
Total	\$ 7	15	31	21

Disclosures about Fair Value of Financial Instruments

Table 13.20 is a summary of fair value estimates for financial instruments, excluding financial instruments recorded at fair value on a recurring basis, as they are included within Table 13.2 in this Note. The carrying amounts in the following table are recorded on the balance sheet under the indicated captions, except for nonmarketable equity investments, which are included in other assets.

We have not included assets and liabilities that are not financial instruments in our disclosure, such as the value of the long-term relationships with our deposit, credit card and trust customers, amortized MSRs, premises and equipment, goodwill and other intangibles, deferred taxes and other liabilities. The total of the fair value calculations presented does not represent, and should not be construed to represent, the underlying value of the Company.

Table 13.20: Fair Value Estimates for Financial Instruments

(in millions)	Carrying amount	Estimated fair value				
		Level 1	Level 2	Level 3	Total	
June 30, 2017						
Financial assets						
Cash and due from banks (1)	\$ 20,248	20,248	—	—	20,248	
Federal funds sold, securities purchased under resale agreements and other short-term investments (1)	264,706	14,247	250,382	77	264,706	
Held-to-maturity securities	140,392	45,335	94,033	1,022	140,390	
Mortgages held for sale (2)	5,264	—	3,949	1,324	5,273	
Loans held for sale	156	—	157	—	157	
Loans, net (3)	926,970	—	56,351	882,300	938,651	
Nonmarketable equity investments (cost method)						
Excluding investments at NAV	7,587	—	20	8,104	8,124	
Total financial assets included in the fair value hierarchy	1,365,323	79,830	404,892	892,827	1,377,549	
Investments at NAV (4)	20				22	
Total financial assets	\$ 1,365,343				1,377,571	
Financial liabilities						
Deposits	\$ 1,305,830	—	1,283,587	22,266	1,305,853	
Short-term borrowings (1)	95,356	—	95,356	—	95,356	
Long-term debt (5)	238,862	—	235,085	6,992	242,077	
Total financial liabilities	\$ 1,640,048	—	1,614,028	29,258	1,643,286	
December 31, 2016						
Financial assets						
Cash and due from banks (1)	\$ 20,729	20,729	—	—	20,729	
Federal funds sold, securities purchased under resale agreements and other short-term investments (1)	266,038	18,670	247,286	82	266,038	
Held-to-maturity securities	99,583	45,079	51,706	2,370	99,155	
Mortgages held for sale (2)	4,267	—	2,927	1,350	4,277	
Loans held for sale	80	—	81	—	81	
Loans, net (3)	936,358	—	60,245	887,589	947,834	
Nonmarketable equity investments (cost method)						
Excluding investments at NAV	8,362	—	18	8,924	8,942	
Total financial assets included in the fair value hierarchy	1,335,417	84,478	362,263	900,315	1,347,056	
Investments at NAV (4)	35				48	
Total financial assets	\$ 1,335,452				1,347,104	
Financial liabilities						
Deposits	\$ 1,306,079	—	1,282,158	23,995	1,306,153	
Short-term borrowings (1)	96,781	—	96,781	—	96,781	
Long-term debt (5)	255,070	—	245,704	10,075	255,779	
Total financial liabilities	\$ 1,657,930	—	1,624,643	34,070	1,658,713	

(1) Amounts consist of financial instruments for which carrying value approximates fair value.

(2) Excludes MHSF for which we elected the fair value option.

(3) Excludes loans for which the fair value option was elected and also exclude lease financing with a carrying amount of \$19.2 billion and \$19.3 billion at June 30, 2017, and December 31, 2016, respectively.

(4) Consists of certain nonmarketable equity investments for which estimated fair values are determined using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

(5) Excludes capital lease obligations under capital leases of \$7 million at both June 30, 2017, and December 31, 2016.

Loan commitments, standby letters of credit and commercial and similar letters of credit are not included in the table above. A reasonable estimate of the fair value of these instruments is the carrying value of deferred fees plus the allowance for unfunded credit commitments, which totaled \$1.2 billion at both June 30, 2017, and December 31, 2016, respectively.

Note 14: Preferred Stock

We are authorized to issue 20 million shares of preferred stock and 4 million shares of preference stock, both without par value. Preferred shares outstanding rank senior to common shares both as to dividends and liquidation preference but have no general voting rights. We have not issued any preference shares under

this authorization. If issued, preference shares would be limited to one vote per share. Our total authorized, issued and outstanding preferred stock is presented in the following two tables along with the Employee Stock Ownership Plan (ESOP) Cumulative Convertible Preferred Stock.

Table 14.1: Preferred Stock Shares

	June 30, 2017		December 31, 2016	
	Liquidation preference per share	Shares authorized and designated	Liquidation preference per share	Shares authorized and designated
DEP Shares				
Dividend Equalization Preferred Shares (DEP)	\$ 10	97,000	\$ 10	97,000
Series H				
Floating Class A Preferred Stock (1)	—	—	20,000	50,000
Series I				
Floating Class A Preferred Stock	100,000	25,010	100,000	25,010
Series J				
8.00% Non-Cumulative Perpetual Class A Preferred Stock	1,000	2,300,000	1,000	2,300,000
Series K				
7.98% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	1,000	3,500,000	1,000	3,500,000
Series L				
7.50% Non-Cumulative Perpetual Convertible Class A Preferred Stock	1,000	4,025,000	1,000	4,025,000
Series N				
5.20% Non-Cumulative Perpetual Class A Preferred Stock	25,000	30,000	25,000	30,000
Series O				
5.125% Non-Cumulative Perpetual Class A Preferred Stock	25,000	27,600	25,000	27,600
Series P				
5.25% Non-Cumulative Perpetual Class A Preferred Stock	25,000	26,400	25,000	26,400
Series Q				
5.85% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	69,000	25,000	69,000
Series R				
6.625% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	34,500	25,000	34,500
Series S				
5.90% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	80,000	25,000	80,000
Series T				
6.00% Non-Cumulative Perpetual Class A Preferred Stock	25,000	32,200	25,000	32,200
Series U				
5.875% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	80,000	25,000	80,000
Series V				
6.00% Non-Cumulative Perpetual Class A Preferred Stock	25,000	40,000	25,000	40,000
Series W				
5.70% Non-Cumulative Perpetual Class A Preferred Stock	25,000	40,000	25,000	40,000
Series X				
5.50% Non-Cumulative Perpetual Class A Preferred Stock	25,000	46,000	25,000	46,000
Series Y				
5.625% Non-Cumulative Perpetual Class A Preferred Stock	25,000	27,600	—	—
ESOP				
Cumulative Convertible Preferred Stock (2)	—	1,982,996	—	1,439,181
Total		12,463,306		11,941,891

(1) On January 26, 2017, we filed with the Delaware Secretary of State a Certificate Eliminating the Certificate of Designations with respect to the Series H preferred stock.

(2) See the ESOP Cumulative Convertible Preferred Stock section in this Note for additional information about the liquidation preference for the ESOP Cumulative Convertible Preferred Stock.

Table 14.2: Preferred Stock – Shares Issued and Carrying Value

(in millions, except shares)	June 30, 2017				December 31, 2016			
	Shares issued and outstanding	Liquidation preference value	Carrying value	Discount	Shares issued and outstanding	Liquidation preference value	Carrying value	Discount
DEP Shares								
Dividend Equalization Preferred Shares (DEP)	96,546	\$ —	—	—	96,546	\$ —	—	—
Series I (1)								
Floating Class A Preferred Stock	25,010	2,501	2,501	—	25,010	2,501	2,501	—
Series J (1)								
8.00% Non-Cumulative Perpetual Class A Preferred Stock	2,150,375	2,150	1,995	155	2,150,375	2,150	1,995	155
Series K (1)								
7.98% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	3,352,000	3,352	2,876	476	3,352,000	3,352	2,876	476
Series L (1)								
7.50% Non-Cumulative Perpetual Convertible Class A Preferred Stock	3,968,000	3,968	3,200	768	3,968,000	3,968	3,200	768
Series N (1)								
5.20% Non-Cumulative Perpetual Class A Preferred Stock	30,000	750	750	—	30,000	750	750	—
Series O (1)								
5.125% Non-Cumulative Perpetual Class A Preferred Stock	26,000	650	650	—	26,000	650	650	—
Series P (1)								
5.25% Non-Cumulative Perpetual Class A Preferred Stock	25,000	625	625	—	25,000	625	625	—
Series Q (1)								
5.85% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	69,000	1,725	1,725	—	69,000	1,725	1,725	—
Series R (1)								
6.625% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	33,600	840	840	—	33,600	840	840	—
Series S (1)								
5.90% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	80,000	2,000	2,000	—	80,000	2,000	2,000	—
Series T (1)								
6.00% Non-Cumulative Perpetual Class A Preferred Stock	32,000	800	800	—	32,000	800	800	—
Series U (1)								
5.875% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	80,000	2,000	2,000	—	80,000	2,000	2,000	—
Series V (1)								
6.00% Non-Cumulative Perpetual Class A Preferred Stock	40,000	1,000	1,000	—	40,000	1,000	1,000	—
Series W (1)								
5.70% Non-Cumulative Perpetual Class A Preferred Stock	40,000	1,000	1,000	—	40,000	1,000	1,000	—
Series X (1)								
5.50% Non-Cumulative Perpetual Class A Preferred Stock	46,000	1,150	1,150	—	46,000	1,150	1,150	—
Series Y (1)								
5.625% Non-Cumulative Perpetual Class A Preferred Stock	27,600	690	690	—	—	—	—	—
ESOP								
Cumulative Convertible Preferred Stock	1,982,996	1,983	1,983	—	1,439,181	1,439	1,439	—
Total	12,104,127	\$ 27,184	25,785	1,399	11,532,712	\$ 25,950	24,551	1,399

(1) Preferred shares qualify as Tier 1 capital.

In April 2017, we issued 27.6 million Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series Y, for an aggregate public offering price of \$690 million.

See Note 7 (Securitizations and Variable Interest Entities) for additional information on our trust preferred securities.

Note 14: Preferred Stock (continued)

ESOP CUMULATIVE CONVERTIBLE PREFERRED STOCK All shares of our ESOP Cumulative Convertible Preferred Stock (ESOP Preferred Stock) were issued to a trustee acting on behalf of the Wells Fargo & Company 401(k) Plan (the 401(k) Plan). Dividends on the ESOP Preferred Stock are cumulative from the date of initial issuance and are payable quarterly at annual rates based upon the year of issuance. Each share of ESOP Preferred Stock released from the unallocated reserve of the 401(k) Plan is converted into shares of our common stock based on the stated

value of the ESOP Preferred Stock and the then current market price of our common stock. The ESOP Preferred Stock is also convertible at the option of the holder at any time, unless previously redeemed. We have the option to redeem the ESOP Preferred Stock at any time, in whole or in part, at a redemption price per share equal to the higher of (a) \$1,000 per share plus accrued and unpaid dividends or (b) the fair market value, as defined in the Certificates of Designation for the ESOP Preferred Stock.

Table 14.3: ESOP Preferred Stock

(in millions, except shares)	Shares issued and outstanding		Carrying value		Adjustable dividend rate	
	Jun 30, 2017	Dec 31, 2016	Jun 30, 2017	Dec 31, 2016	Minimum	Maximum
ESOP Preferred Stock						
\$1,000 liquidation preference per share						
2017	700,102	—	\$ 700	—	7.00%	8.00
2016	322,826	358,528	323	358	9.30	10.30
2015	187,436	200,820	187	201	8.90	9.90
2014	237,151	255,413	237	255	8.70	9.70
2013	201,948	222,558	202	223	8.50	9.50
2012	128,634	144,072	129	144	10.00	11.00
2011	129,296	149,301	129	149	9.00	10.00
2010	75,603	90,775	76	91	9.50	10.50
2008	—	17,714	—	18	10.50	11.50
Total ESOP Preferred Stock (1)	1,982,996	1,439,181	\$ 1,983	1,439		
Unearned ESOP shares (2)			\$ (2,119)	(1,565)		

(1) At June 30, 2017 and December 31, 2016, additional paid-in capital included \$136 million and \$126 million, respectively, related to ESOP preferred stock.

(2) We recorded a corresponding charge to unearned ESOP shares in connection with the issuance of the ESOP Preferred Stock. The unearned ESOP shares are reduced as shares of the ESOP Preferred Stock are committed to be released.

Note 15: Employee Benefits

We sponsor a frozen noncontributory qualified defined benefit retirement plan called the Wells Fargo & Company Cash Balance Plan (Cash Balance Plan), which covers eligible employees of Wells Fargo. The Cash Balance Plan was frozen on July 1, 2009, and no new benefits accrue after that date.

Table 15.1 presents the components of net periodic benefit cost.

Table 15.1: Net Periodic Benefit Cost

(in millions)	2017			2016		
	Pension benefits			Pension benefits		
	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits
Quarter ended June 30,						
Service cost	\$ 2	—	—	1	—	—
Interest cost	103	6	7	109	6	10
Expected return on plan assets	(163)	—	(8)	(141)	—	(7)
Amortization of net actuarial loss (gain)	38	4	(3)	33	3	(1)
Amortization of prior service credit	—	—	(2)	—	—	—
Settlement loss	—	4	—	4	—	—
Net periodic benefit cost (income)	\$ (20)	14	(6)	6	9	2
Six months ended June 30,						
Service cost	\$ 3	—	—	2	—	—
Interest cost	206	12	14	218	13	20
Expected return on plan assets	(326)	—	(15)	(283)	—	(15)
Amortization of net actuarial loss (gain)	76	6	(5)	66	6	(2)
Amortization of prior service credit	—	—	(5)	—	—	—
Settlement loss	1	6	—	4	2	—
Net periodic benefit cost (income)	\$ (40)	24	(11)	7	21	3

Note 16: Earnings Per Common Share

Table 16.1 shows earnings per common share and diluted earnings per common share and reconciles the numerator and denominator of both earnings per common share calculations.

Table 16.1: Earnings Per Common Share Calculations

(in millions, except per share amounts)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Wells Fargo net income	\$ 5,810	5,558	\$ 11,267	11,020
Less: Preferred stock dividends and other	406	385	807	762
Wells Fargo net income applicable to common stock (numerator)	\$ 5,404	5,173	\$ 10,460	10,258
Earnings per common share				
Average common shares outstanding (denominator)	4,989.9	5,066.9	4,999.2	5,071.3
Per share	\$ 1.08	1.02	\$ 2.09	2.02
Diluted earnings per common share				
Average common shares outstanding	4,989.9	5,066.9	4,999.2	5,071.3
Add: Stock options	17.2	19.6	19.3	20.4
Restricted share rights	19.9	21.0	24.7	27.4
Warrants	10.7	10.6	11.6	10.7
Diluted average common shares outstanding (denominator)	5,037.7	5,118.1	5,054.8	5,129.8
Per share	\$ 1.07	1.01	\$ 2.07	2.00

Table 16.2 presents the outstanding options to purchase shares of common stock that were anti-dilutive (the exercise price was higher than the weighted-average market price), and therefore not included in the calculation of diluted earnings per common share.

Table 16.2: Outstanding Anti-Dilutive Options

(in millions)	Weighted-average shares			
	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Options	1.8	2.7	2.1	3.7

Note 17: Other Comprehensive Income

Table 17.1 provides the components of other comprehensive income (OCI), reclassifications to net income by income statement line item, and the related tax effects.

Table 17.1: Summary of Other Comprehensive Income

(in millions)	Quarter ended June 30,						Six months ended June 30,					
	2017			2016			2017			2016		
	Before tax	Tax effect	Net of tax	Before tax	Tax effect	Net of tax	Before tax	Tax effect	Net of tax	Before tax	Tax effect	Net of tax
Investment securities:												
Net unrealized gains arising during the period	\$ 1,565	(589)	976	1,571	(596)	975	1,934	(722)	1,212	2,366	(906)	1,460
Reclassification of net (gains) losses to net income:												
Interest income on investment securities (1)	45	(17)	28	3	(1)	2	52	(20)	32	3	(1)	2
Net gains on debt securities	(120)	44	(76)	(447)	168	(279)	(156)	57	(99)	(691)	259	(432)
Net gains from equity investments	(101)	35	(66)	(60)	23	(37)	(217)	79	(138)	(119)	45	(74)
Other noninterest income	(1)	—	(1)	—	—	—	(1)	—	(1)	(1)	—	(1)
Subtotal reclassifications to net income	(177)	62	(115)	(504)	190	(314)	(322)	116	(206)	(808)	303	(505)
Net change	1,388	(527)	861	1,067	(406)	661	1,612	(606)	1,006	1,558	(603)	955
Derivatives and hedging activities:												
Net unrealized gains arising during the period	376	(142)	234	1,057	(399)	658	243	(92)	151	3,056	(1,152)	1,904
Reclassification of net (gains) losses to net income:												
Interest income on loans	(156)	59	(97)	(268)	101	(167)	(361)	136	(225)	(528)	199	(329)
Interest expense on long-term debt	3	(1)	2	3	(1)	2	6	(2)	4	7	(3)	4
Subtotal reclassifications to net income	(153)	58	(95)	(265)	100	(165)	(355)	134	(221)	(521)	196	(325)
Net change	223	(84)	139	792	(299)	493	(112)	42	(70)	2,535	(956)	1,579
Defined benefit plans adjustments:												
Net actuarial and prior service losses arising during the period	—	—	—	(19)	7	(12)	(7)	3	(4)	(27)	10	(17)
Reclassification of amounts to net periodic benefit costs (2):												
Amortization of net actuarial loss	39	(16)	23	35	(14)	21	77	(30)	47	70	(27)	43
Settlements and other	2	1	3	4	(1)	3	2	1	3	6	(2)	4
Subtotal reclassifications to net periodic benefit costs	41	(15)	26	39	(15)	24	79	(29)	50	76	(29)	47
Net change	41	(15)	26	20	(8)	12	72	(26)	46	49	(19)	30
Foreign currency translation adjustments:												
Net unrealized gains (losses) arising during the period	31	2	33	(6)	(1)	(7)	47	3	50	37	7	44
Net change	31	2	33	(6)	(1)	(7)	47	3	50	37	7	44
Other comprehensive income	\$ 1,683	(624)	1,059	1,873	(714)	1,159	1,619	(587)	1,032	4,179	(1,571)	2,608
Less: Other comprehensive income (loss) from noncontrolling interests, net of tax			(9)			(15)			5			(43)
Wells Fargo other comprehensive income, net of tax			\$ 1,068			1,174			1,027			2,651

(1) Represents net unrealized gains and losses amortized over the remaining lives of securities that were transferred from the available-for-sale portfolio to the held-to-maturity portfolio.

(2) These items are included in the computation of net periodic benefit cost, which is recorded in employee benefits expense (see Note 15 (Employee Benefits) for additional details).

Note 17: Other Comprehensive Income (continued)

Table 17.2: Cumulative OCI Balances

(in millions)	Investment securities	Derivatives and hedging activities	Defined benefit plans adjustments	Foreign currency translation adjustments	Cumulative other comprehensive income
Quarter ended June 30, 2017					
Balance, beginning of period	\$ (967)	(120)	(1,923)	(168)	(3,178)
Net unrealized gains arising during the period	976	234	—	33	1,243
Amounts reclassified from accumulated other comprehensive income	(115)	(95)	26	—	(184)
Net change	861	139	26	33	1,059
Less: Other comprehensive income (loss) from noncontrolling interests	(10)	—	—	1	(9)
Balance, end of period	\$ (96)	19	(1,897)	(136)	(2,110)
Quarter ended June 30, 2016					
Balance, beginning of period	\$ 2,137	1,706	(1,933)	(136)	1,774
Net unrealized gains (losses) arising during the period	975	658	(12)	(7)	1,614
Amounts reclassified from accumulated other comprehensive income	(314)	(165)	24	—	(455)
Net change	661	493	12	(7)	1,159
Less: Other comprehensive loss from noncontrolling interests	(14)	—	—	(1)	(15)
Balance, end of period	\$ 2,812	2,199	(1,921)	(142)	2,948
Six months ended June 30, 2017					
Balance, beginning of period	\$ (1,099)	89	(1,943)	(184)	(3,137)
Net unrealized gains (losses) arising during the period	1,212	151	(4)	50	1,409
Amounts reclassified from accumulated other comprehensive income	(206)	(221)	50	—	(377)
Net change	1,006	(70)	46	50	1,032
Less: Other comprehensive income from noncontrolling interests	3	—	—	2	5
Balance, end of period	\$ (96)	19	(1,897)	(136)	(2,110)
Six months ended June 30, 2016					
Balance, beginning of period	\$ 1,813	620	(1,951)	(185)	297
Net unrealized gains (losses) arising during the period	1,460	1,904	(17)	44	3,391
Amounts reclassified from accumulated other comprehensive income	(505)	(325)	47	—	(783)
Net change	955	1,579	30	44	2,608
Less: Other comprehensive income (loss) from noncontrolling interests	(44)	—	—	1	(43)
Balance, end of period	\$ 2,812	2,199	(1,921)	(142)	2,948

Note 18: Operating Segments

We have three reportable operating segments: Community Banking; Wholesale Banking; and Wealth and Investment Management (WIM). We define our operating segments by product type and customer segment and their results are based on our management accounting process, for which there is no comprehensive, authoritative guidance equivalent to GAAP for financial accounting. The management accounting process measures the performance of the operating segments based on

our management structure and is not necessarily comparable with similar information for other financial services companies. If the management structure and/or the allocation process changes, allocations, transfers and assignments may change. For a description of our operating segments, including the underlying management accounting process, see Note 24 (Operating Segments) to Financial Statements in our 2016 Form 10-K. Table 18.1 presents our results by operating segment.

Table 18.1: Operating Segments

(income/expense in millions, average balances in billions)	Community Banking		Wholesale Banking		Wealth and Investment Management		Other (1)		Consolidated Company	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Quarter ended June 30,										
Net interest income (2)	\$ 7,548	7,379	4,278	3,919	1,127	932	(470)	(497)	12,483	11,733
Provision (reversal of provision) for credit losses	623	689	(65)	385	7	2	(10)	(2)	555	1,074
Noninterest income	4,741	4,825	2,673	3,365	3,055	2,987	(783)	(748)	9,686	10,429
Noninterest expense	7,223	6,648	4,078	4,036	3,075	2,976	(835)	(794)	13,541	12,866
Income (loss) before income tax expense (benefit)	4,443	4,867	2,938	2,863	1,100	941	(408)	(449)	8,073	8,222
Income tax expense (benefit)	1,404	1,667	559	795	417	358	(155)	(171)	2,225	2,649
Net income (loss) before noncontrolling interests	3,039	3,200	2,379	2,068	683	583	(253)	(278)	5,848	5,573
Less: Net income (loss) from noncontrolling interests	46	21	(9)	(5)	1	(1)	—	—	38	15
Net income (loss) (3)	\$ 2,993	3,179	2,388	2,073	682	584	(253)	(278)	5,810	5,558
Average loans	\$ 477.2	485.7	464.9	451.4	71.7	66.7	(56.9)	(53.0)	956.9	950.8
Average assets	983.5	967.6	817.3	772.6	213.1	205.3	(86.8)	(83.4)	1,927.1	1,862.1
Average deposits	727.2	703.7	463.0	425.8	188.2	182.5	(77.2)	(75.3)	1,301.2	1,236.7
Six months ended June 30,										
Net interest income (2)	\$15,175	14,847	8,426	7,667	2,201	1,875	(1,019)	(989)	24,783	23,400
Provision (reversal of provision) for credit losses	1,269	1,409	(108)	748	3	(12)	(4)	15	1,160	2,160
Noninterest income	9,207	9,971	5,563	6,575	6,174	5,898	(1,556)	(1,487)	19,388	20,957
Noninterest expense	14,444	13,484	8,303	8,004	6,281	6,018	(1,695)	(1,612)	27,333	25,894
Income (loss) before income tax expense (benefit)	8,669	9,925	5,794	5,490	2,091	1,767	(876)	(879)	15,678	16,303
Income tax expense (benefit)	2,531	3,364	1,305	1,514	779	672	(333)	(334)	4,282	5,216
Net income (loss) before noncontrolling interests	6,138	6,561	4,489	3,976	1,312	1,095	(543)	(545)	11,396	11,087
Less: Net income (loss) from noncontrolling interests	136	86	(14)	(18)	7	(1)	—	—	129	67
Net income (loss) (3)	\$ 6,002	6,475	4,503	3,994	1,305	1,096	(543)	(545)	11,267	11,020
Average loans	\$ 479.9	485.0	465.6	440.6	71.2	65.4	(56.5)	(52.0)	960.2	939.0
Average assets	987.0	957.5	812.6	760.6	217.5	206.7	(88.1)	(83.8)	1,929.0	1,841.0
Average deposits	722.2	693.3	464.5	426.9	191.9	183.5	(78.4)	(75.7)	1,300.2	1,228.0

(1) Includes the elimination of certain items that are included in more than one business segment, substantially all of which represents products and services for Wealth and Investment Management customers served through Community Banking distribution channels.

(2) Net interest income is the difference between interest earned on assets and the cost of liabilities to fund those assets. Interest earned includes actual interest earned on segment assets and, if the segment has excess liabilities, interest credits for providing funding to other segments. The cost of liabilities includes interest expense on segment liabilities and, if the segment does not have enough liabilities to fund its assets, a funding charge based on the cost of excess liabilities from another segment.

(3) Represents segment net income (loss) for Community Banking; Wholesale Banking; and Wealth and Investment Management segments and Wells Fargo net income for the consolidated company.

Note 19: Regulatory and Agency Capital Requirements

The Company and each of its subsidiary banks are subject to regulatory capital adequacy requirements promulgated by federal bank regulatory agencies. The Federal Reserve establishes capital requirements for the consolidated financial holding company, and the OCC has similar requirements for the Company's national banks, including Wells Fargo Bank, N.A. (the Bank).

Table 19.1 presents regulatory capital information for Wells Fargo & Company and the Bank using Basel III, which increased minimum required capital ratios, and introduced a minimum Common Equity Tier 1 (CET1) ratio. We must report the lower of our CET1, tier 1 and total capital ratios calculated under the Standardized Approach and under the Advanced Approach in the assessment of our capital adequacy. The information presented reflects risk-weighted assets (RWAs) under the Standardized and Advanced Approaches with Transition Requirements. The Standardized Approach applies assigned risk weights to broad risk categories, while the calculation of RWAs under the

Advanced Approach differs by requiring applicable banks to utilize a risk-sensitive methodology, which relies upon the use of internal credit models, and includes an operational risk component. The Basel III revised definition of capital, and changes are being phased-in effective January 1, 2014, through the end of 2021.

The Bank is an approved seller/servicer of mortgage loans and is required to maintain minimum levels of shareholders' equity, as specified by various agencies, including the United States Department of Housing and Urban Development, GNMA, FHLMC and FNMA. At June 30, 2017, the Bank met these requirements. Other subsidiaries, including the Company's insurance and broker-dealer subsidiaries, are also subject to various minimum capital levels, as defined by applicable industry regulations. The minimum capital levels for these subsidiaries, and related restrictions, are not significant to our consolidated operations.

Table 19.1: Regulatory Capital Information

(in millions, except ratios)	Wells Fargo & Company				Wells Fargo Bank, N.A.			
	June 30, 2017		December 31, 2016		June 30, 2017		December 31, 2016	
	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Regulatory capital:								
Common equity tier 1	\$ 152,742	152,742	148,785	148,785	139,581	139,581	132,225	132,225
Tier 1	176,134	176,134	171,364	171,364	139,581	139,581	132,225	132,225
Total	208,535	218,399	204,425	214,877	152,850	162,320	145,665	155,281
Assets:								
Risk-weighted	\$ 1,232,977	1,287,327	1,274,589	1,336,198	1,114,978	1,188,024	1,143,681	1,222,876
Adjusted average (1)	1,897,370	1,897,370	1,914,802	1,914,802	1,703,737	1,703,737	1,714,524	1,714,524
Regulatory capital ratios:								
Common equity tier 1 capital	12.39%	11.87 *	11.67	11.13 *	12.52	11.75 *	11.56	10.81 *
Tier 1 capital	14.29	13.68 *	13.44	12.82 *	12.52	11.75 *	11.56	10.81 *
Total capital	16.91 *	16.97	16.04 *	16.08	13.71	13.66 *	12.74	12.70 *
Tier 1 leverage (1)	9.28	9.28	8.95	8.95	8.19	8.19	7.71	7.71

*Denotes the lowest capital ratio as determined under the Advanced and Standardized Approaches.

(1) The leverage ratio consists of Tier 1 capital divided by quarterly average total assets, excluding goodwill and certain other items.

Table 19.2 presents the minimum required regulatory capital ratios under Transition Requirements to which the Company and the Bank were subject as of June 30, 2017 and December 31, 2016.

Table 19.2: Minimum Required Regulatory Capital Ratios – Transition Requirements (1)

	Wells Fargo & Company		Wells Fargo Bank, N.A.	
	June 30, 2017	December 31, 2016	June 30, 2017	December 31, 2016
Regulatory capital ratios:				
Common equity tier 1 capital	6.750%	5.625	5.750	5.125
Tier 1 capital	8.250	7.125	7.250	6.625
Total capital	10.250	9.125	9.250	8.625
Tier 1 leverage	4.000	4.000	4.000	4.000

(1) At June 30, 2017, under transition requirements, the CET1, tier 1 and total capital minimum ratio requirements for Wells Fargo & Company include a capital conservation buffer of 1.250% and a global systemically important bank (G-SIB) surcharge of 1.000%. Only the 1.250% capital conservation buffer applies to the Bank at June 30, 2017.

Glossary of Acronyms

ABS	Asset-backed security	HAMP	Home Affordability Modification Program
ACL	Allowance for credit losses	HUD	U.S. Department of Housing and Urban Development
ALCO	Asset/Liability Management Committee	LCR	Liquidity coverage ratio
ARM	Adjustable-rate mortgage	LHFS	Loans held for sale
ASC	Accounting Standards Codification	LIBOR	London Interbank Offered Rate
ASU	Accounting Standards Update	LIHTC	Low income housing tax credit
AUA	Assets under administration	LOCOM	Lower of cost or market value
AUM	Assets under management	LTV	Loan-to-value
AVM	Automated valuation model	MBS	Mortgage-backed security
BCBS	Basel Committee on Bank Supervision	MHA	Making Home Affordable programs
BHC	Bank holding company	MHFS	Mortgages held for sale
CCAR	Comprehensive Capital Analysis and Review	MSR	Mortgage servicing right
CD	Certificate of deposit	MTN	Medium-term note
CDO	Collateralized debt obligation	NAV	Net asset value
CDS	Credit default swaps	NPA	Nonperforming asset
CECL	Current expected credit loss	OCC	Office of the Comptroller of the Currency
CET1	Common Equity Tier 1	OCI	Other comprehensive income
CFPB	Consumer Financial Protection Bureau	OTC	Over-the-counter
CLO	Collateralized loan obligation	OTTI	Other-than-temporary impairment
CLTV	Combined loan-to-value	PCI Loans	Purchased credit-impaired loans
CMBS	Commercial mortgage-backed securities	PTPP	Pre-tax pre-provision profit
CPP	Capital Purchase Program	RBC	Risk-based capital
CRE	Commercial real estate	RMBS	Residential mortgage-backed securities
DPD	Days past due	ROA	Wells Fargo net income to average total assets
ESOP	Employee Stock Ownership Plan	ROE	Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity
FAS	Statement of Financial Accounting Standards	ROTCE	Return on average tangible common equity
FASB	Financial Accounting Standards Board	RWAs	Risk-weighted assets
FDIC	Federal Deposit Insurance Corporation	SEC	Securities and Exchange Commission
FFELP	Federal Family Education Loan Program	S&P	Standard & Poor's Ratings Services
FHA	Federal Housing Administration	SLR	Supplementary leverage ratio
FHLB	Federal Home Loan Bank	SPE	Special purpose entity
FHLMC	Federal Home Loan Mortgage Corporation	TARP	Troubled Asset Relief Program
FICO	Fair Isaac Corporation (credit rating)	TDR	Troubled debt restructuring
FNMA	Federal National Mortgage Association	TLAC	Total Loss Absorbing Capacity
FRB	Board of Governors of the Federal Reserve System	VA	Department of Veterans Affairs
GAAP	Generally accepted accounting principles	Var	Value-at-Risk
GNMA	Government National Mortgage Association	VIE	Variable interest entity
GSE	Government-sponsored entity		
G-SIB	Globally systemic important bank		

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

Information in response to this item can be found in Note 11 (Legal Actions) to Financial Statements in this Report which information is incorporated by reference into this item.

Item 1A. Risk Factors

Information in response to this item can be found under the “Financial Review – Risk Factors” section in this Report which information is incorporated by reference into this item.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The following table shows Company repurchases of its common stock for each calendar month in the quarter ended June 30, 2017.

Calendar month	Total number of shares repurchased (1)	Weighted-average price paid per share	Maximum number of shares that may yet be repurchased under the authorization
April	4,426,785	\$ 52.77	209,831,111
May (2)	18,564,273	53.34	191,266,838
June	20,055,875	53.01	171,210,963
Total	43,046,933		

(1) All shares were repurchased under an authorization covering up to 350 million shares of common stock approved by the Board of Directors and publicly announced by the Company on January 26, 2016. Unless modified or revoked by the Board, this authorization does not expire.

(2) May includes a private repurchase transaction of 14,153,358 shares at a weighted-average price per share of \$52.99.

The following table shows Company repurchases of the warrants for each calendar month in the quarter ended June 30, 2017.

Calendar month	Total number of warrants repurchased (1)	Average price paid per warrant	Maximum dollar value of warrants that may yet be repurchased
April	—	\$ —	451,944,402
May	—	—	451,944,402
June	—	—	451,944,402
Total	—		

(1) Warrants are repurchased under the authorization covering up to \$1 billion in warrants approved by the Board of Directors (ratified and approved on June 22, 2010). Unless modified or revoked by the Board, this authorization does not expire.

Item 6. Exhibits

A list of exhibits to this Form 10-Q is set forth on the Exhibit Index immediately preceding such exhibits and is incorporated herein by reference.

The Company's SEC file number is 001-2979. On and before November 2, 1998, the Company filed documents with the SEC under the name Norwest Corporation. The former Wells Fargo & Company filed documents under SEC file number 001-6214.

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, thereunto duly authorized.

Dated: August 4, 2017

WELLS FARGO & COMPANY

By: /s/ RICHARD D. LEVY
Richard D. Levy
Executive Vice President and Controller
(Principal Accounting Officer)

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>	<u>Location</u>																				
3(a)	Restated Certificate of Incorporation, as amended and in effect on the date hereof.	Incorporated by reference to Exhibit 3(a) to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017.																				
3(b)	By-Laws.	Incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed December 1, 2016.																				
4(a)	See Exhibits 3(a) and 3(b).																					
4(b)	The Company agrees to furnish upon request to the Commission a copy of each instrument defining the rights of holders of senior and subordinated debt of the Company.																					
10(a)	Form of Restricted Share Rights Award Agreement for grants on or after February 28, 2017.	Filed herewith.																				
10(b)	Wells Fargo Bonus Plan, as amended effective January 1, 2017.	Filed herewith.																				
10(c)	Amendment to Deferred Compensation Plan, effective July 1, 2017.	Filed herewith.																				
10(d)	Amendment to Supplemental 401(k) Plan, effective July 1, 2017.	Filed herewith.																				
10(e)	Amendment to Supplemental Cash Balance Plan, effective July 1, 2017.	Filed herewith.																				
10(f)	Amendment to Wachovia Corporation Savings Restoration Plan, effective July 1, 2017.	Filed herewith.																				
10(g)	Form of stock award agreement for employees of Wachovia Corporation, including Jonathan Weiss.	Filed herewith.																				
12(a)	Computation of Ratios of Earnings to Fixed Charges:	Filed herewith.																				
	<table border="1"> <thead> <tr> <th style="text-align: center;"></th> <th colspan="2" style="text-align: center;">Quarter ended June 30,</th> <th colspan="2" style="text-align: center;">Six months ended June 30,</th> </tr> <tr> <th style="text-align: center;"></th> <th style="text-align: center;">2017</th> <th style="text-align: center;">2016</th> <th style="text-align: center;">2017</th> <th style="text-align: center;">2016</th> </tr> </thead> <tbody> <tr> <td>Including interest on deposits</td> <td style="text-align: center;">4.44</td> <td style="text-align: center;">6.41</td> <td style="text-align: center;">4.56</td> <td style="text-align: center;">6.55</td> </tr> <tr> <td>Excluding interest on deposits</td> <td style="text-align: center;">5.86</td> <td style="text-align: center;">7.93</td> <td style="text-align: center;">5.94</td> <td style="text-align: center;">8.10</td> </tr> </tbody> </table>		Quarter ended June 30,		Six months ended June 30,			2017	2016	2017	2016	Including interest on deposits	4.44	6.41	4.56	6.55	Excluding interest on deposits	5.86	7.93	5.94	8.10	
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	2017	2016	2017	2016																		
Including interest on deposits	4.44	6.41	4.56	6.55																		
Excluding interest on deposits	5.86	7.93	5.94	8.10																		
12(b)	Computation of Ratios of Earnings to Fixed Charges and Preferred Dividends:	Filed herewith.																				
	<table border="1"> <thead> <tr> <th style="text-align: center;"></th> <th colspan="2" style="text-align: center;">Quarter ended June 30,</th> <th colspan="2" style="text-align: center;">Six months ended June 30,</th> </tr> <tr> <th style="text-align: center;"></th> <th style="text-align: center;">2017</th> <th style="text-align: center;">2016</th> <th style="text-align: center;">2017</th> <th style="text-align: center;">2016</th> </tr> </thead> <tbody> <tr> <td>Including interest on deposits</td> <td style="text-align: center;">3.58</td> <td style="text-align: center;">4.66</td> <td style="text-align: center;">3.63</td> <td style="text-align: center;">4.73</td> </tr> <tr> <td>Excluding interest on deposits</td> <td style="text-align: center;">4.38</td> <td style="text-align: center;">5.35</td> <td style="text-align: center;">4.39</td> <td style="text-align: center;">5.43</td> </tr> </tbody> </table>		Quarter ended June 30,		Six months ended June 30,			2017	2016	2017	2016	Including interest on deposits	3.58	4.66	3.63	4.73	Excluding interest on deposits	4.38	5.35	4.39	5.43	
	Quarter ended June 30,		Six months ended June 30,																			
	2017	2016	2017	2016																		
Including interest on deposits	3.58	4.66	3.63	4.73																		
Excluding interest on deposits	4.38	5.35	4.39	5.43																		
31(a)	Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.																				
31(b)	Certification of principal financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.																				
32(a)	Certification of Periodic Financial Report by Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and 18 U.S.C. § 1350.	Furnished herewith.																				
32(b)	Certification of Periodic Financial Report by Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and 18 U.S.C. § 1350.	Furnished herewith.																				
101.INS	XBRL Instance Document	Filed herewith.																				
101.SCH	XBRL Taxonomy Extension Schema Document	Filed herewith.																				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith.																				
101.DEF	XBRL Taxonomy Extension Definitions Linkbase Document	Filed herewith.																				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith.																				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith.																				

Exhibit 10(a)

Form of Restricted Share Rights Award Agreement for Grants on or after February 28, 2017

Brackets identify provisions that may vary depending on the particular grant, grant recipient and/or other relevant factor.

**WELLS FARGO & COMPANY
LONG-TERM INCENTIVE COMPENSATION PLAN
RESTRICTED SHARE RIGHTS AWARD AGREEMENT**

Grant Date: *[applicable date]*

1. **Award.** To encourage your continued employment with the Company or any Affiliate and to motivate you to help the Company increase stockholder value over the long term, Wells Fargo & Company (the "Company") has awarded you the number of Restricted Share Rights as set forth on the acknowledgement screen for your grant on this website (the "Award"). Each Restricted Share Right entitles you to receive one share of Wells Fargo & Company common stock ("Common Stock") contingent upon vesting and subject to the other terms and conditions set forth in the Company's Long-Term Incentive Compensation Plan, as may be amended from time to time (the "Plan") and this Award Agreement.
2. **Vesting.** Except as otherwise provided in this Award Agreement, and subject to the Company's right to recoup or forfeit all or any portion of this Award and other conditions as provided in this Award Agreement[, including but not limited to the performance conditions in *[applicable paragraphs]* below], the Restricted Share Rights will vest and be settled according to the following schedule:

[Vesting Schedule]

Shares of Common Stock in settlement of the Restricted Share Rights will be issued to you or, in case of your death, your Beneficiary determined in accordance with the Plan. Although you may receive dividend equivalents as provided below, you will have no rights as a stockholder of the Company with respect to your Restricted Share Rights until settlement. Upon vesting, each Restricted Share Right will be settled and distributed as one share of Common Stock except as otherwise provided in the Plan or this Award Agreement.

3. **Termination.**
 - (a) If you cease to be an Employee due to your death, any then unvested Restricted Share Right awarded hereby (including any Restricted Share Right granted with respect to dividend equivalents as provided below) will immediately vest upon your date of death and will be settled and distributed to your Beneficiary in shares of Common Stock between January 2 and March 1 of the year following the year in which you die. Notwithstanding the foregoing, if by the last date set forth herein your Beneficiary has not presented evidence deemed satisfactory by the Company to allow transfer of the shares of Common Stock to the Beneficiary under applicable laws, the Company may treat all unvested Restricted Share Rights as forfeited, in which case the Company shall have no obligation to issue shares of Common Stock or benefits in lieu of such shares to your Beneficiary and shall have no liability therefor.
 - (b) If you incur an involuntary [Separation from Service][termination from employment] as a result of one of the following:
 - (1) application of the Company's Extended Absence Policy to you in connection with a Disability,
 - (2) your displacement and receipt of an immediate lump sum severance benefit, placement on a Salary Continuation Leave of Absence or placement on another leave of absence which will result in your receipt of a severance benefit in connection with that leave, or
 - (3) the Company or an Affiliate entering into a corporate transaction with another company (the "buyer") (including a transaction where the buyer acquires all or any portion of the assets, stock or operations

of the Company or Affiliate) and pursuant to the terms of the transaction your continuing in employment with the buyer after completion of the corporate transaction,

any then unvested Restricted Share Right awarded hereby (including any Restricted Share Right granted with respect to dividend equivalents as provided below) will immediately vest and will be settled and distributed to you in shares of Common Stock within 90 days from your [Separation from Service][termination of employment or, if earlier, by March 1 of the year following the year in which the Restricted Share Rights vest] [, subject to the performance conditions in *[applicable paragraphs]* below.

The definitions of the terms [“Separation from Service” (which is determined by the Company in accordance with Section 409A (as defined in paragraph 11 below)),] and “Disability” are set forth on Exhibit A to this Award Agreement, which definitions are incorporated by reference herein.

- (c) [If you have a Separation from Service that is not addressed in paragraph 3(b) above for a reason other than Cause and you satisfy the definition of Retirement under the Plan on your Separation from Service date or you satisfy the definition of Retirement following your Separation from Service date at the end of an approved leave of absence not to exceed six months, any then unvested Restricted Share Right awarded hereby (including any Restricted Share Right granted with respect to dividend equivalents as provided below) will continue to vest and be settled upon the scheduled vesting date as set forth in paragraph 2 above[, subject to the conditions and restrictions in *[applicable paragraphs]* below]; provided, however, if you die following Retirement, subject to the limitations set forth in paragraph 3(a), any then unvested Restricted Share Right will vest immediately upon your date of death and will be settled and distributed to your Beneficiary in shares of Common Stock between January 2 and March 1 of the year following the year in which you die. The definition of the term “Cause” is set forth on Exhibit A to this Award Agreement, which definition is incorporated by reference herein.]
- (d) If the Affiliate that employs you incurs a Change in Control and you continue employment with the buyer immediately after the Change in Control, any then unvested Restricted Share Right awarded hereby (including any Restricted Share Right granted with respect to dividend equivalents as provided below) will immediately vest and will be settled and distributed to you in shares of Common Stock within 90 days from the date the Change in Control occurred [or, if earlier, by March 1 of the year immediately following the year in which the Change in Control occurred][, subject to the conditions and restrictions in *[applicable paragraphs]* below]. Exhibit A to this Award Agreement sets forth the definition of the term “Change in Control,” which definition is incorporated in this Award Agreement by reference.

- (a) If you [incur a Separation from Service][terminate employment] other than for a reason described in paragraphs 3(a), (b), (c), or (d) above, any then unvested Restricted Share Right awarded hereby (including any Restricted Share Right granted with respect to dividend equivalents as provided below) will immediately terminate without notice to you and will be forfeited.

4. **Dividend Equivalents.** During the period beginning on the Grant Date and ending on the date the applicable Restricted Share Rights vest and are distributed, or are forfeited, whichever occurs first, if the Company pays a dividend on the Common Stock, you will automatically receive, as of the payment date for such dividend, dividend equivalents in the form of additional Restricted Share Rights based on the amount or number of shares that would have been paid on the Restricted Share Rights had they been issued and outstanding shares of Common Stock as of the record date and, if a cash dividend, the closing price of the Common Stock on the New York Stock Exchange as of the dividend payment date. You will also automatically receive dividend equivalents with respect to such additional Restricted Share Rights, to be granted in the same manner. Restricted Share Rights granted with respect to dividend equivalents will be subject to the same vesting schedule and other terms and conditions as the underlying Restricted Share Rights, including the Company’s right of recoupment or forfeiture, and will be distributed in shares of Common Stock when, and if, the underlying Restricted Share Rights are settled and distributed.

5. **Tax Withholding.** Regardless of any action the Company or an Affiliate which is your employer (the “Employer”) takes with respect to any or all income tax, payroll tax, payment on account or other tax-related items related to your participation in the Plan and legally applicable to you or deemed by the Company or the Employer to be an appropriate charge to you even if technically due by the Company or the Employer (“Tax-Related Items”), you acknowledge that the ultimate liability for all Tax-Related Items is and remains your responsibility and may exceed

the amount actually withheld by the Company or the Employer. You further acknowledge that the Company and/or the Employer: (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Award, including the grant, vesting or settlement of the Restricted Share Rights, the issuance of shares of Common Stock upon settlement of the Restricted Share Rights, the subsequent sale of shares of Common Stock acquired pursuant to such issuance and the receipt of any dividends and/or any dividend equivalents; and (b) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Award to reduce or eliminate your liability for such Tax-Related Items or to achieve any particular tax result. Further, if you are subject to tax on the Award in more than one jurisdiction at the time of any relevant taxable event, you acknowledge that the Company and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, you shall pay or make adequate arrangements satisfactory to the Company or the Employer to satisfy all Tax-Related Items. In this regard, you authorize the Company and/or the Employer, or their respective agents, at their discretion and pursuant to such procedures as the Company may specify from time to time, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (1) withholding from any wages or other cash compensation paid to you by the Company and/or the Employer; (2) withholding from proceeds of the sale of shares of Common Stock acquired upon vesting and settlement of the Restricted Share Rights either through a voluntary sale or through a mandatory sale arranged by the Company (on your behalf pursuant to this authorization); or (3) withholding in shares of Common Stock to be issued upon vesting and settlement of the Restricted Share Rights. Notwithstanding the foregoing, if you are subject to the short-swing profit rules of Section 16(b) of the Securities Exchange Act of 1934 (the "Exchange Act"), the Company will withhold in shares of Common Stock upon the relevant tax withholding event[, except with respect to any Tax-Related Items required to be withheld prior to the vesting dates set forth in paragraph 2 which may be withheld from your wages or other cash compensation]. Only if withholding in shares of Common Stock is prevented by applicable law or has materially adverse accounting or tax consequences, may the Tax-Related Items withholding obligation for individuals subject to Section 16(b) of the Exchange Act be satisfied by one or a combination of methods (1) and (2) above.

Depending on the withholding method, the Company may withhold or account for Tax-Related Items by considering applicable minimum statutory withholding amounts or other applicable withholding rates, including maximum applicable rates, in which case you will receive a refund of any over-withheld amount in cash and will have no entitlement to the Common Stock equivalent. Anything to the contrary in this paragraph 5 notwithstanding, the Company or the Employer's right to withhold any amounts payable pursuant to this Award to cover Tax-Related Items for any portion of the Award that is considered deferred compensation subject to Section 409A shall be limited to the minimum amount permitted to avoid a prohibited acceleration under Section 409A. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, for tax purposes, you will be deemed to have been issued the full number of shares of Common Stock subject to the vested Restricted Share Rights, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items due as a result of any aspect of your participation in the Plan.

Finally, you shall pay to the Company or the Employer any amount of Tax-Related Items that the Company or the Employer may be required to withhold or account for as a result of your participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares of Common Stock, if you fail to comply with your obligations in connection with the Tax-Related Items.

6. **Nontransferable.** Unless the Committee provides otherwise, (i) no rights under this Award will be assignable or transferable, and neither you nor your Beneficiary will have any power to anticipate, alienate, dispose of, pledge or encumber any rights under this Award, and (ii) the rights and the benefits of this Award may be exercised and received during your lifetime only by you or your legal representative.
7. **Other Restrictions; Amendment.** The issuance of Common Stock hereunder is subject to compliance by the Company and you with all legal requirements applicable thereto, including compliance with the requirements of 12 C.F.R. Part 359 and tax withholding obligations, and with all applicable regulations of any stock exchange on which the Common Stock may be listed at the time of issuance. Subject to paragraph[s] 11 [and 12] below, the Committee may, in its sole discretion and without your consent, reduce, delay vesting, modify, revoke, cancel,

impose additional conditions and restrictions on or recover all or a portion of this Award if the Committee deems it necessary or advisable to comply with applicable laws, rules and regulations. This Award is subject to any applicable recoupment or “clawback” policies of the Company, as in effect from time to time, and any applicable recoupment or clawback requirements imposed under laws, rules and regulations.

8. **Performance Conditions.** The Award is fully conditioned on and subject to performance adjustments, which include the right of the Committee to cause you to forfeit all or any unpaid portion of an Award, if the Committee determines in its sole discretion that:

- You engage in misconduct which has or might reasonably be expected to have reputational or other harm to the Company or any conduct that constitutes Cause;
- You engage in misconduct or commit a material error that causes or might reasonably be expected to cause significant financial or reputational harm to the Company or your business group;
- The Award was based on materially inaccurate performance metrics, whether or not you were responsible for the inaccuracy;
- You improperly or with gross negligence, including in a supervisory capacity, fail to identify, escalate, monitor, or manage, in a timely manner and as reasonably expected, risks material to the Company or your business group; or
- The Company or your business group suffers a material downturn in its financial performance or suffers a material failure of risk management.

The Committee may consider any factors it determines necessary or appropriate for purposes of making a determination whether a performance adjustment is appropriate and the amount of the adjustment based on the particular facts and circumstances. All determinations by the Committee will be final and binding.

9. **Restrictive Covenants.** In consideration of the terms of this Award and your access to Confidential Information, you agree to the restrictive covenants and associated remedies as set forth below, which exist independently of and in addition to any obligation to which you are subject under the terms of the Wells Fargo Agreement Regarding Trade Secrets, Confidential Information, Non-Solicitation, And Assignment Of Inventions (the “TSA”):

- (a) **Trade Secrets and Confidential Information.** During the course of your employment, you will acquire knowledge of the Company’s and/or any Affiliate’s (collectively “WFC”) Trade Secrets and other proprietary information relating to its business, business methods, personnel, and customers (collectively, “Confidential Information”). “Trade Secrets” means WFC’s confidential information, which has an economic value in being secret and which WFC has taken steps to keep secret and you understand and agree that Trade Secrets include, but are not limited to, confidentially maintained client and customer lists and information, and confidentially maintained prospective client and customer lists and information. You agree that Confidential Information of WFC is to be used solely and exclusively for the purpose of conducting business on behalf of WFC. You agree to keep such Confidential Information confidential and will not divulge, use or disclose this information except for that purpose. In addition, you agree that, both during and after your employment, you will not remove, share, disseminate or otherwise use WFC’s Trade Secrets to directly or indirectly solicit, participate in or promote the solicitation of any of WFC’s clients, customers, or prospective customers for the purpose of providing products or services that are in competition with WFC’s products or services. Notwithstanding the foregoing, nothing contained in this Award Agreement prohibits or restricts you (or your attorney) from initiating communications directly with, or responding to any inquiry from, or providing testimony before, the Securities and Exchange Commission, the Financial Industry Regulatory Authority, the National Labor Relations Board, the Equal Employment Opportunity Commission, or any self-regulatory organization or governmental authority charged with the enforcement of any laws.

- (b) **Assignment of Inventions.** You acknowledge and agree that all inventions and all worldwide intellectual property rights that you make, conceive or first reduce to practice (alone or in conjunction with others) during your employment with WFC are owned by WFC that (1) relate at the time of conception or reduction to practice of the invention to WFC’s business, or actual or demonstrably anticipated research or development of WFC whether or not you made, conceived or first reduced the inventions to practice during normal working hours; and (2) involve the use of any time, material, information, or facility of WFC.

(c) **Non-solicitation.** If you are currently subject to a TSA, you shall continue to be bound by the terms of the TSA. If you are not currently subject to a TSA, you agree to the following:

For a period of one year immediately following termination of your employment for any reason, you will not do any of the following, either directly or indirectly or through associates, agents, or employees:

- i. solicit, recruit or promote the solicitation or recruitment of any employee or consultant of WFC for the purpose of encouraging that employee or consultant to leave WFC's employ or sever an agreement for services; or
- ii. to the fullest extent enforceable under the applicable state law, solicit, participate in or promote the solicitation of any of WFC's clients, customers, or prospective customers with whom you had Material Contact and/or regarding whom you received Confidential Information, for the purpose of providing products or services that are in competition with WFC's products or services. "Material Contact" means interaction between you and the customer, client or prospective customer within one (1) year prior to your last day as a team member which takes place to manage, service or further the business relationship.

The one-year limitation is not intended to limit WFC's right to prevent misappropriation of its Confidential Information beyond the one-year period.

(d) **Violation of TSA or Restrictive Covenants.** If you breach any of the terms of a TSA and/or the restrictive covenants above, all unvested Restricted Share Rights shall be immediately and irrevocably forfeited. For any Restricted Share Rights that vested within one (1) year prior to the termination of your employment with WFC or at any time after your termination, you shall be required to repay or otherwise reimburse WFC an amount having a value equal to the aggregate fair market value (determined as of the date of vesting) of such vested shares. This paragraph does not constitute the Company's exclusive remedy for violation of your restrictive covenant obligations, and WFC may seek any additional legal or equitable remedy, including injunctive relief, for any such violation.

10. **No Employment Agreement.** Neither the award to you of the Restricted Share Rights nor the delivery to you of this Award Agreement or any other document relating to the Restricted Share Rights will confer on you the right to continued employment with the Company or any Affiliate. You understand that your employment with the Company or any Affiliate is "at will" and nothing in this document changes, alters or modifies your "at will" status or your obligation to comply with all policies, procedures and rules of the Company, as they may be adopted or amended from time to time.
11. **Section 409A.** This Award is intended to [comply with the requirements of][be exempt from] Section 409A of the Internal Revenue Code of 1986, as amended, and the applicable Treasury Regulations or other binding guidance thereunder ("Section 409A"). Accordingly, all provisions included in this Award Agreement, or incorporated by reference, will be interpreted and administered in accordance with that intent. [Therefore, all Restricted Share Rights will be settled and distributed no later than March 1 of the year following the year when such Restricted Share Rights vest.] If any provision of the Plan or this Award Agreement would otherwise conflict with or frustrate this intent, that provision will be interpreted and deemed amended or limited so as to avoid the conflict; provided, however, that the Company makes no representation that the Award is exempt from or complies with Section 409A and makes no undertaking to preclude Section 409A from applying to the Award. The Company will have no liability to you or to any other party if the Award or payment of the Award that is intended to be [compliant with] [exempt from] Section 409A is not so [compliant][exempt] or for any action taken by the Committee with respect thereto.
12. **[Six-month Delay.** Notwithstanding any provision of the Plan or this Award Agreement to the contrary, if, upon your Separation from Service for any reason, the Company determines that you are a "Specified Employee" as defined in Section 409A and in accordance with the definition set forth on Exhibit A to this Award Agreement, which definition is incorporated by reference herein, your Restricted Share Rights, if subject to settlement upon your Separation from Service and if required pursuant to Section 409A, will not settle before the date that is the first business day following the six-month anniversary of such Separation from Service, or, if earlier, upon your death.]
13. **Stock Ownership Provision.** In accordance with the terms of the Company's stock ownership policy, as may be amended from time to time: (a) if you are an Executive Officer of the Company or a member of its Operating

Committee, as a condition to receiving this Award, you agree to hold, while employed by the Company or any Affiliate and for a period of one year after your Retirement, a number of shares of Common Stock equal to at least 50% of the after-tax shares of Common Stock (assuming a 50% tax rate) acquired upon vesting and settlement of Company stock-based awards or pursuant to the exercise of Company stock options (if applicable), subject to a maximum holding requirement of shares with a value equal to ten (10) times your cash salary; and (b) if you are not an Executive Officer or member of the Operating Committee, you are expected to hold that number of shares while employed by the Company or any Affiliate.

14. **Severability and Judicial Modification.** If any provision of this Award Agreement is held to be invalid or unenforceable under pertinent state law or otherwise or Wells Fargo elects not to enforce such restriction, including but not limited to paragraph 9(c)ii, the remaining provisions shall remain in full force and effect and the invalid or unenforceable provision shall be modified only to the extent necessary to render that provision valid and enforceable to the fullest extent permitted by law. If the invalid or unenforceable provision cannot be, or is not, modified, that provision shall be severed from this Award Agreement and all other provisions shall remain valid and enforceable.
15. **Additional Provisions.** This Award Agreement is subject to the provisions of the Plan. Capitalized terms not defined in this Award Agreement are used as defined in the Plan. If the Plan and this Award Agreement are inconsistent, the provisions of the Plan will govern. Interpretations of the Plan and this Award Agreement by the Committee are binding on you and the Company.
16. **Applicable Law.** This Award Agreement and the award of Restricted Share Rights evidenced hereby will be governed by, and construed in accordance with the laws of the state of Delaware (without regard to its choice-of-law provisions), except to the extent Federal law would apply.
17. **Imposition of Other Requirements.** The Company reserves the right to impose other requirements on your participation in the Plan, on the Award and on any shares of Common Stock acquired under the Plan, to the extent the Company determines it is necessary or advisable in order to comply with applicable law or facilitate the administration of the Plan and provided the imposition of the term or condition will not result in adverse accounting expense to the Company, and to require you to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.
18. **Electronic Delivery and Acceptance.** The Company is electronically delivering documents related to current or future participation in the Plan and is requesting your consent to participate in the Plan by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through the current plan administrator's on-line system, or any other on-line system or electronic means that the Company may decide, in its sole discretion, to use in the future.
19. **Entire Agreement.** The Plan is incorporated herein by reference. The Plan and this Award Agreement (including Exhibit A attached hereto) constitute the entire agreement of the parties with respect to the Award and supersede in their entirety all prior proposals, undertakings and agreements, written or oral, and all other communications between you and the Company with respect to the Award.

[Insert requirement to acknowledge and accept grant terms]

Exhibit A

Certain Definitions

[Separation from Service]

A Participant's "Separation from Service" occurs upon his or her death, retirement or other termination of employment or other event that qualifies as a "separation from service" under Internal Revenue Code Section 409A and the applicable regulations thereunder as in effect from time to time. The Company shall determine in each case when a Participant's Separation from Service has occurred, which determination shall be made in a manner consistent with Treasury Regulation Section 1.409A-1(h). The Company shall determine that a Separation from Service has occurred as of a certain date when the facts and circumstances indicate that the Company (or an Affiliate, if applicable) and the Participant reasonably anticipate that, after that date, the Participant will render no further services, or the Participant's level of bona fide services (either as an employee or independent contractor) will permanently decrease to a level that is 20% or less than the average level of the Participant's bona fide services (either as an employee or independent contractor) previously in effect for such Participant over the immediately preceding 36-month period (or the Participant's entire period of service, if the Participant has been providing services for less than 36 months).

The following presumptions shall also apply to all such determinations:

- (1) Transfers. A Separation from Service has not occurred upon the Participant's transfer of employment from the Company to an Affiliate or vice versa, or from an Affiliate to another Affiliate.
- (2) Medical leave of absence. Where the Participant has a medical leave of absence due to any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than six months, and he or she has not returned to employment with the Company or an Affiliate, a Separation from Service has occurred on the earlier of: (A) the first day on which the Participant would not be considered "disabled" under any disability policy of the Company or Affiliate under which the Participant is then receiving a benefit; or (B) the first day on which the Participant's medical leave of absence period exceeds 29 months.
- (3) Military leave of absence. Where the Participant has a military leave of absence, and he or she has not returned to employment with the Company or an Affiliate, a Separation from Service has occurred on the day next following the last day on which the Participant is entitled to reemployment rights under USERRA.
- (4) Salary continuation leave. A Separation from Service has occurred on the first day of the Participant's salary continuation leave taken under the Company's Salary Continuation Pay Plan.
- (5) Other leaves of absence. In the event that the Participant is on a bona fide leave of absence, not otherwise described in this definition, from which he or she has not returned to employment with the Company or an Affiliate, the Participant's Separation from Service has occurred on the first day on which the Participant's leave of absence period exceeds six months or, if earlier, upon the Participant's termination of employment (provided that such termination of employment constitutes a Separation from Service in accordance with the last sentence of the first paragraph of this definition).
- (6) Asset purchase transaction. If, in connection with the sale or other disposition of substantial assets (such as a division or substantially all assets of a trade or business) of the Company or an Affiliate to an unrelated buyer, the Participant becomes an employee of the buyer or an affiliate of the buyer upon the closing of or in connection with such transaction, a Separation from Service has not occurred if the Company and the buyer have specified that such transaction will not, with respect to any individual affected by such transaction who becomes an employee of the buyer or an affiliate, be considered a "separation from service" under Treasury Regulation Section 1.409A-1(h), and such specification meets the requirements of Treasury Regulation Section 1.409A-1(h)(4).]

[Specified Employee]

A “Specified Employee” means:

- (1) Any Participant who is a “key employee” under Internal Revenue Code Section 416(i)(1)(A)(i), (ii) or (iii) (applied in accordance with the regulations thereunder and disregarding Internal Revenue Code Section 416(i)(5)) at any time during the 12-month period ending on the specified employee identification date. For purposes of determining “key employee” status under Internal Revenue Code Section 416(i)(1)(A)(i), except as required under such provision and the regulations thereunder, the term “officer” shall refer to an employee of the Company or an Affiliate with the title Senior Vice President or above, and
- (2) Any participant who served as a member of the Company’s Management Committee at any time during the 12-month period ending on the specified employee identification date.

For purposes of applying Internal Revenue Code section 409A, the “specified employee identification date” is each December 31. Any person described in (1) or (2) above on a specified employee identification date shall be treated as a Specified Employee for the entire 12-month period beginning on the following April 1.

Notwithstanding the above, in the event of a corporate transaction to which the Company or an Affiliate is a party, the Company may, in its discretion, establish a method for determining Specified Employees pursuant to Treasury Regulation Section 1.409A-1(i)(6).]

Disability

You will be considered to have a “Disability” if you are (1) receiving income replacement benefits for a period of not less than three months under the Company’s or an Affiliate’s long-term disability plan as a result of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than 12 months; or (2) determined by the Social Security Administration to be eligible for social security disability benefits.

Cause

“Cause” means (1) the continued failure by you to substantially perform your duties; (2) your conviction of a crime involving dishonesty or breach of trust, conviction of a felony, or commission of any act that makes you ineligible for coverage under Wells Fargo’s fidelity bond or otherwise makes you ineligible for continued employment; or (3) your violation of the Company’s policies, including but not limited to Wells Fargo’s Code of Ethics and Business Conduct (or the Code applicable to your line of business), Anti-Bribery and Corruption Policy, Information Security Policies, and Risk Management Accountability Policy. For the avoidance of doubt, an event or conduct constituting Cause could take place before or after your termination of employment.

Change in Control

“Change in Control” means a change in the ownership or effective control of the Company or the Affiliate that employs you, or in the ownership of a substantial portion of the assets of the Company or the Affiliate that employs you within the meaning of Treas. Reg. section 1.409A-3(i)(5) as determined by the Company.

End of Form of Restricted Share Rights Award Agreement
For Grants on or after February 28, 2017



WELLS FARGO BONUS PLAN

The Plan is amended and restated effective January 1, 2017 and supersedes the Wells Fargo Bonus Plan originally effective January 1, 2000, subsequently clarified effective January 1, 2004 and January 1, 2006, amended and restated effective January 1, 2008, amended effective January 1, 2009, amended effective January 1, 2010, amended effective January 1, 2011, and amended effective January 1, 2015. Participants, incentive opportunities and Performance Measures shall be identified annually.

PURPOSE OF THE PLAN

The purpose of the Wells Fargo Bonus Plan (the “Plan”) is to motivate a select group of management, supervisory and individual contributors to achieve superior results for Wells Fargo & Company and its subsidiaries (“Wells Fargo”). The Plan is a discretionary incentive plan designed to provide Participants with incentive compensation opportunities that focus on individual accountability for appropriate risk management and full compliance with applicable laws and regulations, as well as individual and team contributions through the measurement of meaningful performance objectives that are consistent with Wells Fargo’s corporate and business unit objectives.

The determination and payment of any incentive Award under the Plan is subject to the conditions and restrictions imposed under any applicable law, rules and regulations. A Participant’s rights to or receipt of compensation under the Plan may be limited, modified, cancelled or recovered to ensure compliance with all such applicable laws, rules, regulations and guidance that may be issued from time to time. In addition, the Plan Administrator and/or Wells Fargo (subject to the authority of the Human Resources Committee of Wells Fargo & Company’s Board of Directors (the “HRC”)) has full discretionary authority to adjust or amend a Participant’s incentive opportunity or recommended payout under the Plan at any time.

This document is comprised of four sections:

1. Plan Eligibility
2. Incentive Components
3. Plan Administration
4. Appendix A

For questions related to this document, policies or the administration of the Plan, please contact your Human Resources representative.

PLAN ELIGIBILITY

A. Plan Eligibility

Wells Fargo management, supervisors, individual contributors and other groups of team members who are in a position to control or influence business results are eligible to participate in the Plan (“Participants”). Business unit managers, in consultation with their Human Resources partners, are responsible for identifying Participants within their business units who are eligible to participate in the Plan.

A Participant must have actively worked for at least three calendar months in an incentive-eligible position during the Plan Year. In addition, the Participant’s performance must have contributed towards the achievement of some or all of the Participant’s Performance Objectives. To be counted as “months worked,” the Participant must be in an incentive-eligible job on or before the 15th of the month.

A Plan Participant must be employed by Wells Fargo as of the Award payment date in order to be eligible to be considered for a discretionary Award under the Plan, unless otherwise noted

below. Exceptions may be made if the termination is a result of the Participant's retirement, death, corporate transactions, or a qualifying event under the Wells Fargo & Company Salary Continuation Pay Plan as set forth in the leave of absence or death or retirement policies in the Plan Administration section.

B. Plan Funding

A determination by the HRC that a bonus pool will be funded and Award payouts will occur under the Plan based on its evaluation of Wells Fargo's performance.

C. Award Qualifiers.

In furtherance of the purpose of this Plan and consistent with the expectations of Participants in their day-to-day job duties, to be considered for a discretionary incentive under this Plan, the Participant is expected to meet the following Award Qualifiers:

1. A Participant is expected to meet the following objectives related to Risk and Compliance:
 - a. Effectively manage all risk associated with their position as set forth in Wells Fargo's Risk Management Accountability Policy (located in *Wells Fargo's Team Member Handbook*) and other policies and procedures applicable to the Participant in the Participant's role, including, but not limited to, credit, market, financial crimes, compliance, conduct, reputational and operational risks, as applicable;¹
 - b. Fulfill all risk management and compliance requirements (including, but not limited to, training requirements) that accompany Participant's responsibilities;² and
 - c. Operate in compliance with all applicable laws, regulations, policies and procedures applicable to Participant's position and job responsibilities.³
2. A Participant is expected to comply with Wells Fargo's other employment policies and procedures including, but not limited to, the Code of Ethics and Business Conduct and the Information Security Policy (located on *Teamworks*).

Failure to meet all Award Qualifiers may result in a downward adjustment to, or elimination of, an Award opportunity as determined by the Plan Administrator, regardless of meeting individual Performance Objectives. In addition, a Participant's Award opportunity under the Plan may be adjusted or denied if the team member has been on or received a formal warning

¹ If a Participant has a question about the policies and procedures applicable to his/her role, the Participant should promptly contact his/her manager or Human Resources representative to understand where the Participant can find his/her group's policies and procedures.

² See footnote 1 above.

³ See footnote 1 above.

or been on final notice of corrective action during the Plan Year. Additional performance adjustment and/or forfeitures may be made to any deferred awards for a Participant.

Business unit managers should work with their Human Resources representative to identify any other Disqualifying Factors that may impact a Participant's eligibility under the Plan.

INCENTIVE COMPONENTS

Awards under the Plan are made in the sole and absolute discretion of Wells Fargo and the Plan Administrator, with recommendations from business unit managers and approvals from senior management. There is no guarantee that an incentive of any amount will be awarded to any Participant. To the extent an incentive may be payable, incentive recommendations should be consistent with the following guidelines:

A. Incentive Opportunity Range

The Incentive Opportunity Range is the range of possible payout amounts that may be made without the approval of the Head of Wells Fargo Enterprise HR Consulting and the Operating Committee Member for the Participant's line of business, or the Plan Administrator, as described below. Target award amounts are predefined by role, taking into consideration applicable regulatory and business practices. The Incentive Opportunity Range is generally up to 150% of the target award amount (the "Top of Range"). The threshold amount of an award is 50% of target; however, a Participant's business unit manager may exercise discretion to pay below threshold. The range and threshold amounts do not guarantee an award in any amount or that any award will be made.

B. Award Determination and Payout

The Performance Objective ratings are evaluated to determine the final incentive recommendation, subject to the Award Qualifiers and other terms of the Plan.

Performance shall be evaluated as soon as practicable following completion of the Plan Year by the Participant's business unit manager and/or any other manager responsible for reviewing incentive recommendations in the Participant's business unit. Lines of business are allocated incentive compensation pools used as guidelines to determine the appropriate amount of aggregate incentive compensation that should be paid at the business level. Establishment of the pool is not a guarantee that Awards will be paid to Participants nor does it guarantee the amount of any Award payable to Participants. Since Awards under the Plan are discretionary, lines of business may pay out all or a portion of their allocated pools, subject to the terms and conditions of the Plan.

All Awards under the Plan are subject to the following guidelines:

- Performance related to each Performance Objective is evaluated following the end of the Plan Year. Provided the Award Qualifiers and other terms of the Plan have been met, the Participant's manager evaluates the Participant's performance and provides an incentive recommendation. The incentive recommendation should be within the Incentive Opportunity Range identified for the Participant's position, unless further approvals are received as described below.

- Incentive Awards will be paid no later than March 15th of the calendar year following the end of the Plan Year.
- Awards may be paid in the form of short-term cash or long-term awards (cash or equity), or a combination thereof, in the HRC's discretion and may be adjusted to match the time horizon of risk outcomes. To the extent the HRC directs the Company to pay all or a portion of an award in the form of an equity-based award under the Wells Fargo & Company Long-Term Incentive Compensation Plan (the "LTICP"), the equity-based award will in all cases be conditioned upon and subject to the approval of the HRC and be subject to such terms and conditions as approved by the HRC in accordance with the provisions of the LTICP and reflected in the applicable award agreement. To the extent all or a portion of an Award will be paid in long-term cash, the long-term cash award will be made under the terms of the Wells Fargo & Company Long-Term Cash Award Plan (the "LTCAP"). The terms of awards under the LTCAP will be reflected in the applicable award agreement.

All Awards under the Plan are subject to the following approval requirements:

- Operating Committee Members who head a line of business must approve the aggregate value of Incentive Awards for that business. Without limiting the discretion of Wells Fargo or the Plan Administrator, a Participant's incentive recommendation may be increased by up to 15% over the Top of Range (i.e., generally up to 172.5% of target), on a discretionary basis by the Participant's business unit manager, subject to the Participant's Incentive Award being approved by the Operating Committee Member for the Participant's line of business and the Head of Wells Fargo Enterprise HR Consulting. In no event may an award exceed 15% over the Top of Range unless approved by the Plan Administrator. Notwithstanding the foregoing, Awards to Operating Committee Members are subject to the approval of the HRC.

PLAN ADMINISTRATION

A. Plan Administrator

The Plan Administrator is the Director of Human Resources of Wells Fargo & Company. The Plan Administrator has full discretionary authority to administer and interpret the Plan and may, at any time, delegate to personnel of Wells Fargo such responsibilities as he or she considers appropriate to facilitate the day-to-day administration of the Plan. The Plan Administrator also has the full discretionary authority to adjust or amend a Participant's incentive opportunity or recommended Award under the Plan at any time subject to the authority of the HRC to adjust Awards as described herein.

Plan commitments or interpretations (oral or written) by anyone other than the Plan Administrator or one of his/her delegates are invalid and will have no force or effect upon the policies and procedures set forth in this Plan.

B. Plan Year

Participant performance is measured and financial records are kept on a “Plan Year” basis. The Plan Year is the 12-month period beginning each January 1 and ending on the following December 31, unless the Plan is modified, suspended or terminated.

C. Disputes

If a Participant has a dispute regarding his/her incentive Award under the Plan, the Participant should attempt to resolve the dispute with the manager of his/her business unit. If this is not successful, the Participant should prepare a written request for review addressed to a Human Resources representative. The request for review should include any facts supporting the Participant’s request as well as any issues or comments the Participant deems pertinent. The Human Resources representative will send the Participant a written response documenting the outcome of this review in writing no later than 60 days following the date of the Participant’s written request. (If additional time is necessary, the Participant shall be notified in writing.) The determination of this request shall be final and conclusive upon all persons.

D. Amendment or Termination

The Board of Directors of Wells Fargo & Company or the HRC may amend, suspend or terminate the Plan or any incentive opportunity or Award recommendation at any time, for any reason; the Company’s President, any Vice Chairman, the Chief Administrative Officer, the Director of Human Resources may amend, suspend or terminate any incentive opportunity or Award recommendation, other than those related to executive officers of Wells Fargo & Company, at any time, for any reason. Action taken on behalf of the Company may be taken by the Chairman, President, Chief Administrative Officer, Director of Human Resources, Head of Wells Fargo Enterprise HR Consulting or Director of Compensation and Benefits.

E. Leaves of Absence

Incentive recommendations under the Plan may be pro-rated for Participants who go on a leave of absence provided the terms and conditions of the Plan have been satisfied, the Participant actively worked at least three months during the Plan Year and the Participant’s performance contributed towards the achievement of some or all of the Participant’s Performance Objectives. (See Section K: Pro-Rata Incentive Recommendations below.) If a Participant’s performance during the Plan Year contributed towards the achievement of all of the Participant’s Performance Objectives, the Participant’s incentive recommendation should be evaluated as if the Participant had not gone on leave. Business units should apply these criteria consistently to all Participants.

F. Changes in Employment Status

1. Employees (i) hired or (ii) transferred to a position that is bonus-eligible following a promotion from a non-bonus-eligible position, after the beginning of the Plan Year may be eligible to participate in the Plan, provided they meet all other Participant requirements as described in the Plan. Performance Objectives should be designed accordingly. To be eligible for any Award under the Plan, a Participant must have assigned Performance Objectives and an evaluation of performance on these objectives completed by the manager. Awards may be

pro-rated based on the number of calendar months the Participant participates in the Plan during the Plan Year. (See Section K: Pro-Rata Incentive Recommendations below.)

2. If, during the Plan Year, a Participant transfers to another business unit or receives a promotion to a new incentive-eligible position within Wells Fargo, the former and latter business unit managers should work together to determine whether the Participant met some or all of the Performance Objectives prior to the transfer or promotion and the terms and conditions of the Plan have been satisfied. Awards, if any, will be determined following the end of the Plan Year on the same schedule as other Awards under the Plan.
3. If during the Plan Year, a Participant transfers between two bonus eligible positions, managers should consider the Award opportunity for each position and the time in those positions when determining the year-end Award.

G. Retirement, Displacement, Death or Corporate Transaction

In the event of a Participant's death or retirement during the Plan Year, a Participant may be considered for a pro-rated incentive award provided the Participant actively worked for at least three months during the Plan Year, met some or all of the Participant's Performance Objectives, and the terms and conditions of the Plan have been satisfied. See Section K: Pro-Rata Incentive Recommendations below.

Participants who receive notice of a qualifying event under the Wells Fargo & Company Salary Continuation Pay Plan and whose positions are eliminated before the end of the Plan Year, may be considered for a pro-rata Award provided the Participant's performance during the Plan Year contributed towards the achievement of some or all of the Participant's Performance Objectives. (See Section K: Pro-Rata Incentive Recommendations below.) The Notice Period (as defined by that plan) should be considered in determining whether the Participant satisfies the three-month "actively at work" requirement and should also be considered when determining the pro-ration of the award. Award recommendations will be determined following the end of the Plan Year and are subject to the other terms and conditions of the Plan.

In the event of an involuntary termination due to a corporate transaction prior to the payment date a Participant may be considered for a pro-rata incentive award provided the Participant actively worked for at least three months during the Plan Year, met some or all of the Participant's Performance Objectives, and the terms and conditions of the Plan have been satisfied. (See Section K: Pro-Rata Incentive Recommendations below.)

H. Withholding Taxes

Wells Fargo shall deduct from all payments under the Plan an amount necessary to satisfy federal, state or local tax withholding requirements.

I. Not an Employment Contract

The Plan is not an employment contract and participation in the Plan does not alter a Participant's at-will employment relationship with Wells Fargo. Both the Participant and Wells Fargo are free to terminate their employment relationship at any time for any reason. No rights in the Plan may

be claimed by any person whether or not he/she is selected to participate in the Plan. No person shall acquire any right to an accounting or to examine the books or the affairs of Wells Fargo.

J. Assignment

No Participant shall have any right or power to pledge or assign any rights, privileges, or incentive awards provided for under the Plan.

K. Pro-Rata Incentive Awards

Incentive recommendations for pro-rata awards described in this Plan are determined based on the number of calendar months the Participant worked during the Plan Year. For purposes of this calculation, Participants who work through the 15th of a calendar month will receive credit for the entire month.

L. Code of Conduct

Violation of the terms or the spirit of the Plan and/or Wells Fargo's Code of Ethics and Business Conduct by the Participant and/or the Participant's supervisor, or other serious misconduct (including, but not limited to, gaming which is more fully discussed below), are grounds for disciplinary action, including disqualification from further participation in the Plan (including awards payable under the terms of the Plan) and/or immediate termination of employment.

Participants are expected to adhere to ethical and honest business practices. A Participant who violates the spirit of the Plan by "gaming" the system becomes immediately ineligible to participate in the Plan. "Gaming" is the manipulation and/or misrepresentation of sales or sales reporting in order to receive or attempt to receive compensation, or to meet or attempt to meet goals.

N. Internal Revenue Code Section 409A

To the extent that an award is paid in cash under the Plan, Wells Fargo intends such award to qualify as a short-term deferral exempt from the requirements of Internal Revenue Code Section 409A. In the event an award payable under the Plan does not qualify for treatment as an exempt short-term deferral, such amount will be paid in a manner that will satisfy the requirements of Internal Revenue Code Section 409A and applicable guidance thereunder.

APPENDIX A

CRD IV Identified Staff and AIFMD/UCITS Identified Staff Participants

If a Participant is CRD IV Identified Staff or AIFMD/UCITS Identified Staff, the Participant's eligibility for an incentive will be governed by, and subject to, the terms and conditions of the Plan, and any other conditions and restrictions imposed under any applicable law, rules and regulations. The form of any incentive awarded under the Plan and payout terms and conditions will be governed by the Identified Staff Incentive Payout Structure, a document that supplements the Plan and only applies to incentive awards granted to CRDIV Identified Staff and AIFMD/UCITS Identified Staff Participants.

A. Definitions

For purposes of this Appendix A, the following definitions shall apply:

1. CRD IV means Directive 2013/36/EU of the European Parliament and the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms and amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.
2. AIFMD means Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010.
3. UCITS means Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities and amending Directive 2014/91/EU.
4. CRD IV Identified Staff means all Code Staff and any other Participants who have been classified as Identified Staff for the purposes of CRD IV.
5. AIFMD/UCITS Identified Staff means all Participants who have been classified as Identified Staff for the purposes of AIFMD and/or UCITS.

Amendment to Wells Fargo & Company Deferred Compensation Plan (“DCP”)

Section 2(P) of the DCP is amended effective July 1, 2017 to read in full as follows:

(P) Plan Administrator. “Plan Administrator” of the Plan is the Director of Human Resources, the Director of Compensation and Benefits, and the Head of Enterprise HR Consulting of the Company, each of whom, acting individually, may take action as the Plan Administrator.

Amendment to Wells Fargo & Company Supplemental 401(k) Plan (“Supplemental 401(k)”)

The first sentence of Section 24 of the Supplemental 401(k) Plan is amended effective July 1, 2017 to read in full as follows:

For purposes of Section 3(16)(A) of the Employee Retirement Income Security Act of 1974 (“ERISA”), as amended, the Plan Administrator shall be the Director of Human Resources, the Director of Compensation and Benefits, and the Head of Enterprise HR Solutions of the Company, each of whom, acting individually, may take action as the Plan Administrator.

Amendment to Wells Fargo & Company Supplemental Cash Balance Plan (the “SCB”)

The first sentence of Section 19 of the SCB is amended effective July 1, 2017 to read in full as follows:

For purposes of Section 3(16)(A) of the Employee Retirement Income Security Act of 1974 (“ERISA”), as amended, the Plan Administrator shall be the Director of Human Resources, the Director of Compensation and Benefits, and the Head of Enterprise HR Solutions of the Company, each of whom, acting individually, may take action as the Plan Administrator

Amendment to Wachovia Corporation Savings Restoration Plan (“SRP”)

Section 2.1(jj) of the SRP is amended effective July 1, 2017 to read in full as follows:

“Plan Administrator” of the Plan is the Director of Human Resources, the Director of Compensation and Benefits, and the Head of Enterprise HR Consulting of the Company, each of whom, acting individually, may take action as the Plan Administrator.

Exhibit 10(g)

Form of stock award agreement for employees of Wachovia Corporation, including Jonathan Weiss

[Wachovia Corporation letterhead]

[Date]

[Addressee]

[Address]

[City], [State] [Zipcode]

Re: NOTIFICATION OF GRANT UNDER WACHOVIA CORPORATION'S AMENDED AND RESTATED 2003 STOCK INCENTIVE PLAN

Dear [Addressee]:

Wachovia Corporation (the “Corporation”) adopted the Amended and Restated 2003 Stock Incentive Plan (the “Plan”) to enable the Corporation to help attract and retain the services of key employees upon whose judgment, interest and special effort the successful conduct of the Corporation’s business is largely dependent. To further this purpose, the Board of Directors of the Corporation has granted to you the following stock options and/or restricted shares relating to the Corporation’s common stock. The grant of the award(s) is subject in all respects to the terms and conditions of this letter, the Plan and the related Information Statement. The terms of the Plan and the Information Statement are expressly incorporated into this letter. To the extent this letter and the Plan conflict, the terms of the Plan control. Any capitalized terms not defined in this letter will have the meanings given to them in the Plan.

Non-qualified Stock Options

On [Date] you were granted a non-qualified stock option (“NQSO”) to purchase an aggregate of [Number of Options Granted] shares of the Corporation’s common stock, at a price of \$[Option Price] per share. Subject to the terms of the Plan and this letter, the shares under this option shall become exercisable [Description of Vesting Period and Pro Rated Amounts, if applicable] beginning one year from the date of grant and will remain so exercisable until [Option Expiration Date] on which date the NQSO hereby granted shall terminate, to the extent not previously exercised or forfeited.

<u>Number of Options</u>	<u>Vesting Schedule</u>
[Number of Options Granted]	[Description of Vesting Period and Pro Rated Amounts, if applicable].

Restricted Shares

On [Date] you were granted [Number of Restricted Shares Awarded] restricted shares (“Restricted Shares”) of the Corporation’s common stock. The Restricted Shares granted hereby may not be sold, transferred, pledged, assigned or otherwise alienated or hypothecated (the “Transfer Restrictions”) except in accordance with the following schedule or as otherwise may be provided in the Plan:

<u>Number of Shares</u>	<u>Date Transfer Restrictions Lapse</u>
[Number of Restricted Shares Granted]	[Description of Vesting Period and Pro Rated Amounts, if applicable. May also include Performance Goals to be satisfied as a condition precedent to vesting, if applicable].

Termination of Employment:

(1) Effect on Stock Options:

Unless the Committee determines otherwise, if your employment with the Corporation shall terminate by reason of death, Retirement, displacement (as interpreted under the Wachovia severance plan) or Disability, any of the shares under this option that are unvested shall become immediately exercisable on the Date of Termination of Employment and will remain so until [Option Expiration Date] on which date the NQSO hereby granted shall terminate, to the extent not previously exercised or

Exhibit 10(g)

forfeited. Unless the Committee determines otherwise, if your employment with the Corporation shall terminate for any reason (including upon the 91st day of a personal, administrative, or educational leave of absence) other than Death, Retirement, displacement or Disability, (i) any then outstanding but unexercisable shares granted to you under this NQSO will be forfeited on the Date of Termination of Employment, and (ii) any then outstanding and exercisable shares granted under this option will be forfeited on the expiration date of such NQSO or three months after the Date of Termination of Employment, whichever period is shorter; provided, however, if such employment terminates due to involuntary termination by the Corporation, the Committee may, in its sole discretion, (i) waive the automatic forfeiture of any or all such NQSOs, (ii) retain the full term of the option award, and/or (iii) add such new restrictions to such NQSO as it deems appropriate.

(2) Effect On RSAs:

Unless the Committee determines otherwise, if your employment with the Corporation shall terminate because of death, Retirement, displacement (as interpreted under the Wachovia severance plan), or Disability, any remaining Transfer Restrictions applicable to the RSAs granted under this award shall automatically terminate and, these RSAs shall be free of restrictions and freely transferable. Unless the Committee determines otherwise, if your employment with the Corporation shall terminate for any reason (including upon the 91st day of a personal, administrative or educational leave of absence) other than death, Retirement, displacement or Disability, then any of the RSAs granted under this award subject to Transfer Restrictions on the date of such termination shall automatically be forfeited on the Date of Termination of Employment and returned to the Corporation; provided, however, if such employment terminates due to involuntary termination by the Corporation, the Committee may, in its sole discretion, waive the automatic forfeiture of any or all such RSAs and/or may add such new restrictions to such RSAs as it deems appropriate.

Please update your beneficiary designation online via your equity account at Wachovia Stock Option Services. If you have any questions concerning your grant, please contact Wachovia Stock Option Services at 1-877-386-4661.

Sincerely,

Ken Thompson

Enclosures

End of stock award agreement for employees of Wachovia Corporation

EXHIBIT 12(a)
WELLS FARGO & COMPANY AND SUBSIDIARIES
COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES

(\$ in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Earnings including interest on deposits (1):				
Income before income tax expense	\$ 8,073	8,222	\$ 15,678	16,303
Less: Net income from noncontrolling interests	38	15	129	67
Income before income tax expense and after noncontrolling interests	8,035	8,207	15,549	16,236
Fixed charges	2,335	1,517	4,366	2,925
	10,370	9,724	\$ 19,915	19,161
 Fixed charges (1):				
Interest expense	\$ 2,232	1,413	\$ 4,158	2,718
Estimated interest component of net rental expense	103	104	208	207
	\$ 2,335	1,517	\$ 4,366	2,925
Ratio of earnings to fixed charges (2)	4.44	6.41	4.56	6.55
 Earnings excluding interest on deposits:				
Income before income tax expense and after noncontrolling interests	\$ 8,035	8,207	\$ 15,549	16,236
Fixed charges	1,652	1,185	3,146	2,286
	\$ 9,687	9,392	\$ 18,695	18,522
 Fixed charges:				
Interest expense	\$ 2,232	1,413	\$ 4,158	2,718
Less: Interest on deposits	683	332	1,220	639
Estimated interest component of net rental expense	103	104	208	207
	\$ 1,652	1,185	\$ 3,146	2,286
Ratio of earnings to fixed charges (2)	5.86	7.93	5.94	8.10

(1) As defined in Item 503(d) of Regulation S-K.

(2) These computations are included herein in compliance with Securities and Exchange Commission regulations. However, management believes that fixed charge ratios are not meaningful measures for the business of the Company because of two factors. First, even if there was no change in net income, the ratios would decline with an increase in the proportion of income which is tax-exempt or, conversely, they would increase with a decrease in the proportion of income which is tax-exempt. Second, even if there was no change in net income, the ratios would decline if interest income and interest expense increase by the same amount due to an increase in the level of interest rates or, conversely, they would increase if interest income and interest expense decrease by the same amount due to a decrease in the level of interest rates.

EXHIBIT 12(b)
WELLS FARGO & COMPANY AND SUBSIDIARIES
COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES
AND PREFERRED DIVIDENDS

(in millions)	Quarter ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Earnings including interest on deposits (1):				
Income before income tax expense	\$ 8,073	8,222	\$ 15,678	16,303
Less: Net income from noncontrolling interests	38	15	129	67
Income before income tax expense and after noncontrolling interests	8,035	8,207	15,549	16,236
Fixed charges	2,335	1,517	4,366	2,925
	10,370	9,724	19,915	19,161
Preferred dividend requirement	406	386	807	764
Tax factor (based on effective tax rate)	1.38	1.48	1.38	1.47
Preferred dividends (2)	561	570	1,114	1,126
Fixed charges (1):				
Interest expense	2,232	1,413	4,158	2,718
Estimated interest component of net rental expense	103	104	208	207
	2,335	1,517	4,366	2,925
Fixed charges and preferred dividends	2,896	2,087	5,480	4,051
Ratio of earnings to fixed charges and preferred dividends (3)	3.58	4.66	3.63	4.73
Earnings excluding interest on deposits:				
Income before income tax expense and after noncontrolling interests	8,035	8,207	15,549	16,236
Fixed charges	1,652	1,185	3,146	2,286
	9,687	9,392	18,695	18,522
Preferred dividends (2)	561	570	1,114	1,126
Fixed charges:				
Interest expense	2,232	1,413	4,158	2,718
Less: Interest on deposits	683	332	1,220	639
Estimated interest component of net rental expense	103	104	208	207
	1,652	1,185	3,146	2,286
Fixed charges and preferred dividends	2,213	1,755	4,260	3,412
Ratio of earnings to fixed charges and preferred dividends (3)	4.38	5.35	4.39	5.43

(1) As defined in Item 503(d) of Regulation S-K.

(2) The preferred dividends were increased to amounts representing the pretax earnings that would be required to cover such dividend requirements.

(3) These computations are included herein in compliance with Securities and Exchange Commission regulations. However, management believes that fixed charge ratios are not meaningful measures for the business of the Company because of two factors. First, even if there was no change in net income, the ratios would decline with an increase in the proportion of income which is tax-exempt or, conversely, they would increase with a decrease in the proportion of income which is tax-exempt. Second, even if there was no change in net income, the ratios would decline if interest income and interest expense increase by the same amount due to an increase in the level of interest rates or, conversely, they would increase if interest income and interest expense decrease by the same amount due to a decrease in the level of interest rates.

Exhibit 31(a)

CERTIFICATION

I, Timothy J. Sloan, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended June 30, 2017, of Wells Fargo & Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2017

/s/ TIMOTHY J. SLOAN

Timothy J. Sloan
Chief Executive Officer

Exhibit 31(b)

CERTIFICATION

I, John R. Shrewsberry, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended June 30, 2017, of Wells Fargo & Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2017

/s/ JOHN R. SHREWSBERRY

John R. Shrewsberry
Chief Financial Officer

Exhibit 32(a)

**Certifications Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report on Form 10-Q of Wells Fargo & Company (the “Company”) for the period ended June 30, 2017, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Timothy J. Sloan, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ TIMOTHY J. SLOAN
Timothy J. Sloan
Chief Executive Officer
Wells Fargo & Company
August 4, 2017

Exhibit 32(b)

**Certifications Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report on Form 10-Q of Wells Fargo & Company (the "Company") for the period ended June 30, 2017, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John R. Shrewsberry, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ JOHN R. SHREWSBERRY

John R. Shrewsberry
Chief Financial Officer
Wells Fargo & Company
August 4, 2017